Administrator Lisa P. Jackson
Remarks at the Edison Electric Institute Meeting
January 7, 2010

As prepared for delivery.

Thank you for inviting me to join you today. I'm honored to be here with Senator Graham, a thoughtful and dedicated public servant. And I'm glad to have this chance to meet with all of you – particularly at the beginning of 2010, a year in which the issues we work on are going to play a major role.

We are on the cusp of major transitions for our environment, for our economy, for our energy industry. None of the changes will be without their challenges. But I'm here today because I believe we can find common ground to meet those challenges. Things happened in the last year that have given me hope on that point.

I was glad to see EEI constructively engaged in the passage of responsible clean energy and climate legislation in the House. This organization deserves to be commended for that, and I believe your members saw positive results from coming to the table. In that same spirit, American automakers worked with EPA on our proposed clean cars rule. That marks the nation's first formal effort to reduce greenhouse gas emissions, and will save 1.8 billion barrels of oil, avoid 900 million tons of greenhouse-gas pollution, and save drivers money at the pump. For its part, EPA crafted a mandatory reporting rule for greenhouse-gas emissions that avoids placing any burdens on small businesses. We are working to tailor stationary-source permitting requirements in a similar way. We know that the local coffee shop is no place to look for meaningful greenhouse reductions, and we don't want to put anything in the way of those important economic drivers and job creators. Finally, earlier this week we were able to recommended approval for the Hobet 45 coal mine in West Virginia. That came about through close work with the mining company to reduce the health and environmental impacts of the project.

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These are examples of the common ground I hope we can find. Because – one way or another – change is coming. On the one hand, we have the very real and growing threat of climate change…we have a shifting global economy in which competitor nations like China, Brazil, and Germany are outpacing us in the race for clean energy…and we have an increased dependence on foreign oil that threatens our national security and our economy. On the other hand is a change in the way we produce, deliver and use energy in America. A change that requires investment in the many billions of dollars – not the least of which will go towards critical updates in the fleet of coal plants that now supply our energy. It will require careful economic planning to protect consumers… as well as creativity, innovation and entrepreneurship to make our vision into a reality. We can either act, and bring change to the world and new jobs to America, or sit back and watch as the world brings change to us and employment continues to move abroad.

I am here today not to unveil anything new or make any news, but to speak directly to you, and find common ground for working together. I want this to be the beginning of a productive relationship. To paraphrase your namesake Thomas Edison, "Opportunity is missed by most people because it looks like work." I believe the year ahead presents important opportunities for all of us. But to seize our opportunities, we have work to do.

Because we have so much to do together, let me take a moment to tell you about where I come from, and some of the things I have seen – in my life, and in two decades of working in environmental protection – that inform the work that I do.

I grew up in the 9th Ward of New Orleans, and started elementary school shortly after segregation ended. In college at Tulane, I majored in chemical engineering, and I planned to work for Shell oil. But then the job market crashed in the early 80s as a result of OPEC.

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I also found that, as I got older, I felt pulled to public service. That came from my father. My father worked for the Postal Service in New Orleans. He was, like me, a government employee. He was, like me, someone working to support a family. But he was also – like I strive to be – a person on the front line serving his community. My father knew the people on his route. He used to ring the bell when your Social Security check came in, just to make sure it got in your hands. He was a trusted part of his community, and I've often thought about him as we work to rebuild confidence in our work at EPA.

As you know, in past years many Americans had cause to wonder whether decisions made at EPA were guided by science and the law, or whether those principles had been trumped by politics. 2009 was spent rebuilding public confidence, and showing that our path is determined only by the best science and the rule of law.

After Tulane, I got my Masters degree in chemical engineering from Princeton, where I wrote my thesis on wastewater. That was right around the time of Love Canal – the neighborhood in New York where they found 20,000 tons of toxic waste illegally buried underneath people's homes. I saw news about communities suffering from environmental challenges – and stepping in to help those communities was the EPA. It's no accident that my first EPA job was in the Superfund hazardous waste cleanup program.

For the next 15 years, I worked with EPA – on the ground, with those communities and the people in them. I saw how federal action took shape under three Presidents and six administrators. And I watched as the issues evolved. In 2002 I joined the New Jersey Department of Environmental Protection. And in 2005, Hurricane Katrina hit.

My mother was still living in the 9th Ward when the storm came. I happened to be visiting for her birthday, and ended up driving her to safety. Like so many others, my mother lost everything she had. In the face of that tragedy, I almost left public service. I

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was disheartened by the lack of preparation; by the lack of protection; and by a delayed response that cost people their lives. But there was something that drew me back.

After Katrina, we learned that the devastation and flooding were so bad because marshes and wetlands – the area's natural defenses – had been destabilized and cut away for oil and gas lines. My mother can now make as compelling an argument as any wetlands expert I've met about the need to protect and preserve wetlands. And watching that transformation has been an awakening for me – about how environmentalism grows. I saw an urgent need to broaden the conversation. That was a focus for me when I took the job as Commissioner at the New Jersey DEP the next year. It was an issue I raised when President-elect Obama appointed me to his transition team. And it's a priority now at EPA. As the first African-American to lead the EPA, under the first African-American President, I feel a special obligation to change the face of environmentalism. We have begun the process of changing the face of environmentalism, but we have to continue to make room for new and different kinds of environmentalists.

That also includes rising above partisanship. All too often it can feel like the poles of our debate are growing at the same rate the poles on our planet are shrinking. But protecting human health or confronting climate change should not be the issue of one party or the other. Historically, environmentalism has been bi-partisan. The National Environmental Protection Act and the Environmental Protection Agency all began under President Nixon. I get as many letters and requests for urgent action from red states as I do from blue states. I meet people from all over the country and from the full spectrum of political perspectives. And I find, much more often than not, that a spirit of collaboration and cooperation leads to better solutions than we can ever get out of one side talking over the other. That's one of the reasons I'm glad to share this stage with Senator Graham, who has some excellent ideas of his own when it comes to clean energy and climate protection. I look forward to working with him as the Senate continues to shape clean energy and climate legislation for our future.

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My perspective is also shaped by being a mother of two teenage sons. In every action I take, I am acting not just as EPA Administrator but also as a mother. I never lose sight of the fact that protecting children's health is EPA's top priority. That means we take aggressive steps when we see areas where our kids are especially vulnerable. It also means that we won't leave long-term challenges like climate change for the next generation to solve.

My experience as a parent affords me another important perspective as well: that of the active American consumer. The parents here will understand that the last thing I want to do is drive up the cost of the products we buy, raise my electricity bill, or position the EPA and the debate on climate change as an obstacle to our national prosperity.

These are some of the things that have informed my career, and my first year as Administrator of the EPA. Let me use the time I have left to talk about what we have planned for this, my second year at EPA. Again, I'm not making any news today. I'm here to describe ongoing EPA work that affects your industry and that will reach important milestones in 2010.

I know that this is not an easy time for you to plan for the future. Investments in new and modified power plants, in particular coal-fired power plants, are facing legal challenges across the United States. At the same time, EPA has plans for rules that will affect your sector. Many of those rulemakings are do-overs of rulemakings that were found, by the courts and others, to be legally and scientifically deficient. On some of them, we are going to find disagreements. But on all of them, I am committed to working with you to find realistic, common sense solutions.

In April, EPA will propose a new Clean Air Interstate Rule, or CAIR, to address air pollution that crosses state lines. The original CAIR Rule was vacated by the Courts over concerns that it failed in its stated goal – to limit the transport of pollutants from upwind states into downwind states. While the Courts sent CAIR Phase 1 back to EPA rather than vacate the entire rule, it was clear that we are on a short timetable to get a

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new rule in place. Facility upgrades many of you have already put in place in response to CAIR phase 1 are an excellent start. Those investments will not have been made in vain. In fact, we believe the controls already installed and under construction pave the way for a new transport rule that will be cost-effective, achieve the necessary reductions in air pollution transport, and encourage smart market investments.

Later this year EPA will also propose a new Utility Maximum Available Control Technology Rule, which will include efforts on mercury. Many of you have already received information requests on toxic emissions from your facilities. Collaboration from you will help us shape the rule, provide clarity, and scale up the success stories we hear into something sector-wide. Working together will set a strong foundation for achieving the reductions that a new MACT Rule will require.

Just today, we announced a proposed change in the ozone standard – one that more clearly reflects the best science and offers the kind of protection the Clean Air Act demands. This is an effort to remove dangerous pollution from the air we breathe, and the air our children breathe. Ozone is a public health threat that is extraordinarily costly from both a fiscal and a quality of life standpoint. My 13 year old son has struggled with asthma all his life. Even though his lungs are stronger, there are still days – when it's hot out and ozone levels are high – when we have to be very careful. Cities like Houston, Los Angeles, and Phoenix are under blankets of smog. Today's action will help restore the scientific basis for reducing that pollution, and allow us to address those very serious health threats. The good news is that work already underway at your facilities will represent a significant contribution to achieving that new standard.

As you also know, we plan to make a decision soon on coal ash. None of us has forgotten what happened one year ago in Kingston, Tennessee – more than a billion gallons of coal ash covering 300 acres of land, displacing families, and doing untold amounts of environmental damage. TVA estimates for the clean-up are over $1 billion, a figure that does not include long-term cleanup costs or potential liabilities for property damage. The spill also raised significant public outcry about the safety of both coal ash

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and the way your industry disposes of it. Our first priority is to ensure that all impoundments do not pose an imminent risk. We've already taken steps in that direction with a nationwide impoundment assessment program. But we must also decide how coal combustion residuals should be managed on a long-term basis to protect human health and the environment.

Though I can't tell you what our proposed rule will be, I can say that we intend to protect groundwater and drinking water from contamination from arsenic and other contaminants that threaten human health. And we intend to put safeguards in place to prevent impoundment failures like the TVA tragedy. I know you share our goal of managing coal combustion residuals safely – and recognize that the status quo is unacceptable. I hope you agree that a strong federal presence is needed to provide accountability and backstop the states. We've heard concerns that EPA's rule will discourage the beneficial use of coal ash in cement, wallboard and other applications. Let me be clear that we recognize the environmental benefits and economic value of most forms of reuse. This is another example of the common ground we share. If we can re-purpose those materials, leaving less of them in containment ponds and putting more of them to use in profitable ways, we absolutely want to do that. I believe we can craft a rule that preserves and encourages those beneficial uses which are safe while achieving our other important objectives. Once a rule is proposed, I ask that you come to the table and help us determine the best ways to move forward.

In the year ahead, we will also build on the significant actions already taken on climate change and greenhouse gas emissions. As I mentioned earlier, we proposed a Tailoring Rule to exempt small businesses and consumers from GHG actions. We expect to finalize that rule in the coming months. To ensure smooth implementation, and provide the clarity you need, we will be issuing Best Available Control Technology guidance to the states. In fact, that guidance is currently under development with input from many of you here in this room. We want to take the guesswork out of GHG permitting and compliance, so that you can be certain of what the future holds.

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Overall, we are seeking meaningful, common-sense steps towards a clean energy industry that creates good jobs in the United States. Working together will allow us to reduce pollution for better health, drive technology innovation for a better economy, and protect the environment for a better future – all without placing an undue burden on the businesses that make up the better part of our economy. The results will be a cleaner, more efficient power sector, and affordable, reliable electricity that carries a significantly smaller environmental footprint.

It means a growing clean energy economy that makes the most of American innovation and entrepreneurship. It means a clearer vision of the future, and a clear field for making the investments that will best serve that vision. And it means we have come together to build a foundation for the next steps for your industry.

There is no better time for us to be working together to define the pathway to a clean energy future. If we do this right, the way forward can be not only clearer or less expensive – I believe it can be profitable. You can plan an investment strategy that isn't just about meeting the requirements of the next regulation – but about stepping into and capitalizing on a clean energy future. Thank you very much. I look forward to working with you.

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Administrator Lisa P. Jackson
Remarks on the Proposal of Mercury Air Toxic Standards
March 16, 2011

As prepared for delivery.

Today we are taking an important step forward in EPA's efforts to safeguard the health of millions of Americans. I'm proud to announce that EPA is proposing the first ever national Mercury and Air Toxics Standards for power plants. Under the Clean Air Act, these proposed standards will require American power plants to put in place proven and widely available pollution control technologies to cut harmful emissions of mercury, arsenic, chromium, nickel and acid gases.

The suite of air toxics covered in the Mercury and Air Toxics Standards are pollutants linked to neurological problems, developmental disorders in our children, respiratory illnesses and other debilitating, costly and often fatal health challenges. By proposing these standards, we are initiating an effort that – through the commonsense goal of reducing harmful pollution in the air we breathe – will save lives, prevent illnesses and promote vital economic opportunities in communities across the country. We are confident in these expectations because this has been the history of the Clean Air Act for forty years.

Most importantly, the Clean Air Act is literally a life saver. It prevents thousands of premature deaths each year – 160,000 of them in 2010 alone. Along with lives saved, the Clean Air Act has reduced asthma attacks, heart disease, and numerous other health conditions that burden American children and families. Last year it helped prevent more than 170,000 trips to the hospital.

We also know that protections in the Clean Air Act have brought trillions of dollars in benefits to our nation – not only by avoiding medical bills, but by keeping our kids in school and our workers on the job, increasing productivity and economic potential. They have also helped create jobs. As of 2008 the environmental technology industry – which develops, manufactures and sells the tools that help keep our air clean – supported more than 1.7 million American jobs. The innovation and use of cleaner products like catalytic converters and smokestack scrubbers has led to job growth in the installation, maintenance and operation of pollution control technology. These are good, labor-intensive jobs that can't be shipped overseas.

Finally – the simple fact of being able to breathe cleaner air has made – and will make – a remarkable difference for countless Americans. That includes me and my family. My youngest son has battled asthma his whole life. He spent his first Christmas in the hospital struggling to breathe. Without the Clean Air Act protecting the air around our home, around his school, around our church and the places we have traveled, there is no telling how much more challenging his condition could have been. Like any parent of

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a child with asthma, I can tell you that the benefits of the Clean Air Act – and protections like the ones we are proposing today – are not just statistics and abstract concepts. This law has changed millions of lives for the better, and is a banner example of public policy that serves the people of this nation.

The Mercury and Air Toxics Standards being proposed today are designed to build on the success of the Clean Air Act. As I said, we are proposing the first-ever national standards for reducing mercury and these other toxics from power plants. There are currently no national standards limiting these emissions from America's power plants – which are the source of half of the mercury emissions, half of the acid gases, and 25 percent of all toxic metal pollution in our air.

Like our other Clean Air Act protections, the Mercury and Air Toxics Standards are expected to provide broad benefits. First and foremost, there will be benefits to our health. Widespread adoption of pollution control technology will prevent an estimated 17,000 premature deaths and 11,000 heart attacks, while also preventing 120,000 cases of childhood asthma symptoms and ensuring about 11,000 fewer cases of acute bronchitis among children. As you can see, this is especially good news for the young people with us today – the second graders who came here from Amidon-Bowen Elementary School in southwest Washington, DC. By reducing pollutants like mercury, we will reduce threats to their healthy development. We will help lower exposure to toxins that could put them and millions of American children at risk for neurological damage and other health challenges.

There will also be broad benefits for American workers. As we've seen with other health and environmental safeguards throughout our history, the implementation of the Mercury and Air Toxics standards is expected to open opportunities for American workers. It will increase demand for pollution control technology and open opportunities for the workers tasked with installing, operating and maintaining that technology. We are estimating that these first-ever standards will support 31,000 short-term construction jobs and 9,000 long-term utility jobs.

The proposal and implementation of these standards will also have benefits for American utilities. For the first time in twenty years, they will have certainty about the standards they must meet. And setting national standards for mercury and air toxics will level the competitive playing field and close loopholes for big polluters. Utilities that have already put pollution control technology in place will no longer have to compete with those who have delayed those investments – a group that includes almost half of the nation's coal-fired plants, which lack advanced pollution control equipment. In fact, facilities that have already taken responsible steps to reduce the release of toxins into our air will be at a competitive advantage over their heavy-polluting counterparts. And to ensure cost-effectiveness, we have proposed flexibility in meeting the standards. The technologies being required already exist in abundance, and under the proposal, power providers have four years to comply.

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Let me close by saying that the success of this effort is underwritten by the broad coalition of advocates and stakeholders that support it. We have the support of environmentalists and health protection advocates – like President Connor and the people at the American Lung Association, which has been fighting for clean air for more than 100 years. Alongside them are members of the utility industry, who have been waiting two decades for this certainty, and are ready to get moving on multi-pollution planning, energy efficiency and clean tech investments. We also have the support of American workers – the women and men who will be put to work building, installing, maintaining and operating pollution controls. Finally, we are counting on the input of the American people. This proposal is followed by a public comment period. As we saw with our recent clean air initiative to cut emissions from industrial boilers, the public comment process can improve the cost-effectiveness of a rule without compromising the health protections – which are required under the Clean Air Act, and expected by the public.

Today's announcement is 20 years in the making, and is a milestone in the Clean Air Act's already unprecedented record of defending the health of American families. With the help of existing technologies, we will be able to take reasonable steps to protect our children and loved ones and prevent premature deaths, heart attacks and asthma cases. We look forward to getting to work. Thank you very much

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Opening Statement of Lisa P. Jackson
Administrator, United States Environmental Protection Agency
Hearing on a Bill to Eliminate Portions of the Clean Air Act
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Representatives
February 9, 2011

Mr. Chairman and members of the Committee, thank you for inviting me to testify about Chairman Upton's bill to eliminate portions of the Clean Air Act, the landmark law that all American children and adults rely on to protect them from harmful air pollution.

In April 2007, in the case of *Massachusetts v. EPA*, the United States Supreme Court concluded that the Clean Air Act's definition of "air pollutant" includes greenhouse gas emissions.[1] The Court rejected the EPA Administrator's refusal to determine whether that pollution endangers Americans' health and welfare.[2]

Based on the best available peer-reviewed science, the Environmental Protection Agency's review of thousands of public comments, I found in December 2009 that unchecked manmade greenhouse gas emissions do threaten the health and welfare of the American people.[3] I am not alone in reaching that conclusion. Scientists at the thirteen federal agencies that make up the U.S. Global Change Research Program have reported that unchecked greenhouse gas emissions pose significant risks to the wellbeing of the American public,[4] and validated my December 2009 finding. Similarly, eighteen of the leading science societies in the U.S. wrote to Congress to state that multiple lines of evidence demonstrate that humans are changing the climate, that "contrary assertions are inconsistent with an objective assessment of the vast body of peer-reviewed science" and that "ongoing climate change will have broad impacts on society, including the global economy and on the environment."[5] The National Academy of Sciences has reached similar conclusions, warning in uncharacteristically strong language that "The need for urgent action to address climate change is now indisputable." .[6]

Chairman Upton's bill would, in its own words, "repeal" that scientific finding. Politicians overruling scientists on a scientific question – that would become part of this Committee's legacy.

Last April, EPA and the Department of Transportation completed harmonized standards under the Clean Air Act and the Energy Independence and Security Act to decrease the oil consumption and greenhouse gas emissions of Model Year 2012-2016 cars and light trucks sold in the U.S.[7] Those standards will cause the oil consumption of the affected vehicles to be 1.85

[1] 549 U.S. 497, 528-29 (2007).
[2] *Id.* at 533.
[3] 74 Fed. Reg. 66,496, *et seq.* (Dec. 15, 2009).
[4] U.S. Global Change Research Program, *Global Climate Change Impacts in the United States* (2009) (http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf).
[5] Statement by Eighteen U.S. Scientific Societies (Oct. 2009) (http://www.aaas.org/news/releases/2009/media/1021climate_letter.pdf)
[6] Statement by the National Academy of Sciences of the United States and the Science Academies of Twelve Other Nations (May 2009) (http://www.nationalacademies.org/includes/G8+5energy-climate09.pdf).
[7] 75 Fed. Reg. 25,324, *et seq.* (May 7, 2010).

billion barrels less than it otherwise would be, and their greenhouse gas emissions to be 962 million tons less.[8]

Chairman Upton's bill would block President Obama's plan to follow up with Clean Air Act standards for cars and light trucks of Model Years 2017 through 2025. Removing the Clean Air Act from the equation would forfeit around a billion tons of pollution reductions and well over a billion barrels of oil savings.[9] Increasing America's crippling oil dependence – that, too, would become part of this Committee's legacy.

Until last month, there were no federal limits on the amount of carbon pollution that large facilities like power plants and oil refineries could release into the air. Some companies nevertheless had taken steps to limit their carbon pollution by using more energy efficient technologies. But other companies continue to seek competitive advantage by doing nothing at all to limit their pollution. Last month, EPA and many of its state partners began implementing safeguards under the Clean Air Act to address carbon emissions from the largest polluters. A collection of eleven electric power companies commented that "EPA has proposed a reasonable approach focusing on improving the energy efficiency of new power plants and large industrial facilities."[10]

And EPA has announced a schedule to establish uniform Clean Air Act standards for limiting carbon pollution at America's power plants and oil refineries.[11] The updated standards will be based on commercially available technologies with proven track records. They will reflect careful consideration of costs and incorporate as much compliance flexibility as possible.

Chairman Upton's bill would block that reasonable approach to give American industry fair rules of the road, more investment certainty, and new incentives for upgrading to advanced, clean energy technologies. The Small Business Majority and the Main Street Alliance have pointed out that such blocking action would have "negative implications for many businesses, large and small, that have enacted new practices to reduce their carbon footprint as part of their new business models. It would also hamper the growth of the clean energy sector of the economy – a sector that a majority of small business owners view as essential to their ability to compete."[12]

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[8] *Id.* at 25,347 (Table I.C.2-2).

[9] Had the Clean Air Act been removed from the first round of standards – which covered just over half the number of model years as the follow-on standards and necessarily involved a smaller change over business as usual (in that they came earlier in time) – then that would have forfeited 326 million metric tons of greenhouse gas emissions reductions and 455 million barrels of oil savings. *Compare id.,* Table I.C.2-2 – 962 mmt CO2e – *to id.,* Table I.C.1-3 – 636 mmt CO2e; *compare id.,* Table I.C.2-2 – 77.7 billion gallons of fuel – *to id.,* Table I.C.1-3 – 58.6 billion gallons of fuel (The difference between 77.7 and 58.6 is 24.58 percent of 77.7. The volume of oil savings in barrels remains directly proportional to the volume of fuel savings in gallons. 24.58 percent of 1.85 billion barrels is 455 million barrels.).

[10] November 15, 2010 statement by The Clean Energy Group Clean Air Policy Initiative (http://www.mjbradley.com/news_20101115_00.html).

[11] http://yosemite.epa.gov/opa/admpress.nsf/e77fdd4f5afd88a3852576b3005a604f/d2f038e9daed78de8525780200568bec!OpenDocument

[12] Small Business Majority and Main Street Alliance, *The Clean Air Act's Economic Benefits: Past, Present, and Future*, October 2010 (http://www.smallbusinessmajority.org/pdf/Benefits_of_CAA_100410.pdf).

The text of Chairman Upton's bill would have additional negative impacts that its drafters might not have intended. For example, the bill likely would prohibit EPA from taking any further action to implement the Renewable Fuels Program. Eliminating the federal government's program to increase the domestic production of advanced biofuels – another unfortunate addition to this Committee's legacy.

Chairman Upton's bill appears to be just part of a broader effort in this Congress to delay, weaken, or eliminate Clean Air Act protections of the American public. I respectfully ask the members of this Committee to keep in mind that EPA's implementation of the Clean Air Act saves millions of American adults and children from the debilitating and expensive illnesses that occur when smokestacks and tailpipes release unrestricted amounts of harmful pollution into the air that all of us breathe. In 1990 alone, EPA's implementation of the Act prevented an estimated 18 million child respiratory illnesses, 850,000 asthma attacks, 674,000 cases of chronic bronchitis, and 205,000 premature deaths.[13] If Congress allows EPA to continue implementing the Clean Air Act, then the benefits of that work are projected to reach $2 trillion in 2020 alone.[14] Over the period from 1990 through 2020, the benefits of implementing the Act are projected to exceed the costs by a factor of more than 30 to 1.[15]

Thank you. I look forward to your questions.

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[13] EPA, *Section 812 Retrospective Analysis: The Benefits and Costs of the Clean Air Act, 1970 to 1990*, October 1997 (http://www.epa.gov/oar/sect812/1970-1990/chptr1_7.pdf).
[14] EPA, *Section 812 Prospective Analysis: The Benefits and Costs of the Clean Air Act, 1990 to 2020*, August 2010 (http://www.epa.gov/oar/sect812/aug10/fullreport.pdf).
[15] *Id.*

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Thursday, December 5, 2013 3:31 PM
To: 'Michael Goo' { Ex. 6 - Personal Privacy
Subject: FW: Upcoming Forrestal Security Exercises - Reminder

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From: Headquarters Security Operations
Sent: Tuesday, December 03, 2013 11:29 AM
Subject: Upcoming Forrestal Security Exercises - Reminder

Thursday, December 5, 2013, 3:00 PM

As part of its effort to continuously improve the protection of Headquarters' personnel, the Office of Physical Protection is scheduling a series of Protective Force Exercises during the month of December.

These Protective Force exercises will SIMULATE Active Shooter scenarios. These scenarios will require Protective Force Officers to move throughout the facility, practicing tactical movements to enable them to approach, and using simulated (red plastic) weapons to neutralize, the simulated adversary. There will be Protective Force personnel in orange vests, designated as controllers, in the exercise areas. If you encounter officers participating in these exercises, or inadvertently enter into exercise areas, please follow the instructions given by the Controller or Protective Force Officers.

These exercises are planned to take place as follows:

Forrestal Facility:

Thursday December 5th, starting at 6:00 PM, continuing until 02:30 AM Friday.

Tuesday December 10th, starting at 6:00 PM, continuing until 02:30 AM Wednesday.

Saturday December 14th, starting at 7:00 AM, continuing until 3:30 PM.

Sunday December 15th, starting at 7:00 AM, continuing until 3:30 PM.

Saturday December 21st, starting at 7:00 AM, continuing until 3:30 PM.

Sunday December 22nd, starting at 7:00 AM, continuing until 3:30 PM.

Please note that these are exercises.

No live firearms will be carried by personnel participating in these exercises.

Normal facility access procedures will be in place during these exercises.

The start and end of each day's exercise will be announced over the Public Address System.

Personnel in the areas of these exercises are requested to avoid interfering with them.

We regret any inconvenience these exercises may cause.

Thank you for your cooperation.

Please refer any questions to the Office of Physical Protection at 6-8075.

From: Pechman, Carl <Carl.Pechman@Hq.Doe.Gov>
Sent: Wednesday, December 11, 2013 11:06 AM
To: 'Michael Goo' Ex. 6 - Personal Privacy
Subject: RE: QER stakeholder interagency processes 12 10 13

Got it

From: Michael Goo [mailto Ex. 6 - Personal Privacy
Sent: Wednesday, December 11, 2013 10:36 AM
To: Wayland, Karen; Pechman, Carl
Subject: Fwd: QER stakeholder interagency processes 12 10 13

Sent from my iPhone

Begin forwarded message:

From: "Debbie Reed" <debbie@biochar-international.org>
Date: December 11, 2013, 10:34:27 AM EST
To: "Michael Goo" Ex. 6 - Personal Privacy
Subject: QER stakeholder interagency processes 12 10 13
Reply-To: "Debbie Reed" <debbie@biochar-international.org>

From: Goo, Michael <Goo.Michael@epa.gov>
Sent: Thursday, December 12, 2013 2:21 PM
To: Ex. 6 - Michael Goo
Subject: Fw: FOR REVIEW - Scoping doc

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Thursday, December 12, 2013 1:44:07 PM
To: Goo, Michael
Subject: FW: FOR REVIEW - Scoping doc

Any thoughts?

-----Original Message-----
From: Gershuny, Gregory
Sent: Thursday, December 12, 2013 10:41 AM
To: Pershing, Jonathan; Greenwald, Judith; Difiglio, Carmine; Chen, Hugh; Hederman, William; Wayland, Karen; Pechman, Carl; Kelly, Henry; Carr, Mike; Singleton, Greg; Pierpoint, Lara; King, Christopher
Cc: Dirickson, Danielle; Bassett, Luke
Subject: RE: FOR REVIEW - Scoping doc
Importance: High

Sorry about the multiple emails. Please use this version instead for review.

Greg Gershuny

-----Original Message-----
From: Gershuny, Gregory
Sent: Thursday, December 12, 2013 10:31 AM
To: Pershing, Jonathan; Greenwald, Judith; Difiglio, Carmine; Chen, Hugh; Hederman, William; Wayland, Karen; Pechman, Carl; Kelly, Henry; Carr, Mike; Singleton, Greg; Pierpoint, Lara; King, Christopher
Cc: Dirickson, Danielle; Bassett, Luke
Subject: RE: FOR REVIEW - Scoping doc

Ex. 5 - Deliberative

-----Original Message-----
From: Gershuny, Gregory
Sent: Thursday, December 12, 2013 9:25 AM
To: Pershing, Jonathan; Greenwald, Judith; Difiglio, Carmine; Chen, Hugh; Hederman, William; Wayland, Karen; Pechman, Carl; Kelly, Henry; Carr, Mike; Singleton, Greg; Pierpoint, Lara; King, Christopher
Cc: Dirickson, Danielle; Bassett, Luke
Subject: FOR REVIEW - Scoping doc
Importance: High

Melanie wants everyone to provide comments to Bill in redline format by COB today. We will meet tomorrow around noon to pre-brief for the S1 meeting.

Greg Gershuny

From: Goo, Michael <Goo.Michael@epa.gov>
Sent: Wednesday, December 11, 2013 9:50 AM
To: Ex. 6 - Michael Goo
Subject: Fw: QER document
Attach: Memo QER stakeholder interagency processes 12 10 13.docx

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From: Karen Wayland Ex. 6 - Personal Privacy
Sent: Wednesday, December 11, 2013 6:04:55 AM
To: Goo, Michael
Cc: Wayland, Karen
Subject: QER document

Michael,

Ex. 5 - Deliberative

Thanks!

Karen

Karen G. Wayland, Ph.D.

Washington, DC

Ex. 6 - Personal Privacy

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Friday, November 15, 2013 4:14 PM
To: 'Michael Goo' Ex. 6 - Personal Privacy
Subject: FW: QER documents
Attach: Analysis for QER_NLDC (2).docx; QER Schedule (3).docx; Proposed Task Forces.docx; QER_Proposal_operative 4.docx; Presidential Memorandum on QER v2.docx; ENERGY INFRASTRUCTURE POLICY MATRIX mk.docx; Agency Roles (4).docx

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VERY old documents I found in my gmail but should give you some idea of what we're doing.

From: Karen Wayland Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 4:00 PM
To: Wayland, Karen
Subject: Fwd: QER documents

---------- Forwarded message ----------
From: **Gershuny, Gregory** <GGershuny@hq.doe.gov>
Date: Tue, Jul 16, 2013 at 5:52 PM
Subject: QER documents
To: "Pershing, Jonathan" <Jonathan.Pershing@hq.doe.gov>, Judith Greenwald Ex. 6 - Personal Privacy, "Difiglio, Carmine" <Carmine.Difiglio@hq.doe.gov>, "Bill Hederman (Hederman@alum.mit.edu)" <Hederman@alum.mit.edu>, "Chen, Hugh" <Yu-Han.Chen@hq.doe.gov>, "Ex. 6 - Personal Privacy <Ex. 6 - Personal Privacy>, "Marlay, Robert" <Robert.Marlay@hq.doe.gov>, "carl.pechman@ferc.org" <carl.pechman@ferc.org>, "Hezir, Joseph" <Joseph.Hezir@hq.doe.gov>, Ex. 6 - Personal Privacy Ex. 6 - Personal Privacy
Cc: "Kenderdine, Melanie" <Melanie.Kenderdine@hq.doe.gov>, "Gershuny, Gregory" <GGershuny@hq.doe.gov>, "Pickett, Adonica (Renee)" <Adonica.Pickett@hq.doe.gov>, "Bassett, Luke" <Luke.Bassett@hq.doe.gov>

Good evening,

The attached draft documents are for the Quadrennial Energy Review (QER) meeting

on Thursday 7/18 at 1:00pm in 7A-219. These draft documents are internal and deliberative and aren't intended for anyone not on this email. Please let me know if you have any questions prior to the meeting.

Best,

Greg Gershuny

202-586-0711 | GGershuny@hq.doe.gov

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Karen G. Wayland, Ph.D.

Ex. 6 - Personal Privacy

National Laboratory Inventory of Market, Financial, and Policy Analysis Capabilities in Support of the Quadrennial Energy Review (QER)
June 2013

Argonne National Laboratory

Argonne's staff conducts research from basic science through engineering to system deployment, often with multidisciplinary research teams that include social scientists, economists, and decision analysts. With 30+ years of experience, we have core competencies in the development and application of energy system modeling tools in the U.S. and about 60 countries worldwide. Specifically, our core capabilities extend to production cost simulation, security-constrained unit commitment and economic dispatch modeling, reliability and resource adequacy modeling, long-term capacity expansion and investment modeling, and hydro optimization and renewable energy integration modeling. Our researchers have strong foundations in a variety of approaches in developing advanced modeling tools, such as mixed-integer linear programming, dynamic optimization, stochastic optimization, robust optimization, and agent-based modeling. Argonne, in partnership with the University of Chicago, also has extensive experience in financial and policy analysis for a wide variety of energy supply and utilization sectors, including nuclear energy and electrified transportation. A number of Argonne's tools (e.g., GTMax and EMCAS) have been successfully commercialized over the years.

Brookhaven National Laboratory

BNL's primary analytic capability that might support the techno-economic issues associated with the QER is derived from its MARKAL research group. MARKAL is a numerical model that has been used to identify least-cost energy systems, to identify cost-effective responses to restrictions on emissions, to perform prospective analysis of long-term energy balances under different scenarios, to evaluate new technologies and priorities for R&D, to evaluate the effects of regulations, taxes, and subsidies, to project inventories of greenhouse gas emissions and to estimate the value of regional cooperation. BNL played a central role in the development of the model and has used it to support NE, FE, EERE, OI, and EIA, in addition to a number of international analyses. The model can be run at a variety of scales and, for example, there are models for the city of New York, the state of New York and the Northeast Region. The tool has a large international user base (37 countries) and the IEA.

Brookhaven is a member, and holds the presidency, of the New York Energy Policy Institute, which was established through a competitive procurement from NYSERDA. The Institute, which has 13 academic and research institution members, manages a resource of energy analysts and experts from the State of New York focused on energy policy, including technology and policy analysis. Focused research groups can be mobilized from these institutions to work on a broad range of energy related analyses.

Brookhaven is a part of a collaborative project led by the City University of New York to develop "A Regional Earth System Model of the Northeast Corridor: Analyzing 21st Century Climate and Environment". Brookhaven activities focus on Energy Systems Analysis and Emission Scenarios, within interdisciplinary and coupled interactive integration of ecosystems, agricultural working lands and forests, urban environments, biogeochemistry, atmospheric chemistry, ocean and atmospheric currents, energy, the water cycle, land ice, and human activities. This methodology addresses key problems critical to linking relevant Earth system processes over a variety of

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spatial and temporal scales and to advancing the theoretical foundations for the modeling and simulation of existing data and data collected by the new and envisioned environmental observatories. Key strategic integrative analysis under this project targets on three focus areas highly dependent on the region's ecosystem services and nature of climate oscillations and extremes: 1) Biofuels, regional carbon balance and sequestration capacity, given national policies and alternative cap-and-trade strategies; 2) Energy production capacity in light of water and temperature constraints on hydro and thermoelectric facilities; and 3) Pollution management to support water quality standards and protect inland aquatic habitat and fisheries.

Idaho National Laboratory

Dynamic analysis of tradeoffs and economic value propositions involving complex energy systems: nuclear plus thermal plus intermittent renewable sources combined as hybrid energy systems integrated on a grid or local system.

Through the Energy Policy Institute of the Center for Advanced Energy Studies (a partnership between INL and the three major Idaho research universities), decision support tools for improving government performance and industry/stakeholder collaboration in the implementation of energy policy including bioenergy, carbon capture and sequestration, solar, energy efficiency, nuclear energy, and energy transmission (see http://epi.boisestate.edu/people/affiliate-researchers--faculty.aspx if you want to see the breadth of this effort. The focal point is Dave Solan at Boise State).

Nuclear energy economics in support of advanced fuel cycles and market projections associated with carbon emissions.

A database of information on which industrial control systems are deployed throughout the energy sector with some efforts in cyber security policy efforts sponsored by government entities

Lawrence Berkeley National Laboratory

Energy Efficiency Policy and Market Analysis - LBNL's Electricity Markets and Policy group conducts policy and market research on the design, market potential, implementation strategies, analysis of enabling policies, and evaluation of ratepayer-funded and publicly-funded energy efficiency programs. Major research areas include energy efficiency program design and implementation; utility sector energy efficiency business models; evaluation, measurement and verification of energy efficiency impacts; energy efficiency as a utility resource; and analysis of market barriers. LBNL assesses Energy Services Company (ESCO) industry performance and market trends and manages the largest database of ESCO projects in the world (~4000 projects representing $8B in investment). Over the last 2-3 decades, LBNL has also done path-breaking work in developing energy efficiency supply curves and conducting technical, economic and achievable potential studies for energy efficiency for the U.S., China, and India. http://emp.lbl.gov/research-areas/energy-efficiency LBNL has supported the U.S. DOE's Appliance and Equipment Standards Program since its inception and conducts extensive economic research and policy analyses in support of standards development. http://efficiency.lbl.gov/capabilities

Electricity Markets - LBNL has broad technical expertise and experience in regional resource and transmission planning and has worked extensively on these issues in the Western

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Interconnection on behalf of DOE OE. LBNL supports U.S. DOE with research on congestion metrics, historical congestion, and systematic methods of collecting information on future congestion, emerging issues in regional resource planning, trends and key issues in electricity markets based on analysis of utility resource plans, and preparation of congressionally mandated, triennial congestion assessments. http://emp.lbl.gov/research-areas/regional-electric-system-planning

Energy Systems Analysis - LBNL researchers are pioneering analytical methods to assess cradle-to-grave energy, economic, and environmental implications of early-stage technologies at various levels of scale-up (e.g., informing early stage technology development by identifying potentially fruitful paths and providing early indications of any unintended consequences.

Renewable Energy Policy and Markets - LBNL conducts research on renewable energy markets and policies with the majority of work falling into four general areas: (1) renewable energy policy analysis and assistance; (2) cost, benefit, and market analysis; (3) grid operations and infrastructure impacts; and (4) public acceptance and deployment barriers. LBNL also provides data-driven assessments of the cost and performance of renewable energy resources and has broad expertise and experience in solar markets and has extensively tracked, synthesized, analyzed, and disseminated PV cost data. LBNL staff have implemented and evaluated state-level financial incentive programs, examined the implications of federal policy support, and researched financing models and influence of rate design on the economics of residential and commercial solar systems. http://emp.lbl.gov/research-areas/renewable-energy

Long-term Energy Systems Modeling - LBNL has extensive experience developing and using energy system models (e.g. NEMS, SEDS) and utility production cost models (e.g. PROMOD) and has the capability to aggregate system wide electricity and fuel demands under a variety of economic and policy scenarios across various geographic regions and has worked closely California agencies and other countries to assess long-term greenhouse reduction strategies.

Energy Models for Cloud Data Centers - The CLEER (Cloud Energy and Emissions Research) Model is a comprehensive user-friendly open-access model for assessing the net energy and emissions implications of cloud services in different regions and at different levels of market adoption.http://cleermodel.lbl.gov

Technoeconomic Analysis of Biofuels - Researchers at the U.S. Department of Energy's Joint BioEnergy Institute (JBEI) have created a technoeconomic model that should help accelerate the development of a next generation of clean, green biofuels that can compete with gasoline in economics and well as performance. This on-line, wiki-based model enables researchers to pursue the most promising strategies for cost-efficient biorefinery operations by simulating such critical factors as production costs and energy balances under different processing scenarios. http://newscenter.lbl.gov/feature-stories/2010/10/28/biofuels-wiki/

For more detailed summary of LBNL capabilities in energy markets, policy and financial analysis, please refer to this URL. http://eaei.lbl.gov/sites/all/files/lbnl_qer.pdf

Lawrence Livermore National Laboratory

Strategies for Grid-Scale Energy Storage and Demand Side Management - Working for the California Energy Commission, LLNL developed a framework for determining the economic value of Energy Storage and Demand Side Management (DSM) programs under uncertain

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renewables penetration scenarios and future weather patterns. This work leverages advanced computing and simulation capabilities to run thousands of scenarios for electrical grid architecture over a single weather year, optimizing generation, storage and DSM strategies. Under optimal control, and subject to market constraints such as reliability and emissions criteria, the impact on electricity cost of both energy storage and DSM programs can be rigorously evaluated.

Market Impacts of Exogenous Factors on Nuclear Power - LLNL economists developed models of the nuclear power sector of the energy system, including mining, milling, enrichment, fabrication, use, transportation and disposition, regulation, and international markets. We also developed models of electricity production costs from fossil fuels and renewable energy. These models, which necessarily include policy analysis as a core capability, have been used to estimate market impacts of factors ranging from ex-Soviet HEU blend-down to a carbon tax.

Visualization of National Energy Systems - Since the mid-1970s, LLNL has provided an Energy Flow Chart of the national energy system as a tool for policymakers, educators, engineers and scientists to better understand how the country uses energy. The diagram presents a compact view of how the U.S. uses coal, oil, natural gas, nuclear, solar, wind geothermal and biomass energy to power the residential, commercial, industrial and transportation sectors. The chart also depicts an estimate of energy efficiencies in each sector, as well as the efficiency of transformation of energy resources to electricity. LLNL has extended the analytical technique used to produce these charts to international and state-level energy systems, water infrastructure, and greenhouse gas emissions.

Enterprise Modeling Framework - Scientists at LLNL developed an enterprise model of the NNSA's infrastructure including human capital, real property, equipment, and devices. There are two layers to this model: a stock-and-flow simulation of the complex that is used for scenario analysis and a mixed integer linear programming representation that can be used to optimize program schedules. This capability is used by DoD's STRATCOM as well as the Department of State to make strategic and policy decisions that are critical to national security. It is a key component of the Nation's Nuclear Posture Review. A similar framework could be developed for the energy system to support the QER.

Application of Advanced Computing to Energy Technologies - LLNL provides leadership and advice in enabling U.S. Industry to leverage High Performance Computing (HPC) for energy applications. Through the HPC4energy incubator, LLNL engineers and computer scientists collaborate with industrial partners to demonstrate the impact that HPC can make when it is available to innovators who will power tomorrow's energy economy.

Policy Analysis of Cyber and Physical Security for Global Energy Infrastructure - LLNL engages in a broad range of infrastructure protection efforts, from physical security of nuclear assets in foreign countries to the cyber-security of energy assets at home. Policymakers rely on LLNL's ability to describe the attack surface, physical and economic consequences of attack scenarios and strategies and potential costs of security measures. Using knowledge in cyber security and game-theoretic models of defense against potential terrorist attacks, LLNL experts recommend security posture for the electric grid and other energy infrastructure assets.

Los Alamos National Laboratory

Economics and Systems Integration:

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Decision support in complex systems: quantifying economic impacts, potential national security risks, and quantifying uncertainty in complex physical systems where policy choices affect outcomes in unpredictable ways. Examples: impacts of regional resource allocation in response to global climate change; counter-terrorism intervention; pandemic disease mitigation and response; cyber-physical defense.

Critical infrastructure planning and analysis: the coupled infrastructure across US and the world (electric grid, natural gas, telecom, financial system) creates vulnerabilities related to natural disasters, climate change, and energy supply/utilization choices. Los Alamos maintains the physical infrastructure models for the DHS NISAC program. This resource can be more broadly tapped, together with related energy infrastructure modeling efforts at other Labs, to inform future energy infrastructure investments, and to assess resilience in the face of climate change.

Harnessing the laboratory sites as testbeds for scale-up and integration of energy-related technologies: energy-efficient computing; integrated renewable energy systems (solar, hydro, wind, battery) in mixed residential/industrial settings; fleet approaches for regional biofuel adoption and hydrogen fuel cell or hybrid vehicles.

National Energy Technology Laboratory

Market, financial, and policy analysis at the National Energy Technology Laboratory draws upon the multi-disciplinary expertise of engineers, economists, scientists and other analysts from within its research, program and energy analysis/planning groups.

NETL has nationally recognized Life-Cycle analysis (LCA) capabilities which can provide a unified, comprehensive evaluation of market, financial and policy aspects of comparative technologies. Such analyses quantify cradle to grave environmental and economic impacts with a consistently applied methodology, usually with policy related parameters as evaluating criteria. NETL has helped form a DOE intra-Lab collaboration for LCA to increase awareness on organizational and laboratory LCA initiatives; share LCA related data and methodological practices; and increase communication in the area of energy related life cycle analyses. Current participants in the working-group include NETL, ANL, PNNL, NREL, BNL and LBNL

To assess the techno-economic performance of advanced power generation technologies NETL performs process engineering using commercial thermodynamic process simulation software such as Aspen Plus ® and THERMOFLEX. For cost engineering, NETL has access to the cost database of a commercial Engineering, Procurement and Construction firm and uses the NETL Power Systems Financial Model (PSFM), a detailed discounted cash flow tool, to estimate economic metrics such as return on investment, required selling price and/or levelized production cost. NETL regularly updates studies that quantify the baseline cost and performance of current state-of-the-art fossil energy conversion technologies. The rigor and detail of NETL's "baseline" studies—based in large part on quotes and estimates from technology vendors and major Engineering, Procurement and Construction firms—have resulted in them being widely referenced within the relevant energy analysis community. Based on the results of NETL's process and cost engineering studies, higher-level macroeconomic analyses are performed under various scenarios to estimate the potential economic, environmental, and energy security benefits that could accrue to the U.S. if R&D goals are met. Macroeconomic analyses are primarily performed using the National Energy Modeling System (NEMS), which is the energy-economic model used to produce the Annual Energy Outlook and various service reports for Congress. When NEMS has not had the capability to

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adequately portray certain advanced technologies, such as carbon capture and storage (CCS), NETL has developed new, in-house models that are integrated into the NEMS framework.

Integrated Electric Power Systems Infrastructure analysis evaluates options for generation, transmission, distribution, and consumption of electricity considering the value of electric power to industry, consumers, and society. Infrastructure decisions are impacted by a wide range of factors including technology options, regulations, standards, government policy, availability of capital and skilled labor, political authority, business practices, and consumer and societal needs and perspectives. Studies involve analyzing the interdependencies of electric power systems with other critical infrastructures, particularly the water infrastructure. Integrated electric power systems analyses are designed to guide R&D investment decisions, evaluate various configurations of Smart Grid, identify electric power system risks and mitigation strategies and support various transmission site placement, permitting, and analysis work. The understanding provided by these studies lead to optimized electric power system design and operation while assisting government, the power industry, and consumers in making informed infrastructure-related decisions For grid and reliability related analyses NETL employs PROMOD IV and grid design software such as GridLab-D, Open DSS, MatLab, PSSE, and the PowerWorld simulator. Smart grid business case software can be applied to assist in future grid investment decisions. Smart grid computational tools and energy storage computational tools are used to evaluate cost and benefits of ongoing smart grid field projects. The Smart Grid Maturity Model is applied to enable electric service providers to assess current and possible future state of smart grid that represents their best value proposition. NETL's electric subsector cyber security capability maturity model is useful to assess the readiness of cyber security of the electric power system. Supercomputers and computational sciences expertise is applied to convert large sets of grid sensor data to knowledge and to actions.

Other unique analysis capabilities of NETL with potential to support energy market, financial or policy analysis include:

CCSI -- CCSI is aimed at delivering a toolset that provides a simulation-based integration and optimization of carbon capture technologies in power plants, with uncertainty quantification and also assessment of technical and financial risk in implementation, to assist decision makers.

NRAP -- A primary capability of NRAP is to develop a defensible, science-based methodology and platform for quantifying risk profiles at most types of CO2 storage sites to guide decision making and risk management. NRAP will also develop monitoring and mitigation protocols to reduce uncertainty in the predicted long-term behavior of a site.

Unconventional Resources – UCR is focused on developing the data and modeling tools needed to predict and quantify potential risks associated with oil and gas resources in shale reservoirs that require hydraulic fracturing or other engineering measures to produce.

Ultra-Deep Water Resources -- UDW is capable of developing a scientific base for predicting and quantifying potential risks associated with exploration and production in extreme offshore environments.

National Renewable Energy Laboratory

NREL's world-leading energy decision science and analysis capability draws on extensive knowledge of energy resources, technologies, markets, policies, and systems to conduct leading-edge analysis and to develop data, tools, and models that are broadly disseminated for energy stakeholder and public use. The insights gained from these analyses and tools inform RD&D directions, policy formulation, and technology and investment decisions. NREL's capability is increasingly underpinned by strong domain knowledge in energy informatics, which derives knowledge and insights from measured and modeled data sets. Primary supporting disciplines

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include engineering, environmental science, applied math, finance, economics, and social and political science.

NREL has a deep understanding of existing electricity, buildings, and fuels and transportation infrastructure and practical knowledge of the barriers to deploying existing or new clean energy technologies within these systems. NREL researchers apply computational methods to develop resource and technology screening and decision tools. Particular strengths are in techno-economic analyses of renewable and efficiency technologies, geospatial resource data and analysis, sustainability and impact analysis, and evaluation of optimal technology options for off-grid and grid-connected power systems.

NREL stewards its crosscutting analysis and decision support capability in its Strategic Energy Analysis Center (SEAC) and technology-specific modeling and analysis capabilities in the science and technology research centers. During FY12, SEAC conducted approximately $30 Million of analytic research for DOE and others. NREL extends it analytical capabilities by collaboration with stakeholders throughout the energy analysis community, from university researchers to other laboratories and to analysts working for federal, state and local governments. It hosts the Joint Institute for Strategic Energy Analysis (founding partners include NREL, MIT, Stanford, University of Colorado, Colorado State University and the Colorado School of Mines). Focused on the nexus of energy, finance and society, JISEA conducts studies and supports research by diverse teams of NREL experts, industry and academic participants from the founding and affiliate research institutions from around the world. Recent analyses have explored the potential synergies between renewables and other energy pathways, with a particular focus on nuclear and natural gas.

NREL's energy analysis is conducted in support of NREL programs and initiatives, DOE's Office of Energy Efficiency and Renewable Energy (EERE), technology transfer, and the greater energy community, providing technical knowledge and tools to help inform decisions that include energy program development, investment prioritization, policy formulation, and energy project development. For example, the Department of Defense looks to NREL as a strategic technical resource as it addresses energy security issues at fixed installations and forward operating bases. Other major governmental partners include the Department of State, Environmental Protection Agency, Department of Interior, and Department of Homeland Security (DHS). Analysis clients include companies from the oil and gas and electric utility industries. NREL analysts partner with others at other national laboratories or leading research institutions as well; for example, NREL is collaborating with ORNL, LBNL and Northwestern University on tool and data development for EERE's Advanced Manufacturing Office. NREL is a primary technical resource for USAID and the Department of State on clean energy and climate programs. In addition, NREL provides analytical support at the state and local government level such as the Wyoming Infrastructure Authority, NYSERDA, and the California Energy Commission, and to international entities. Through the Laboratory Consortium that NREL leads, NREL is working with ANL, BNL, LBNL, ORNL, and PNNL to support the USAID funded EC-LEDS program in more than 8 developing countries.

Analysis at NREL aims to increase the understanding of the current and future interactions and roles of energy policies, markets, resources, technologies, environmental impacts, and infrastructure. These analyses are used to inform energy system decisions as energy-efficient and renewable energy technologies advance from concept to commercial application. Distinctive analysis capabilities include the following:

- Techno-economic modeling and analysis

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- Sustainability analysis
- Clean energy manufacturing and supply chain cost and economic competitive analysis
- Integrated electric sector/grid modeling
- Project finance analysis
- Market and policy analysis
- Geospatial and resource energy analysis
- Energy informatics
- Web-based and energy decision tools

Learn more about NREL's robust analysis capabilities at
http://www.nrel.gov/analysis/pdfs/nrel_analysis_capabilities_6_20_13.pdf

Oak Ridge National Laboratory

In Energy and Environmental Sciences area:

- Center for transportation analysis (energy and environmental policy analysis) – aviation safety, defense transportation, planning and system analysis, program effectiveness, etc.
- Economic analysis of materials, natural resources, and biomaterials used for transportation and electrical power
- Policy and economic analysis of energy – credit markets, alternate fuels, alternate vehicles, energy security, oil market disruptions
- Electric grid wide-area modeling and analysis (cost comparisons, critical resource dependencies, etc.) -
- Support OE in analyzing and evaluating the benefits of electricity delivery technologies, systems and programs
- Technology and policy impacts on hydropower systems
- Policy analysis and behavior, evaluation of energy and non-energy impacts

In Computing and Computational Sciences area:

- "Policy informatics" challenges in the energy, healthcare and the social media domains
- Business analytics partnership with the University of Tennessee College of Business (#10 rated "Business Analytics Program" by U.S. News and World Report)
- Financial analyses of alternate plant construction strategies
- Financial and model validation for EIA with respect to the U.S. Energy Model, the Crude Oil Entitlements Program, Alternative Cost Analysis for the Army Future Combat System and modernization for the Air Force Finance System
- Geospatial Sciences - population dynamics modeling, natural resource studies, transportation modeling, critical infrastructure protection, and disaster management

Pacific Northwest National Laboratory

PNNL specializes in analyzing and understanding the impacts of the interface between science and society. As a consequence of working closely with physicists, chemists, and engineers on the front lines of the nation's energy challenges, our research economists, social and behavioral scientists and policy analysts bring a valuable cross-disciplinary approach to the social, institutional, and policy dimensions of research, analysis, and impact assessment.

In addition to basic and applied research in support of DOE, PNNL has leveraged long-standing

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relationships with industry, academia, regulators and a wide variety of state and federal agencies, to develop unique analytic tools, metrics and methodologies necessary to infuse the energy policy development process with enhanced empirical rigor. PNNL has long recognized that establishing a robust, data-driven analytic foundation–tethered to the real-world, market-based dynamics that shape the trajectory of energy infrastructure investment and technology deployment–is key to fostering consensus across the diverse set of stakeholders.

With over 130 economists, statisticians, policy, social, and behavioral scientists, PNNL has strong capabilities in economics, statistics, financial and market analyses in support of Energy Efficiency, Renewable Energy, Transportation, Environment, and National Security projects. PNNL market and policy analyses have provided key insights and guidance to decision makers in developing significant investments in smart grid and electricity infrastructure technology. PNNL regulatory analysis and energy efficiency rule development in support of the DOE have resulted in projected national cost savings of $1.1 Trillion and over 200 Quads of energy (equivalent of 2 years energy consumption in the U.S.) saved by 2035. Similarly, a recent PNNL analysis showed that a 75 percent market penetration of Electric Vehicles was feasible with the nation's existing power infrastructure. Meanwhile, PNNL's interaction of models associated with climate, water and energy infrastructure provide a uniquely predictive capability on the impacts of global change, down to the regional level meaningful to an array of policymakers.

In addition to our experienced staff, we have developed a toolbox of economic, financial, and policy simulation, analysis, and modeling capabilities that are especially focused on answering the kind of policy questions to which decision-makers need answers. Our toolbox is focused on the following areas:

- Market/Policy Simulation, Analysis & Modeling
- Market Rate Analysis
- Cost-Benefit Analysis
- Economic Analyses & Modeling
- Microeconomic, Natural Resource, Environmental, Regional & Socio Economic Modeling

We have developed and utilize specialized tools that include:

- SEDS – Stochastic Energy Deployment System Model
- IMSET – Impact of Sector Energy Technologies Model
- SEADS – Sector Energy/Employment Analysis and Data System Model
- GridLab-D – Energy Grid Simulator
- PRIMA – Platform for Regional Integrated Modeling and Analysis
- RIM – Renewables Integration Model
- ESIOS – Electric System Intrahour Operations Simulator
- PROMOD – Production Cost Modeling
- PHOENIX – Global Computable General Equilibrium Model for International Policy Analysis
- GCAM – Global Change Assessment Model

For a copy of the full summary of PNNL Market, Financial & Policy Analysis Capabilities go to http://epe.pnnl.gov/pdfs/PNNL_Market_Financial_Policy_Analysis_Capabilities_Summary.pdf

Princeton Plasma Physics Laboratory

PPPL is affiliated with Princeton University's Andlinger Center for Energy and the Environment, which conducts research on sustainable energy development, energy conservation, and environmental protection and remediation related to energy. See http://acee.princeton.edu/.

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Other affiliates include the Woodrow Wilson School of Public and International Affairs and the Geophysical Fluid Dynamics Laboratory (NOAA) and various corporate members. The Andlinger Center's expertise could be accessed for DOE projects. PPPL also has specific expertise in analysis of the costs and potential impact of fusion energy development.

Sandia National Laboratory

Sandia has developed economic and policy analysis capabilities to assess complex, interdependent systems. We combine engineering analyses of physical systems with policy evaluation, economic analyses, and social systems behavioral analysis. By explicitly considering the interplay between the socio-economic, policy, and behavioral impacts with the technical at the systems level, we excel at understanding the salient dynamics and identifying high-leverage alternatives for managing large, high-complexity systems critical for national security and economic competitiveness.

Strategic Policy Analysis Examples:

- Sandia Policy Analysis Cell
- Energy and Critical Infrastructure Economics
- Exogenous Shocks to Critical Infrastructures
- Integrated Micro-Macroeconomic Forecasting
- Investments in Science and Technology Innovation
- Supply Chain Analysis
- Impacts of Global Climate Change
- Cyber Security Policy Analysis
-

Policy Implementation Analysis Examples:

- Evaluation of Small Modular Reactors (SMRs) for DoD Installations
- Alternative fuel cycles,
- Option evaluations in support of nuclear waste disposal policy decisions
- Adoption and Acceptance of Energy Policy

Operational Analysis of Policy Options Examples:

- Transportation Energy Analysis
- Waste Biomass to Energy Pathway Model
- Optimizing Storage, Transportation, and Disposal of nuclear waste
- Regulatory and Risk Analysis

Savannah River National Laboratory

Nuclear Materials Disposition Strategies and Approaches - SRNL has over 60 years of experience in the characterization, stabilization, and disposition of nuclear materials. Policy expertise exists to develop approaches for treaty development and verification. SRNL nuclear materials expertise has also been applied across a number of USG programs to develop Nuclear Nonproliferation policies and strategies.

SLAC National Accelerator Laboratory

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Stanford University, SLAC's parent contractor, has several relevant and widely recognized activities in the area of energy-related market, financial, and policy analysis. Stanford's Energy Modeling Forum (EMF, http://emf.stanford.edu/) includes energy and environmental modeling and analysis with recent or current research in areas that include climate and integrated assessment, international trade and US shale gas model comparison studies. EMF is headed by Prof. John P. Weyant, Department of Management Science & Engineering. EMF has developed additional research programs on technology assessment and technological change modeling in the energy sector (in partnership with Stanford's Global Climate and Energy Project (GCEP, http://gcep.stanford.edu/), uncertainty analysis, fine scale climate impact projections and model diagnostics. Stanford partnered with other institutions to establish a global Integrated Assessment Modeling Consortium (IAMC, http://emf.stanford.edu/docs/modeling_consortium/) and that organization now includes 55 member institutions, hosts a web site and conducts an annual meeting. SLAC, in partnership with Stanford, could identify avenues to facilitate bringing some of these capabilities to focus on issues relevant to DOE interests and missions.

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QER Schedule		
What	**When Complete**	**Who**
Complete Drafts of the Presidential Memorandum and the Charge to Agencies from the Co-Chairs	7/10/13	DOE Policy
Complete Draft Outline of Interim and Final Report (triage matrix)	7/17/13	DOE Policy
Meet with OSTP/DPC to agree on a path forward	7/19/13	DOE/OSTP/DPC
Review Available Modeling Resources	7/22/13	DOE/Greg Singleton
Meet with DPC, OMB to get a clear idea of what is expected in the interim report	7/23/13	DOE/DPC/OMB
Executive Memorandum submitted for approval	7/23/13	OSTP/DPC
Executive Memorandum Approved and Released	7/31/13	White House Offices/ date speculative
Co-Chairs send directive to Agency Heads and Schedule first Principals Meeting	8/1/13	OSTP/DPC
DOE identifies staff that will serve as the Secretariat and makes clear assignments to task forces	8/1/13	DOE (Should we ask for loaners from other agencies to serve in the Secretariat?)
DOE Secretariat task forces provide detailed outline of proposed work including analytical requirements. This will include work needed for both the interim and final report (some early draft materials will probably be needed to meet the interim deliverable date)	8/5/13	DOE
First Principals Meeting	8/15/13	OSTP/DPC
First Interagency Task Force Meetings (biweekly meetings will be needed through December)	8/20/13	DOE lead
Clear statement of analysis requirements. Contracts/Agreements in place with essential external groups (Labs/Universities)	8/30/13	DOE (other agencies?)
First stakeholder meeting (there should be a stakeholder meeting task and task leader)	9/14/13	DOE
Initial drafts of Task Force teams delivered	9/30/13	DOE & Interagency team
Second Stakeholder Meeting	10/15/13	DOE
Integration and editing of task force drafts into a single document. Draft summary materials	11/6/13	DOE

Integrate comments into interim delivery document and submit to DPC/OSTP for final approval	11/14/13	DOE
Second Principals Meeting to review and approve the draft	11/15/13	OSTP/DPC
Interim Report Complete	11/28/13	All
Third Stakeholder Meeting	12/10/13	DOE
Fourth Stakeholder Meeting	2/14/14	DOE
Task Force Reports (chapters) ready for review	8/1/14	DOE lead
Begin work on integrated report	8/11/14	DOE/teams
Integrated Analysis (overview chapters) ready for review	9/22/14	DOE
Complete review of Task Force Reports	9/1/14	DOE/teams
Complete review of Integrated Report	10/22/14	DOE
Final Report issued	11/18/14	OSTP/DPC

Proposed QER Task Forces

Each group will be given a clear charter (proposed goals suggested in the list below) and a schedule. Each will be asked to clarify objectives, and explore policies needed to achieve them. The tools considered will vary with the problem but each should consider:

- Defining the metrics of success: What are you trying to do and how will you know if you get there?
- What are the barriers to success: technical problems, regulatory problems, market failures financing
- What should the US do to meet the challenges (what's our strategy: R&D, financing, regulatory reform, behavioral)

Proposed Task Forces

1. ***Outreach: ensure transparency and capture ideas and advice from the broadest possible range of individuals and institutions affected by energy production and use.***
    a. Organize stakeholder meetings
    b. Use social media tools to gather comments/concepts
    c. Answer inquiries
2. ***Integration: What is the net impact of the QER policies on:***
    a. Cost of energy services
    b. National security
    c. Environmental impacts (including climate)
    d. Reliability/availability of energy services
3. ***Electricity Grid Infrastructure: What are the characteristics of a grid that can maximize efficiency, reliability, resiliency, and low cost for the next generation of electricity technologies (supply, demand, controls). What do we need to do to create such a system?***
    a. Transmission
    b. Distribution
    c. Grid Storage
    d. Control Systems
        i. Demand Management (Buildings/Manufacturing)
        ii. System Controls and optimization (including emergency management)
        iii. Cyber security
    e. Integrated system design (grid of the future)
4. ***Fuels infrastructure: What will be the demand for solid, liquid, and gaseous fuels in the near, intermediate, and long term? How can we ensure that these needs are met at low cost and low environmental impacts?***
    a. Natural Gas (conventional and unconventional):

i. Production
ii. Storage
iii. Processing
iv. Transmission
v. Distribution
vi. Next generation plants with CCS

b. Petroleum and NGL (conventional and unconventional)
i. Production
ii. Transmission
iii. Refining
iv. Distribution

c. Coal
i. Mining
ii. Transport
iii. Next generation plants with CCS

d. Biomass and other renewable fuels

5. ***Nuclear: How can we make nuclear a practical part of the US electric generation portfolio? What will we do to overcome challenges? (emphasis on SMRs and assessment of new cycles)***
   a. Cost
   b. Waste
   c. Safety
   d. Proliferation
6. ***Renewable Electricity (wind, solar, geothermal, biomass): How can we make nuclear a practical part of the US electric generation portfolio? What can be done to overcome challenges in***
   a. Cost
   b. Intermittency
   c. Transmission infrastructure
   d. Land use
7. ***Highway Transportation Infrastructure: How can we provide personal and freight transportation services that increases safety, convenience and reduces costs and environmental impacts. What is the fuel infrastructure needed to do this (petroleum, electricity, gas, renewable fuel)***
   a. Vehicle Technology (personal vehicles, commercial vehicles, transit)
   b. VMT reduction strategies (e.g. transit oriented growth)
   c. Fuel alternatives & related infrastructures
8. ***Manufacturing Infrastructure: How can we ensure US leadership in next-generation manufacturing that lowers production costs, increases quality, and increases energy productivity?***

9. ***Buildings Infrastructure (Residential, Commercial, Industrial—new and retrofit): How can we ensure that building energy services (lighting, comfort), integrated into a 21st century grid, are provided at the lowest cost and ensure resiliency during emergencies.***
10. ***Climate Change Resiliency: What changes in energy infrastructure are needed to prepare for the likely effects of climate change (water availability, siting issues, resistance to high winds/fires)***
    a. Water use
    b. Preparedness (siting, hardening)
11. ***Workforce: What can be done to ensure that American workers are trained and retrained to take the energy infrastructure jobs of the future (power industry, advanced manufacturing, building retrofit and construction, EV maintenance)***

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	**Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure**	**Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure**	**Federal/state/local policies that inhibit/assist in the financing/ deployment of energy infrastructure**	
Climate Impacts				
Security Impacts				
Economic Impacts				

The Quadrennial Energy Review: Supporting a 21st Century Energy Infrastructure

A Federal Quadrennial Energy Review. Innovation and new sources of domestic energy supply are transforming the nation's energy marketplace, creating economic opportunities at the same time they raise environmental challenges. To help ensure that Federal energy policy meets our economic, environmental and security goals in this changing landscape, President Obama has directed his Administration to establish a government-wide process, the Quadrennial Energy Review (QER), which will be led by the Domestic Policy Council and Office of Science and Technology Policy in the White House. It will be supported by a Secretariat established at the Department of Energy and include stakeholders in a robust engagement.

The first-ever QER will focus on infrastructure challenges, and will identify the associated threats, risks, and opportunities for U.S. energy and climate security. This will enable the federal government to translate policy goals into a specific set of analytically based, clearly articulated, sequenced and integrated actions and investments over a four year planning horizon.

Background. In its 2010 report, *Accelerating the Pace of Change in Energy Technologies Through an Integrated Federal Energy Policy*, the President's Council of Advisors on Science and Technology articulated a vision for a clean, secure, safe and affordable energy future that would enhance the nation's –

- **economic competitiveness:** renewal of our own energy infrastructure and access to rapidly growing global markets for clean energy technology
- **environment:** rapid progress towards lower-carbon energy in this decade as a prudent response to global warming risks; and
- **energy security:** scaling-up of technologies that reduce oil dependence and thereby improve both our balance of payments and our security posture.

The report also noted that the means of achieving this goal represented one of the nation's preeminent challenges – it will require extraordinary actions at the Federal level, in concert with states, localities and the private sector that owns and operates the vast majority of the energy supply, transmission and distribution enterprises and other associated supply chains.

To meet this challenge, the report recommended, among other things, that the President establish a Quadrennial Energy Review (QER) process that would provide a multiyear roadmap to:

- lay out an integrated view of the short-, intermediate-, and long-term objectives for Federal energy policy in the context of economic, environmental, and security priorities;
- outline legislative proposals to Congress;
- put forward anticipated Executive actions (programmatic, regulatory, fiscal, and so on) coordinated across multiple agencies;
- identify resource requirements for the RD&D programs and for innovation incentive programs; and
- provide a strong analytical base for decision making.

Focus on Infrastructure. The reasons for a focus on infrastructure in the first QER are compelling. Energy is produced and consumed at enormous scale via complex and very capital intensive supply chains. These vast networks -- large pipeline systems, long-distance power transmission lines, storage facilities, oil refineries, gas processing, import and export terminals, and local distribution networks – help deliver affordable heat, fuel and power to 300 million Americans every day. These supply chains also expand far beyond our borders and engage

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us with the rest of the world, both guiding and constraining our foreign policy.

Our energy infrastructures need to be modernized, replaced or transformed if we are going to meet the many energy needs and challenges of the 21st century. According to DOE's *Grid 2030* report: "America's electric system, 'the supreme achievement of the 20th century,' is aging, inefficient and congested, and incapable of meeting the future energy needs of the information economy without operational changes and substantial capital investment over the next several decades." This is especially problematic as other infrastructures – water, natural gas, telecommunications, etc. – have become increasingly dependent on electricity. Also, infrastructure investment has slowed dramatically since the 1980s, increasing the difficulty of this challenge.

Moreover, climate change poses a serious threat to the reliability of these increasingly interdependent infrastructures. According to the National Wildlife Federation, weather related power outages have gone from 5-20 each year in the mid-1990s to 50-100 per year in the last five. Hurricane strength is increasing and posing threats to the nation's 4000 offshore oil and gas rigs and the 245 refineries located on the Gulf Coast. Demand for water to cool thermoelectric plants is expected to increase at the same time severe drought, particularly in the southwestern US threatens water supplies to meet this need. Truck and train transport, essential for coal and biofuels, is greatly impacted by related needs for highway and bridge improvements.

These examples highlight key policy concerns and underscore the need for new, improved and resilient infrastructures that:

- pair new renewable and unconventional sources of energy supply to energy consumers;
- adapt to and mitigate climate change;
- increase the resilience of the grid;
- address growing infrastructure interdependencies, especially natural gas and electricity;
- match new energy technologies to end-users; and
- deliver energy to end users in more efficient ways, taking advantage of new technologies at the micro-scale for building-level systems and very localized distributed energy delivery.

This transformation is also essential for enhancing US competitiveness in the 21st century global marketplace and investment in infrastructure creates jobs; there are between 14,515 and 23, 784 induced, direct and indirect jobs created from every $1 billion invested in infrastructure. This transformation is however expensive. The Edison Electric Institute estimates the need for investment in the grid to be $412 billion between now and 2030. Annual investment rates for the nation's gas infrastructure, assuming a 50% increase in gas demand per EIA forecasts, will be $19.2 billion a year by 2030.

Importantly, energy infrastructures tend to be long-lived, often with life spans of forty years or more. This longevity means the decisions we make today will be with us for decades into the future. Further, the large capital costs and sheer scale of our energy enterprises perpetuate the incumbent providers of energy goods and services, placing constraints on innovation and encouraging reliance on policies – not pure market drivers – for market transformation. While the ultimate responsibility for the development, maintenance and replacement of these networks largely resides with the private sector – there is a significant public interest in energy and its related infrastructures.

With scale, capital costs and infrastructure as the boundary conditions, climate urgency as a primary driver – and some inherent policy dissonance between them-- it is essential then that we get our energy policy and investment decisions right. Policy inconsistency, inconstancy, or the lack of legal, jurisdictional or regulatory clarity can be expensive and dilatory and erode public confidence -- especially problematic in light of the urgent

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need for action to mitigate climate change. A Quadrennial Energy Review would give us a higher degree of confidence that we can both establish the correct energy policy course as well as make course corrections.

Implementation

- The QER, as a government-wide process, must be driven by the White House and will likely be launched via a Presidential memorandum.

- The White House QER co-directors from the DPC and OSTP will be supported by a QER Secretariat located in the Office of Energy Policy and Systems Analysis (EPSA) at the Department of Energy. The QER will be implemented through an interagency committee what will include the following executive departments, agencies, and offices:

    - the Domestic Policy Council;
    - the Office of Science and Technology Policy;
    - the National Economic Council;
    - the National Security Staff;
    - the Office of Management and Budget;
    - the Council on Environmental Quality;
    - the Council of Economic Advisers;
    - the Department of State;
    - the Department of the Treasury;
    - the Department of Defense;
    - the Department of the Interior;
    - the Department of Agriculture;
    - the Department of Housing and Urban Development;
    - the Department of Commerce;
    - the Department of Labor;
    - the Department of Health and Human Services;
    - the Department of Transportation;
    - the Department of Energy;
    - the Department of Homeland Security;
    - the Environmental Protection Agency;
    - the Small Business Administration;
    - the Army Corps of Engineers;
    - the Federal Housing Finance Agency, and
    - such other agencies and offices as the President may designate.

- EPSA will also provide expert analytical and policy support for the development of the QER. It will be organized to analyze inputs from the range of agencies and stakeholders and provide policy guidance to the interagency committee.
- EPSA will be organized around two major energy challenges – climate change and energy security, will have analytical and policy capabilities in these areas as well as in financial investment, incentives, the federal budget, and state and local policies, supported by a strong integrating analytical and policy function.

Pre-decisional and deliberative

Presidential Memorandum – Establishing a Quadrennial Energy Review

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Establishing A Quadrennial Energy Review

Clean, secure, safe and affordable energy is essential for US economic competitiveness, protecting the quality of our environment, and ensuring our nation's security. The Department of Energy has primary responsibility for meeting the nation's energy goals but a many federal agencies and departments have major roles. Investments and policies adopted by the private sector, universities and other not-for-profit institutions, and all levels of state and local government are essential for success.

A Quadrennial Energy Review (QER), involving contributions from all federal organizations involved in energy production and use, will create a clear national energy policy and a roadmap that provides an integrated short-, intermediate-, and long term energy goals. It will translate these policy goals into a set of analytically based, clearly articulated, sequenced and integrated actions and proposed investments over a four year planning horizon. Proposed actions will include actions that can be taken within existing statutory authority and recommendations for actions that require new legislation.

Particular attention must be paid to our energy infrastructures. Many are not prepared to meet the energy challenges of the 21st century. An aging infrastructure presents serious barriers to innovation and efficiency throughout the energy system. It can also increase the risks of weather-related power outages – a problem that will intensify as the result of climate change. Hurricane strength is increasing and posing threats to the nation's 4000 offshore oil and gas rigs and the 245 refineries located on the Gulf Coast. Climate change also affects electricity generation since power plants require significant amounts of water for cooling. Truck and train transport, essential for coal and biofuels, is greatly impacted by related needs for highway and bridge improvements. The QER should examine strategies for ensuring that US energy infrastructures support: matching new energy technologies to end-users; adapting to and mitigating climate change; pairing new renewable sources of energy supply to energy consumers; and delivering energy to end uses in more efficient ways, taking advantage of new technologies at the micro-scale for building-level systems and very localized distributed energy delivery.

Therefore, by the authority vested in me as President by the Constitution and the laws of the United States of America, I hereby direct the following:

Sec. 1. Establishment of the Quadrennial Energy Review. There is established the Quadrennial Energy Review which shall be co-chaired by the Director of the Office of Science and Technology Policy and the Director of the Domestic Policy Council {*alternatively the Assistant to the President for Science and Technology and the Deputy Assistant to the President for Energy and Climate Change* }.

(a) The co-chairs will convene a task force consisting of the head of each of the following executive departments, agencies, and offices, or their designated representatives

1) the Office of Management and Budget
2) the National Economic Council
3) the National Security Staff;
4) the Council on Environmental Quality
5) the Council of Economic Advisers
6) the Department of State
7) the Department of the Treasury
8) the Department of Defense
9) the Department of the Interior;
10) the Department of Agriculture;
11) the Department of Housing and urban Development
12) the Department of Commerce;

13) the Department of Labor;
14) the Department of Health and Human Services;
15) the Department of Transportation;
16) the Department of Energy;
17) the Department of Homeland Security;
18) the Environmental Protection Agency;
19) the Small Business Administration;
20) the Army Corps of Engineers;
21) the Federal Housing Finance Agency, and
22) such other agencies and offices as the President may designate.

(b) The co-chairs shall regularly convene and preside at meetings of the Task Force and determine its agenda as the Task Force exercises the functions set forth in section 3 of this order. The co-Chair's duties shall also include:
   (i) gathering ideas and advice from State and local governments, tribes Members of Congress, universities, nongovernmental organizations, consumers, private sector organizations, and other stakeholders and interested parties, and
   (ii) coordinating the efforts of executive departments, agencies, and offices related to the development and review of the QER.
(c) The Secretary of Energy shall establish a Secretariat to support the QER and provide adequate staff, analytical support, and other services.
(d) The co-chairs shall deliver a QUE report every four years beginning with a report delivered by September 30, 2014. Intermediate reports and other material may be prepared by the task force as required by the President.

Sec. 2. The Scope of the QER.

The QER will be an integrated energy policy for the 21st century. It will provide:

- an integrated view of short-, intermediate-, and long-term objectives for Federal energy policy supporting national economic, environmental, and security priorities;
- a set of Executive actions (programmatic, regulatory, fiscal) that will support these priorities
- recommended legislation to support national energy goals
- resource requirements for the RD&D programs and for innovation incentive programs; and
- a strong set of analytical tools and data to support decisionmaking at all levels

The QER will:

(a) use a clear analytic framework to develop a comprehensive innovation strategy in energy equipment and energy systems (such as the electric grid). All technologies will be evaluated against the same criteria without bias. This will involve a review of technical options for meeting cost and performance objectives and describe how federal investments can achieve the greatest leverage.
(b) the review of technology options should will be used to develop priorities for basic science and applied programs.
(c) it will describe actions taken to ensure rapid conversion of research to products and systems that have viability in commercial markets. It will reflect the fact that energy products are diverse (ranging from gigawatt power plants to light bulbs) and face different regulatory and economic challenges.
(d) It will ensure that steps taken to create efficient markets for new energy technologies draw on the comparative strengths of federal, state, and local programs. Programs considered include:

   - economic or regulatory incentives to encourage the use of technologies, services, and business models that meet the policy goal (e.g., appliance standards, carbon price);
   - codes and standards based on the capabilities and attributes of the preferred technology (e.g., LEED);
   - removing legal and regulatory barriers to diffusion; and
   - creating conditions favorable to private sector financing.

Sec. 3. Outreach. The QER team should reach out to elected State, local, and tribal officials, corporations,

universities and other non-governmental organizations, and other stakeholders to gather information and advice and to ensure that the process of creating the QER is transparent to the public. It should develop an integrated strategy for doing that include traditional meetings and use of modern information technology.

Sec. 4. General Provisions. (a) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to any agency, or the head thereof; or

(ii) the functions of the Director of OMB relating to budgetary, administrative, or legislative proposals.

(b) Nothing in this memorandum shall be construed to require the disclosure of classified information, law enforcement sensitive information, or other information that must be protected in the interest of national security or public safety.

(c) This memorandum shall be implemented consistent with applicable law and subject to the availability of appropriations.

(d) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(e) Independent agencies are strongly encouraged to comply with the requirements of this memorandum.

(f) The Presidential Memorandum of November 30, 2004 (Improving Spectrum Management for the 21st Century), is hereby revoked.

(g) The Director of the Office of Science and Technology Policy is authorized and directed to publish this memorandum in the Federal Register.

BARACK OBAMA

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ENERGY INFRASTRUCTURE POLICY MATRIX

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure	Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure	Federal/state/local policies that inhibit/assist in the financing/ deployment of energy infrastructure	

Infrastructure Segments

Production

	Positive/negative					
Coal	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Conventional Oil & Gas	*Climate impacts*					
	Security Impacts					
	Economic Impacts					
Unconventional Oil & Gas	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Biofuels	*Climate Impacts*					

	Security Impacts					
	Economic Impacts					
Central Station Electricity Generation (all fuels)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	**Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure**	**Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure**	**Federal/state/local policies that inhibit/assist in the financing/ deployment of energy infrastructure**	

Infrastructure Segments

Interstate Transport

Oil/Gas Pipelines	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Gas Processing	*Climate Impacts*					
	Security Impacts					

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	Economic Impacts					
Petroleum Refining	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Coal transport/rail	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Biofuels transport	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
HV Electricity Transmission	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Import/Export Facilities	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

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Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure	Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure	Federal/state/local policies that inhibit/ assist in the financing/ deployment of energy infrastructure	

Infrastructure Segment

Distribution Systems

Petroleum Product Distribution	*Climate Impacts*					
	Security Impacts					
	Economic impacts					
Gas Distribution (includes storage)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Electricity Destination Grid (inc. DG)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure	Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure	Federal/state/local policies that inhibit/ assist in the financing/ deployment of energy infrastructure	

Infrastructure Segments

End Use Infrastructure

	Positive/negative					
Industrial/Manufacturing	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Commercial Building Energy Mgt (Bldg Envelope, HVAC, Lighting & Appliances DG)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Residential End Use	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Transportation Infrastructure (highways, air, mass transit)	*Climate Impacts*					
	Security Impacts					

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	Economic Impacts					
Vehicle Fueling Systems (NG, Electricity, Liquids)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

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Department	Key Divisions	Importance for QER
Defense	• Services • DARPA	• Military bases as testbeds for innovative components (chillers, sensors, SMRs, drop-in biofuels) and integrated systems (micro-grids, cyber-security) • Collaboration in key research areas (advanced materials, next-generation manufacturing, batteries) • Training for energy-related jobs
Interior	• Bureau of Land Management • Bureau of Ocean Energy Management • Bureau of Safety and Environmental Enforcement • Bureau of Reclamation • National Park Service • Office of Surface Mining • U.S. Fish and Wildlife Service • U.S. Geological Survey	• Transmission lines, pipeline, oil and gas exploration, renewable facilities permitting (including offshore) • Variety of regulatory authorities affecting energy infrastructure • Carbon sequestration potential • Fossil fuel/uranium resources • Network of regional centers
EPA		

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	Office of Air and Radiation • Office of Research and Development • Office of Water	Administrates the Clean Air act • Pollution prevention and energy efficiency, indoor and outdoor air quality, pollution from vehicles and engines, radon, climate change. Energy Star labels. • Regulation of new infrastructure • Regional offices
Housing and Urban Development	• Housing (FHA, Multifamily, single family) • Community Planning and Development	• Housing finance (mortgages, appraisals, energy efficient mortgages) • Public housing efficiency measures • The "urban development" mission is key to cities as an energy infrastructure (zoning, transportation access, resiliency)
Transportation	• Federal Aviation Administration • Federal Highway Administration • Federal Motor Carrier Safety Administration • Federal Railroad Administration • Federal Transit Administration • Maritime Administration • National	• Fuel Economy standards • Transit Oriented Development encourages low VMT urban designs • Funding for transportation infrastructure (highway, transit, others) • FAA influences aircraft efficiency (~8% of petroleum use) • Extensive regulatory authority over transportation infrastructure including energy pipelines • Research capabilities and expertise in forecasting

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	Highway Traffic Safety Administration • Pipeline and Hazardous Materials Safety Administration • Research and Innovative Technology Administration	
Agriculture	• Agricultural Research Service • Economic Research Service • Forest Service • Natural Resources Conservation Service	• Biomass fuels research and demonstrations • Soil carbon sequestration • Rural Housing • Rural electric utilities • Water management • Extensive outreach capabilities through state and regional offices
Commerce	• NIST • NOAA •	• Interoperability standards for energy infrastructure • R&D collaboration (buildings, manufacturing, materials) • Weather and other data needed to optimize grid performance (forecast temperatures, wind, sunlight at many different intervals)
Corps of Engineers	• Civil works • Emergency operations	• Energy infrastructure: ports, canals • Regulatory authority over construction in the Great Lakes (offshore wind)

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	Environment	
Homeland Security	• Directorate for National Protection and Programs	• Cybersecurity for energy infrastructure • Other infrastructure security issues
Treasury	• Office of Tax Policy • Office of Economic Policy	• Energy tax policy (many areas of energy infrastructure have unique tax provisions) • Partners with HUD on home finance reforms
National Science Foundation		• Research Collaborations
Federal Housing Finance Agency	Oversees: • Fannie Mae • Freddie Mac • Federal Home Loan Banks	• Integrating energy efficiency into appraisals, mortgages, transactions • Housing inspection and labels
Education	• Office of Vocational and Adult Education • Office of Innovation and Improvement	• Training for energy jobs at all levels (design, build, operate, maintain)
	•	•
	•	•

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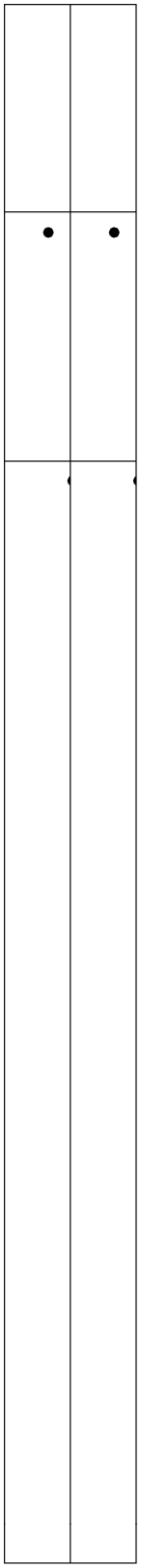

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Sunday, November 17, 2013 4:22 PM
To: Ex. 6 - Michael Goo
Subject: Re: Fwd: E and C letter

Thx. Am on it. B/c you don't have a DOE email yet I don't think I can cc you on an internal email chain but will touch base with you tomorrow as I get responses. Am in Orlando today and tomorrow for NARUC annual meeting. Be back Monday night.

From: Michael Goo [mailto: Ex. 6 - Personal Privacy
Sent: Sunday, November 17, 2013 01:13 PM
To: Wayland, Karen
Subject: Fwd: E and C letter

Hi Karen.

Not knowing protocol and being in between I will rely on you to figure how to handle things but

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Talk to you soon.

Sent from my iPhone

Begin forwarded message:

From: "Goo, Michael" <Goo.Michael@epa.gov>
Date: November 17, 2013, 12:57:28 PM EST
To: Ex. 6 - Michael Goo
Subject: Fw: E and C letter

From: Schmidt, Lorie
Sent: Saturday, November 16, 2013 12:59:54 PM
To: Goo, Michael
Subject: Re: E and C letter

Ex. 5 - Deliberative & ACP

From: Goo, Michael
Sent: Saturday, November 16, 2013 11:31:28 AM
To: Schmidt, Lorie
Subject: Fw: E and C letter

Ex. 5 - Deliberative & ACP

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 6:18:25 PM
To: Goo, Michael
Subject: E and C letter

From: Energy and Commerce News [mailto:EnergyandCommerceNews@mail.house.gov]
Sent: Friday, November 15, 2013 4:14 PM
Subject: Committee Leaders Request Withdrawal of EPA's Proposed Power Plant Standards Citing Prohibition Under Energy Policy Act

COMMITTEE ON ENERGY AND COMMERCE
Chairman Fred Upton
113th Congress

FOR IMMEDIATE RELEASE **CONTACT: Press Office**

November 15, 2013 (202) 226-4972

Committee Leaders Request Withdrawal of EPA's Proposed Power Plant Standards Citing Prohibition Under Energy Policy Act

"…EPA's consideration of CCPI projects to determine that CCS for power plants is 'adequately demonstrated' is prohibited."

WASHINGTON, DC – House Energy and Commerce Committee leaders today wrote to Environmental Protection Agency Administrator Gina McCarthy expressing concerns regarding EPA's proposed greenhouse gas New Source Performance Standards for new power plants that would require the installation of carbon capture and storage (CCS) technologies that are not commercially viable. The members believe the proposed standards go beyond the scope of the EPA's legal authority and are requesting the proposed rule be withdrawn.

EPA is proposing standards pursuant to Section 111 of the Clean Air Act, which provides that emissions standards must be achievable using "adequately demonstrated" technologies. EPA maintains that CCS technologies for coal-fired power plants have been "adequately demonstrated" based on three government-funded projects under construction or planned that are receiving assistance under the Department of Energy's Clean Coal Power Initiative (CCPI) and one other small-scale Canadian government-funded project. EPA Acting Assistant Administrator Janet McCabe confirmed the agency uses these projects as the basis for its determination during questioning at yesterday's Energy and Power Subcommittee hearing. **While EPA is using these projects to justify its proposed standards, the Energy Policy Act of 2005 prohibits EPA from considering technology used at CCPI projects as being "adequately demonstrated" for purposes of Section 111 of the Clean Air Act.** Based on these facts, the committee leaders concluded, "Under these provisions of the Energy Policy Act

of 2005, EPA's consideration of CCPI projects to determine that CCS for coal-fired power plants is 'adequately demonstrated' is prohibited."

In the letter to McCarthy, House Energy and Commerce Committee Chairman Fred Upton (R-MI), Chairman Emeritus Joe Barton (R-TX), Energy and Power Subcommittee Chairman Ed Whitfield (R-KY), and subcommittee Vice Chairman Steve Scalise (R-LA) wrote, "In light of these statutory prohibitions, we request that the EPA's proposed rule, which has not yet been published in the Federal Register, be withdrawn. This will ensure that the agency does not propose standards beyond its legal authority. This will also ensure that stakeholders and the public will not have to incur additional costs to respond to a proposal that contravenes applicable law."

For a full copy of the letter to EPA, click HERE.

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Friday, November 15, 2013 5:39 PM
To: Ex. 6 - Personal Privacy
Subject: Re: QER documents

They are dated but you can get some sense of things. Most impt for you are the PM and agecy equities.

From: Michael Goo [Ex. 6 - Personal Privacy]
Sent: Friday, November 15, 2013 05:31 PM
To: Wayland, Karen
Subject: Re: QER documents

Great. Thanks. Will review.

Sent from my iPhone

On Nov 15, 2013, at 4:13 PM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

VERY old documents I found in my gmail but should give you some idea of what we're doing.

From: Karen Wayland [mailto: Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 4:00 PM
To: Wayland, Karen
Subject: Fwd: QER documents

---------- Forwarded message ----------
From: **Gershuny, Gregory** <GGershuny@hq.doe.gov>
Date: Tue, Jul 16, 2013 at 5:52 PM
Subject: QER documents
To: "Pershing, Jonathan" <Jonathan.Pershing@hq.doe.gov>, Judith Greenwald Ex. 6 - Personal Privacy "Difiglio, Carmine" <Carmine.Difiglio@hq.doe.gov>, "Bill Hederman (Hederman@alum.mit.edu)" <Hederman@alum.mit.edu>, "Chen, Hugh" <Yu-Han.Chen@hq.doe.gov>, Ex. 6 - Personal Privacy "Marlay, Robert" <Robert.Marlay@hq.doe.gov>, "carl.pechman@ferc.org" <carl.pechman@ferc.org>, "Hezir, Joseph" <Joseph.Hezir@hq.doe.gov>,

Ex. 6 - Personal Privacy
Cc: "Kenderdine, Melanie" <Melanie.Kenderdine@hq.doe.gov>, "Gershuny, Gregory" <GGershuny@hq.doe.gov>, "Pickett, Adonica (Renee)" <Adonica.Pickett@hq.doe.gov>, "Bassett, Luke" <Luke.Bassett@hq.doe.gov>

Good evening,

The attached draft documents are for the Quadrennial Energy Review (QER) meeting on Thursday 7/18 at 1:00pm in 7A-219. These draft documents are internal and deliberative and aren't intended for anyone not on this email. Please let me know if you have any questions prior to the meeting.

Best,

Greg Gershuny

202-586-0711 | GGershuny@hq.doe.gov

--
Karen G. Wayland, Ph.D.
Mobile: (202) 236-9040
Email: Ex. 6 - Personal Privacy

<Analysis for QER_NLDC (2).docx>

<QER Schedule (3).docx>

<Proposed Task Forces.docx>

<QER_Proposal_operative 4.docx>

<Presidential Memorandum on QER v2.docx>

<ENERGY INFRASTRUCTURE POLICY MATRIX mk.docx>

<Agency Roles (4).docx>

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Friday, November 15, 2013 3:57 PM
To: 'Michael Goo' < Ex. 6 - Personal Privacy >
Subject:
Attach: Michael Goo - EPSA Statement of Duties.docx

Hi Michael,

Attached are the duties we discussed. I'll get you some info to help you prep for these duties.

kw

Karen G. Wayland, Ph.D.
Deputy Director for State, Local and Tribal Cooperation
Energy Policy and Systems Analysis
Office of the Secretary

U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585
Phone: +1 (202) 586-1347
Ex. 6 - Personal Privacy

Ex. 5 - Deliberative

From: Robin Bravender Ex. 6 - Personal Privacy
Sent: Thursday, November 7, 2013 3:12 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Question about your new gig

Hello, I'm working on a story about your new office and writing about all the well known staff heading over there. I'm listing the five divisions and writing about the deputy directors, but I'd like to mention where you'll be working. Can you tell me your division and title? Also your start date? The story will probably run next week.

Thank you!

Robin

From: Robin Bravender Ex. 6 - Personal Privacy
Sent: Wednesday, November 13, 2013 1:54 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Coffee?

Thanks. Congrats on being one of the cool kids. I hope your first week goes well. (whenever that may be...)

On Wed, Nov 13, 2013 at 10:43 AM, Michael Goo Ex. 6 - Personal Privacy wrote:

> Nice story. Thx.
>
> Sent from my iPhone
>
> On Nov 4, 2013, at 5:03 PM, Michael Goo Ex. 6 - Personal Privacy wrote:
>
>> Great. Thx. See you then.
>>
>> Sent from my iPhone
>>
>> On Nov 4, 2013, at 4:12 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:
>>
>>> Excellent, thanks. 11 is fine by me. I'll see you then.
>>>
>>> On Mon, Nov 4, 2013 at 3:51 PM, Michael Goo Ex. 6 - Personal Privacy wrote:
>>>
>>>> Sure. I'm going to be downtown at Marriott across freedom plaza from EPA at 10. I could meet you there or around there at 9 or 11. 11 allows me to be slightly lazier but 9 is pretty relaxed for a usual work day so that is no problem either.
>>>>
>>>> Sent from my iPhone
>>>>
>>>> On Nov 4, 2013, at 2:10 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:
>>>>
>>>>> Hi Michael,

Does tomorrow still work for you? I can head out to Virginia if that's easiest for you. Anywhere near a Metro would be fine. Maybe 9 a.m.?

Thanks,

Robin

On Thu, Oct 31, 2013 at 7:11 PM, Robin Bravender
Ex. 6 - Personal Privacy wrote:

> Tuesday is perfect. Is morning good for you? Just let me know where and when.
>
> On Thu, Oct 31, 2013 at 6:54 PM, Michael Goo
> Ex. 6 - Personal Privacy wrote:
>
> > Probably not Tommorrow. Maybe next week? Monday I'm on annual leave canvassing. Maybe Tuesday?
> >
> > Sent from my iPhone
> >
> > On Oct 31, 2013, at 5:21 PM, Robin Bravender
> > Ex. 6 - Personal Privacy wrote:
> >
> > > Hi Michael,
> > >
> > > Any chance you're up for a cup of coffee tomorrow afternoon or sometime next week? I'd be happy to meet you anywhere that's convenient.
> > >
> > > Thanks,
> > >
> > > Robin Bravender

From: Jessica Holliday Ex. 6 - Personal Privacy
Sent: Monday, November 18, 2013 10:41 AM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Supplement the record & get back to the single standard

---

Hi kiddo. So EPA can supplement the record w/examples of CCS that are not DOE projects. Given that they reproposed, any way to get back to single standard for coal and gas plants? Also see if you can find at least the Wyoming PUC proceeding where PacifiCorp is proposing to burn natural gas in their coal plant. In other words, not build new gas plant or switch to existing gas plant.

My land line has gone down -- who knows why -- and I will have to visit Comcast today.

From: Ex. 6 - Jessica Holliday
Sent: Monday, November 18, 2013 2:16 PM
To: Michael Goo < Ex. 6 - Personal Privacy
Subject: Re: Supplement the record & get back to the single standard

---

Good. Just got back from Comcast. Hopefully they will fix my landline tomorrow. :-)
Sent from my Verizon Wireless BlackBerry

-----Original Message-----
From: Michael Goo Ex. 6 - Personal Privacy
Date: Mon, 18 Nov 2013 14:13:26
To: Jessica Holliday Ex. 6 - Personal Privacy
Subject: Re: Supplement the record & get back to the single standard

Yep. Thx. Will check it out. Thanks for alerting me to this whole thing. I was first on the ball over there at DOE. It's since gone into channels and I'm hearing back indirectly but still am working on it.

Sent from my iPhone

On Nov 18, 2013, at 10:41 AM, Jessica Holliday Ex. 6 - Personal Privacy wrote:

> Hi kiddo. So EPA can supplement the record w/examples of CCS that are not DOE projects. Given that they reproposed, any way to get back to single standard for coal and gas plants? Also see if you can find at least the Wyoming PUC proceeding where PacifiCorp is proposing to burn natural gas in their coal plant. In other words, not build new gas plant or switch to existing gas plant.
>
> My land line has gone down -- who knows why -- and I will have to visit Comcast today.

From: Goo, Michael <Goo.Michael@epa.gov>
Sent: Thursday, November 21, 2013 10:48 AM
To: Ex. 6 - Michael Goo
Subject: Fw: Michael Goo Non-Reimbursable Detail Agreement
Attach: Michael Goo Non-Reimbursable Detail Agreement JF comments.docx

---

From: Kime, Robin
Sent: Thursday, November 21, 2013 10:10:33 AM
To: Goo, Michael
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Hi

Ex. 5 - Deliberative

-----Original Message-----
From: Bazzle, Diane
Sent: Thursday, November 21, 2013 9:00 AM
To: Kime, Robin
Subject: Fw: Michael Goo Non-Reimbursable Detail Agreement

Ex. 5 - Deliberative

From: Lesperance, Twanna
Sent: Wednesday, November 20, 2013 8:51:17 PM
To: Bazzle, Diane
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Diane,

Ex. 5 - Deliberative

Thanks,
Twanna

Twanna Lesperance, Chief.Administrative/Management Staff.Office of Executive Services.Office of the Administrator.202-564-0419 (D)

-----Original Message-----
From: Feldman, Richard
Sent: Tuesday, November 19, 2013 6:52 PM
To: Lesperance, Twanna
Cc: Guerrero, David; Liem, Lucille; Fugh, Justina; Bazzle, Diane; Feldman, Richard
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Twanna,

Ex. 5 - Deliberative

From: Pressman, Steve
Sent: Monday, November 18, 2013 2:52 PM
To: Guerrero, David; Feldman, Richard
Cc: Miller, Kevin; Redden, Kenneth
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Ex. 5 - Deliberative

Steve Pressman
Associate General Counsel
Civil Rights and Finance Law Office
Office of General Counsel, U.S. EPA
202/564-5439 (phone), 202/564-5416 (fax)

From: Lesperance, Twanna
Sent: Friday, November 15, 2013 3:11 PM
To: Pressman, Steve; Fritz, Matthew
Subject: Michael Goo Non-Reimbursable Detail Agreement

Hello Gentlemen,

Ex. 5 - Deliberative

Feel free to give me a call if you have any questions.

Thank you, in advance, for your quick response.

Best Regards,
Twanna

From: Duxbury, Peggy <peggy@bloomberg.org>
Sent: Monday, November 18, 2013 1:39 PM
To: 'Michael Goo' < Ex. 6 - Personal Privacy >
Subject: RE: The Cool kids

Ex. 6 - Personal Privacy

How about you guys?

-----Original Message-----
From: Michael Goo [mailto: Ex. 6 - Personal Privacy]
Sent: Monday, November 18, 2013 1:37 PM
To: Duxbury, Peggy
Subject: Re: The Cool kids

Sounds good! Have a happy thanksgiving. You guys going out of town?

Sent from my iPhone

On Nov 18, 2013, at 12:34 PM, "Duxbury, Peggy" <peggy@bloom berg.org> wrote:

> How about after Thanksgiving? Lots of travel for me between now and then.
>
> Eager to chat about your new role, and how DOE might be able to help with other agency climate efforts. Seems like you would have some good ideas about this.
>
> Peggy
>
>
> -----Original Message-----
> From: Michael Goo [mailto: Ex. 6 - Personal Privacy
> Sent: Thursday, November 14, 2013 6:29 PM
> To: Duxbury, Peggy
> Subject: Re: The Cool kids
>
> Me too. You around after the thanksgiving break? Or even during the break? Lets get together either time.
>
> Sent from my iPhone
>
> On Nov 14, 2013, at 11:44 AM, "Duxbury, Peggy" <peggy@bloomberg.org> wrote:
>
>> Hope this is a cool as they make this sound! Eager to catch up and hear how its all going.
>>
>>
>>
>>
>>
>> 'Cool kids' jump to Moniz's new policy shop

>>
>>
>> Robin Bravender and Katherine Ling, E&E reporters
>>
>> Published: Tuesday, November 12, 2013
>>
>> There's a new office generating buzz and big expectations at the Department of Energy.
>>
>> Energy Secretary Ernest Moniz, who launched the policy shop as part of a larger DOE overhaul, is stocking it with top talent from the climate and energy arenas and is giving it big responsibilities for carrying out President Obama's climate change plan.
>>
>> "It's where all the cool kids on the block are going," said a former DOE senior staff member who's now an energy consultant. "They are the rock stars of DOE."
>>
>> At the helm of the new Office of Energy Policy and Systems Analysis is Melanie Kenderdine, who worked with Moniz at the Massachusetts Institute of Technology Energy Initiative as well as at DOE during the Clinton administration. She's expected to have a lot of clout with the secretary.
>>
>> "In addition to their close, personal association at MIT, Melanie is someone who I would put in the top three or four people who has an ability to know all the fuels," said Charles Ebinger, director of the Energy Security Initiative at the Brookings Institution. He noted her broad-based expertise that includes subjects like natural gas, renewable energy and nuclear power..
>>
>> Kenderdine is assembling a savvy team that includes battle-hardened veterans of the failed congressional efforts to pass climate legislation. With prospects for major climate and energy bills all but dead, the new staffers are hoping to have a big impact on energy policy through the executive branch.
>>
>> "A lot of great people have left the Hill because they can see that Congress for the time being is not going to be on the cutting edge of these issues," said Manik Roy, vice president for strategic outreach at the Center for Climate and Energy Solutions. "There are some bigger-ticket items now in the executive branch."
>>
>> Former U.S. EPA senior official Michael Goo is one of the latest recruits to join Kenderdine's team. Goo comes from a post as associate administrator for EPA's Office of Policy, where he was charged with overseeing regulations going through White House reviews and providing policy advice. He also worked on the climate bill that passed the House in 2009 as chief counsel to the now-defunct House Select Committee on Energy Independence and Global Warming.
>>
>> Goo's joining an already-stacked lineup of high-profile staffers.
>>
>> Karen Wayland, who'll head up state and local coordination in the new office, was a senior adviser on energy and environmental issues to then-House Speaker Nancy Pelosi (D-Calif.). Judi Greenwald -- who has taken the helm of climate, environment and energy efficiency issues -- has worked at the Center for Climate and Energy Solutions, in Congress and as a senior adviser to the Clinton White House's Climate Change Task Force. Jonathan Pershing, former special envoy for climate change at the State Department, joined the team as principal deputy director in addition to another post in the Policy and International Affairs Office.
>>
>> "Moniz is a talent magnet," said Margot Anderson, executive director of the Bipartisan Policy Center's energy project and former DOE deputy assistant secretary for policy analysis. "I suspect there are many smart, talented, dedicated people who are eager to work on his team."
>>
>> In addition to having Moniz's ear on setting DOE policy, new employees have also been lured by the prospect of helping to draft an energy road map that lays out national energy goals over four years.
>>
>> Obama called for the Quadrennial Energy Review as part of the sweeping climate plan he announced in June.

The White House will lead the charge, but DOE is expected to play the main supporting role. Moniz told the Senate Energy and Natural Resources Committee earlier this year that the QER is his top priority (Greenwire <http://www.eenews.net/greenwire/stories/1059979559> , April 16).
>>
>> "This is going to produce a four-year policy horizon and p olicy prescription, but we're really looking at how do we affect what the energy infrastructure looks like in 2030," Wayland said at a September symposium. "We will be producing recommendations for legislation, administrative action, an agenda for financial incentives, and research and development to support the modernization and transformation of our energy infrastructure."
>>
>> Energy policy watchers say that's an attractive project that's helping DOE recruitment.
>>
>> "Now you have a mandate, you have a secretary who is obviously very engaged with that mandate and you have a department that has a strong, important role in that mandate," Roy said.
>>
>> Paul Bledsoe, a senior fellow on energy and climate at the German Marshall Fund and a former climate aide in the Clinton White House, said, "The centrality of climate change in the president's vision for his second term, I think, has made government service newly attractive to a great many people."
>>
>> DOE declined to provide a staff list for the new office, but it's expected to have about 60 employees across five main sections: finance; energy security; state and local cooperation; systems integration; and climate, environment and energy efficiency.
>>
>> In addition to the outsiders flocking to the new office, DOE is also drawing in staff from across the department.
>>
>> Hugh Chen, formerly with DOE's Office of the Chief Financial Officer, is deputy director for finance, incentives and program analysis; Carmine Difiglio, formerly deputy assistant secretary for policy analysis at DOE, is deputy director for energy security; and William Hederman Jr., formerly of the Federal Energy Regulatory Commission and Congressional Budget Office, is the office's deputy director for systems integration (Greenwire <http://www.eenews.net/greenwire/stories/1059987458> , Sept. 18).
>>
>> DOE employees in other offices have also been tapped to pitch in: Jonathan Elkind, acting assistant secretary for the Office of Policy and International Affairs; Carol Battershell from the Office of Energy Efficiency and Renewable Energy; and Carl Pechman, an economist with FERC, according to a source close to the new office.
>>
>>
>> 'Ivory tower'?
>>
>>
>> A separate DOE policy office isn't a new idea. In fact, Moniz is resurrecting an office that was there under President Clinton but was combined with international affairs under the George W. Bush administration. Kenderdine served as director of the policy office during the Clinton administration.
>>
>> "It's sort of back to the future," said David Conover, senior vice president at Grayling and former acting assistant secretary for policy and international affairs at DOE in the Bush administration. He said it would be advantageous to Moniz to have a focused and dedicated policy staff, given the administration's focus on greenhouse gas reductions and EPA regulations.
>>
>> Kenderdine "certainly has the skill and vision to create a strong analytically based policy shop at DOE," Anderson said. Under the Clinton administration, DOE "had a healthy policy office" that was doing a lot of analysis on climate change policy, electricity deregulation and fuel standards, she added.
>>
>> Wayland said in September that the office has had a stronger emphasis on international affairs than on domestic policy in recent years. "And what I think happened was that within the programs, they saw a real need for domestic policy expertise and function and began to build out their own policy functions," she said. "The Department of Energy is famous for stovepipes."

>>
>> Moniz is trying to break down those barriers, Wayland said, by pulling "some of the policy people and functions out of the programs and put them in a shop that reports directly to him so he can have more direct but also more coordinated advice to him on policy development and analysis."
>>
>> But eliminating stovepipes at the massive agency with offices and labs scattered throughout the country is no easy task.
>>
>> "In any gigantic agency, it's always a challenge to get everybody rowing in the same direction," Roy said.
>>
>> "The success of any of these approaches ultimately comes down to how they're managed. Will the secretary use this policy office to catalyze more policy thinking by the technology offices? Or will they sort of become this ivory tower?" Roy said. "My hunch is he doesn't want to make it an ivory tower any more than anybody else does."
>>
>>
>> Not Chu's DOE
>>
>>
>> The separate policy office is part of Moniz's broader approach to reshape the agency. He's widely seen as more politically savvy than his predecessor, Steven Chu, a Nobel Prize-winning physicist, and he's bringing in staffers with the chops to back that up.
>>
>> Chu "really is a brilliant man -- there's no question about that -- but Ernie's quite a different character," Ebinger said.
>>
>> Moniz "knows how to play the political game in Washington, how to make his department a player," he added, predicting that the policy office will play a big part in that.
>>
>> Moniz is no stranger to Washington, D.C. He joined the White House Office of Science and Technology Policy as associate director for science in 1995 and was undersecretary at DOE from 1997 through the end of the Clinton administration. He also served on the President's Council of Advisers on Science and Technology from 2009 until this year.
>>
>> Observers say some of the style differences are in part due to the issues the agency leaders must address.
>>
>> Under Chu, DOE was confronted with getting stimulus money out the door, and the Obama administration was still optimistic about getting a major climate and energy package passed by Congress. Then the agency was confronted with the aftermath of the Deepwater Horizon oil spill and a nuclear disaster in Japan.
>>
>> Moniz, meanwhile, has assumed the helm of the agency during Obama's second term as federal budgets are getting increasingly tighter and DOE has been charged with setting out a long-term plan for national energy policy.
>>
>> In addition to splitting up the domestic and international office, Moniz has also created a new undersecretary for management and performance to improve DOE's budget overruns and delays and plans to combine the undersecretary of science and energy to bring some cohesion and framework to the national labs and DOE programs for basic and applied research and development (E&E Daily <http://www.eenews.net/eedaily/stories/1059984782> , July 22).
>>
>> "A secretary needs to surround him or herself with people that solve the problems with which they are confronted," Anderson said.
>>
>> Reporter Nick Juliano contributed.
>>
>>
>>

>>
>>
>> Jean Flemma
>>
>> Senior Policy Advisor, Democratic Staff
>>
>> Committee on Natural Resources
>>
>> 186 Ford HOB, Washington, DC 20515
>>
>> 202-225-6065
>>
>> Connect with the Committee Democrats:
>>
>> Website <http://democrats.naturalresources.house.gov/> | Twitter
>> <http://www.twitter.com/nrdems> | Facebook
>> <http://www.facebook.com/pages/House-Committee-on-Natural-Resources-D
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From: Duxbury, Peggy <peggy@bloomberg.org>
Sent: Monday, November 18, 2013 12:34 PM
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Subject: RE: The Cool kids

How about after Thanksgiving? Lots of travel for me between now and then.

Eager to chat about your new role, and how DOE might be able to help with other agency climate efforts. Seems like you would have some good ideas about this.

Peggy

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>
> Obama called for the Quadrennial Energy Review as part of the sweeping climate plan he announced in June. The White House will lead the charge, but DOE is expected to play the main supporting role. Moniz told the Senate Energy and Natural Resources Committee earlier this year that the QER is his top priority (Greenwire <http://www.eenews.net/greenwire/stories/1059979559> , April 16).
>
> "This is going to produce a four-year policy horizon and policy prescription, but we're really looking at how do we affect what the energy infrastructure looks like in 2030," Wayland said at a September symposium. "We will be producing recommendations for legislation, administrative action, an agenda for financial incentives, and research and development to support the modernization and transformation of our energy infrastructure."
>
> Energy policy watchers say that's an attractive project that's helping DOE recruitment.
>
> "Now you have a mandate, you have a secretary who is obviously very engaged with that mandate and you have a department that has a strong, important role in that mandate," Roy said.
>
> Paul Bledsoe, a senior fellow on energy and climate at the German Marshall Fund and a former climate aide in the Clinton White House, said, "The centrality of climate change in the president's vision for his second term, I think, has made government service newly attractive to a great many people."
>

> DOE declined to provide a staff list for the new office, but it's expected to have about 60 employees across five main sections: finance; energy security; state and local cooperation; systems integration; and climate, environment and energy efficiency.
>
> In addition to the outsiders flocking to the new office, DOE is also drawing in staff from across the department.
>
> Hugh Chen, formerly with DOE's Office of the Chief Financial Officer, is deputy director for finance, incentives and program analysis; Carmine Difiglio, formerly deputy assistant secretary for policy analysis at DOE, is deputy director for energy security; and William Hederman Jr., formerly of the Federal Energy Regulatory Commission and Congressional Budget Office, is the office's deputy director for systems integration (Greenwire <http://www.eenews.net/greenwire/stories/1059987458> , Sept. 18).
>
> DOE employees in other offices have also been tapped to pitch in: Jonathan Elkind, acting assistant secretary for the Office of Policy and International Affairs; Carol Battershell from the Office of Energy Efficiency and Renewable Energy; and Carl Pechman, an economist with FERC, according to a source close to the new office.
>
>
> 'Ivory tower'?
>
>
> A separate DOE policy office isn't a new idea. In fact, Moniz is resurrecting an office that was there under President Clinton but was combined with international affairs under the George W. Bush administration. Kenderdine served as director of the policy office during the Clinton administration.
>
> "It's sort of back to the future," said David Conover, senior vice president at Grayling and former acting assistant secretary for policy and international affairs at DOE in the Bush administration. He said it would be advantageous to Moniz to have a focused and dedicated policy staff, given the administration's focus on greenhouse gas reductions and EPA regulations.
>
> Kenderdine "certainly has the skill and vision to create a strong analytically based policy shop at DOE," Anderson said. Under the Clinton administration, DOE "had a healthy policy office" that was doing a lot of analysis on climate change policy, electricity deregulation and fuel standards, she added.
>
> Wayland said in September that the office has had a stronger emphas is on international affairs than on domestic policy in recent years. "And what I think happened was that within the programs, they saw a real need for domestic policy expertise and function and began to build out their own policy functions," she said. "The Department of Energy is famous for stovepipes."
>
> Moniz is trying to break down those barriers, Wayland said, by pulling "some of the policy people and functions out of the programs and put them in a shop that reports directly to him so he can have more direct but also more coordinated advice to him on policy development and analysis."
>
> But eliminating stovepipes at the massive agency with offices and labs scattered throughout the country is no easy task.
>
> "In any gigantic agency, it's always a challenge to get everybody rowing in the same direction," Roy said.
>
> "The success of any of these approaches ultimately comes down to how they're managed. Will the secretary use this policy office to catalyze more policy thinking by the technology offices? Or will they sort of become this ivory tower?" Roy said. "My hunch is he doesn't want to make it an ivory tower any more than anybody else does."
>
>
> Not Chu's DOE
>
>

> The separate policy office is part of Moniz's broader approach to reshape the agency. He's widely seen as more politically savvy than his predecessor, Steven Chu, a Nobel Prize-winning physicist, and he's bringing in staffers with the chops to back that up.
>
> Chu "really is a brilliant man -- there's no question about that -- but Ernie's quite a different character," Ebinger said.
>
> Moniz "knows how to play the political game in Washington, how to make his department a player," he added, predicting that the policy office will play a big part in that.
>
> Moniz is no stranger to Washington, D.C. He joined the White House Office of Science and Technology Policy as associate director for science in 1995 and was undersecretary at DOE from 1997 through the end of the Clinton administration. He also served on the President's Council of Advisers on Science and Technology from 2009 until this year.
>
> Observers say some of the style differences are in part due to the issues the agency leaders must address.
>
> Under Chu, DOE was confronted with getting stimulus money out the door, and the Obama administration was still optimistic about getting a major climate and energy package passed by Congress. Then the agency was confronted with the aftermath of the Deepwater Horizon oil spill and a nuclear disaster in Japan.
>
> Moniz, meanwhile, has assumed the helm of the agency during Obama's second term as federal budgets are getting increasingly tighter and DOE has been charged with setting out a long-term plan for national energy policy.
>
> In addition to splitting up the domestic and international office, Moniz has also created a new undersecretary for management and performance to improve DOE's budget overruns and delays and plans to combine the undersecretary of science and energy to bring some cohesion and framework to the national labs and DOE programs for basic and applied research and development (E&E Daily <http://www.eenews.net/eedaily/stories/1059984782> , July 22).
>
> "A secretary needs to surround him or herself with people that solve the problems with which they are confronted," Anderson said.
>
> Reporter Nick Juliano contributed.
>
>
>
>
>
> Jean Flemma
>
> Senior Policy Advisor, Democratic Staff
>
> Committee on Natural Resources
>
> 186 Ford HOB, Washington, DC 20515
>
> 202-225-6065
>
> Connect with the Committee Democrats:
>
> Website <http://democrats.naturalresources.house.gov/> | Twitter
> <http://www.twitter.com/nrdems> | Facebook
> <http://www.facebook.com/pages/House-Committee-on-Natural-Resources-De
> mocrats/110359435705208> | Youtube

> <http://www.youtube.com/user/NaturalResourcesDems>
>
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From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Tuesday, October 29, 2013 11:55 AM
To: Ex. 6 - Michael Goo
Subject: FW: Goo statement

FYI

From: Wayland, Karen
Sent: Tuesday, October 29, 2013 11:13 AM
To: Gibbons, William
Cc: Geisler, Lindsey
Subject: RE: Goo statement

Hi Bill,

Michael hasn't started here yet. We're still working on his paperwork, and technically he is still transitioning out of EPA (sorting through papers/files). EPA sent around an internal email so the news is out. I ran this statement by Melanie and she is fine with the language so since a reporter is already asking I think it's fine to release it.

Karen

From: Gibbons, William
Sent: Tuesday, October 29, 2013 11:03 AM
To: Wayland, Karen
Cc: Geisler, Lindsey
Subject: Goo statement

Good morning, Karen

Steve Mufson w the Wash Post is asking us about Goo's appt here. Lindsey shared the statement she worked with you on. Has Michael started working here yet? Are we comfortable at this point issuing the statement from Melanie?

Either way, I need to get back to the reporter this morning so using the prepared statement would be ideal if we are ready to do that

Let me know when you get a chance,

Best
Bill

We are excited to welcome Michael Goo and his considerable talents to the Department of Energy. Michael has a strong history of experience in policy analysis and stakeholder engagement that we expect will greatly benefit DOE through his role as Senior Advisor in the Office of Energy Policy and Systems Analysis (EPSA). In this role, Michael will work on the Quadrennial Energy Review, the first ever integrated plan for energy infrastructure, and special projects for the Secretary's new policy shop.

Prior to joining the Department, Michael was the Associate Administrator in the Office of Policy at the Environmental Protection Agency. While at EPA, he worked on a number of important rulemakings, including key regulations for carbon pollution, waste, air toxics, and water. Michael also led EPA efforts on such cross-cutting issues as sustainability, climate adaptation, and smart growth.

Bill Gibbons

Deputy Press Secretary

U.S. Department of Energy

202.586.1760 (office)

Ex. 6 - Personal Privacy

www.energy.gov

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Tuesday, November 5, 2013 1:36 PM
To: 'michael Goo' Ex. 6 - Personal Privacy
Subject: Financial disclosure

Hey--you need to send over financial disclosure info to our GC. If they haven't reached out to you already, can you send your forms to

Bryan Plesser, Attorney-Advisor
The Office of the General Counsel
Office of the Assistant General Counsel for General Law
brian.plesser@hq.doe.gov
202-586-1522

Thanks!
kw

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Tuesday, November 5, 2013 4:16 PM
To: 'Michael Goo' < Ex. 6 - Personal Privacy
Subject: RE: Financial disclosure

Awesome, thanks.

-----Original Message-----
From: Michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, November 05, 2013 3:38 PM
To: Wayland, Karen
Subject: Re: Financial disclosure

Yep. My ogc and I worked on it today. We need one more piece of info from debbie and then I can get it over there Tommorrow My ogc wants it to be perfect and fully certified.

Sent from my iPhone

On Nov 5, 2013, at 1:35 PM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

> Hey--you need to send over financial disclosure info to our GC. If
> they haven't reached out to you already, can you send your forms to
>
> Bryan Plesser, Attorney-Advisor
> The Office of the General Counsel
> Office of the Assistant General Counsel for General Law
> brian.plesser@hq.doe.gov
> 202-586-1522
>
> Thanks!
> kw
>

From:	John Richards Ex. 6 - Personal Privacy
Sent:	Thursday, October 24, 2013 10:33 AM
To:	Michael Goo Ex. 6 - Personal Privacy
Subject:	EPSA stuff

As many of you may remember, several weeks ago we announced the restructuring of the Office of Policy and International Affairs (PI) into two offices the Office of Energy Policy and Systems Analysis (EPSA) and the Office of International Affairs (IA) as part of the Department s reorganization efforts. Today we are pleased to announce the senior members of the EPSA team:

- Melanie Kenderdine, Director;
- Dr. Jonathan Pershing, Principal Deputy Director;
- Hugh Chen, Deputy Director for Finance, Incentives, and Program Analysis;
- Dr. Carmine Difiglio, Deputy Director for Energy Security;
- Judi Greenwald, Deputy Director for Climate, Environment, and Energy Efficiency;
- William F. Hederman, Jr., Deputy Director for Systems Integration and Senior Advisor to the Secretary; and
- Dr. Karen Wayland, Deputy Director for State and Local Cooperation.

Read more about your new colleagues below, and please join me in welcoming them.

Melanie, the new Director of the Office of Energy Policy and Systems Analysis, has also served as Energy Counselor to the Secretary since May. Prior to that, she worked as the Executive Director and Associate Director of the MIT Energy Initiative (MITEI). Melanie has also served as the Vice President of Washington Operations for the Gas Technology Institute (GTI) and as an appointee in President Bill Clinton s administration, where she served in several posts. She has a B.A. from the University of New Mexico, where she focused on authoritarian systems and Russian and Chinese history.

Jonathan, in addition to serving as Principal Deputy Director of EPSA, is Deputy Assistant Secretary for Climate Change Policy and Technology in the Office of International Affairs. He supports both DOE*s domestic policy agenda as well as leads on international climate policy for the Department. Previously, Jonathan was at the U.S. Department of State, where he served as the Deputy Special Envoy for Climate Change and the lead negotiator representing the United States at meetings of the UN Framework Convention on Climate Change. He was also Director of the Climate, Energy and Pollution Program at the World Resources Institute (WRI), a Washington D.C. think tank; the Head of the Environment Division at the International Energy Agency (IEA) in Paris; and Science Advisor and Deputy Director of the Office of Global Change in the State Department. Jonathan holds a Ph.D. in geology and geophysics.

Hugh will lead an office that provides independent analysis on energy-related markets, policies, and investments that support the nation s energy goals. Prior to joining EPSA, Hugh was the Director of Program Analysis and Evaluation (PA&E) within the Office of the Chief Financial Officer (CFO) where he was responsible for goals, performance, and investment decision analysis across DOE s efforts in clean energy, national security, and basic research. He also spent time at the Pentagon as a Senior Analyst in the Office of the Secretary of Defense (OSD) and was an American Association for the Advancement of Science (AAAS) Fellow in the Defense Department. Hugh received his Ph.D. in Climate Physics and Chemistry from MIT in 2003 where his post-doc work focused on estimating the sources and sinks of greenhouse gases such as carbon dioxide and methane.

Carmine, the Deputy Director for Energy Security, will provide policy analysis, analytic support, and policy advice concerning U.S. energy security. Prior to assuming this position, he served as Deputy Assistant Secretary for Policy Analysis at the U.S. Department of Energy and Head of Technology Policy at the International Energy Agency. Carmine also serves as Co-Chair of the World Federation of Scientists Permanent Monitoring Panel on Energy and Vice-Chair of the IEA Standing Group on the Oil Market, and has served as Vice-Chair of the IEA Committee on Energy Research and Technology, Chairman of the IEA Energy Efficiency Working Party, and Chairman of the Transportation Research Board Committee on Energy and Transportation. Carmine received his Ph.D. from the University of Pennsylvania.

Judi, the Deputy Director for Climate, Environment, and Energy Efficiency, has over 30 years of experience working on energy and environmental policy. For the last fifteen years, she worked at the Center for Climate and Energy Solutions (formerly the Pew Center on Global Climate Change), most recently serving as the Vice President for Technology and Innovation. Judi also served as a senior advisor on the White House Climate Change Task Force and worked for the U.S. Congress Energy and Commerce Committee. She received a B.S. in Engineering from Princeton University, and an M.A. in Science, Technology and Public Policy from George Washington University.

William, the Deputy Director for Systems Integration and Senior Advisor to the Secretary, is a trained electrical engineer and public policy analyst with decades of executive experience in the private and public sectors. He began his career at Bell Labs, served on the RAND Corporation's research team, worked as the Congressional Budget Office's first energy and science budget analyst, and led the establishment of the policy analysis department at INGAA, was Vice President for Business Development and Strategic Initiatives at Columbia Transmission Companies, and joined FERC to form the Office of Market Oversight and Investigations. He holds engineering degrees from the Massachusetts Institute of Technology and the University of Notre Dame and a professional degree (MPP) from the University of California at Berkeley.

Karen, the Deputy Director for State and Local Cooperation, comes to DOE after two years of providing strategic consulting to business and nonprofit clients. She previously served as a Senior Advisor to Speaker of the House Nancy Pelosi. She was also the Legislative Director at the Natural Resources Defense Council for five years, worked in the office of Senator Harry Reid as a Congressional Science Fellow, and directed the Earth and Marine Sciences Program at Earthwatch, a nonprofit organization that funds scientific research by recruiting paying volunteers. Karen received a M.S. from the University of Connecticut and a Dual Ph.D. in the fields of geochemistry and resource development from Michigan State University.

From: Goo, Michael <Goo.Michael@epa.gov>
Sent: Tuesday, November 5, 2013 3:23 PM
To: Ex. 6 - Michael Goo
Subject: Fw: MIS Gateway - ESS Access Info (Request-171548) Part 2

From: identity.management@hq.doe.gov <identity.management@hq.doe.gov>
Sent: Tuesday, November 05, 2013 12:42:55 PM
To: Goo, Michael
Subject: MIS Gateway - ESS Access Info (Request-171548) Part 2

You now have been granted access to the Department of Energy's MIS Gateway and Employee Self Service (ESS) application.

Please go the MIS Gateway at http://mis.doe.gov and sign on and change your password. You may also choose a different username if you do not like the one assigned to you. You have been sent your username in a separate email. After you have signed on you will see 'Change Password' and 'Choose Username' in the 'Help & Support' section of the menu on the right hand side of the screen. You may then also proceed to the ESS Application and update your locator and personal business information.

Your password is Ex. 6 - Personal Privacy

If you require any DOE Headquarters services such as an email or network account, please click on the following link and choose the EITS Account Creation Request Form: http://ocio.doe.gov/procedures/forms Instructions for completing and forwarding this form are provided with the form itself.

If you have any questions or concerns please respond to this email (identity.management@hq.doe.gov).

From:	Chris Miller <cmiller@ajw-inc.com>
Sent:	Thursday, October 24, 2013 5:38 PM
To:	Ex. 6 - Michael Goo
Subject:	October 24 -- E&ENews PM is ready

Hey Master Goo - I'm looking forward to hearing about what you're going to do at DOE and when. Here's the issue that I think DOE can and should be helping with…if you make them. Would definitely help me/the outside campaign working to support the NSPS/EPA regulatory authority.

peace out.

C.

Grid overseer 'gun-shy' on flagging EPA-linked reliability concerns -- FERC commissioner

Hannah Northey, E&E reporter

Published: Thursday, October 24, 2013

Republican member of the Federal Energy Regulatory Commission today said the grid's overseer has been "gun-shy" about flagging reliability concerns in the wake of new U.S. EPA rules.

FERC Commissioner Philip Moeller, who was appointed by President George W. Bush and reappointed by President Obama, pledged to support the North American Electric Reliability Corp. (NERC) in raising any reliability issues, regardless of how controversial they may be.

"I will back you up when those messages come out, and I think I have," Moeller said today at NERC's second annual leadership summit in Arlington, Va. "When you look back, it's kind of hard to not say, 'I told you so.'"

Moeller said on the sidelines of the summit that NERC "kind of got burned" when the group warned of reliability concerns three yeas ago.

At issue is NERC's release of a report that found reliability issues could surface if up to 70 gigawatts -- 7.2 percent of U.S. power capacity -- were to retire under EPA regulations on cooling water intake, coal ash disposal, clean air transport and using maximum achievable control technology (MACT) for air pollutants (*E&ENews PM*, Oct. 26, 2010).

EPA later said it expected the number of retirements to be significantly lower, and outgoing FERC Chairman Jon Wellinghoff said NERC's analysis failed to consider the agency's ongoing efforts to address reliability issues through non-infrastructure -- demand response, efficiency, operation modifications -- and infrastructure, including transmission and generation.

"EPA and our chairman kind of took [NERC] to task for that, and yet I think their numbers have been borne out," Moeller said. "When you face that, I don't blame you for being a little gun-shy."

Moeller said he doesn't want NERC to feel pressure from FERC, industry or lawmakers against flagging concerns and said the critical issue for all entities involved is independence and ensuring the grid is stable.

Moeller also expressed his concerns about the industry's compliance with EPA's mercury and other toxic chemicals standards by 2015 and acknowledged that, so far, all power plants that need an extra year -- beyond the four allotted years -- to comply have secured the extra time.

But Moeller said he worries that plants may be asked to continue running for reliability reasons and violate the Clean Air Act, which could open them up to lawsuits. He urged NERC to "let us know the challenge you have" and said he hopes his concerns are misplaced.

"I'm happy to be proven wrong; I'd rather overreact and be wrong than face the consequences of a chaotic July and August 2016," he said. "If we are resource-short, then we all look bad. The regulators look bad, all the government looks bad, the providers look bad."

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Friday, October 11, 2013 9:43 AM
To: Ex. 6 - Personal Privacy
Subject: FW: Proposed job tasks for Michael Goo

Ex. 5 - Deliberative

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 6:20 PM
To: Karen Wayland <Karen.Wayland@Hq.Doe.Gov>
Subject: Fwd: E and C letter

So this is the issue. I will look into it.

Sent from my iPhone

Begin forwarded message:

From: Michael Goo Ex. 6 - Personal Privacy
Date: November 15, 2013, 6:18:25 PM EST
To: "goo.michael@epa.gov" <goo.michael@epa.gov>
Subject: E and C letter

From: Energy and Commerce News [mailto:EnergyandCommerceNews@mail.house.gov]
Sent: Friday, November 15, 2013 4:14 PM
Subject: Committee Leaders Request Withdrawal of EPA's Proposed Power Plant Standards Citing Prohibition Under Energy Policy Act

COMMITTEE ON ENERGY AND COMMERCE

Chairman Fred Upton
113th Congress

FOR IMMEDIATE RELEASE **CONTACT: Press Office**

November 15, 2013 (202) 226-4972

Committee Leaders Request Withdrawal of EPA's

Proposed Power Plant Standards Citing Prohibition Under Energy Policy Act

"…EPA's consideration of CCPI projects to determine that CCS for power plants is 'adequately demonstrated' is prohibited."

WASHINGTON, DC – House Energy and Commerce Committee leaders today wrote to Environmental Protection Agency Administrator Gina McCarthy expressing concerns regarding EPA's proposed greenhouse gas New Source Performance Standards for new power plants that would require the installation of carbon capture and storage (CCS) technologies that are not commercially viable. The members believe the proposed standards go beyond the scope of the EPA's legal authority and are requesting the proposed rule be withdrawn.

EPA is proposing standards pursuant to Section 111 of the Clean Air Act, which provides that emissions standards must be achievable using "adequately demonstrated" technologies. EPA maintains that CCS technologies for coal-fired power plants have been "adequately demonstrated" based on three government-funded projects under construction or planned that are receiving assistance under the Department of Energy's Clean Coal Power Initiative (CCPI) and one other small-scale Canadian government-funded project. EPA Acting Assistant Administrator Janet McCabe confirmed the agency uses these projects as the basis for its determination during questioning at yesterday's Energy and Power Subcommittee hearing. **While EPA is using these projects to justify its proposed standards, the Energy Policy Act of 2005 prohibits EPA from considering technology used at CCPI projects as being "adequately demonstrated" for purposes of Section 111 of the Clean Air Act.** Based on these facts, the committee leaders concluded, "Under these provisions of the Energy Policy Act of 2005, EPA's consideration of CCPI projects to determine that CCS for coal-fired power plants is 'adequately demonstrated' is prohibited."

In the letter to McCarthy, House Energy and Commerce Committee Chairman Fred Upton (R-MI), Chairman Emeritus Joe Barton (R-TX), Energy and Power Subcommittee Chairman Ed Whitfield (R-KY), and subcommittee Vice Chairman Steve Scalise (R-LA) wrote, "In light of these statutory prohibitions, we request that the EPA's proposed rule, which has not yet been published in the Federal Register, be withdrawn. This will ensure that the agency does not propose standards beyond its legal authority. This will also ensure that stakeholders and the public will not have to incur additional costs to respond to a proposal that contravenes applicable law."

For a full copy of the letter to EPA, click HERE.

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, November 17, 2013 1:13 PM
To: Karen Wayland <Karen.Wayland@Hq.Doe.Gov>
Subject: Fwd: E and C letter

Hi Karen.

Ex. 5 - Deliberative

Talk to you soon.

Sent from my iPhone

Begin forwarded message:

From: "Goo, Michael" <Goo.Michael@epa.gov>
Date: November 17, 2013, 12:57:28 PM EST
To: Ex. 6 - Michael Goo
Subject: Fw: E and C letter

From: Schmidt, Lorie
Sent: Saturday, November 16, 2013 12:59:54 PM

To: Goo, Michael
Subject: Re: E and C letter

Ex. 5 - Deliberative & ACP

From: Goo, Michael
Sent: Saturday, November 16, 2013 11:31:28 AM
To: Schmidt, Lorie
Subject: Fw: E and C letter

Ex. 5 - Deliberative & ACP

From: Michael Goo < Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 6:18:25 PM
To: Goo, Michael
Subject: E and C letter

From: Energy and Commerce News [mailto:EnergyandCommerceNews@mail.house.gov]
Sent: Friday, November 15, 2013 4:14 PM
Subject: Committee Leaders Request Withdrawal of EPA's Proposed Power Plant Standards Citing Prohibition Under Energy Policy Act

E&C est. 1795

COMMITTEE ON ENERGY AND COMMERCE

Chairman Fred Upton
113th Congress

FOR IMMEDIATE RELEASE **CONTACT: Press Office**

November 15, 2013 (202) 226-4972

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published in the Federal Register, be withdrawn. This will ensure that the agency does not propose standards beyond its legal authority. This will also ensure that stakeholders and the public will not have to incur additional costs to respond to a proposal that contravenes applicable law."

For a full copy of the letter to EPA, click HERE.

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, December 11, 2013 10:43 AM
To: Karen Wayland <Karen.Wayland@Hq.Doe.Gov>; carl.pechman@hq.doe.gov; goo.michael@epa.gov; john.richards@hq.doe.gov
Subject: Fwd: QER stakeholder interagency processes 12 10 13

Sent this to you previously but forgot to put myself on the chain using government email. I am still looking at this but wrote the needed paragraph and wanted to get it to Carl. I am also cling John Richards to see if he has anything to add.

Sent from my iPhone

Begin forwarded message:

From: Michael Goo Ex. 6 - Personal Privacy
Date: December 11, 2013, 10:35:54 AM EST
To: Karen Wayland <Karen.Wayland@Hq.Doe.Gov>, "carl.pechman@hq.doe.gov" <carl.pechman@hq.doe.gov>
Subject: Fwd: QER stakeholder interagency processes 12 10 13

Sent from my iPhone

Begin forwarded message:

From: "Debbie Reed" <debbie@biochar-international.org>
Date: December 11, 2013, 10:34:27 AM EST
To: "Michael Goo" Ex. 6 - Personal Privacy
Subject: QER stakeholder interagency processes 12 10 13
Reply-To: "Debbie Reed" <debbie@biochar-international.org>

<QER stakeholder interagency processes 12 10 13.docx>

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, December 11, 2013 10:36 AM
To: Karen Wayland <Karen.Wayland@Hq.Doe.Gov>; carl.pechman@hq.doe.gov
Subject: Fwd: QER stakeholder interagency processes 12 10 13
Attach: QER stakeholder interagency processes 12 10 13.docx; ATT49192.htm

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Sent from my iPhone

Begin forwarded message:

From: "Debbie Reed" <debbie@biochar-international.org>
Date: December 11, 2013, 10:34:27 AM EST
To: "Michael Goo" Ex. 6 - Personal Privacy
Subject: QER stakeholder interagency processes 12 10 13
Reply-To: "Debbie Reed" <debbie@biochar-international.org>

QUADRENNIAL ENERGY REVIEW
PROPOSAL FOR STAKEHOLDER ENGAGEMENT AND INTERAGENCY CONSULTATION PROCESSES
EPSA-60 State, Local and Tribal Cooperation and EPSA-90 QER Secretariat

The first Quadrennial Energy Review will be an interagency process led by the White House and coordinated by a Secretariat housed at the Department of Energy (DOE). DOE will be responsible for conducting analyses to underpin recommendations, working across the federal government to incorporate agency equities into the review, and engaging the public and key stakeholders to inform the outcomes. This document proposes processes for conducting interagency consultation and stakeholder engagement.

STAKEHOLDER ENGAGEMENT

Stakeholder Engagement
1. **Informal Engagement** November 2013-March 2014
2. **Formal Meetings** February 2014-June 2014
3. **Socializing Results** July 2014-November 2014

Stakeholders with equities in transmission and distribution infrastructure range from utilities, RTO's, pipeline owners, state officials, and consumers, to trade associations, regional planning associations, environmental organizations and other NGO's. Many of these stakeholders have conducted extensive analyses and planning exercises for modernizing energy infrastructure that must be considered during the analytical phase of the QER. Perhaps more importantly, the integrity of the recommendations in the QER depends on a comprehensive, transparent process for soliciting and evaluating the input of these stakeholders. We propose a three-stage process of stakeholder engagement.

Phase 1. The first phase, which we have already begun, involves informal contact with a range of stakeholders through meetings and speaking at events to educate groups about QER goals, process, and outcomes and to request any studies or data that the stakeholders believe are relevant to the QER. In this phase, we also envision bringing in top energy think tanks to discuss the scenarios we will use to frame the QER analyses.

Phase 2. The second phase of stakeholder engagement will be a series of formal meetings held in Washington, DC and in locations around the country. We envision approximately 6-8 DOE-convened meetings, with other meetings convened by other agencies. Each meeting will be focused on a set of questions and set up as two-to-three panels of invited speakers who will address these questions, followed by an open mike for other interested parties. The topics for the meetings—and therefore the questions posed for each meeting—will be driven by the outline of the QER to aid in organizing the vast amount of input we anticipate receiving.

EPSA-60 has about $200,000 budgeted for these meetings. The majority of the budget will cover staff travel expenses and hiring court reporters to document the proceedings. We are currently cataloging all available free space in federal facilities, including at national labs, to ensure that the regional meetings can be conducted with minimal costs. From this list of free space, we will develop a list of proposed meeting locations that represent the regional diversity of energy infrastructure issues.

We are also working with national organizations to identify annual meetings with large and diverse attendees where we might piggyback addition formal engagement, especially if those meetings are in Washington, DC and require minimal expenditures to convene. The first of these meetings is NARUC's winter committee meetings being held here in DC in February. NARUC is holding a section of the agenda on February 12 (approximately 1.5 hours, to be negotiated) for QER-related discussions. We recommend

that this meeting serve as the kick-off of the formal public engagement phase of the QER, since the interests of NARUC members cuts across so many pieces of the T&D agenda.

We recommend that other federal agencies convene additional stakeholder engagement meetings organized around issues of specific concern to the agencies. The White House should identify agencies with relevant stakeholder interest in the QER and task those agencies with developing a meeting agenda, invitee list, and timeline for stakeholder meetings within the formal engagement period identified by the DOE Secretariat. (Agency stakeholder meetings will be discussed further in the Interagency Process section.)

Phase 3. We anticipate that the QER analyses will be completed by early summer, and that stakeholder input will be summarized, synthesized and incorporated into the QER shortly after that. As draft recommendations emerge, we will engage the public again on an informal basis to socialize our conclusions with key stakeholder groups. Depending on the budget, we could hold additional formal meetings on a set of draft recommendations before the final product goes to OMB and interagency review.

Internet Portal for Public Comment. The Presidential Memorandum will include a directive to solicit public input using the internet. We have budgeted approximately $100,000 to build a web-based portal for the public to provide comments and upload documents, with the goal of using existing department or lab software and processes. The public comment period would begin around the time that the formal meetings begin and continue throughout the summer of 2014, and would be initiated by an announcement in the Federal Register.

Tracking Contacts. The credibility of the QER depends in part on an open and transparent stakeholder engagement process. We plan to use Salesforce, a widely used database system for which DOE already owns thousands of licenses, to track our meetings, calls, emails and other contacts with the huge array of stakeholders with interest in the QER. We will be able to produce reports that provide information on meetings over a time period, meetings on a particular subject, meetings with a specific organization, and other details of our stakeholder engagement process. We can also upload documents (studies, data, etc.) and associate them with particular organizations to maintain records of input into the QER process.

INTERAGENCY CONSULTATION

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Because the QER process will be led by the White House and cut across the entire federal government, it is critical that there be a robust interagency process that involves early input and continuous engagement from all relevant federal agencies. Many federal agencies are directly involved in the production, distribution infrastructure and regulation of energy, such as DOI, FERC, DOT and EPA. Many others, such as DOD, must maintain large supplies of energy to perform their mission and have a key interest in energy independence, alternative energy and energy security. USDA plays a large role in electricity supply due to its involvement in the Rural Utility Service. Virtually all federal agencies are large-scale consumers of energy and can realize important benefits from examining and understanding

Interagency Consultation

1. **Preliminary Outreach**
   October 2013-
   December 2014
2. **Principals Meeting**
   January 2014
   (followed by quarterly meetings)
3. **Agency Proposals**
   February 2014
4. **Agency Leads Meetings, Calls**
   (Ongoing)
5. **Agency Stakeholder Meetings**
   April-May 2014
6. Interagency Review
   October 2014

opportunities for energy efficiency, and the uses of alternative energy. Moreover, all of these Departments and agencies have important constituencies that can best be actively engaged by individual Departments as part of the QER process. Accordingly, we would propose a process for interagency involvement that begins early, is both informal and formal, and that involves key agencies also participating formally in the outside stakeholder process. Such a process will ensure long-term government-wide engagement and diversity, both geographically and in terms of stakeholders. It should also help to ensure that, given the short time-frame currently envisioned, the final, formal interagency review process will run as smoothly as possible.

The schedule presented below is notional and will be finalized with the White House by January.

Preliminary Outreach. EPSA staff has been meeting with other agencies to describe the QER and explore agency interests in energy infrastructure since October. To date, we have been in contact with DOD, DOT, DHS, DOI, EPA, **CARL need list**

White House Process. The White House plans to hold a principals meeting shortly after releasing the Presidential Memorandum, likely early in January 2014. At this meeting, principals will be asked to designate an agency lead and to explore agency equities in the QER. DOE will provide a draft scoping document to the agencies at that point. We recommend that the White House convene a meeting of the agency leads within one week of the principals meeting to discuss more specific agency equities, timelines, and agency tasks. Ideally this meeting would be held before the end of January.

Agency Proposals. At the first agency leads meeting, the White House should assign each agency the task of completing a white paper that describes the following:

- Agency equities in the QER;
- Studies, data, and other information that DOE should consider in the analysis phase (with as much of this as possible included as attachments);
- If appropriate, a proposal for a stakeholder meeting that includes the topic, timetable, and list of potential invitees.

These proposals should be submitted to the White House by the end of February. EPSA will review these plans in March. Any agency stakeholder meetings should occur in April and May to ensure adequate time for incorporation of input into the QER.

DOE Coordination. In coordination with the White House, DOE will conduct individual agency meetings in January and February to clarify agency interests and ensure that agencies are moving along with collecting relevant studies and data. DOE will also convene weekly calls with agency leads and monthly meetings. The White House should schedule quarterly principals meetings. DOE will work with agencies that schedule stakeholder meetings to help frame meeting agendas and ensure that stakeholder input will be gathered in a manner useful to the QER process. As the analysis winds down and EPSA enters the policy recommendation phase, DOE will conduct another series of meetings with individual agencies to review draft conclusions and recommendations.

Interagency Review. The White House, through OMB, will coordinate the interagency review process of the draft QER during October 2014. During this period, EPSA will work with the White House and agency leads to develop a roll out and implementation plan for the final QER. EPSA will work with OMB to incorporate agency comments into a final draft.

From: Michael Goo [redacted]
Sent: Friday, November 15, 2013 5:32 PM
To: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Subject: Re: QER documents

Great. Thanks. Will review.

Sent from my iPhone

On Nov 15, 2013, at 4:13 PM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

VERY old documents I found in my gmail but should give you some idea of what we're doing.

From: Karen Wayland [mailto:[redacted]
Sent: Friday, November 15, 2013 4:00 PM
To: Wayland, Karen
Subject: Fwd: QER documents

---------- Forwarded message ----------
From: **Gershuny, Gregory** <GGershuny@hq.doe.gov>
Date: Tue, Jul 16, 2013 at 5:52 PM
Subject: QER documents
To: "Pershing, Jonathan" <Jonathan.Pershing@hq.doe.gov>, Judith Greenwald [redacted], "Difiglio, Carmine" <Carmine.Difiglio@hq.doe.gov>, "Bill Hederman (Hederman@alum.mit.edu)" <Hederman@alum.mit.edu>, "Chen, Hugh" <Yu-Han.Chen@hq.doe.gov>, [redacted] "Marlay, Robert" <Robert.Marlay@hq.doe.gov>, "carl.pechman@ferc.org" <carl.pechman@ferc.org>, "Hezir, Joseph" <Joseph.Hezir@hq.doe.gov>, [redacted]
Cc: "Kenderdine, Melanie" <Melanie.Kenderdine@hq.doe.gov>, "Gershuny, Gregory" <GGershuny@hq.doe.gov>, "Pickett, Adonica (Renee)" <Adonica.Pickett@hq.doe.gov>, "Bassett, Luke" <Luke.Bassett@hq.doe.gov>

Good evening,

The attached draft documents are for the Quadrennial Energy Review (QER) meeting on Thursday 7/18 at 1:00pm in 7A-219. These draft documents are internal and deliberative and aren't intended for anyone not on this email. Please let me know if you have any questions prior to the meeting.

Best,

Greg Gershuny

202-586-0711 | GGershuny@hq.doe.gov

--

Karen G. Wayland, Ph.D.

Ex. 6 - Personal Privacy

<Analysis for QER_NLDC (2).docx>

<QER Schedule (3).docx>

<Proposed Task Forces.docx>

<QER_Proposal_operative 4.docx>

<Presidential Memorandum on QER v2.docx>

<ENERGY INFRASTRUCTURE POLICY MATRIX mk.docx>

<Agency Roles (4).docx>

From: Michael Goo < Ex. 6 - Personal Privacy

Sent: Monday, November 18, 2013 2:13 PM

To: Jessica Holliday Ex. 6 - Personal Privacy

Subject: Re: Supplement the record & get back to the single standard

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Yep. Thx. Will check it out. Thanks for alerting me to this whole thing. I was first on the ball over there at DOE. It's since gone into channels and I'm hearing back indirectly but still am working on it.

Sent from my iPhone

On Nov 18, 2013, at 10:41 AM, Jessica Holliday Ex. 6 - Personal Privacy wrote:

> Hi kiddo. So EPA can supplement the record w/examples of CCS that are not DOE projects. Given that they reproposed, any way to get back to single standard for coal and gas plants? Also see if you can find at least the Wyoming PUC proceeding where PacifiCorp is proposing to burn natural gas in their coal plant. In other words, not build new gas plant or switch to existing gas plant.
>
> My land line has gone down -- who knows why -- and I will have to visit Comcast today.

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, November 18, 2013 1:37 PM
To: Duxbury, Peggy <peggy@bloomberg.org>
Subject: Re: The Cool kids

Sounds good! Have a happy thanksgiving. You guys going out of town?

Sent from my iPhone

On Nov 18, 2013, at 12:34 PM, "Duxbury, Peggy" <peggy@bloomberg.org> wrote:

> How about after Thanksgiving? Lots of travel for me between now and then.
>
> Eager to chat about your new role, and how DOE might be able to help with other agency climate efforts. Seems like you would have some good ideas about this.
>
> Peggy
>
>
> -----Original Message-----
> From: Michael Goo [mailto: Ex. 6 - Personal Privacy
> Sent: Thursday, November 14, 2013 6:29 PM
> To: Duxbury, Peggy
> Subject: Re: The Cool kids
>
> Me too. You around after the thanksgiving break? Or even during the break? Lets get together either time.
>
> Sent from my iPhone
>
> On Nov 14, 2013, at 11:44 AM, "Duxbury, Peggy" <peggy@bloomberg.org> wrote:
>
>> Hope this is a cool as they make this sound! Eager to catch up and hear how its all going.
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>> 'Cool kids' jump to Moniz's new policy shop
>>
>>
>> Robin Bravender and Katherine Ling, E&E reporters
>>
>> Published: Tuesday, November 12, 2013
>>
>> There's a new office generating buzz and big expectations at the Department of Energy.
>>
>> Energy Secretary Ernest Moniz, who launched the policy shop as part of a larger DOE overhaul, is stocking it with top talent from the climate and energy arenas and is giving it big responsibilities for carrying out President Obama's climate change plan.
>>

>> "It's where all the cool kids on the block are going," said a former DOE senior staff member who's now an energy consultant. "They are the rock stars of DOE."
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>> At the helm of the new Office of Energy Policy and Systems Analysis is Melanie Kenderdine, who worked with Moniz at the Massachusetts Institute of Technology Energy Initiative as well as at DOE during the Clinton administration. She's expected to have a lot of clout with the secretary.
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>> "In addition to their close, personal association at MIT, Melanie is someone who I would put in the top three or four people who has an ability to know all the fuels," said Charles Ebinger, director of the Energy Security Initiative at the Brookings Institution. He noted her broad-based expertise that includes subjects like natural gas, renewable energy and nuclear power..
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>> Kenderdine is assembling a savvy team that includes battle-hardened veterans of the failed congressional efforts to pass climate legislation. With prospects for major climate and energy bills all but dead, the new staffers are hoping to have a big impact on energy policy through the executive branch.
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>> "A lot of great people have left the Hill because they can see that Congress for the time being is not going to be on the cutting edge of these issues," said Manik Roy, vice president for strategic outreach at the Center for Climate and Energy Solutions. "There are some bigger-ticket items now in the executive branch."
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>> Goo's joining an already-stacked lineup of high-profile staffers.
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>> Karen Wayland, who'll head up state and local coordination in the new office, was a senior adviser on energy and environmental issues to then-House Speaker Nancy Pelosi (D-Calif.). Judi Greenwald -- who has taken the helm of climate, environment and energy efficiency issues -- has worked at the Center for Climate and Energy Solutions, in Congress and as a senior adviser to the Clinton White House's Climate Change Task Force. Jonathan Pershing, former special envoy for climate change at the State Department, joined the team as principal deputy director in addition to another post in the Policy and International Affairs Office.
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>> DOE declined to provide a staff list for the new office, but it's expected to have about 60 employees across five main sections: finance; energy security; state and local cooperation; systems integration; and climate, environment and energy efficiency.
>>
>> In addition to the outsiders flocking to the new office, DOE is also drawing in staff from across the department.
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>> 'Ivory tower'?
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>> A separate DOE policy office isn't a new idea. In fact, Moniz is resurrecting an office that was there under President Clinton but was combined with international affairs under the George W. Bush administration. Kenderdine served as director of the policy office during the Clinton administration.
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>> "It's sort of back to the future," said David Conover, senior vice president at Grayling and former acting assistant secretary for policy and international affairs at DOE in the Bush administration. He said it would be advantageous to Moniz to have a focused and dedicated policy staff, given the administration's focus on greenhouse gas reductions and EPA regulations.
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>> Kenderdine "certainly has the skill and vision to create a strong analytically based policy shop at DOE," Anderson said. Under the Clinton administration, DOE "had a healthy policy office" that was doing a lot of analysis on climate change policy, electricity deregulation and fuel standards, she added.
>>
>> Wayland said in September that the office has had a stronger emphasis on international affairs than on domestic policy in recent years. "And what I think happened was that within the programs, they saw a real need for domestic policy expertise and function and began to build out their own policy functions," she said. "The Department of Energy is famous for stovepipes."
>>
>> Moniz is trying to break down those barriers, Wayland said, by pulling "some of the policy people and functions out of the programs and put them in a shop that reports directly to him so he can have more direct but also more coordinated advice to him on policy development and analysis."
>>
>> But eliminating stovepipes at the massive agency with offices and labs scattered throughout the country is no easy task.
>>
>> "In any gigantic agency, it's always a challenge to get everybody rowing in the same direction," Roy said.
>>
>> "The success of any of these approaches ultimately comes down to how they're managed. Will the secretary use this policy office to catalyze more policy thinking by the technology offices? Or will they sort of become this ivory

tower?" Roy said. "My hunch is he doesn't want to make it an ivory tower any more than anybody else does."
>>
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>> Not Chu's DOE
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>> The separate policy office is part of Moniz's broader approach to reshape the agency. He's widely seen as more politically savvy than his predecessor, Steven Chu, a Nobel Prize-winning physicist, and he's bringing in staffers with the chops to back that up.
>>
>> Chu "really is a brilliant man -- there's no question about that -- but Ernie's quite a different character," Ebinger said.
>>
>> Moniz "knows how to play the political game in Washington, how to make his department a player," he added, predicting that the policy office will play a big part in that.
>>
>> Moniz is no stranger to Washington, D.C. He joined the White House Office of Science and Technology Policy as associate director for science in 1995 and was undersecretary at DOE from 1997 through the end of the Clinton administration. He also served on the President's Council of Advisers on Science and Technology from 2009 until this year.
>>
>> Observers say some of the style differences are in part due to the issues the agency leaders must address.
>>
>> Under Chu, DOE was confronted with getting stimulus money out the door, and the Obama administration was still optimistic about getting a major climate and energy package passed by Congress. Then the agency was confronted with the aftermath of the Deepwater Horizon oil spill and a nuclear disaster in Japan.
>>
>> Moniz, meanwhile, has assumed the helm of the agency during Obama's second term as federal budgets are getting increasingly tighter and DOE has been charged with setting out a long-term plan for national energy policy.
>>
>> In addition to splitting up the domestic and international office, Moniz has also created a new undersecretary for management and performance to improve DOE's budget overruns and delays and plans to combine the undersecretary of science and energy to bring some cohesion and framework to the national labs and DOE programs for basic and applied research and development (E&E Daily <http://www.eenews.net/eedaily/stories/1059984782> , July 22).
>>
>> "A secretary needs to surround him or herself with people that solve the problems with which they are confronted," Anderson said.
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>> Reporter Nick Juliano contributed.
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>>
>>
>> Jean Flemma
>>
>> Senior Policy Advisor, Democratic Staff
>>
>> Committee on Natural Resources
>>
>> 186 Ford HOB, Washington, DC 20515
>>
>> 202-225-6065
>>

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> Moniz is trying to break down those barriers, Wayland said, by pulling "some of the policy people and functions out of the programs and put them in a shop that reports directly to him so he can have more direct but also more coordinated advice to him on policy development and analysis."
>
> But eliminating stovepipes at the massive agency with offices and labs scattered throughout the country is no easy task.
>
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> "The success of any of these approaches ultimately comes down to how they're managed. Will the secretary use this policy office to catalyze more policy thinking by the technology offices? Or will they sort of become this ivory tower?" Roy said. "My hunch is he doesn't want to make it an ivory tower any more than anybody else does."
>
>
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>
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>
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>
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>
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>
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>
> Moniz, meanwhile, has assumed the helm of the agency during Obama's second term as federal budgets are getting increasingly tighter and DOE has been charged with setting out a long-term plan for national energy policy.
>
> In addition to splitting up the domestic and international office, Moniz has also created a new undersecretary for management and performance to improve DOE's budget overruns and delays and plans to combine the undersecretary of science and energy to bring some cohesion and framework to the national labs and DOE programs for basic and applied research and development (E&E Daily <http://www.eenews.net/eedaily/stories/1059984782> , July 22).
>
> "A secretary needs to surround him or herself with people that solve the problems with which they are confronted," Anderson said.
>
> Reporter Nick Juliano contributed.
>
>
>
>
>
> Jean Flemma
>
> Senior Policy Advisor, Democratic Staff
>
> Committee on Natural Resources
>
> 186 Ford HOB, Washington, DC 20515
>
> 202-225-6065
>
> Connect with the Committee Democrats:
>
> Website <http://democrats.naturalresources.house.gov/> | Twitter <http://www.twitter.com/nrdems> | Facebook <http://www.facebook.com/pages/House-Committee-on-Natural-Resources-Democrats/110359435705208> | Youtube <http://www.youtube.com/user/NaturalResourcesDems>
>
>
>
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> this e-mail and any attachment(s) is strictly prohibited. If you have
> received this e-mail in error, please immediately notify the sender by
> replying to this e-mail and delete the message and any attachment(s) from
> your system. Thank you.

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, November 18, 2013 1:40 PM
To: Duxbury, Peggy <peggy@bloomberg.org>
Subject: Re: The Cool kids

We are staying put. We like it that way. We travel to Florida for Xmas but do thanksgiving at home. It's our usual restrained affair.

Sent from my iPhone

On Nov 18, 2013, at 1:39 PM, "Duxbury, Peggy" <peggy@bloomberg.org> wrote:

Ex. 6 - Personal Privacy

>
> How about you guys?
>
>
> -----Original Message-----
> From: Michael Goo [mailto:t Ex. 6 - Personal Privacy
> Sent: Monday, November 18, 2013 1:37 PM
> To: Duxbury, Peggy
> Subject: Re: The Cool kids
>
> Sounds good! Have a happy thanksgiving. You guys going out of town?
>
> Sent from my iPhone
>
> On Nov 18, 2013, at 12:34 PM, "Duxbury, Peggy" <peggy@bloomberg.org> wrote:
>
>> How about after Thanksgiving? Lots of travel for me between now and then.
>>
>> Eager to chat about your new role, and how DOE might be able to help with other agency climate efforts. Seems like you would have some good ideas about this.
>>
>> Peggy
>>
>>
>> -----Original Message-----
>> From: Michael Goo [mailto: Ex. 6 - Personal Privacy
>> Sent: Thursday, November 14, 2013 6:29 PM
>> To: Duxbury, Peggy
>> Subject: Re: The Cool kids
>>
>> Me too. You around after the thanksgiving break? Or even during the break? Lets get together either time.
>>
>> Sent from my iPhone
>>
>> On Nov 14, 2013, at 11:44 AM, "Duxbury, Peggy" <peggy@bloomberg.org> wrote:
>>

>>> Hope this is a cool as they make this sound! Eager to catch up and hear how its all going.
>>>
>>>
>>>
>>>
>>>
>>> 'Cool kids' jump to Moniz's new policy shop
>>>
>>>
>>> Robin Bravender and Katherine Ling, E&E reporters
>>>
>>> Published: Tuesday, November 12, 2013
>>>
>>> There's a new office generating buzz and big expectations at the Department of Energy.
>>>
>>> Energy Secretary Ernest Moniz, who launched the policy shop as part of a larger DOE overhaul, is stocking it with top talent from the climate and energy arenas and is giving it big responsibilities for carrying out President Obama's climate change plan.
>>>
>>> "It's where all the cool kids on the block are going," said a former DOE senior staff member who's now an energy consultant. "They are the rock stars of DOE."
>>>
>>> At the helm of the new Office of Energy Policy and Systems Analysis is Melanie Kenderdine, who worked with Moniz at the Massachusetts Institute of Technology Energy Initiative as well as at DOE during the Clinton administration. She's expected to have a lot of clout with the secretary.
>>>
>>> "In addition to their close, personal association at MIT, Melanie is someone who I would put in the top three or four people who has an ability to know all the fuels," said Charles Ebinger, director of the Energy Security Initiative at the Brookings Institution. He noted her broad-based expertise that includes subjects like natural gas, renewable energy and nuclear power..
>>>
>>> Kenderdine is assembling a savvy team that includes battle-hardened veterans of the failed congressional efforts to pass climate legislation. With prospects for major climate and energy bills all but dead, the new staffers are hoping to have a big impact on energy policy through the executive branch.
>>>
>>> "A lot of great people have left the Hill because they can see that Congress for the time being is not going to be on the cutting edge of these issues," said Manik Roy, vice president for strategic outreach at the Center for Climate and Energy Solutions. "There are some bigger-ticket items now in the executive branch."
>>>
>>> Former U.S. EPA senior official Michael Goo is one of the latest recruits to join Kenderdine's team. Goo comes from a post as associate administrator for EPA's Office of Policy, where he was charged with overseeing regulations going through White House reviews and providing policy advice. He also worked on the climate bill that passed the House in 2009 as chief counsel to the now-defunct House Select Committee on Energy Independence and Global Warming.
>>>
>>> Goo's joining an already-stacked lineup of high-profile staffers.
>>>
>>> Karen Wayland, who'll head up state and local coordination in the new office, was a senior adviser on energy and environmental issues to then-House Speaker Nancy Pelosi (D-Calif.). Judi Greenwald -- who has taken the helm of climate, environment and energy efficiency issues -- has worked at the Center for Climate and Energy Solutions, in Congress and as a senior adviser to the Clinton White House's Climate Change Task Force. Jonathan Pershing, former special envoy for climate change at the State Department, joined the team as principal deputy director in addition to another post in the Policy and International Affairs Office.
>>>
>>> "Moniz is a talent magnet," said Margot Anderson, executive director of the Bipartisan Policy Center's energy

project and former DOE deputy assistant secretary for policy analysis. "I suspect there are many smart, talented, dedicated people who are eager to work on his team."
>>>
>>> In addition to having Moniz's ear on setting DOE policy, new employees have also been lured by the prospect of helping to draft an energy road map that lays out national energy goals over four years.
>>>
>>> Obama called for the Quadrennial Energy Review as part of the sweeping climate plan he announced in June. The White House will lead the charge, but DOE is expected to play the main supporting role. Moniz told the Senate Energy and Natural Resources Committee earlier this year that the QER is his top priority (Greenwire <http://www.eenews.net/greenwire/stories/1059979559> , April 16).
>>>
>>> "This is going to produce a four-year policy horizon and policy prescription, but we're really looking at how do we affect what the energy infrastructure looks like in 2030," Wayland said at a September symposium. "We will be producing recommendations for legislation, administrative action, an agenda for financial incentives, and research and development to support the modernization and transformation of our energy infrastructure."
>>>
>>> Energy policy watchers say that's an attractive project that's helping DOE recruitment.
>>>
>>> "Now you have a mandate, you have a secretary who is obviously very engaged with that mandate and you have a department that has a strong, important role in that mandate," Roy said.
>>>
>>> Paul Bledsoe, a senior fellow on energy and climate at the German Marshall Fund and a former climate aide in the Clinton White House, said, "The centrality of climate change in the president's vision for his second term, I think, has made government service newly attractive to a great many people."
>>>
>>> DOE declined to provide a staff list for the new office, but it's expected to have about 60 employees across five main sections: finance; energy security; state and local cooperation; systems integration; and climate, environment and energy efficiency.
>>>
>>> In addition to the outsiders flocking to the new office, DOE is also drawing in staff from across the department.
>>>
>>> Hugh Chen, formerly with DOE's Office of the Chief Financial Officer, is deputy director for finance, incentives and program analysis; Carmine Difiglio, formerly deputy assistant secretary for policy analysis at DOE, is deputy director for energy security; and William Hederman Jr., formerly of the Federal Energy Regulatory Commission and Congressional Budget Office, is the office's deputy director for systems integration (Greenwire <http://www.eenews.net/greenwire/stories/1059987458> , Sept. 18).
>>>
>>> DOE employees in other offices have also been tapped to pitch in: Jonathan Elkind, acting assistant secretary for the Office of Policy and International Affairs; Carol Battershell from the Office of Energy Efficiency and Renewable Energy; and Carl Pechman, an economist with FERC, according to a source close to the new office.
>>>
>>>
>>> 'Ivory tower'?
>>>
>>>
>>> A separate DOE policy office isn't a new idea. In fact, Moniz is resurrecting an office that was there under President Clinton but was combined with international affairs under the George W. Bush administration. Kenderdine served as director of the policy office during the Clinton administration.
>>>
>>> "It's sort of back to the future," said David Conover, senior vice president at Grayling and former acting assistant secretary for policy and international affairs at DOE in the Bush administration. He said it would be advantageous to Moniz to have a focused and dedicated policy staff, given the administration's focus on greenhouse gas reductions and EPA regulations.
>>>
>>> Kenderdine "certainly has the skill and vision to crea te a strong analytically based policy shop at DOE,"

Anderson said. Under the Clinton administration, DOE "had a healthy policy office" that was doing a lot of analysis on climate change policy, electricity deregulation and fuel standards, she added.
>>>
>>> Wayland said in September that the office has had a stronger emphasis on international affairs than on domestic policy in recent years. "And what I think happened was that within the programs, they saw a real need for domestic policy expertise and function and began to build out their own policy functions," she said. "The Department of Energy is famous for stovepipes."
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>>>

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>>>
>>> Reporter Nick Juliano contributed.
>>>
>>>
>>>
>>>
>>>
>>> Jean Flemma
>>>
>>> Senior Policy Advisor, Democratic Staff
>>>
>>> Committee on Natural Resources
>>>
>>> 186 Ford HOB, Washington, DC 20515
>>>
>>> 202-225-6065
>>>
>>> Connect with the Committee Democrats:
>>>
>>> Website <http://democrats.naturalresources.house.gov/> | Twitter
>>> <http://www.twitter.com/nrdems> | Facebook
>>> <http://www.facebook.com/pages/House-Committee-on-Natural-Resources-D
>>> e
>>> mocrats/110359435705208> | Youtube
>>> <http://www.youtube.com/user/NaturalResourcesDems>
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>> the message and any attachment(s) from your system. Thank you.
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> you are hereby notified that any dissemination, distribution or copying of
> this e-mail and any attachment(s) is strictly prohibited. If you have
> received this e-mail in error, please immediately notify the sender by
> replying to this e-mail and delete the message and any attachment(s) from
> your system. Thank you.

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, November 27, 2013 9:53 AM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: What is the best way to contact you?

Conrad I don't but my EPA email still works and so does this one for now. Happy holidays. Feel free to give me a call
Sent from my iPhone

On Nov 27, 2013, at 9:45 AM, Conrad Schneider <cschneider@catf.us> wrote:

> Do you have a DOE phone number and email? Id like to discuss how DOE might be helpful to EPA on 111(b) and the Upton/Whitfield letter.
>
> Thanks,
> CS
>
> Conrad G. Schneider
> Advocacy Director
> Clean Air Task Force
> cschneider@catf.us
> www.catf.us
> 8 Museum Way
> Brunswick, Maine 04011
> 207/721-8676
> 207/721-8696 (facsimile)
>
>
>

From: Michael Goo < Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 10:23 AM
To: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Subject: Weekly check in.

Howzit going? You still out of town ? I'm cool with hanging but wanted to check.
Sent from my iPhone

On Nov 5, 2013, at 4:15 PM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

> Awesome, thanks.
>
> -----Original Message-----
> From: Michael Goo [mailto: Ex. 6 - Personal Privacy
> Sent: Tuesday, November 05, 2013 3:38 PM
> To: Wayland, Karen
> Subject: Re: Financial disclosure
>
> Yep. My ogc and I worked on it today. We need one more piece of info from debbie and then I can get it over there Tommorrow My ogc wants it to be perfect and fully certified.
>
> Sent from my iPhone
>
> On Nov 5, 2013, at 1:35 PM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:
>
>> Hey--you need to send over financial disclosure info to our GC. If
>> they haven't reached out to you already, can you send your forms to
>>
>> Bryan Plesser, Attorney-Advisor
>> The Office of the General Counsel
>> Office of the Assistant General Counsel for General Law
>> brian.plesser@hq.doe.gov
>> 202-586-1522
>>
>> Thanks!
>> kw
>>

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, November 21, 2013 10:57 AM
To: goo.michael@epa.gov
Subject:

---

below is the relevant text of the agreeement in the attachment---this looks ok to me

Ex. 5 - Deliberative

Ex. 5 - Deliberative

From: Michael Goo < Ex. 6 - Personal Privacy >
Sent: Friday, October 11, 2013 11:18 AM
To: John Richards < Ex. 6 - Personal Privacy >
Subject: Fwd: Proposed job tasks for Michael Goo

How does this sound to you? Any thoughts? This is their idea. I think it sound great.

Sent from my iPhone

Begin forwarded message:

From: "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov>
Date: October 11, 2013, 9:42:58 AM EDT
To: Ex. 6 - Michael Goo
Subject: FW: Proposed job tasks for Michael Goo

Ex. 5 - Deliberative

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, October 29, 2013 12:34 PM
To: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Subject: Re: Goo statement

Oh! Ok thanks.

Sent from my iPhone

On Oct 29, 2013, at 11:55 AM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

FYI

From: Wayland, Karen
Sent: Tuesday, October 29, 2013 11:13 AM
To: Gibbons, William
Cc: Geisler, Lindsey
Subject: RE: Goo statement

Hi Bill,

Michael hasn't started here yet. We're still working on his paperwork, and technically he is still transitioning out of EPA (sorting through papers/files). EPA sent around an internal email so the news is out. I ran this statement by Melanie and she is fine with the language so since a reporter is already asking I think it's fine to release it.

Karen

From: Gibbons, William
Sent: Tuesday, October 29, 2013 11:03 AM
To: Wayland, Karen
Cc: Geisler, Lindsey
Subject: Goo statement

Good morning, Karen

Steve Mufson w the Wash Post is asking us about Goo's appt here. Lindsey shared the statement she worked with you on. Has Michael started working here yet? Are we comfortable at this point issuing the statement from Melanie?

Either way, I need to get back to the reporter this morning so using the prepared statement would be ideal if we are ready to do that

Let me know when you get a chance,

Best
Bill

We are excited to welcome Michael Goo and his considerable talents to the Department of Energy. Michael has a strong history of experience in policy analysis and stakeholder engagement that we expect will greatly benefit DOE through his role as Senior Advisor in the Office of Energy Policy and Systems Analysis (EPSA). In this role, Michael will work on the Quadrennial Energy Review, the first ever integrated plan for energy infrastructure, and special projects for the Secretary's new policy shop.

Prior to joining the Department, Michael was the Associate Administrator in the Office of Policy at the Environmental Protection Agency. While at EPA, he worked on a number of important rulemakings, including key regulations for carbon pollution, waste, air toxics, and water. Michael also led EPA efforts on such cross-cutting issues as sustainability, climate adaptation, and smart growth.

Bill Gibbons

Deputy Press Secretary

U.S. Department of Energy

202.586.1760 (office)

Ex. 6 - Personal Privacy

www.energy.gov

From:	Michael Goo Ex. 6 - Personal Privacy
Sent:	Saturday, October 26, 2013 12:15 PM
To:	Chris Miller <cmiller@ajw-inc.com>
Subject:	Re: October 24 -- E&ENews PM is ready

Totally the right thing to work on.

Sent from my iPhone

On Oct 24, 2013, at 5:38 PM, Chris Miller <cmiller@ajw-inc.com> wrote:

Hey Master Goo - I'm looking forward to hearing about what you're going to do at DOE and when. Here's the issue that I think DOE can and should be helping with…if you make them. Would definitely help me/the outside campaign working to support the NSPS/EPA regulatory authority.

peace out.

C.

Grid overseer 'gun-shy' on flagging EPA-linked reliability concerns -- FERC commissioner

Hannah Northey, E&E reporter

Published: Thursday, October 24, 2013

Republican member of the Federal Energy Regulatory Commission today said the grid's overseer has been "gun-shy" about flagging reliability concerns in the wake of new U.S. EPA rules.

FERC Commissioner Philip Moeller, who was appointed by President George W. Bush and reappointed by President Obama, pledged to support the North American Electric Reliability Corp. (NERC) in raising any reliability issues, regardless of how controversial they may be.

"I will back you up when those messages come out, and I think I have," Moeller said today at NERC's second annual leadership summit in Arlington, Va. "When you look back, it's kind of hard to not say, 'I told you so.'"

Moeller said on the sidelines of the summit that NERC "kind of got burned" when the group

warned of reliability concerns three yeas ago.

At issue is NERC's release of a report that found reliability issues could surface if up to 70 gigawatts -- 7.2 percent of U.S. power capacity -- were to retire under EPA regulations on cooling water intake, coal ash disposal, clean air transport and using maximum achievable control technology (MACT) for air pollutants (*E&ENews PM*, Oct. 26, 2010).

EPA later said it expected the number of retirements to be significantly lower, and outgoing FERC Chairman Jon Wellinghoff said NERC's analysis failed to consider the agency's ongoing efforts to address reliability issues through non-infrastructure -- demand response, efficiency, operation modifications -- and infrastructure, including transmission and generation.

"EPA and our chairman kind of took [NERC] to task for that, and yet I think their numbers have been borne out," Moeller said. "When you face that, I don't blame you for being a little gun-shy."

Moeller said he doesn't want NERC to feel pressure from FERC, industry or lawmakers against flagging concerns and said the critical issue for all entities involved is independence and ensuring the grid is stable.

Moeller also expressed his concerns about the industry's compliance with EPA's mercury and other toxic chemicals standards by 2015 and acknowledged that, so far, all power plants that need an extra year -- beyond the four allotted years -- to comply have secured the extra time.

But Moeller said he worries that plants may be asked to continue running for reliability reasons and violate the Clean Air Act, which could open them up to lawsuits. He urged NERC to "let us know the challenge you have" and said he hopes his concerns are misplaced.

"I'm happy to be proven wrong; I'd rather overreact and be wrong than face the consequences of a chaotic July and August 2016," he said. "If we are resource-short, then we all look bad. The regulators look bad, all the government looks bad, the providers look bad."

From: Michael Goo <Ex. 6 - Personal Privacy>
Sent: Friday, October 11, 2013 12:34 PM
To: John Richards <Ex. 6 - Personal Privacy>
Subject: Re: Proposed job tasks for Michael Goo

I'm gonna be there hanging with you Thx. I'm thinking of telling Gina I will be senior advisor to the deputy deputy associate director in charge of small systems analysis.

Sent from my iPhone

On Oct 11, 2013, at 12:29 PM, John Richards <Ex. 6 - Personal Privacy> wrote:

> Yeah, you might not to mention me, after all. EPSA is Energy Policy and Systems Analysis, in which Ms. Kenderdine is sovereign of all she surveys. CI is where Mr. Crowell holds sway.
> Me? I've got a converted and windowless closet in Fossil Energy...
>
> On Fri, Oct 11, 2013 at 12:23 PM, Michael Goo <Ex. 6 - Personal Privacy> wrote:
>
> > Ok I will tell that to Melanie k. Is CI brads shop? And what does Epsa stand for. I assume its the kenderdine empire.
> >
> > Sent from my iPhone
> >
> > On Oct 11, 2013, at 11:35 AM, John Richards <Ex. 6 - Personal Privacy> wrote:
> >
> > > If they add "Co-Social Chair with John Richards," I think it's a no-brainer.
> > >
> > > On Fri, Oct 11, 2013 at 11:18 AM, Michael Goo <Ex. 6 - Personal Privacy> wrote:
> > >
> > > > How does this sound to you? Any thoughts? This is their idea. I think it sound great.
> > > >
> > > > Sent from my iPhone
> > > >
> > > > Begin forwarded message:

From: "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov>
Date: October 11, 2013, 9:42:58 AM EDT
To: "" Ex. 6 - Personal Privacy
Subject: FW: Proposed job tasks for Michael Goo

Ex. 5 - Deliberative

From: Michael Goo <Ex. 6 - Personal Privacy>
Sent: Friday, October 11, 2013 11:16 AM
To: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Subject: Re: Proposed job tasks for Michael Goo

Looks perfect. Fantastic.

Sent from my iPho

On Oct 11, 2013, at 9:42 AM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

Ex. 5 - Deliberative

From: Michael Goo <Ex. 6 - Personal Privacy>
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Date: October 11, 2013, 9:42:58 AM EDT
To: "Ex. 6 - Personal Privacy">
Subject: FW: Proposed job tasks for Michael Goo

Ex. 5 - Deliberative

Ex. 5 - Deliberative

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, May 24, 2013 12:12 PM
To:	jonathan.pershing@hq.doe.gov
Subject:	Fw: Resume for Michael Goo
Attach:	gooresume2013doc[1][1][1]april2013longform.doc

Hi Jonathan: please find attached my resume, as we discussed. Today is a mandatory furlough day and so I can't use the EPA email, so I am using my personal account and its less than ideal account name.

In any event, I can be reached at my work email address: goo.michael@epa.gov; or my personal account, Ex. 6 - Personal Privacy My cell is Ex. 6 - Personal Privacy

I very much appreciate your help.

Have a great weekend!

Thanks again.

To: Karen Wayland[Karen.Wayland@Hq.Doe.Gov]; carl.pechman@hq.doe.gov[carl.pechman@hq.doe.gov]; Goo, Michael[Goo.Michael@epa.gov]; john.richards@hq.doe.gov[john.richards@hq.doe.gov]
From: Michael Goo
Sent: Wed 12/11/2013 3:43:21 PM
Subject: Fwd: QER stakeholder interagency processes 12 10 13

Sent this to you previously but forgot to put myself on the chain using government email. I am still looking at this but wrote the needed paragraph and wanted to get it to Carl. I am also cling John Richards to see if he has anything to add.

Sent from my iPhone

Begin forwarded message:

From: Michael Goo Ex. 6 - Personal Privacy
Date: December 11, 2013, 10:35:54 AM EST
To: Karen Wayland <Karen.Wayland@Hq.Doe.Gov>, "carl.pechman@hq.doe.gov" <carl.pechman@hq.doe.gov>
Subject: Fwd: QER stakeholder interagency processes 12 10 13

Sent from my iPhone

Begin forwarded message:

From: "Debbie Reed" <debbie@biochar-international.org>
Date: December 11, 2013, 10:34:27 AM EST
To: "Michael Goo" Ex. 6 - Personal Privacy
Subject: QER stakeholder interagency processes 12 10 13
Reply-To: "Debbie Reed" <debbie@biochar-international.org>

<QER stakeholder interagency processes 12 10 13.docx>

To: Goo, Michael[Goo.Michael@epa.gov]
From: Wayland, Karen
Sent: Thur 11/21/2013 4:39:16 PM
Subject: Re: Agreement

Awesome. Thx.

From: Goo, Michael [mailto:Goo.Michael@epa.gov]
Sent: Thursday, November 21, 2013 11:23 AM
To: Wayland, Karen
Subject: Fw: Agreement

Wrong email came up automatically. See below.

From: Goo, Michael
Sent: Thursday, November 21, 2013 11:21:06 AM
To: karen.wayland@epa.gov
Subject: Agreement

Ex. 5 - Deliberative

From: michael Goo **Ex. 6 - Personal Privacy**
Sent: Thursday, November 21, 2013 10:57:12 AM
To: Goo, Michael
Subject:

Ex. 5 - Deliberative

Ex. 5 - Deliberative

To: Wayland, Karen[Karen.Wayland@Hq.Doe.Gov]
From: Goo, Michael
Sent: Thur 11/21/2013 5:19:03 PM
Subject: Re: Agreement

Ex. 6 - Personal Privacy call him.

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Thursday, November 21, 2013 11:39:16 AM
To: Goo, Michael
Subject: Re: Agreement

Awesome. Thx.

From: Goo, Michael [mailto:Goo.Michael@epa.gov]
Sent: Thursday, November 21, 2013 11:23 AM
To: Wayland, Karen
Subject: Fw: Agreement

Wrong email came up automatically. See below.

From: Goo, Michael
Sent: Thursday, November 21, 2013 11:21:06 AM
To: karen.wayland@epa.gov
Subject: Agreement

Ex. 5 - Deliberative

Let me know if this works.

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, November 21, 2013 10:57:12 AM
To: Goo, Michael
Subject:

Ex. 5 - Deliberative

Ex. 5 - Deliberative

To: Wayland, Karen[Karen.Wayland@Hq.Doe.Gov]
From: Goo, Michael
Sent: Thur 11/21/2013 5:10:43 PM
Subject: Re: Agreement

Ex. 5 - Deliberative

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Thursday, November 21, 2013 11:39:16 AM
To: Goo, Michael
Subject: Re: Agreement

Awesome. Thx.

From: Goo, Michael [mailto:Goo.Michael@epa.gov]
Sent: Thursday, November 21, 2013 11:23 AM
To: Wayland, Karen
Subject: Fw: Agreement

Wrong email came up automatically. See below.

From: Goo, Michael
Sent: Thursday, November 21, 2013 11:21:06 AM
To: karen.wayland@epa.gov
Subject: Agreement

Ex. 5 - Deliberative

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, November 21, 2013 10:57:12 AM
To: Goo, Michael
Subject:

Ex. 5 - Deliberative

Ex. 5 - Deliberative

To: karen.wayland@hq.doe.gov[karen.wayland@hq.doe.gov]
From: Goo, Michael
Sent: Thur 11/21/2013 4:23:07 PM
Subject: Fw: Agreement

Wrong email came up automatically. See below.

From: Goo, Michael
Sent: Thursday, November 21, 2013 11:21:06 AM
To: karen.wayland@epa.gov
Subject: Agreement

Ex. 5 - Deliberative

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, November 21, 2013 10:57:12 AM
To: Goo, Michael
Subject:

Ex. 5 - Deliberative

Ex. 5 - Deliberative

To: karen.wayland@epa.gov[karen.wayland@epa.gov]
From: Goo, Michael
Sent: Thur 11/21/2013 4:21:07 PM
Subject: Agreement

Ex. 5 - Deliberative

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, November 21, 2013 10:57:12 AM
To: Goo, Michael
Subject:

Ex. 5 - Deliberative

Ex. 5 - Deliberative

From: michael Goo (b) (6) M. Goo
Sent: Thursday, November 21, 2013 10:57 AM
To: Goo, Michael

(b) (5) [redacted]

(b) (5) [redacted]

- (b) (5) [redacted]

(b) (5) [redacted]

(b) (5) [redacted]

From: Goo, Michael
Sent: Thursday, December 12, 2013 2:21 PM
To: (b) (6) M. Goo
Subject: Fw: FOR REVIEW - Scoping doc
Attachments: Outline_Draft_B_-_mk_draft_scope_outline_121213 v2.docx

Importance: High

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Thursday, December 12, 2013 1:44:07 PM
To: Goo, Michael
Subject: FW: FOR REVIEW - Scoping doc

Any thoughts?

-----Original Message-----
From: Gershuny, Gregory
Sent: Thursday, December 12, 2013 10:41 AM
To: Pershing, Jonathan; Greenwald, Judith; Difiglio, Carmine; Chen, Hugh; Hederman, William; Wayland, Karen; Pechman, Carl; Kelly, Henry; Carr, Mike; Singleton, Greg; Pierpoint, Lara; King, Christopher
Cc: Dirickson, Danielle; Bassett, Luke
Subject: RE: FOR REVIEW - Scoping doc
Importance: High

Sorry about the multiple emails. Please use this version instead for review.

Greg Gershuny

-----Original Message-----
From: Gershuny, Gregory
Sent: Thursday, December 12, 2013 10:31 AM
To: Pershing, Jonathan; Greenwald, Judith; Difiglio, Carmine; Chen, Hugh; Hederman, William; Wayland, Karen; Pechman, Carl; Kelly, Henry; Carr, Mike; Singleton, Greg; Pierpoint, Lara; King, Christopher
Cc: Dirickson, Danielle; Bassett, Luke
Subject: RE: FOR REVIEW - Scoping doc

(b) (5)

-----Original Message-----
From: Gershuny, Gregory
Sent: Thursday, December 12, 2013 9:25 AM

To: Pershing, Jonathan; Greenwald, Judith; Difiglio, Carmine; Chen, Hugh; Hederman, William; Wayland, Karen; Pechman, Carl; Kelly, Henry; Carr, Mike; Singleton, Greg; Pierpoint, Lara; King, Christopher
Cc: Dirickson, Danielle; Bassett, Luke
Subject: FOR REVIEW - Scoping doc
Importance: High

Melanie wants everyone to provide comments to Bill in redline format by COB today. We will meet tomorrow around noon to pre-brief for the S1 meeting.

Greg Gershuny

From: Goo, Michael
Sent: Wednesday, December 11, 2013 9:50 AM
To: (b) (6)
Subject: Fw: QER document
Attachments: Memo QER stakeholder interagency processes 12 10 13.docx

---

From: Karen Wayland (b) (6) K. Weyland
Sent: Wednesday, December 11, 2013 6:04:55 AM
To: Goo, Michael
Cc: Wayland, Karen
Subject: QER document

Michael,

(b) (5) [redacted]

Thanks!
Karen

Karen G. Wayland, Ph.D.
Washington, DC
(b) (6) K. Weyland

From: Goo, Michael
Sent: Thursday, November 21, 2013 10:48 AM
To: (b) (6) M. Goo
Subject: Fw: Michael Goo Non-Reimbursable Detail Agreement
Attachments: Michael Goo Non-Reimbursable Detail Agreement JF comments.docx

---

From: Kime, Robin
Sent: Thursday, November 21, 2013 10:10:33 AM
To: Goo, Michael
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Hi

Hi- The paperwork is with Diane this am. Can you open the attachment and see if there are any duties/tasks we can add or change? Let me know how I can help,thanks.

-----Original Message-----
From: Bazzle, Diane
Sent: Thursday, November 21, 2013 9:00 AM
To: Kime, Robin
Subject: Fw: Michael Goo Non-Reimbursable Detail Agreement

Hi Robin. (b) (5)

From: Lesperance, Twanna
Sent: Wednesday, November 20, 2013 8:51:17 PM
To: Bazzle, Diane
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Diane,

(b) (5)

(b) (5)

Thanks,
Twanna

Twanna Lesperance, Chief.Administrative/Management Staff.Office of Executive Services.Office of the Administrator.202-564-0419 (D)

-----Original Message-----
From: Feldman, Richard
Sent: Tuesday, November 19, 2013 6:52 PM
To: Lesperance, Twanna
Cc: Guerrero, David; Liem, Lucille; Fugh, Justina; Bazzle, Diane; Feldman, Richard
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

Twanna,

here are the last OGC comments from the ethics attorney Justina and from Dave G. There are no other comments . As I stated in my earlier email:

(b) (5)

From: Pressman, Steve
Sent: Monday, November 18, 2013 2:52 PM
To: Guerrero, David; Feldman, Richard
Cc: Miller, Kevin; Redden, Kenneth
Subject: FW: Michael Goo Non-Reimbursable Detail Agreement

I'm not sure who normally reviews MOUs now, but it seems like it should be reviewed for employment law and approps issues at least. If there are others (Justina?) who should review, please forward to them. Send your comments directly to Twanna. Thanks.

Steve Pressman
Associate General Counsel
Civil Rights and Finance Law Office
Office of General Counsel, U.S. EPA
202/564-5439 (phone), 202/564-5416 (fax)

From: Lesperance, Twanna
Sent: Friday, November 15, 2013 3:11 PM
To: Pressman, Steve; Fritz, Matthew
Subject: Michael Goo Non-Reimbursable Detail Agreement

Hello Gentlemen,

Attach for your review and comments is a Memorandum of Understanding for Michael Goo's detail to the Department of Energy. The MOU provides a summary of duties to be assigned to Michael as well as the shared roles and responsibilities between EPA and DOE (b) (5)

Feel free to give me a call if you have any questions.

Thank you, in advance, for your quick response.

Best Regards,
Twanna

From: Goo, Michael
Sent: Tuesday, November 12, 2013 2:12 PM
To: (b) (6) M. Goo ; (b) (6) D. Reed
Subject: Fw: DOE's "cool kids"

From: Wallace, Andrew (Tom Udall) <Andrew_Wallace@tomudall.senate.gov>
Sent: Tuesday, November 12, 2013 1:32:28 PM
To: Courtney Johnson; Black, Jonathan (Tom Udall); Goo, Michael
Subject: DOE's "cool kids"

Includes Goo apparently. I don't have his new email so not sure if he'll get this. Imagine how great this article would be with some good photos or video from Goo Fest.

DOE:
'Cool kids' jump to Moniz's new policy shop

Robin Bravender and Katherine Ling, E&E reporters
Published: Tuesday, November 12, 2013

There's a new office generating buzz and big expectations at the Department of Energy.

Energy Secretary Ernest Moniz, who launched the policy shop as part of a larger DOE overhaul, is stocking it with top talent from the climate and energy arenas and is giving it big responsibilities for carrying out President Obama's climate change plan.

"It's where all the cool kids on the block are going," said a former DOE senior staff member who's now an energy consultant. "They are the rock stars of DOE."

At the helm of the new Office of Energy Policy and Systems Analysis is Melanie Kenderdine, who worked with Moniz at the Massachusetts Institute of Technology Energy Initiative as well as at DOE during the Clinton administration. She's expected to have a lot of clout with the secretary.

"In addition to their close, personal association at MIT, Melanie is someone who I would put in the top three or four people who has an ability to know all the fuels," said Charles Ebinger, director of the Energy Security Initiative at the Brookings Institution. He noted her broad-based expertise that includes subjects like natural gas, renewable energy and nuclear power.

Kenderdine is assembling a savvy team that includes battle-hardened veterans of the failed congressional efforts to pass climate legislation. With prospects for major climate and energy bills all but dead, the new staffers are hoping to have a big impact on energy policy through the executive branch.

"A lot of great people have left the Hill because they can see that Congress for the time being is not going to be on the cutting edge of these issues," said Manik Roy, vice president for strategic outreach at the Center for Climate and Energy Solutions. "There are some bigger-ticket items now in the executive branch."

Former U.S. EPA senior official Michael Goo is one of the latest recruits to join Kenderdine's team. Goo comes from a post as associate administrator for EPA's Office of Policy, where he was charged with overseeing

regulations going through White House reviews and providing policy advice. He also worked on the climate bill that passed the House in 2009 as chief counsel to the now-defunct House Select Committee on Energy Independence and Global Warming.

Goo's joining an already-stacked lineup of high-profile staffers.

Karen Wayland, who'll head up state and local coordination in the new office, was a senior adviser on energy and environmental issues to then-House Speaker Nancy Pelosi (D-Calif.). Judi Greenwald -- who has taken the helm of climate, environment and energy efficiency issues -- has worked at the Center for Climate and Energy Solutions, in Congress and as a senior adviser to the Clinton White House's Climate Change Task Force. Jonathan Pershing, former special envoy for climate change at the State Department, joined the team as principal deputy director in addition to another post in the Policy and International Affairs Office.

"Moniz is a talent magnet," said Margot Anderson, executive director of the Bipartisan Policy Center's energy project and former DOE deputy assistant secretary for policy analysis. "I suspect there are many smart, talented, dedicated people who are eager to work on his team."

In addition to having Moniz's ear on setting DOE policy, new employees have also been lured by the prospect of helping to draft an energy road map that lays out national energy goals over four years.

From: Goo, Michael
Sent: Tuesday, November 05, 2013 3:23 PM
To: (b) (6) M. Goo
Subject: Fw: MIS Gateway - ESS Access Info (Request-171548) Part 2

_____
From: identity.management@hq.doe.gov <identity.management@hq.doe.gov>
Sent: Tuesday, November 05, 2013 12:42:55 PM
To: Goo, Michael
Subject: MIS Gateway - ESS Access Info (Request-171548) Part 2

You now have been granted access to the Department of Energy's MIS Gateway and Employee Self Service (ESS) application.

Please go the MIS Gateway at http://mis.doe.gov and sign on and change your password. You may also choose a different username if you do not like the one assigned to you. You have been sent your username in a separate email. After you have signed on you will see 'Change Password' and 'Choose Username' in the 'Help & Support' section of the menu on the right hand side of the screen. You may then also proceed to the ESS Application and update your locator and personal business information.

Your password is (b) (6)

If you require any DOE Headquarters services such as an email or network account, please click on the following link and choose the EITS Account Creation Request Form: http://ocio.doe.gov/procedures/forms Instructions for completing and forwarding this form are provided with the form itself.

If you have any questions or concerns please respond to this email (identity.management@hq.doe.gov).

From: Robin Bravender Ex. 6 - Personal Privacy
Sent: Thursday, June 19, 2014 4:50 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Story about staffers

Hi Michael,

I hope you're having a good summer.

Is there any chance you could send along Secretary Moniz's email announcing Deputy Secretary Poneman's departure this fall? I won't need to cite it to you, I would just say an email "obtained by E&E."

Many thanks,

Robin

On Mon, Jan 6, 2014 at 5:14 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:

> Whenever you're ready, please call my cell instead. Ex. 6 - Personal Privacy Thanks.
>
> On Mon, Jan 6, 2014 at 4:25 PM, Michael Goo Ex. 6 - Personal Privacy wrote:
>
> > Sure
> >
> > Sent from my iPhone
> >
> > On Jan 6, 2014, at 3:46 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:
> >
> > > Sure, that's great. Do you want to call me when you're free? Ex. 6 - Personal Privacy
> > >
> > > On Mon, Jan 6, 2014 at 3:45 PM, Michael Goo Ex. 6 - Personal Privacy wrote:
> > >
> > > > How bout around 5?
> > > >
> > > > Sent from my iPhone

On Jan 6, 2014, at 9:32 AM, Robin Bravender Ex. 6 - Personal Privacy wrote:

Absolutely. What time is good for you?

On Sun, Jan 5, 2014 at 12:10 AM, Michael Goo Ex. 6 - Personal Privacy wrote:

Lets talk Monday if that works. Thx

Sent from my iPhone

On Jan 3, 2014, at 12:35 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:

> Happy New Year!
>
> I'm working on a story that includes five staffers who are influential behind the scenes at our various agencies and offices (EPA, DOE, Interior, the White House, Congress) and I wonder if you have a few minutes to chat on background. I want to make sure I'm including folks who are actually influential, which is hard to discern as an outsider.
>
> Do you have some time today or Monday?
>
> Thanks a ton. How's the new job going?
>
> Robin

From: Robin Bravender Ex. 6 - Personal Privacy
Sent: Monday, January 6, 2014 5:15 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Story about staffers

Whenever you're ready, please call my cell instead. Ex. 6 - Personal Privacy Thanks.

On Mon, Jan 6, 2014 at 4:25 PM, Michael Goo Ex. 6 - Personal Privacy wrote:

Sure

Sent from my iPhone

On Jan 6, 2014, at 3:46 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:

Sure, that's great. Do you want to call me when you're free? Ex. 6 - Personal Privacy

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> Do you have some time today or Monday?
>
> Thanks a ton. How's the new job going?
>
> Robin

From: Robin Bravender Ex. 6 - Personal Privacy
Sent: Monday, January 6, 2014 9:33 AM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Story about staffers

Absolutely. What time is good for you?

On Sun, Jan 5, 2014 at 12:10 AM, Michael Goo Ex. 6 - Personal Privacy wrote:

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> Do you have some time today or Monday?
>
> Thanks a ton. How's the new job going?
>
> Robin

From: Robin Bravender Ex. 6 - Personal Privacy
Sent: Monday, January 6, 2014 3:46 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Story about staffers

Sure, that's great. Do you want to call me when you're free? Ex. 6 - Personal Privacy

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How bout around 5?

Sent from my iPhone

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>
> Do you have some time today or Monday?
>
> Thanks a ton. How's the new job going?
>
> Robin

From:	Robin Bravender Ex. 6 - Personal Privacy
Sent:	Friday, January 3, 2014 12:35 PM
To:	Michael Goo Ex. 6 - Personal Privacy
Subject:	Story about staffers

Happy New Year!

I'm working on a story that includes five staffers who are influential behind the scenes at our various agencies and offices (EPA, DOE, Interior, the White House, Congress) and I wonder if you have a few minutes to chat on background. I want to make sure I'm including folks who are actually influential, which is hard to discern as an outsider.

Do you have some time today or Monday?

Thanks a ton. How's the new job going?

Robin

From:	Robin Bravender Ex. 6 - Personal Privacy
Sent:	Sunday, December 15, 2013 9:23 PM
To:	Michael Goo Ex. 6 - Personal Privacy
Subject:	Hello

Hi Michael,
I hope you had a good weekend. I'm going to be following up on this report about OIRA that the Post wrote about yesterday. Are you available for a few minutes on Monday morning to chat on background about specific rules that were delayed?

I'll be at Ex. 6 - Personal Privacy if you're free to chat.

Thanks a lot.

Robin

From: Goo, Michael <Goo.Michael@epa.gov>
Sent: Wednesday, December 11, 2013 9:50 AM
To: Ex. 6 - Michael Goo
Subject: Fw: QER document
Attach: Memo QER stakeholder interagency processes 12 10 13.docx

---

From: Karen Wayland Ex. 6 - Personal Privacy
Sent: Wednesday, December 11, 2013 6:04:55 AM
To: Goo, Michael
Cc: Wayland, Karen
Subject: QER document

Michael,

Ex. 5 - Deliberative

Thanks!

Karen

Karen G. Wayland, Ph.D.

Washington, DC

Ex. 6 - Personal Privacy

From: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Sent: Friday, November 15, 2013 4:14 PM
To: 'Michael Goo' Ex. 6 - Personal Privacy
Subject: FW: QER documents
Attach: Analysis for QER_NLDC (2).docx; QER Schedule (3).docx; Proposed Task Forces.docx; QER_Proposal_operative 4.docx; Presidential Memorandum on QER v2.docx; ENERGY INFRASTRUCTURE POLICY MATRIX mk.docx; Agency Roles (4).docx

---

VERY old documents I found in my gmail but should give you some idea of what we're doing.

From: Karen Wayland Ex. 6 - Personal Privacy
Sent: Friday, November 15, 2013 4:00 PM
To: Wayland, Karen
Subject: Fwd: QER documents

---------- Forwarded message ----------
From: **Gershuny, Gregory** <GGershuny@hq.doe.gov>
Date: Tue, Jul 16, 2013 at 5:52 PM
Subject: QER documents
To: "Pershing, Jonathan" <Jonathan.Pershing@hq.doe.gov>, Judith Greenwald Ex. 6 - Personal Privacy, "Difiglio, Carmine" <Carmine.Difiglio@hq.doe.gov>, "Bill Hederman (Hederman@alum.mit.edu)" <Hederman@alum.mit.edu>, "Chen, Hugh" <Yu-Han.Chen@hq.doe.gov>, "Ex. 6 - Personal Privacy <Ex. 6 - Personal Privacy>, "Marlay, Robert" <Robert.Marlay@hq.doe.gov>, "carl.pechman@ferc.org" <carl.pechman@ferc.org>, "Hezir, Joseph" <Joseph.Hezir@hq.doe.gov>, Ex. 6 - Personal Privacy Ex. 6 - Personal Privacy
Cc: "Kenderdine, Melanie" <Melanie.Kenderdine@hq.doe.gov>, "Gershuny, Gregory" <GGershuny@hq.doe.gov>, "Pickett, Adonica (Renee)" <Adonica.Pickett@hq.doe.gov>, "Bassett, Luke" <Luke.Bassett@hq.doe.gov>

Good evening,

The attached draft documents are for the Quadrennial Energy Review (QER) meeting

on Thursday 7/18 at 1:00pm in 7A-219. These draft documents are internal and deliberative and aren't intended for anyone not on this email. Please let me know if you have any questions prior to the meeting.

Best,

Greg Gershuny

202-586-0711 | GGershuny@hq.doe.gov

--

Karen G. Wayland, Ph.D.

Ex. 6 - Personal Privacy

National Laboratory Inventory of Market, Financial, and Policy Analysis Capabilities in Support of the Quadrennial Energy Review (QER)
June 2013

Argonne National Laboratory

Argonne's staff conducts research from basic science through engineering to system deployment, often with multidisciplinary research teams that include social scientists, economists, and decision analysts. With 30+ years of experience, we have core competencies in the development and application of energy system modeling tools in the U.S. and about 60 countries worldwide. Specifically, our core capabilities extend to production cost simulation, security-constrained unit commitment and economic dispatch modeling, reliability and resource adequacy modeling, long-term capacity expansion and investment modeling, and hydro optimization and renewable energy integration modeling. Our researchers have strong foundations in a variety of approaches in developing advanced modeling tools, such as mixed-integer linear programming, dynamic optimization, stochastic optimization, robust optimization, and agent-based modeling. Argonne, in partnership with the University of Chicago, also has extensive experience in financial and policy analysis for a wide variety of energy supply and utilization sectors, including nuclear energy and electrified transportation. A number of Argonne's tools (e.g., GTMax and EMCAS) have been successfully commercialized over the years.

Brookhaven National Laboratory

BNL's primary analytic capability that might support the techno-economic issues associated with the QER is derived from its MARKAL research group. MARKAL is a numerical model that has been used to identify least-cost energy systems, to identify cost-effective responses to restrictions on emissions, to perform prospective analysis of long-term energy balances under different scenarios, to evaluate new technologies and priorities for R&D, to evaluate the effects of regulations, taxes, and subsidies, to project inventories of greenhouse gas emissions and to estimate the value of regional cooperation. BNL played a central role in the development of the model and has used it to support NE, FE, EERE, OI, and EIA, in addition to a number of international analyses. The model can be run at a variety of scales and, for example, there are models for the city of New York, the state of New York and the Northeast Region. The tool has a large international user base (37 countries) and the IEA.

Brookhaven is a member, and holds the presidency, of the New York Energy Policy Institute, which was established through a competitive procurement from NYSERDA. The Institute, which has 13 academic and research institution members, manages a resource of energy analysts and experts from the State of New York focused on energy policy, including technology and policy analysis. Focused research groups can be mobilized from these institutions to work on a broad range of energy related analyses.

Brookhaven is a part of a collaborative project led by the City University of New York to develop "A Regional Earth System Model of the Northeast Corridor: Analyzing 21st Century Climate and Environment". Brookhaven activities focus on Energy Systems Analysis and Emission Scenarios, within interdisciplinary and coupled interactive integration of ecosystems, agricultural working lands and forests, urban environments, biogeochemistry, atmospheric chemistry, ocean and atmospheric currents, energy, the water cycle, land ice, and human activities. This methodology addresses key problems critical to linking relevant Earth system processes over a variety of

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spatial and temporal scales and to advancing the theoretical foundations for the modeling and simulation of existing data and data collected by the new and envisioned environmental observatories. Key strategic integrative analysis under this project targets on three focus areas highly dependent on the region's ecosystem services and nature of climate oscillations and extremes: 1) Biofuels, regional carbon balance and sequestration capacity, given national policies and alternative cap-and-trade strategies; 2) Energy production capacity in light of water and temperature constraints on hydro and thermoelectric facilities; and 3) Pollution management to support water quality standards and protect inland aquatic habitat and fisheries.

Idaho National Laboratory

Dynamic analysis of tradeoffs and economic value propositions involving complex energy systems: nuclear plus thermal plus intermittent renewable sources combined as hybrid energy systems integrated on a grid or local system.

Through the Energy Policy Institute of the Center for Advanced Energy Studies (a partnership between INL and the three major Idaho research universities), decision support tools for improving government performance and industry/stakeholder collaboration in the implementation of energy policy including bioenergy, carbon capture and sequestration, solar, energy efficiency, nuclear energy, and energy transmission (see http://epi.boisestate.edu/people/affiliate-researchers--faculty.aspx if you want to see the breadth of this effort. The focal point is Dave Solan at Boise State).

Nuclear energy economics in support of advanced fuel cycles and market projections associated with carbon emissions.

A database of information on which industrial control systems are deployed throughout the energy sector with some efforts in cyber security policy efforts sponsored by government entities

Lawrence Berkeley National Laboratory

Energy Efficiency Policy and Market Analysis - LBNL's Electricity Markets and Policy group conducts policy and market research on the design, market potential, implementation strategies, analysis of enabling policies, and evaluation of ratepayer-funded and publicly-funded energy efficiency programs. Major research areas include energy efficiency program design and implementation; utility sector energy efficiency business models; evaluation, measurement and verification of energy efficiency impacts; energy efficiency as a utility resource; and analysis of market barriers. LBNL assesses Energy Services Company (ESCO) industry performance and market trends and manages the largest database of ESCO projects in the world (~4000 projects representing $8B in investment). Over the last 2-3 decades, LBNL has also done path-breaking work in developing energy efficiency supply curves and conducting technical, economic and achievable potential studies for energy efficiency for the U.S., China, and India. http://emp.lbl.gov/research-areas/energy-efficiency LBNL has supported the U.S. DOE's Appliance and Equipment Standards Program since its inception and conducts extensive economic research and policy analyses in support of standards development. http://efficiency.lbl.gov/capabilities

Electricity Markets - LBNL has broad technical expertise and experience in regional resource and transmission planning and has worked extensively on these issues in the Western

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Interconnection on behalf of DOE OE. LBNL supports U.S. DOE with research on congestion metrics, historical congestion, and systematic methods of collecting information on future congestion, emerging issues in regional resource planning, trends and key issues in electricity markets based on analysis of utility resource plans, and preparation of congressionally mandated, triennial congestion assessments. http://emp.lbl.gov/research-areas/regional-electric-system-planning

Energy Systems Analysis - LBNL researchers are pioneering analytical methods to assess cradle-to-grave energy, economic, and environmental implications of early-stage technologies at various levels of scale-up (e.g., informing early stage technology development by identifying potentially fruitful paths and providing early indications of any unintended consequences.

Renewable Energy Policy and Markets - LBNL conducts research on renewable energy markets and policies with the majority of work falling into four general areas: (1) renewable energy policy analysis and assistance; (2) cost, benefit, and market analysis; (3) grid operations and infrastructure impacts; and (4) public acceptance and deployment barriers. LBNL also provides data-driven assessments of the cost and performance of renewable energy resources and has broad expertise and experience in solar markets and has extensively tracked, synthesized, analyzed, and disseminated PV cost data. LBNL staff have implemented and evaluated state-level financial incentive programs, examined the implications of federal policy support, and researched financing models and influence of rate design on the economics of residential and commercial solar systems. http://emp.lbl.gov/research-areas/renewable-energy

Long-term Energy Systems Modeling - LBNL has extensive experience developing and using energy system models (e.g. NEMS, SEDS) and utility production cost models (e.g. PROMOD) and has the capability to aggregate system wide electricity and fuel demands under a variety of economic and policy scenarios across various geographic regions and has worked closely California agencies and other countries to assess long-term greenhouse reduction strategies.

Energy Models for Cloud Data Centers - The CLEER (Cloud Energy and Emissions Research) Model is a comprehensive user-friendly open-access model for assessing the net energy and emissions implications of cloud services in different regions and at different levels of market adoption.http://cleermodel.lbl.gov

Technoeconomic Analysis of Biofuels - Researchers at the U.S. Department of Energy's Joint BioEnergy Institute (JBEI) have created a technoeconomic model that should help accelerate the development of a next generation of clean, green biofuels that can compete with gasoline in economics and well as performance. This on-line, wiki-based model enables researchers to pursue the most promising strategies for cost-efficient biorefinery operations by simulating such critical factors as production costs and energy balances under different processing scenarios. http://newscenter.lbl.gov/feature-stories/2010/10/28/biofuels-wiki/

For more detailed summary of LBNL capabilities in energy markets, policy and financial analysis, please refer to this URL. http://eaei.lbl.gov/sites/all/files/lbnl_qer.pdf

Lawrence Livermore National Laboratory

Strategies for Grid-Scale Energy Storage and Demand Side Management - Working for the California Energy Commission, LLNL developed a framework for determining the economic value of Energy Storage and Demand Side Management (DSM) programs under uncertain

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renewables penetration scenarios and future weather patterns. This work leverages advanced computing and simulation capabilities to run thousands of scenarios for electrical grid architecture over a single weather year, optimizing generation, storage and DSM strategies. Under optimal control, and subject to market constraints such as reliability and emissions criteria, the impact on electricity cost of both energy storage and DSM programs can be rigorously evaluated.

Market Impacts of Exogenous Factors on Nuclear Power - LLNL economists developed models of the nuclear power sector of the energy system, including mining, milling, enrichment, fabrication, use, transportation and disposition, regulation, and international markets. We also developed models of electricity production costs from fossil fuels and renewable energy. These models, which necessarily include policy analysis as a core capability, have been used to estimate market impacts of factors ranging from ex-Soviet HEU blend-down to a carbon tax.

Visualization of National Energy Systems - Since the mid-1970s, LLNL has provided an Energy Flow Chart of the national energy system as a tool for policymakers, educators, engineers and scientists to better understand how the country uses energy. The diagram presents a compact view of how the U.S. uses coal, oil, natural gas, nuclear, solar, wind geothermal and biomass energy to power the residential, commercial, industrial and transportation sectors. The chart also depicts an estimate of energy efficiencies in each sector, as well as the efficiency of transformation of energy resources to electricity. LLNL has extended the analytical technique used to produce these charts to international and state-level energy systems, water infrastructure, and greenhouse gas emissions.

Enterprise Modeling Framework - Scientists at LLNL developed an enterprise model of the NNSA's infrastructure including human capital, real property, equipment, and devices. There are two layers to this model: a stock-and-flow simulation of the complex that is used for scenario analysis and a mixed integer linear programming representation that can be used to optimize program schedules. This capability is used by DoD's STRATCOM as well as the Department of State to make strategic and policy decisions that are critical to national security. It is a key component of the Nation's Nuclear Posture Review. A similar framework could be developed for the energy system to support the QER.

Application of Advanced Computing to Energy Technologies - LLNL provides leadership and advice in enabling U.S. Industry to leverage High Performance Computing (HPC) for energy applications. Through the HPC4energy incubator, LLNL engineers and computer scientists collaborate with industrial partners to demonstrate the impact that HPC can make when it is available to innovators who will power tomorrow's energy economy.

Policy Analysis of Cyber and Physical Security for Global Energy Infrastructure - LLNL engages in a broad range of infrastructure protection efforts, from physical security of nuclear assets in foreign countries to the cyber-security of energy assets at home. Policymakers rely on LLNL's ability to describe the attack surface, physical and economic consequences of attack scenarios and strategies and potential costs of security measures. Using knowledge in cyber security and game-theoretic models of defense against potential terrorist attacks, LLNL experts recommend security posture for the electric grid and other energy infrastructure assets.

Los Alamos National Laboratory

Economics and Systems Integration:

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Decision support in complex systems: quantifying economic impacts, potential national security risks, and quantifying uncertainty in complex physical systems where policy choices affect outcomes in unpredictable ways. Examples: impacts of regional resource allocation in response to global climate change; counter-terrorism intervention; pandemic disease mitigation and response; cyber-physical defense.

Critical infrastructure planning and analysis: the coupled infrastructure across US and the world (electric grid, natural gas, telecom, financial system) creates vulnerabilities related to natural disasters, climate change, and energy supply/utilization choices. Los Alamos maintains the physical infrastructure models for the DHS NISAC program. This resource can be more broadly tapped, together with related energy infrastructure modeling efforts at other Labs, to inform future energy infrastructure investments, and to assess resilience in the face of climate change.

Harnessing the laboratory sites as testbeds for scale-up and integration of energy-related technologies: energy-efficient computing; integrated renewable energy systems (solar, hydro, wind, battery) in mixed residential/industrial settings; fleet approaches for regional biofuel adoption and hydrogen fuel cell or hybrid vehicles.

National Energy Technology Laboratory

Market, financial, and policy analysis at the National Energy Technology Laboratory draws upon the multi-disciplinary expertise of engineers, economists, scientists and other analysts from within its research, program and energy analysis/planning groups.

NETL has nationally recognized Life-Cycle analysis (LCA) capabilities which can provide a unified, comprehensive evaluation of market, financial and policy aspects of comparative technologies. Such analyses quantify cradle to grave environmental and economic impacts with a consistently applied methodology, usually with policy related parameters as evaluating criteria. NETL has helped form a DOE intra-Lab collaboration for LCA to increase awareness on organizational and laboratory LCA initiatives; share LCA related data and methodological practices; and increase communication in the area of energy related life cycle analyses. Current participants in the working-group include NETL, ANL, PNNL, NREL, BNL and LBNL

To assess the techno-economic performance of advanced power generation technologies NETL performs process engineering using commercial thermodynamic process simulation software such as Aspen Plus ® and THERMOFLEX. For cost engineering, NETL has access to the cost database of a commercial Engineering, Procurement and Construction firm and uses the NETL Power Systems Financial Model (PSFM), a detailed discounted cash flow tool, to estimate economic metrics such as return on investment, required selling price and/or levelized production cost. NETL regularly updates studies that quantify the baseline cost and performance of current state-of-the-art fossil energy conversion technologies. The rigor and detail of NETL's "baseline" studies—based in large part on quotes and estimates from technology vendors and major Engineering, Procurement and Construction firms—have resulted in them being widely referenced within the relevant energy analysis community. Based on the results of NETL's process and cost engineering studies, higher-level macroeconomic analyses are performed under various scenarios to estimate the potential economic, environmental, and energy security benefits that could accrue to the U.S. if R&D goals are met. Macroeconomic analyses are primarily performed using the National Energy Modeling System (NEMS), which is the energy-economic model used to produce the Annual Energy Outlook and various service reports for Congress. When NEMS has not had the capability to

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adequately portray certain advanced technologies, such as carbon capture and storage (CCS), NETL has developed new, in-house models that are integrated into the NEMS framework.

Integrated Electric Power Systems Infrastructure analysis evaluates options for generation, transmission, distribution, and consumption of electricity considering the value of electric power to industry, consumers, and society. Infrastructure decisions are impacted by a wide range of factors including technology options, regulations, standards, government policy, availability of capital and skilled labor, political authority, business practices, and consumer and societal needs and perspectives. Studies involve analyzing the interdependencies of electric power systems with other critical infrastructures, particularly the water infrastructure. Integrated electric power systems analyses are designed to guide R&D investment decisions, evaluate various configurations of Smart Grid, identify electric power system risks and mitigation strategies and support various transmission site placement, permitting, and analysis work. The understanding provided by these studies lead to optimized electric power system design and operation while assisting government, the power industry, and consumers in making informed infrastructure-related decisions For grid and reliability related analyses NETL employs PROMOD IV and grid design software such as GridLab-D, Open DSS, MatLab, PSSE, and the PowerWorld simulator. Smart grid business case software can be applied to assist in future grid investment decisions. Smart grid computational tools and energy storage computational tools are used to evaluate cost and benefits of ongoing smart grid field projects. The Smart Grid Maturity Model is applied to enable electric service providers to assess current and possible future state of smart grid that represents their best value proposition. NETL's electric subsector cyber security capability maturity model is useful to assess the readiness of cyber security of the electric power system. Supercomputers and computational sciences expertise is applied to convert large sets of grid sensor data to knowledge and to actions.

Other unique analysis capabilities of NETL with potential to support energy market, financial or policy analysis include:

CCSI -- CCSI is aimed at delivering a toolset that provides a simulation-based integration and optimization of carbon capture technologies in power plants, with uncertainty quantification and also assessment of technical and financial risk in implementation, to assist decision makers.

NRAP -- A primary capability of NRAP is to develop a defensible, science-based methodology and platform for quantifying risk profiles at most types of CO2 storage sites to guide decision making and risk management. NRAP will also develop monitoring and mitigation protocols to reduce uncertainty in the predicted long-term behavior of a site.

Unconventional Resources – UCR is focused on developing the data and modeling tools needed to predict and quantify potential risks associated with oil and gas resources in shale reservoirs that require hydraulic fracturing or other engineering measures to produce.

Ultra-Deep Water Resources -- UDW is capable of developing a scientific base for predicting and quantifying potential risks associated with exploration and production in extreme offshore environments.

National Renewable Energy Laboratory

NREL's world-leading energy decision science and analysis capability draws on extensive knowledge of energy resources, technologies, markets, policies, and systems to conduct leading-edge analysis and to develop data, tools, and models that are broadly disseminated for energy stakeholder and public use. The insights gained from these analyses and tools inform RD&D directions, policy formulation, and technology and investment decisions. NREL's capability is increasingly underpinned by strong domain knowledge in energy informatics, which derives knowledge and insights from measured and modeled data sets. Primary supporting disciplines

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include engineering, environmental science, applied math, finance, economics, and social and political science.

NREL has a deep understanding of existing electricity, buildings, and fuels and transportation infrastructure and practical knowledge of the barriers to deploying existing or new clean energy technologies within these systems. NREL researchers apply computational methods to develop resource and technology screening and decision tools. Particular strengths are in techno-economic analyses of renewable and efficiency technologies, geospatial resource data and analysis, sustainability and impact analysis, and evaluation of optimal technology options for off-grid and grid-connected power systems.

NREL stewards its crosscutting analysis and decision support capability in its Strategic Energy Analysis Center (SEAC) and technology-specific modeling and analysis capabilities in the science and technology research centers. During FY12, SEAC conducted approximately $30 Million of analytic research for DOE and others. NREL extends it analytical capabilities by collaboration with stakeholders throughout the energy analysis community, from university researchers to other laboratories and to analysts working for federal, state and local governments. It hosts the Joint Institute for Strategic Energy Analysis (founding partners include NREL, MIT, Stanford, University of Colorado, Colorado State University and the Colorado School of Mines). Focused on the nexus of energy, finance and society, JISEA conducts studies and supports research by diverse teams of NREL experts, industry and academic participants from the founding and affiliate research institutions from around the world. Recent analyses have explored the potential synergies between renewables and other energy pathways, with a particular focus on nuclear and natural gas.

NREL's energy analysis is conducted in support of NREL programs and initiatives, DOE's Office of Energy Efficiency and Renewable Energy (EERE), technology transfer, and the greater energy community, providing technical knowledge and tools to help inform decisions that include energy program development, investment prioritization, policy formulation, and energy project development. For example, the Department of Defense looks to NREL as a strategic technical resource as it addresses energy security issues at fixed installations and forward operating bases. Other major governmental partners include the Department of State, Environmental Protection Agency, Department of Interior, and Department of Homeland Security (DHS). Analysis clients include companies from the oil and gas and electric utility industries. NREL analysts partner with others at other national laboratories or leading research institutions as well; for example, NREL is collaborating with ORNL, LBNL and Northwestern University on tool and data development for EERE's Advanced Manufacturing Office. NREL is a primary technical resource for USAID and the Department of State on clean energy and climate programs. In addition, NREL provides analytical support at the state and local government level such as the Wyoming Infrastructure Authority, NYSERDA, and the California Energy Commission, and to international entities. Through the Laboratory Consortium that NREL leads, NREL is working with ANL, BNL, LBNL, ORNL, and PNNL to support the USAID funded EC-LEDS program in more than 8 developing countries.

Analysis at NREL aims to increase the understanding of the current and future interactions and roles of energy policies, markets, resources, technologies, environmental impacts, and infrastructure. These analyses are used to inform energy system decisions as energy-efficient and renewable energy technologies advance from concept to commercial application. Distinctive analysis capabilities include the following:

- Techno-economic modeling and analysis

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- Sustainability analysis
- Clean energy manufacturing and supply chain cost and economic competitive analysis
- Integrated electric sector/grid modeling
- Project finance analysis
- Market and policy analysis
- Geospatial and resource energy analysis
- Energy informatics
- Web-based and energy decision tools

Learn more about NREL's robust analysis capabilities at
http://www.nrel.gov/analysis/pdfs/nrel_analysis_capabilities_6_20_13.pdf

Oak Ridge National Laboratory

In Energy and Environmental Sciences area:

- Center for transportation analysis (energy and environmental policy analysis) – aviation safety, defense transportation, planning and system analysis, program effectiveness, etc.
- Economic analysis of materials, natural resources, and biomaterials used for transportation and electrical power
- Policy and economic analysis of energy – credit markets, alternate fuels, alternate vehicles, energy security, oil market disruptions
- Electric grid wide-area modeling and analysis (cost comparisons, critical resource dependencies, etc.) -
- Support OE in analyzing and evaluating the benefits of electricity delivery technologies, systems and programs
- Technology and policy impacts on hydropower systems
- Policy analysis and behavior, evaluation of energy and non-energy impacts

In Computing and Computational Sciences area:

- "Policy informatics" challenges in the energy, healthcare and the social media domains
- Business analytics partnership with the University of Tennessee College of Business (#10 rated "Business Analytics Program" by U.S. News and World Report)
- Financial analyses of alternate plant construction strategies
- Financial and model validation for EIA with respect to the U.S. Energy Model, the Crude Oil Entitlements Program, Alternative Cost Analysis for the Army Future Combat System and modernization for the Air Force Finance System
- Geospatial Sciences - population dynamics modeling, natural resource studies, transportation modeling, critical infrastructure protection, and disaster management

Pacific Northwest National Laboratory

PNNL specializes in analyzing and understanding the impacts of the interface between science and society. As a consequence of working closely with physicists, chemists, and engineers on the front lines of the nation's energy challenges, our research economists, social and behavioral scientists and policy analysts bring a valuable cross-disciplinary approach to the social, institutional, and policy dimensions of research, analysis, and impact assessment.

In addition to basic and applied research in support of DOE, PNNL has leveraged long-standing

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relationships with industry, academia, regulators and a wide variety of state and federal agencies, to develop unique analytic tools, metrics and methodologies necessary to infuse the energy policy development process with enhanced empirical rigor. PNNL has long recognized that establishing a robust, data-driven analytic foundation–tethered to the real-world, market-based dynamics that shape the trajectory of energy infrastructure investment and technology deployment–is key to fostering consensus across the diverse set of stakeholders.

With over 130 economists, statisticians, policy, social, and behavioral scientists, PNNL has strong capabilities in economics, statistics, financial and market analyses in support of Energy Efficiency, Renewable Energy, Transportation, Environment, and National Security projects. PNNL market and policy analyses have provided key insights and guidance to decision makers in developing significant investments in smart grid and electricity infrastructure technology. PNNL regulatory analysis and energy efficiency rule development in support of the DOE have resulted in projected national cost savings of $1.1 Trillion and over 200 Quads of energy (equivalent of 2 years energy consumption in the U.S.) saved by 2035. Similarly, a recent PNNL analysis showed that a 75 percent market penetration of Electric Vehicles was feasible with the nation's existing power infrastructure. Meanwhile, PNNL's interaction of models associated with climate, water and energy infrastructure provide a uniquely predictive capability on the impacts of global change, down to the regional level meaningful to an array of policymakers.

In addition to our experienced staff, we have developed a toolbox of economic, financial, and policy simulation, analysis, and modeling capabilities that are especially focused on answering the kind of policy questions to which decision-makers need answers. Our toolbox is focused on the following areas:

- Market/Policy Simulation, Analysis & Modeling
- Market Rate Analysis
- Cost-Benefit Analysis
- Economic Analyses & Modeling
- Microeconomic, Natural Resource, Environmental, Regional & Socio Economic Modeling

We have developed and utilize specialized tools that include:

- SEDS – Stochastic Energy Deployment System Model
- IMSET – Impact of Sector Energy Technologies Model
- SEADS – Sector Energy/Employment Analysis and Data System Model
- GridLab-D – Energy Grid Simulator
- PRIMA – Platform for Regional Integrated Modeling and Analysis
- RIM – Renewables Integration Model
- ESIOS – Electric System Intrahour Operations Simulator
- PROMOD – Production Cost Modeling
- PHOENIX – Global Computable General Equilibrium Model for International Policy Analysis
- GCAM – Global Change Assessment Model

For a copy of the full summary of PNNL Market, Financial & Policy Analysis Capabilities go to http://epe.pnnl.gov/pdfs/PNNL_Market_Financial_Policy_Analysis_Capabilities_Summary.pdf

Princeton Plasma Physics Laboratory

PPPL is affiliated with Princeton University's Andlinger Center for Energy and the Environment, which conducts research on sustainable energy development, energy conservation, and environmental protection and remediation related to energy. See http://acee.princeton.edu/.

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Other affiliates include the Woodrow Wilson School of Public and International Affairs and the Geophysical Fluid Dynamics Laboratory (NOAA) and various corporate members. The Andlinger Center's expertise could be accessed for DOE projects. PPPL also has specific expertise in analysis of the costs and potential impact of fusion energy development.

Sandia National Laboratory

Sandia has developed economic and policy analysis capabilities to assess complex, interdependent systems. We combine engineering analyses of physical systems with policy evaluation, economic analyses, and social systems behavioral analysis. By explicitly considering the interplay between the socio-economic, policy, and behavioral impacts with the technical at the systems level, we excel at understanding the salient dynamics and identifying high-leverage alternatives for managing large, high-complexity systems critical for national security and economic competitiveness.

Strategic Policy Analysis Examples:

- Sandia Policy Analysis Cell
- Energy and Critical Infrastructure Economics
- Exogenous Shocks to Critical Infrastructures
- Integrated Micro-Macroeconomic Forecasting
- Investments in Science and Technology Innovation
- Supply Chain Analysis
- Impacts of Global Climate Change
- Cyber Security Policy Analysis
-

Policy Implementation Analysis Examples:

- Evaluation of Small Modular Reactors (SMRs) for DoD Installations
- Alternative fuel cycles,
- Option evaluations in support of nuclear waste disposal policy decisions
- Adoption and Acceptance of Energy Policy

Operational Analysis of Policy Options Examples:

- Transportation Energy Analysis
- Waste Biomass to Energy Pathway Model
- Optimizing Storage, Transportation, and Disposal of nuclear waste
- Regulatory and Risk Analysis

Savannah River National Laboratory

Nuclear Materials Disposition Strategies and Approaches - SRNL has over 60 years of experience in the characterization, stabilization, and disposition of nuclear materials. Policy expertise exists to develop approaches for treaty development and verification. SRNL nuclear materials expertise has also been applied across a number of USG programs to develop Nuclear Nonproliferation policies and strategies.

SLAC National Accelerator Laboratory

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Stanford University, SLAC's parent contractor, has several relevant and widely recognized activities in the area of energy-related market, financial, and policy analysis. Stanford's Energy Modeling Forum (EMF, http://emf.stanford.edu/) includes energy and environmental modeling and analysis with recent or current research in areas that include climate and integrated assessment, international trade and US shale gas model comparison studies. EMF is headed by Prof. John P. Weyant, Department of Management Science & Engineering. EMF has developed additional research programs on technology assessment and technological change modeling in the energy sector (in partnership with Stanford's Global Climate and Energy Project (GCEP, http://gcep.stanford.edu/), uncertainty analysis, fine scale climate impact projections and model diagnostics. Stanford partnered with other institutions to establish a global Integrated Assessment Modeling Consortium (IAMC, http://emf.stanford.edu/docs/modeling_consortium/) and that organization now includes 55 member institutions, hosts a web site and conducts an annual meeting. SLAC, in partnership with Stanford, could identify avenues to facilitate bringing some of these capabilities to focus on issues relevant to DOE interests and missions.

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QER Schedule		
What	**When Complete**	**Who**
Complete Drafts of the Presidential Memorandum and the Charge to Agencies from the Co-Chairs	7/10/13	DOE Policy
Complete Draft Outline of Interim and Final Report (triage matrix)	7/17/13	DOE Policy
Meet with OSTP/DPC to agree on a path forward	7/19/13	DOE/OSTP/DPC
Review Available Modeling Resources	7/22/13	DOE/Greg Singleton
Meet with DPC, OMB to get a clear idea of what is expected in the interim report	7/23/13	DOE/DPC/OMB
Executive Memorandum submitted for approval	7/23/13	OSTP/DPC
Executive Memorandum Approved and Released	7/31/13	White House Offices/ date speculative
Co-Chairs send directive to Agency Heads and Schedule first Principals Meeting	8/1/13	OSTP/DPC
DOE identifies staff that will serve as the Secretariat and makes clear assignments to task forces	8/1/13	DOE (Should we ask for loaners from other agencies to serve in the Secretariat?)
DOE Secretariat task forces provide detailed outline of proposed work including analytical requirements. This will include work needed for both the interim and final report (some early draft materials will probably be needed to meet the interim deliverable date)	8/5/13	DOE
First Principals Meeting	8/15/13	OSTP/DPC
First Interagency Task Force Meetings (biweekly meetings will be needed through December)	8/20/13	DOE lead
Clear statement of analysis requirements. Contracts/Agreements in place with essential external groups (Labs/Universities)	8/30/13	DOE (other agencies?)
First stakeholder meeting (there should be a stakeholder meeting task and task leader)	9/14/13	DOE
Initial drafts of Task Force teams delivered	9/30/13	DOE & Interagency team
Second Stakeholder Meeting	10/15/13	DOE
Integration and editing of task force drafts into a single document. Draft summary materials	11/6/13	DOE

Integrate comments into interim delivery document and submit to DPC/OSTP for final approval	11/14/13	DOE
Second Principals Meeting to review and approve the draft	11/15/13	OSTP/DPC
Interim Report Complete	11/28/13	All
Third Stakeholder Meeting	12/10/13	DOE
Fourth Stakeholder Meeting	2/14/14	DOE
Task Force Reports (chapters) ready for review	8/1/14	DOE lead
Begin work on integrated report	8/11/14	DOE/teams
Integrated Analysis (overview chapters) ready for review	9/22/14	DOE
Complete review of Task Force Reports	9/1/14	DOE/teams
Complete review of Integrated Report	10/22/14	DOE
Final Report issued	11/18/14	OSTP/DPC

Proposed QER Task Forces

Each group will be given a clear charter (proposed goals suggested in the list below) and a schedule. Each will be asked to clarify objectives, and explore policies needed to achieve them. The tools considered will vary with the problem but each should consider:

- Defining the metrics of success: What are you trying to do and how will you know if you get there?
- What are the barriers to success: technical problems, regulatory problems, market failures financing
- What should the US do to meet the challenges (what's our strategy: R&D, financing, regulatory reform, behavioral)

Proposed Task Forces

1. ***Outreach: ensure transparency and capture ideas and advice from the broadest possible range of individuals and institutions affected by energy production and use.***
    a. Organize stakeholder meetings
    b. Use social media tools to gather comments/concepts
    c. Answer inquiries
2. ***Integration: What is the net impact of the QER policies on:***
    a. Cost of energy services
    b. National security
    c. Environmental impacts (including climate)
    d. Reliability/availability of energy services
3. ***Electricity Grid Infrastructure: What are the characteristics of a grid that can maximize efficiency, reliability, resiliency, and low cost for the next generation of electricity technologies (supply, demand, controls). What do we need to do to create such a system?***
    a. Transmission
    b. Distribution
    c. Grid Storage
    d. Control Systems
        i. Demand Management (Buildings/Manufacturing)
        ii. System Controls and optimization (including emergency management)
        iii. Cyber security
    e. Integrated system design (grid of the future)
4. ***Fuels infrastructure: What will be the demand for solid, liquid, and gaseous fuels in the near, intermediate, and long term? How can we ensure that these needs are met at low cost and low environmental impacts?***
    a. Natural Gas (conventional and unconventional):

i. Production
ii. Storage
iii. Processing
iv. Transmission
v. Distribution
vi. Next generation plants with CCS

b. Petroleum and NGL (conventional and unconventional)
i. Production
ii. Transmission
iii. Refining
iv. Distribution

c. Coal
i. Mining
ii. Transport
iii. Next generation plants with CCS

d. Biomass and other renewable fuels

5. ***Nuclear: How can we make nuclear a practical part of the US electric generation portfolio? What will we do to overcome challenges? (emphasis on SMRs and assessment of new cycles)***
   a. Cost
   b. Waste
   c. Safety
   d. Proliferation
6. ***Renewable Electricity (wind, solar, geothermal, biomass): How can we make nuclear a practical part of the US electric generation portfolio? What can be done to overcome challenges in***
   a. Cost
   b. Intermittency
   c. Transmission infrastructure
   d. Land use
7. ***Highway Transportation Infrastructure: How can we provide personal and freight transportation services that increases safety, convenience and reduces costs and environmental impacts. What is the fuel infrastructure needed to do this (petroleum, electricity, gas, renewable fuel)***
   a. Vehicle Technology (personal vehicles, commercial vehicles, transit)
   b. VMT reduction strategies (e.g. transit oriented growth)
   c. Fuel alternatives & related infrastructures
8. ***Manufacturing Infrastructure: How can we ensure US leadership in next-generation manufacturing that lowers production costs, increases quality, and increases energy productivity?***

9. ***Buildings Infrastructure (Residential, Commercial, Industrial—new and retrofit): How can we ensure that building energy services (lighting, comfort), integrated into a 21st century grid, are provided at the lowest cost and ensure resiliency during emergencies.***
10. ***Climate Change Resiliency: What changes in energy infrastructure are needed to prepare for the likely effects of climate change (water availability, siting issues, resistance to high winds/fires)***
    a. Water use
    b. Preparedness (siting, hardening)
11. ***Workforce: What can be done to ensure that American workers are trained and retrained to take the energy infrastructure jobs of the future (power industry, advanced manufacturing, building retrofit and construction, EV maintenance)***

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	**Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure**	**Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure**	**Federal/state/local policies that inhibit/assist in the financing/ deployment of energy infrastructure**	
Climate Impacts				
Security Impacts				
Economic Impacts				

The Quadrennial Energy Review: Supporting a 21st Century Energy Infrastructure

A Federal Quadrennial Energy Review. Innovation and new sources of domestic energy supply are transforming the nation's energy marketplace, creating economic opportunities at the same time they raise environmental challenges. To help ensure that Federal energy policy meets our economic, environmental and security goals in this changing landscape, President Obama has directed his Administration to establish a government-wide process, the Quadrennial Energy Review (QER), which will be led by the Domestic Policy Council and Office of Science and Technology Policy in the White House. It will be supported by a Secretariat established at the Department of Energy and include stakeholders in a robust engagement.

The first-ever QER will focus on infrastructure challenges, and will identify the associated threats, risks, and opportunities for U.S. energy and climate security. This will enable the federal government to translate policy goals into a specific set of analytically based, clearly articulated, sequenced and integrated actions and investments over a four year planning horizon.

Background. In its 2010 report, *Accelerating the Pace of Change in Energy Technologies Through an Integrated Federal Energy Policy*, the President's Council of Advisors on Science and Technology articulated a vision for a clean, secure, safe and affordable energy future that would enhance the nation's –

- **economic competitiveness:** renewal of our own energy infrastructure and access to rapidly growing global markets for clean energy technology
- **environment:** rapid progress towards lower-carbon energy in this decade as a prudent response to global warming risks; and
- **energy security:** scaling-up of technologies that reduce oil dependence and thereby improve both our balance of payments and our security posture.

The report also noted that the means of achieving this goal represented one of the nation's preeminent challenges – it will require extraordinary actions at the Federal level, in concert with states, localities and the private sector that owns and operates the vast majority of the energy supply, transmission and distribution enterprises and other associated supply chains.

To meet this challenge, the report recommended, among other things, that the President establish a Quadrennial Energy Review (QER) process that would provide a multiyear roadmap to:

- lay out an integrated view of the short-, intermediate-, and long-term objectives for Federal energy policy in the context of economic, environmental, and security priorities;
- outline legislative proposals to Congress;
- put forward anticipated Executive actions (programmatic, regulatory, fiscal, and so on) coordinated across multiple agencies;
- identify resource requirements for the RD&D programs and for innovation incentive programs; and
- provide a strong analytical base for decision making.

Focus on Infrastructure. The reasons for a focus on infrastructure in the first QER are compelling. Energy is produced and consumed at enormous scale via complex and very capital intensive supply chains. These vast networks -- large pipeline systems, long-distance power transmission lines, storage facilities, oil refineries, gas processing, import and export terminals, and local distribution networks – help deliver affordable heat, fuel and power to 300 million Americans every day. These supply chains also expand far beyond our borders and engage

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us with the rest of the world, both guiding and constraining our foreign policy.

Our energy infrastructures need to be modernized, replaced or transformed if we are going to meet the many energy needs and challenges of the 21st century. According to DOE's *Grid 2030* report: "America's electric system, 'the supreme achievement of the 20th century,' is aging, inefficient and congested, and incapable of meeting the future energy needs of the information economy without operational changes and substantial capital investment over the next several decades." This is especially problematic as other infrastructures – water, natural gas, telecommunications, etc. – have become increasingly dependent on electricity. Also, infrastructure investment has slowed dramatically since the 1980s, increasing the difficulty of this challenge.

Moreover, climate change poses a serious threat to the reliability of these increasingly interdependent infrastructures. According to the National Wildlife Federation, weather related power outages have gone from 5-20 each year in the mid-1990s to 50-100 per year in the last five. Hurricane strength is increasing and posing threats to the nation's 4000 offshore oil and gas rigs and the 245 refineries located on the Gulf Coast. Demand for water to cool thermoelectric plants is expected to increase at the same time severe drought, particularly in the southwestern US threatens water supplies to meet this need. Truck and train transport, essential for coal and biofuels, is greatly impacted by related needs for highway and bridge improvements.

These examples highlight key policy concerns and underscore the need for new, improved and resilient infrastructures that:

- pair new renewable and unconventional sources of energy supply to energy consumers;
- adapt to and mitigate climate change;
- increase the resilience of the grid;
- address growing infrastructure interdependencies, especially natural gas and electricity;
- match new energy technologies to end-users; and
- deliver energy to end users in more efficient ways, taking advantage of new technologies at the micro-scale for building-level systems and very localized distributed energy delivery.

This transformation is also essential for enhancing US competitiveness in the 21st century global marketplace and investment in infrastructure creates jobs; there are between 14,515 and 23, 784 induced, direct and indirect jobs created from every $1 billion invested in infrastructure. This transformation is however expensive. The Edison Electric Institute estimates the need for investment in the grid to be $412 billion between now and 2030. Annual investment rates for the nation's gas infrastructure, assuming a 50% increase in gas demand per EIA forecasts, will be $19.2 billion a year by 2030.

Importantly, energy infrastructures tend to be long-lived, often with life spans of forty years or more. This longevity means the decisions we make today will be with us for decades into the future. Further, the large capital costs and sheer scale of our energy enterprises perpetuate the incumbent providers of energy goods and services, placing constraints on innovation and encouraging reliance on policies – not pure market drivers – for market transformation. While the ultimate responsibility for the development, maintenance and replacement of these networks largely resides with the private sector – there is a significant public interest in energy and its related infrastructures.

With scale, capital costs and infrastructure as the boundary conditions, climate urgency as a primary driver – and some inherent policy dissonance between them-- it is essential then that we get our energy policy and investment decisions right. Policy inconsistency, inconstancy, or the lack of legal, jurisdictional or regulatory clarity can be expensive and dilatory and erode public confidence -- especially problematic in light of the urgent

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need for action to mitigate climate change. A Quadrennial Energy Review would give us a higher degree of confidence that we can both establish the correct energy policy course as well as make course corrections.

Implementation

- The QER, as a government-wide process, must be driven by the White House and will likely be launched via a Presidential memorandum.

- The White House QER co-directors from the DPC and OSTP will be supported by a QER Secretariat located in the Office of Energy Policy and Systems Analysis (EPSA) at the Department of Energy. The QER will be implemented through an interagency committee what will include the following executive departments, agencies, and offices:

    - the Domestic Policy Council;
    - the Office of Science and Technology Policy;
    - the National Economic Council;
    - the National Security Staff;
    - the Office of Management and Budget;
    - the Council on Environmental Quality;
    - the Council of Economic Advisers;
    - the Department of State;
    - the Department of the Treasury;
    - the Department of Defense;
    - the Department of the Interior;
    - the Department of Agriculture;
    - the Department of Housing and Urban Development;
    - the Department of Commerce;
    - the Department of Labor;
    - the Department of Health and Human Services;
    - the Department of Transportation;
    - the Department of Energy;
    - the Department of Homeland Security;
    - the Environmental Protection Agency;
    - the Small Business Administration;
    - the Army Corps of Engineers;
    - the Federal Housing Finance Agency, and
    - such other agencies and offices as the President may designate.

- EPSA will also provide expert analytical and policy support for the development of the QER. It will be organized to analyze inputs from the range of agencies and stakeholders and provide policy guidance to the interagency committee.
- EPSA will be organized around two major energy challenges – climate change and energy security, will have analytical and policy capabilities in these areas as well as in financial investment, incentives, the federal budget, and state and local policies, supported by a strong integrating analytical and policy function.

Pre-decisional and deliberative

Presidential Memorandum – Establishing a Quadrennial Energy Review

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Establishing A Quadrennial Energy Review

Clean, secure, safe and affordable energy is essential for US economic competitiveness, protecting the quality of our environment, and ensuring our nation's security. The Department of Energy has primary responsibility for meeting the nation's energy goals but a many federal agencies and departments have major roles. Investments and policies adopted by the private sector, universities and other not-for-profit institutions, and all levels of state and local government are essential for success.

A Quadrennial Energy Review (QER), involving contributions from all federal organizations involved in energy production and use, will create a clear national energy policy and a roadmap that provides an integrated short-, intermediate-, and long term energy goals. It will translate these policy goals into a set of analytically based, clearly articulated, sequenced and integrated actions and proposed investments over a four year planning horizon. Proposed actions will include actions that can be taken within existing statutory authority and recommendations for actions that require new legislation.

Particular attention must be paid to our energy infrastructures. Many are not prepared to meet the energy challenges of the 21st century. An aging infrastructure presents serious barriers to innovation and efficiency throughout the energy system. It can also increase the risks of weather-related power outages – a problem that will intensify as the result of climate change. Hurricane strength is increasing and posing threats to the nation's 4000 offshore oil and gas rigs and the 245 refineries located on the Gulf Coast. Climate change also affects electricity generation since power plants require significant amounts of water for cooling. Truck and train transport, essential for coal and biofuels, is greatly impacted by related needs for highway and bridge improvements. The QER should examine strategies for ensuring that US energy infrastructures support: matching new energy technologies to end-users; adapting to and mitigating climate change; pairing new renewable sources of energy supply to energy consumers; and delivering energy to end uses in more efficient ways, taking advantage of new technologies at the micro-scale for building-level systems and very localized distributed energy delivery.

Therefore, by the authority vested in me as President by the Constitution and the laws of the United States of America, I hereby direct the following:

Sec. 1. Establishment of the Quadrennial Energy Review. There is established the Quadrennial Energy Review which shall be co-chaired by the Director of the Office of Science and Technology Policy and the Director of the Domestic Policy Council {*alternatively the Assistant to the President for Science and Technology and the Deputy Assistant to the President for Energy and Climate Change* }.

(a) The co-chairs will convene a task force consisting of the head of each of the following executive departments, agencies, and offices, or their designated representatives

1) the Office of Management and Budget
2) the National Economic Council
3) the National Security Staff;
4) the Council on Environmental Quality
5) the Council of Economic Advisers
6) the Department of State
7) the Department of the Treasury
8) the Department of Defense
9) the Department of the Interior;
10) the Department of Agriculture;
11) the Department of Housing and urban Development
12) the Department of Commerce;

13) the Department of Labor;
14) the Department of Health and Human Services;
15) the Department of Transportation;
16) the Department of Energy;
17) the Department of Homeland Security;
18) the Environmental Protection Agency;
19) the Small Business Administration;
20) the Army Corps of Engineers;
21) the Federal Housing Finance Agency, and
22) such other agencies and offices as the President may designate.

(b) The co-chairs shall regularly convene and preside at meetings of the Task Force and determine its agenda as the Task Force exercises the functions set forth in section 3 of this order. The co-Chair's duties shall also include:
   (i) gathering ideas and advice from State and local governments, tribes Members of Congress, universities, nongovernmental organizations, consumers, private sector organizations, and other stakeholders and interested parties, and
   (ii) coordinating the efforts of executive departments, agencies, and offices related to the development and review of the QER.
(c) The Secretary of Energy shall establish a Secretariat to support the QER and provide adequate staff, analytical support, and other services.
(d) The co-chairs shall deliver a QUE report every four years beginning with a report delivered by September 30, 2014. Intermediate reports and other material may be prepared by the task force as required by the President.

Sec. 2. The Scope of the QER.

The QER will be an integrated energy policy for the 21st century. It will provide:

- an integrated view of short-, intermediate-, and long-term objectives for Federal energy policy supporting national economic, environmental, and security priorities;
- a set of Executive actions (programmatic, regulatory, fiscal) that will support these priorities
- recommended legislation to support national energy goals
- resource requirements for the RD&D programs and for innovation incentive programs; and
- a strong set of analytical tools and data to support decisionmaking at all levels

The QER will:

(a) use a clear analytic framework to develop a comprehensive innovation strategy in energy equipment and energy systems (such as the electric grid). All technologies will be evaluated against the same criteria without bias. This will involve a review of technical options for meeting cost and performance objectives and describe how federal investments can achieve the greatest leverage.
(b) the review of technology options should will be used to develop priorities for basic science and applied programs.
(c) it will describe actions taken to ensure rapid conversion of research to products and systems that have viability in commercial markets. It will reflect the fact that energy products are diverse (ranging from gigawatt power plants to light bulbs) and face different regulatory and economic challenges.
(d) It will ensure that steps taken to create efficient markets for new energy technologies draw on the comparative strengths of federal, state, and local programs. Programs considered include:

   - economic or regulatory incentives to encourage the use of technologies, services, and business models that meet the policy goal (e.g., appliance standards, carbon price);
   - codes and standards based on the capabilities and attributes of the preferred technology (e.g., LEED);
   - removing legal and regulatory barriers to diffusion; and
   - creating conditions favorable to private sector financing.

Sec. 3. Outreach. The QER team should reach out to elected State, local, and tribal officials, corporations,

universities and other non-governmental organizations, and other stakeholders to gather information and advice and to ensure that the process of creating the QER is transparent to the public. It should develop an integrated strategy for doing that include traditional meetings and use of modern information technology.

Sec. 4. General Provisions. (a) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to any agency, or the head thereof; or

(ii) the functions of the Director of OMB relating to budgetary, administrative, or legislative proposals.

(b) Nothing in this memorandum shall be construed to require the disclosure of classified information, law enforcement sensitive information, or other information that must be protected in the interest of national security or public safety.

(c) This memorandum shall be implemented consistent with applicable law and subject to the availability of appropriations.

(d) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(e) Independent agencies are strongly encouraged to comply with the requirements of this memorandum.

(f) The Presidential Memorandum of November 30, 2004 (Improving Spectrum Management for the 21st Century), is hereby revoked.

(g) The Director of the Office of Science and Technology Policy is authorized and directed to publish this memorandum in the Federal Register.

BARACK OBAMA

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ENERGY INFRASTRUCTURE POLICY MATRIX

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure	Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure	Federal/state/local policies that inhibit/assist in the financing/ deployment of energy infrastructure	

Infrastructure Segments

Production

	Positive/negative					
Coal	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Conventional Oil & Gas	*Climate impacts*					
	Security Impacts					
	Economic Impacts					
Unconventional Oil & Gas	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Biofuels	*Climate Impacts*					

	Security Impacts					
	Economic Impacts					
Central Station Electricity Generation (all fuels)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	**Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure**	**Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure**	**Federal/state/local policies that inhibit/assist in the financing/ deployment of energy infrastructure**	

Infrastructure Segments

Interstate Transport

Oil/Gas Pipelines	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Gas Processing	*Climate Impacts*					
	Security Impacts					

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	Economic Impacts					
Petroleum Refining	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Coal transport/rail	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Biofuels transport	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
HV Electricity Transmission	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Import/Export Facilities	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

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Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure	Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure	Federal/state/local policies that inhibit/ assist in the financing/ deployment of energy infrastructure	

Infrastructure Segment

Distribution Systems

Petroleum Product Distribution	*Climate Impacts*					
	Security Impacts					
	Economic impacts					
Gas Distribution (includes storage)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Electricity Destination Grid (inc. DG)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

Policy/Regulatory (Non-Financial)	Finance	Technology	Significant Barriers	Statutory requirements/ limitations
Federal policies to encourage cost effective, environmentally sustainable and resilient infrastructure	Federal policies to encourage adequate and least cost capital formation to support investments in 21st Century infrastructure	Programs and policies to spur innovation and commercialization of new enabling technologies for future infrastructure	Federal/state/local policies that inhibit/ assist in the financing/ deployment of energy infrastructure	

Infrastructure Segments

End Use Infrastructure

	Positive/negative					
Industrial/Manufacturing	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Commercial Building Energy Mgt (Bldg Envelope, HVAC, Lighting & Appliances DG)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Residential End Use	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					
Transportation Infrastructure (highways, air, mass transit)	*Climate Impacts*					
	Security Impacts					

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	Economic Impacts					
Vehicle Fueling Systems (NG, Electricity, Liquids)	*Climate Impacts*					
	Security Impacts					
	Economic Impacts					

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Department	Key Divisions	Importance for QER
Defense	• Services • DARPA	• Military bases as testbeds for innovative components (chillers, sensors, SMRs, drop-in biofuels) and integrated systems (micro-grids, cyber-security) • Collaboration in key research areas (advanced materials, next-generation manufacturing, batteries) • Training for energy-related jobs
Interior	• Bureau of Land Management • Bureau of Ocean Energy Management • Bureau of Safety and Environmental Enforcement • Bureau of Reclamation • National Park Service • Office of Surface Mining • U.S. Fish and Wildlife Service • U.S. Geological Survey	• Transmission lines, pipeline, oil and gas exploration, renewable facilities permitting (including offshore) • Variety of regulatory authorities affecting energy infrastructure • Carbon sequestration potential • Fossil fuel/uranium resources • Network of regional centers
EPA		

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	Office of Air and Radiation • Office of Research and Development • Office of Water	Administrates the Clean Air act • Pollution prevention and energy efficiency, indoor and outdoor air quality, pollution from vehicles and engines, radon, climate change. Energy Star labels. • Regulation of new infrastructure • Regional offices
Housing and Urban Development	• Housing (FHA, Multifamily, single family) • Community Planning and Development	• Housing finance (mortgages, appraisals, energy efficient mortgages) • Public housing efficiency measures • The "urban development" mission is key to cities as an energy infrastructure (zoning, transportation access, resiliency)
Transportation	• Federal Aviation Administration • Federal Highway Administration • Federal Motor Carrier Safety Administration • Federal Railroad Administration • Federal Transit Administration • Maritime Administration • National	• Fuel Economy standards • Transit Oriented Development encourages low VMT urban designs • Funding for transportation infrastructure (highway, transit, others) • FAA influences aircraft efficiency (~8% of petroleum use) • Extensive regulatory authority over transportation infrastructure including energy pipelines • Research capabilities and expertise in forecasting

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	Highway Traffic Safety Administration • Pipeline and Hazardous Materials Safety Administration • Research and Innovative Technology Administration	
Agriculture	• Agricultural Research Service • Economic Research Service • Forest Service • Natural Resources Conservation Service	• Biomass fuels research and demonstrations • Soil carbon sequestration • Rural Housing • Rural electric utilities • Water management • Extensive outreach capabilities through state and regional offices
Commerce	• NIST • NOAA •	• Interoperability standards for energy infrastructure • R&D collaboration (buildings, manufacturing, materials) • Weather and other data needed to optimize grid performance (forecast temperatures, wind, sunlight at many different intervals)
Corps of Engineers	• Civil works • Emergency operations	• Energy infrastructure: ports, canals • Regulatory authority over construction in the Great Lakes (offshore wind)

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	Environment	
Homeland Security	• Directorate for National Protection and Programs	• Cybersecurity for energy infrastructure • Other infrastructure security issues
Treasury	• Office of Tax Policy • Office of Economic Policy	• Energy tax policy (many areas of energy infrastructure have unique tax provisions) • Partners with HUD on home finance reforms
National Science Foundation		• Research Collaborations
Federal Housing Finance Agency	Oversees: • Fannie Mae • Freddie Mac • Federal Home Loan Banks	• Integrating energy efficiency into appraisals, mortgages, transactions • Housing inspection and labels
Education	• Office of Vocational and Adult Education • Office of Innovation and Improvement	• Training for energy jobs at all levels (design, build, operate, maintain)
	•	•
	•	•

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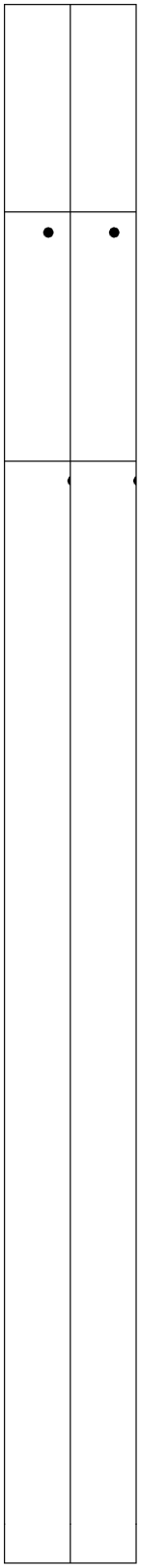

From: Darren Samuelsohn <dsamuelsohn@politico.com>
Sent: Thursday, June 20, 2013 10:55 AM
To: Ex. 6 - Michael Goo
Subject: ? On climate regs

Hey Michael,
Putting on my energy hat for a minute, any way you can confirm on background (as a Senior Admin Official?) the key point in the NYT story today that Obama and the EPA will be pursuing regulations for existing power plants and that this process needs to get moving by end of year to be finished before the term is up?
Thanks,
Darren Samuelsohn
Politico
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From: Conrad Schneider <cschneider@catf.us>
Sent: Thursday, January 17, 2013 2:30 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Clarification on 111(d) comment

Hi Michael-
Thank you so much for setting up the meeting with Bob P. All in all, we felt that it went pretty well. We very much appreciated the support from you and Alex.

When you get a minute, I'd like to strategize about next steps. But, in the meantime, I had a question to clarify something Bob P. said. Towards the end of the meeting, he said that we (the royal "we" I assume) need to reach higher into the WH. He mentioned Cecilia Muñoz and the Domestic Policy Council and also Bevin Ashenmiller at CEA. What I didn't get (and didn't have the presence of mind to ask) was whether he thought he would need support at that level to get out a proposal or merely to start up the 111(d) process again (i.e., issue white paper, convene stakeholders). Whatever the answer, I want to strategize with you about what is needed and who we'd need to bring into the process to get meetings with that level of WH folks (and higher). We've gotten some more uptake by companies and there may be a way to have them engage.

Additionally, in our meeting last Friday with Rick Duke and Drew McConville, we asked them about sending a signal to EPA to end the stop work order on 111(d). They said that Lisa and Gina have already changed their public statements on 111(d) recently. They said that when they are asked, they no longer say, "we have no plans to do 111(d)" but rather "climate change is an important priority for this Administration." They also pointed to statements made in reaction to the release of NRDC's report. We responded that we are talking to companies that they haven't gotten the message. The change in rhetoric was too subtle a change in message for utility companies to believe that the Administration is moving forward to start up the regulatory process on 111(d). But, it strikes me that they may also have been saying that the message to EPA has been delivered and received. I'd like to discuss that with you.

Anyway, I'd like to grab a few minutes with you on all this (and more). Doesn't have to be long. Please let me know what day/time would work. Could be after hours or whenever. I'm around on cell.

Thanks again.

Cheers,
CS

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207/721-8696 (facsimile)

From: Conrad Schneider <cschneider@catf.us>
Sent: Sunday, January 6, 2013 5:53 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

Hi Michael-
Happy New Year! Bruce Phillips and I are meeting on 1/11 with folks at the WH (Guzy, Duke, McConville, Samy) for the fourth time since the election on our 111(d) concept. They seem to be taking it pretty seriously. We also met with the OAR folks just before Christmas. We are meeting with some of them again this Friday. I'll be in town Thursday and Friday. Couple of questions for you:

(1) See the POLITICO article below saying Gov. Gregoire is being considered for Lisa's job. Should we put in a good word for Bob P. in our meeting? Is there anything else we can do to help Bob P.?

(2) We discussed getting a meeting with Bob P. on our 111(d) concept. What needs to happen for that to happen? At the last minute, Goffman had to bow out of our OAR meeting. Should we make sure he attends the Friday meeting?

(3) We've been meeting with Alex Barron on the potential for an O&G methane rule. There is a BIG opportunity there for near-term CH4 cuts -- as big or bigger in CO2e than our 111(d) proposal -- and together we think the two rules may get us to the Administration's 17 percent GHG reduction from 2005 levels by 2020 target . But, the net benefit of any 111(d) proposal that relies heavily on coal displacement with natural gas depends on the leak rate from the natural gas system. We aren't in the Howarth camp that natural gas entails more net GHG emissions than coal, but some of the recent field measurements are showing very high leak rates. The two-step here is to tighten up the natural gas system simultaneously with using gas to back out coal generation. CATF represents parties to the litigation challenging the O&G NSPS rule, but Alex and I have discussed teeing this up as a positive Obama Administration climate initiative rather than correcting insufficiencies in the rule/a response to a lawsuit. Even if we pursue a consent decree on the timeline for a rule, we need to discuss the details of regulatory development here. Anyway, it might make sense for us to discuss this sooner than later.

Please let me know if you have some time to meet/talk on 1/10 or 1/11.

Cheers,
CS

>>>> Gregoire stock rising for EPA top job
>>>>
>>>> By Darren Samuelsohn and Erica Martinson
>>>>
>>>> 1/4/13 6:11 PM EST
>>>> Washington Gov. Chris Gregoire may be moving to the front of the pack in the contest to be named the new EPA administrator, according to a source familiar with the transition and a Seattle online newspaper.
>>>>
>>>> The Seattle Post-Intelligencer on Friday cited a “very private prediction from a very senior source in Washington’s congressional delegation” saying she’ll soon be nominated to replace Lisa Jackson.
>>>>
>>>> And a source familiar with the transition told POLITICO that the article naming Gregoire as a leading candidate for the EPA job is "quite real."
>>>>

>>>> Gregoire was an early backer of President Barack Obama and has received past support herself from Kansas Gov. Kathleen Sebelius and Arizona Gov. Janet Napolitano, both of whom became part of the president's Cabinet.
>>>>
>>>> The outgoing Washington governor's name has been circulated inside the Obama White House for a second term post, including EPA and the Interior Department, a job that traditionally goes to a Westerner, according to the source familiar with the transition.
>>>>
>>>> "Her name has been on the list," said the source. "She's looking for a spot and she's likely to get a spot."
>>>>
>>>> Others inside the Obama administration also have been vying for the EPA spot, including the agency's top air pollution official, Gina McCarthy, and the White House's top energy and climate adviser Heather Zichal. Bob Perciasepe, the current No. 2 at EPA, has also been named among the list of possible EPA candidates and is set to serve as the agency's acting chief pending the confirmation of Jackson's successor.
>>>>
>>>> "We have not heard anything from the administration on such an offer," Gregoire's spokesman Cory Curtis said in an email response to a query.
>>>>
>>>> The White House declined comment.
>>>>
>>>> "She certainly would be an eminently qualified person," said Bill Ruckelshaus, who acted as EPA administrator under Presidents Richard Nixon and Ronald Reagan. "I think she'd do a good job and my guess is she'd get confirmed."
>>>>
>>>> Gregoire will leave the governor's office this month after serving two terms in Olympia. Before that, she was the state attorney general and head of the Department of Ecology.
>>>>
>>>> "President Obama is no fool. He's a smart guy. He knows what she's done as governor. If I were him, I'd be talking to her about secretary ideas," said Laurie Dolan, who served from 2005 to 2009 as director of Gregoire's Executive Policy Office. She added that she's not heard anything about Gregoire's plans "because she's very confidential."
>>>>
>>>> Former George H.W. Bush-era EPA Administrator William K. Reilly also told POLITICO he thought Gregoire would be a good choice.
>>>>
>>>> "I tried to hire her as regional EPA administrator in 1989, when she was Washington state EPA chief. She knows the key statutes from her days in the state environmental job, and her experience as governor has added to her knowledge, her friends and her admirers," Reilly said in an email.
>>>>
>>>> To view online:
https://www.politicopro.com/go/?id=17659

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: Conrad Schneider <cschneider@catf.us>
Sent: Monday, November 26, 2012 7:00 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

Hi Michael-
Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial reactions/feedback to our proposal and strategize about possible ways forward.

Unlike some other proposals, ours is not "take it or leave it". As you could tell, we've tailored our proposal according to the specifications we've heard from you guys and the folks at the WH. But, if those change or want further refinement, please let us know. And, most importantly, if we are headed down a blind alley, that would be good to know ASAP.

We met with several coal generators on our "winners" list after our meeting with you and are scheduling more meetings for later this week. One of the reactions we got from two companies is that our price impacts are too high because we are taking a historical view of gas price elasticities. [Our electricity price and total costs are almost totally dependent on changes in gas price due to heavier reliance on existing gas plants under our proposal.] They said that the shale boom has changed the game and that comparing gas price elasticities today to the average of the last 15 years is like looking at cotton prices delivered by steam ship in 1880 after cotton was being moved by rail. So, we are hearing that there is a respectable view that the cost impacts of our proposal may be less than we've shown and accordingly, we will check in with some other gas analysts and will run a lower gas price sensitivity (as well as devising an "safety valve" or alternative compliance payment to guard against the risk of higher than forecast gas prices).

Let me know when would be a good time to talk, otherwise god knows when I'll bother you on your cellphone!

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: Conrad Schneider <cschneider@catf.us>
Sent: Tuesday, November 27, 2012 2:47 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

O.K. Try me on cell Ex. 6 - Personal Privacy when you can.

CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

On Nov 27, 2012, at 2:45 PM, Michael Goo wrote:

> Hey dude. Saw you called. Stuck in a retreat. Will call you in a while. Thanks for calling
>
> Sent from my iPhone
>
> On Nov 26, 2012, at 6:59 PM, Conrad Schneider <cschneider@catf.us> wrote:
>
>> Hi Michael-
>> Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial reactions/feedback to our proposal and strategize about possible ways forward.
>>
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>>
>> We met with several coal generators on our "winners" list after our meeting with you and are scheduling more meetings for later this week. One of the reactions we got from two companies is that our price impacts are too high because we are taking a historical view of gas price elasticities. [Our electricity price and total costs are almost totally dependent on changes in gas price due to heavier reliance on existing gas plants under our proposal.] They said that the shale boom has changed the game and that comparing gas price elasticities today to the average of the last 15 years is like looking at cotton prices delivered by steam ship in 1880 after cotton was being moved by rail. So, we are hearing that there is a respectable view that the cost impacts of our proposal may be less than we've shown and accordingly, we will check in with some other gas analysts and will run a lower gas price sensitivity (as well as devising an "safety valve" or alternative compliance payment to guard against the risk of higher than forecast gas prices).

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>> Conrad G. Schneider
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>> 207/721-8676
>> 207/721-8696 (facsimile)
>>
>>
>>
>

From: Conrad Schneider <cschneider@catf.us>
Sent: Saturday, December 1, 2012 11:51 AM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Recap of our call

Hey Michael-
Thanks for making what time you could to talk yesterday. Here's my recap. Please let me know if I've got anything wrong or if you have anything to add:

Next steps with EPA:

1. Bruce and I get a meeting with the OAR crowd (some configuration of Culligan, Ketchum-Colwill, Beauvais, Schmidt, Goffman, etc.)

2. Afterwards, if they are not openly hostile, you facilitate a meeting with Bob P and us to present our analyis.

3. Bruce follows up with Dave Evans on modeling issues.

4. I get a price quote from Venkatesh at ICF regarding how much it would cost to refine IPM to be able to accurately estimate the impacts of our redispatch policy. We discuss how to split the costs -- perhaps EPA pays for the model platform upgrade and CATF pays for the runs.

5. We keep you apprised of our progress with outreach to coal generators.

What we want EPA to do:

1. Start the party on 111(d) i.e., send a signal to the world that the process is starting up again.

2. Process might include release of the white paper, empaneling a stakeholder process to socialize the issue, etc.

Next steps with WH:

1. CATF works the folks we met with at the WH last week for a meeting with Heather Zichal with the intent of engaging her in helping creating enough space with OMB to let EPA start the party on 111(d).

2. Continue to engage the Energy and Climate/CEQ staff on the details of our policy evolution and keep them apprised of our progress with outreach to coal generators.

How you can help CATF with funders:

1. We can tell foundation program officers that we are engaged in discussions with highly-placed officials in the Obama Administration regarding viable pathways forward on 111(d). That we have presented our redispatch policy proposal to EPA and the WH and there is significant interest in the opportunity for low cost CO2 emission reductions represented by the current underutilized natural gas capacity.

2. CATF's outreach to coal generators could be very valuable to this process (helping create the political "space" for EPA to issue a meaningful rule) and is unique among environmental NGOs.

3. CATF needs substantial incremental funding to maintain the engagement with EPA and coal generators both in

terms of support for staff time but also consultants (e.g., NorthBridge, ICF) as well as the jobs study (on net employment impacts of CSAPR, MATS, and NSPS) that IEc/INFORUM is performing for us and the benefit-cost (i.e., health benefits of reduced coal generation) and SCC analyses we are performing to show that the policy is cost-effective, benefit-cost justified, and below the SCC.

4. I can tell foundation program officers to call you: (a) for your take on the prospects for moving a 111(d) rule; and (b) to vouch for CATF's value-added in the 111(d) (and 111(b)) processes.

One other thing I can't remember if I mentioned: we are hearing from several companies (NRG and AEP principally) that NorthBridge's cost estimates of our 5 percent policy are probably too high. They feel this is due to NorthBridge using historic price elasticities for predicting future natural gas prices under the policy. These folks believe that shale gas is a "game changer" and that the system can absorb 3 TCF of incremental gas with little gas price impact. [One industry said that using past gas price elasticities today is like pricing cotton based on steam ship transport after the railroads were carrying cotton to market.) We will run a low gas price sensitivity to reflect this. Rather than run a high gas price sensitivity to represent the competing view that we are currently in a gas bubble that will burst and lead to higher than forecast gas prices going forward, our current thought is to devise a "safety valve" mechanism to guard against upside gas price risk. We'll need to engage with OGC to see if they think something like this can be countenanced under section 111. Be interested in your thoughts about this.

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From:	Ken Kopocis <Kopocis.Ken@epamail.epa.gov>
Sent:	Tuesday, September 4, 2012 1:31 PM
To:	michael Goo Ex. 6 - Personal Privacy
Subject:	Fw: Steam Electric ELG

Still have no response?

Ken Kopocis

----- Original Message -----
From: Ken Kopocis
Sent: 09/04/2012 09:33 AM EDT
To: Michael Goo
Subject: Steam Electric ELG
Michael,
Has the loop been closed with OMB re extending the date for the proposal?
Anything we need to do?
Thanks,

Ken Kopocis
Office of Water
U.S. Environmental Protection Agency
(202) 564-5700

From: Ken Kopocis <Kopocis.Ken@epamail.epa.gov>
Sent: Tuesday, September 4, 2012 2:07 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: Steam Electric ELG

Thanks, just let me know.
OGC needs to settle things with litigants.

Ken Kopocis
Office of Water
U.S. Environmental Protection Agency
(202) 564-5700

Michael Goo ---09/04/2012 01:36:28 PM---Not yet Sent from my iPhone

From: Michael Goo Ex. 6 - Personal Privacy
To: Ken Kopocis/DC/USEPA/US@EPA
Date: 09/04/2012 01:36 PM
Subject: Re: Steam Electric ELG

Not yet

Sent from my iPhone

On Sep 4, 2012, at 1:31 PM, Ken Kopocis <Kopocis.Ken@epamail.epa.gov> wrote:

Still have no response?
<graycol.gif>Ken Kopocis
----- Original Message -----
From: Ken Kopocis
Sent: 09/04/2012 09:33 AM EDT
To: Michael Goo
Subject: Steam Electric ELG
Michael,
Has the loop been closed with OMB re extending the date for the proposal?
Anything we need to do?
Thanks,

Ken Kopocis
Office of Water
U.S. Environmental Protection Agency
(202) 564-5700

From: Michael Goo <Goo.Michael@epamail.epa.gov>
Sent: Friday, June 8, 2012 9:23 AM
To: Ex. 6 - Michael Goo
Subject: Fw: CCR Beneficial Use Methodology
Attach: Summary of CCR Methodology for Encapsulated Beneficial Uses 5-16-12 final_.docx

---

Robin Kime

----- Original Message -----
From: Robin Kime
Sent: 06/08/2012 09:08 AM EDT
To: Michael Goo; Bob Sussman; Donald Maddox
Subject: CCR Beneficial Use Methodology
Hi,
The attachment is pasted below.

Don,
Lets plan for Michael and Bob to talk soon, then later today a call to OMB. Thanks

----- Forwarded by Robin Kime/DC/USEPA/US on 06/08/2012 09:06 AM -----

CCR Beneficial Use Methodology

Thu 05/17/2012
12:15 PM - 1:00 PM

Attendance is for Michael Goo

Chair: **Bob Perciasepe/DC/USEPA/US**

Sent By: **Teri Porterfield/DC/USEPA/US**

Location: 3412 ARN

Required: Arvin Ganesan/DC/USEPA/US@EPA, Bob Sussman/DC/USEPA/US@EPA, Lisa Feldt/DC/USEPA/US@EPA, Mathy Stanislaus/DC/USEPA/US@EPA, Michael Goo/DC/USEPA/US@EPA, Suzanne Rudzinski/DC/USEPA/US@EPA

Description

Attached is a revised version of the CCR BU Methodology one pager that we will use at the 12:15 meeting today. Our staff will bring copies of the revised version with them. (The previous version is not wrong....this just has more information.)

(See attached file: Summary of CCR Methodology for Encapsulated Beneficial Uses 5-16-12 final.docx)

Shawna Roesch Bergman
Chief of Staff
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency
Phone: 202.564.3641

Subject - CCR Beneficial Use Methodology
Invitees - Mathy Stanislaus, Lisa Feldt, Bob Sussman, Michael Goo, Suzanne Rudzinski

Length - 45 min

Nelida Torres (Nelly)
U. S. EPA,Office of Solid Waste & Emergency Response
Room 3146C West Building
202-564-5767

Personal Notes

DRAFT

Methodology for Evaluating Encapsulated Beneficial Uses of Coal Combustion Residuals

Summary

Ex. 5 - Deliberative

Ex. 5 - Deliberative

From: Michael Goo <Goo.Michael@epamail.epa.gov>
Sent: Thursday, June 14, 2012 9:19 PM
To: Ex. 6 - Michael Goo
Subject: Fw: PM NAAQS Revised Version

From: Amy Cole
Sent: 06/14/2012 09:17 PM EDT
To: Michael Goo
Cc: Nicole Owens
Subject: Re: PM NAAQS Revised Version

Attached is the version that was uploaded.

-----Forwarded by Amy Cole/DC/USEPA/US on 06/14/2012 09:15PM -----
To: Michael Goo/DC/USEPA/US@EPA
From: Amy Cole/DC/USEPA/US
Date: 06/14/2012 09:14PM
Cc: Linda Chappell/DC/USEPA/US@EPA, Nicole Owens/DC/USEPA/US@EPA
Subject: Re: Fw: Eta on clearance of Pm

Great. I just uploaded the revised version in ROCIS and emailed Nathan Frey at OMB to let him know it has been uploaded.

Amy Cole
Regulatory Management Division
Office of Policy/ Office of the Administrator
U.S. Environmental Protection Agency
Phone: 202.564.6535
Office: 6440T Ariel Rios North
Email: cole.amy@epa.gov

-----Michael Goo/DC/USEPA/US wrote: -----
To: "Nicole Owens" <Owens.Nicole@epamail.epa.gov>, "Amy Cole" <Cole.Amy@epamail.epa.gov>, "Linda Chappell" <Chappell.Linda@epamail.epa.gov>
From: Michael Goo/DC/USEPA/US
Date: 06/14/2012 09:11PM
Subject: Fw: Eta on clearance of Pm

Fyi

From: "Mancini, Dominic J." Ex. 6 - Personal Privacy
Sent: 06/15/2012 12:58 AM GMT
To: Michael Goo
Subject: Re: Eta on clearance of Pm

We are done on substantive discussion: as soon as we can get a clean copy should be good to go within a few minutes.

Sent using BlackBerry

From: Michael Goo [mailto:Goo.Michael@epamail.epa.gov]
Sent: Thursday, June 14, 2012 08:52 PM
To: Mancini, Dominic J.
Subject: Eta on clearance of Pm

I know its a lot of fun adjusting the preamble and executive summary but all good things must come to an end. Any estimate of clearance time? Before the Thunder beat the Heat or after?

From: Darren Samuelsohn <dsamuelsohn@politico.com>
Sent: Thursday, June 7, 2012 12:07 AM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: A few things

Hey Michael,
How's it going over there? Just a quick hello. Don't know if you heard but I've moved over to the White House beat — on and up in the world and no longer just covering energy. On that note, got any deep background insight on Cass S? Know who'd be good to talk with? Digging around — heard he's holding up the Great Lakes compact b/c of cost-benefit.
DS

On 1/26/12 3:30 AM, "Michael Goo" Ex. 6 - Personal Privacy wrote:

Yes let's get lunch soon. Btw send me the story if you would. In retrospect I'm sort of hoping you didn't use the second quote about the lack of a champion. Some people might be touchy about that. Anyway the next recess lets have lunch.

Sent from my iPhone

On Jan 25, 2012, at 11:19 PM, Darren Samuelsohn <dsamuelsohn@politico.com> wrote:

Re: A few things Sure thing. Thanks for the quick turn around. Great chatting with you. Let's try for a lunch on a Monday or Friday when Congress isn't around.

On 1/25/12 11:17 PM, "Michael Goo" Ex. 6 - Personal Privacy wrote:

Sure. Maybe say former
Senate democratic aide. Thx

Sent from my iPhone

On Jan 25, 2012, at 11:10 PM, Darren Samuelsohn <dsamuelsohn@politico.com> wrote:

A few things I might want to use a few of these in my story. Here they are. Let me know if they are OK. I'd attribute as a 'former house democratic aide' if that works for

you.

Expect Obama to stay away from specific ideas over the next year for a second term given the current political climate. "You need to be very careful about articulating that," a former House Democratic aide said.

At the White House level, Obama's energy policies have largely been run out of the chief of staff's office since Carol Browner left last year. "You don't have a champion for that kind of thing," said a former House Democratic aide.

The long shot prospects of getting back to climate would require winning back control of the House and keeping the Senate, though even then the dynamics of 2009-10 remain.
"You'd have to take back the moderate seats to gain the House back. And those guys are not going to be happy about being BTU'd or Waxman-Markeyed," the former House Democratic aide said. "You've got a lot of uphill battles to get that passed."

From: Carrie Jenks <cjenks@mjbradley.com>
Sent: Thursday, May 31, 2012 8:13 PM
To: michael Goo Ex. 6 - Personal Privacy
Subject: RE: NODAs

The NODA is up on the web so that I what I am circulating widely now to CEG. Thanks for your help earlier.

From: michael Goo [mailto: Ex. 6 - Personal Privacy
Sent: Thursday, May 31, 2012 6:22 PM
To: Carrie Jenks
Subject: Fw: NODAs

Pls delete the noda on stated preference upon reciept.....both docs on need to know basis

----- Forwarded Message -----
From: Michael Goo <Goo.Michael@epamail.epa.gov>
To: Ex. 6 - Michael Goo
Sent: Thursday, May 31, 2012 6:20 PM
Subject: Fw: NODAs

----- Forwarded by Michael Goo/DC/USEPA/US on 05/31/2012 06:20 PM -----

From: Paul Balserak/DC/USEPA/US
To: Michael Goo/DC/USEPA/US@EPA
Date: 05/31/2012 06:13 PM
Subject: Fw: NODAs

just in case, here are both NODAs. Obv, NODA 1 is titled "NODA_1" and is the flexibility changes. NODA 2 is the stated preference and is titled "NODA_2"
Paul

(See attached file: EO12866_2040-AE95_Cooling water intake NODA 2 053112.clean.docx)(See attached file: EO12866_2040-AE95_Cooling water intake NODA 1_clean_053012.docx)

From: Carrie Jenks <cjenks@mjbradley.com>
Sent: Thursday, May 31, 2012 6:23 PM
To: michael Goo Ex. 6 - Personal Privacy
Subject: RE: NODAs

Will do. Yes. Thank you.

From: michael Goo [mailto: Ex. 6 - Personal Privacy
Sent: Thursday, May 31, 2012 6:22 PM
To: Carrie Jenks
Subject: Fw: NODAs

Pls delete the noda on stated preference upon reciept.....both docs on need to know basis

----- Forwarded Message -----
From: Michael Goo <Goo.Michael@epamail.epa.gov>
To: Ex. 6 - Michael Goo
Sent: Thursday, May 31, 2012 6:20 PM
Subject: Fw: NODAs

----- Forwarded by Michael Goo/DC/USEPA/US on 05/31/2012 06:20 PM -----

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To: Michael Goo/DC/USEPA/US@EPA
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(See attached file: EO12866_2040-AE95_Cooling water intake NODA 2 053112.clean.docx)(See attached file: EO12866_2040-AE95_Cooling water intake NODA 1_clean_053012.docx)

From: Michael Bradley <mbradley@mjbradley.com>
Sent: Tuesday, April 3, 2012 8:36 PM
To: Ex. 6 - Michael Goo
Subject: EEI

Michael,

I learned late today that EEI will be attempting to set up a meeting with you to go through the list of 316(B) revisions they are looking for. I believe you're going to receive an email from Amy Trojecki from Exelon requesting the meeting. I want to be clear that the EEI reps do not represent the CEG perspective on 316(B).

Since speaking with you this afternoon we have discussed the current delay with CEQ staff and your suspicion of EEI sending a message of hold back until all the key issues are resolved has been confirmed. I will be speaking with Lew Hay again tomorrow morning to discuss how best to get this back on track. I will be suggesting that we ask Tom Kuhn to call OMB to voice support for finalizing the NODA. I will let you know how this effort works out.

MJB

From: Michael Bradley <mbradley@mjbradley.com>
Sent: Thursday, April 5, 2012 10:27 AM
To: Ex. 6 - Michael Goo
Subject: FW: 316(b) Update

See the EEI email below which claims that they want the NODA published expeditiously. Dominion, PSEG, NextEra as well as other companies have contacted to request that OMB the NODA be published ASAP.

From: Shea, Quin [mailto:QShea@eei.org]
Sent: Thursday, April 05, 2012 9:27 AM
To: Bozek, Richard; Dominguez, Joseph (joseph.dominguez@exeloncorp.com); Labauve, Randy (randall_r_labauve@fpl.com); Svenson, Eric (Eric.Svenson@pseg.com); Lavinson, Melissa (melissa.lavinson@pge-corp.com); Matty, Bob (robert.matty@exeloncorp.com); Donohue, William J. (william.donohue@exeloncorp.com); Trojecki, Amy M. (amy.trojecki@exeloncorp.com); Ludecke, Kristen; Strickland, Mark F. (Mark.Strickland@pseg.com); Butts, Rayburn (ray_butts@fpl.com); Boyce, Cari (Cari.boyce@pgnmail.com); Loomis, Ann W (ann.w.loomis@dom.com); jxb@nei.org; Shannon.Banaga@pseg.com; Foster, Christopher
Cc: Bulleit, Kristy (kbulleit@hunton.com); Carrie Jenks; Simone, Hannah (hss@nei.org); Skaff Ph. D., William (wgs@nei.org); Obenshain, Karen; Bartholomot, Henri; Hunt, Meg; Ball, Sarah; Holdsworth, Eric
Subject: 316(b) Update
Importance: High

I hope you are enjoying some quality down time with your families during the Congressional recess and holiday season, both of which would be a little more enjoyable if we had some solid intelligence on where things stand with the NODA and our key issues. The balance of this note provides a few snippets for your consideration, as well as an initial draft of a new outreach piece developed with Congressional audiences in mind.

All of you likely are aware that last month's CEO meetings went well; our principals were on message and had done their homework, and Joe was like a fact-generating machine. Our subsequent game plan was to wait for the NODA to be issued—presumably within a couple of weeks of our meetings—and then to comment on same, to determine what additional analytical tasks might be appropriate, to pursue staff-level meetings with key agency staff, and to set up another round of CEO-level meetings. However, the NODA has been held up in part because of OMB objections and the recess/holiday schedule isn't helping matters. Importantly, several of us have heard in the past few days from our Administration colleagues that it's unclear to them

whether industry wants the NODA to come out. I'm not sure about the basis for that comment as it is contrary to specific conversations that occurred during the CEO meetings and in more recent conversations with key agency and WH staff. It would be useful to compare notes on this point. For its part, EEI is seeking expeditious issuance of the NODA within the parameters requested by the CEOs, i.e., a *de facto* supplemental proposal that focuses on eliciting input on key substantive issues, but that is devoid of any outcome-determinative language that may have existed in the EPA draft. Finally, it's our understanding that there is an internal EPA meeting today to discuss the 316(b) issue, so hopefully we will get some clarification thereafter.

Separately, attached for your consideration is a draft document for Congressional audiences that perhaps also could be used in other forums. It is intended to be a very simple, clean messaging document that nonetheless is consistent with our core tenets.

Thanks for everyone's continued efforts on this important issue. I suggest sharing new information within the group as it becomes available.

From: Kathleen.Barron@exeloncorp.com
Sent: Friday, October 21, 2011 4:47 PM
To: Ex. 6 - Michael Goo
Subject: WSJ Weekend Interview potential quotes relating to EPA

"And I was the carbon bandit," Mr. Rowe continues, with his matter-of-fact candor. "I was the champion of climate regulation in the utility industry, and we are the people who back EPA regulation."

"What we are trying to do," Mr. Rowe argues, "partly out of self-interest and partly to avoid sticking our customers with things that are really expensive, is to push for some sort of orderly environmental framework on the markets." He concedes that "we can make some money" on the EPA rules because Exelon has little coal in its energy mix "and we don't apologize for trying to make money on having cleaner energy."

On EPA: "a lot better than to have every political party picking its favorite technology, and either subsidizing the hell out of it with government money or asking the utility to subsidize the hell out of it on customers."

Has EPA been orderly: "The current leadership of EPA rightly or wrongly, largely rightly, sees cleaning up the energy fleet as its reason for being," he explains. "It wouldn't shock me at all if in some places they overdo it. It also wouldn't shock me if at some places, they see the [traditional] criteria pollutants as a way of substituting for the carbon regulation they wanted to do and didn't get. Both, all of those things are probably true, and yet it's also true that people with the old coal plants are gaming the system."

The "real enemy here," Mr. Rowe continues, isn't the EPA. "It's what a whole lot of people who call themselves entrepreneurs, but really are living on their lobbyist, are doing getting legislators around the country to require utilities to buy power from stuff that has no connection with the economics at all."

the market will choose "the technology of choice when it becomes economic," which will almost certainly be gas.

Obama "will continue to make concessions on the environmental front, because in truth it's not one of his

big priorities. It's [EPA chief] Lisa Jackson's priority, but not the president. I don't think he will collapse on it. He will hold the line on the hazardous air pollutants, I believe."

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From: Darren Samuelsohn <dsamuelsohn@politico.com>
Sent: Wednesday, January 25, 2012 11:11 PM
To: Ex. 6 - Michael Goo
Subject: A few things

I might want to use a few of these in my story. Here they are. Let me know if they are OK. I'd attribute as a 'former house democratic aide' if that works for you.

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The long shot prospects of getting back to climate would require winning back control of the House and keeping the Senate, though even then the dynamics of 2009-10 remain.
"You'd have to take back the moderate seats to gain the House back. And those guys are not going to be happy about being BTU'd or Waxman-Markeyed," the former House Democratic aide said. "You've got a lot of uphill battles to get that passed."

From: Darren Samuelsohn <dsamuelsohn@politico.com>
Sent: Wednesday, January 25, 2012 11:20 PM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Re: A few things

Sure thing. Thanks for the quick turn around. Great chatting with you. Let's try for a lunch on a Monday or Friday when Congress isn't around.

On 1/25/12 11:17 PM, "Michael Goo" Ex. 6 - Personal Privacy wrote:

Sure. Maybe say former
Senate democratic aide. Thx

Sent from my iPhone

On Jan 25, 2012, at 11:10 PM, Darren Samuelsohn <dsamuelsohn@politico.com> wrote:

A few things I might want to use a few of these in my story. Here they are. Let me know if they are OK. I'd attribute as a 'former house democratic aide' if that works for you.

Expect Obama to stay away from specific ideas over the next year for a second term given the current political climate. "You need to be very careful about articulating that," a former House Democratic aide said.

At the White House level, Obama's energy policies have largely been run out of the chief of staff's office since Carol Browner left last year. "You don't have a champion for that kind of thing," said a former House Democratic aide.

The long shot prospects of getting back to climate would require winning back control of the House and keeping the Senate,

though even then the dynamics of 2009-10 remain.
"You'd have to take back the moderate seats to gain the House back. And those guys are not going to be happy about being BTU'd or Waxman-Markeyed," the former House Democratic aide said. "You've got a lot of uphill battles to get that passed."

From: Conrad Schneider <cschneider@catf.us>
Sent: Friday, November 18, 2011 7:28 AM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: Fwd: [INTL CCS] INTL CCS: EPA to propose utility carbon rules next year (USA)

Hi Michael-
See article about LJ's statement on NSPS below. My guys flagged her comment that CCS "has a long way to go" and "it can be years, maybe a decade or more, until we have the technology available at commercial scale." Not only is this incorrect, as our briefing for staff last summer demonstrated, but seems ill-advised if EPA has sent to OMB a 111(b) package with an emission rate that can only be met by gas or coal with partial CCS. I'm on the Hill all day doing briefings on the job-creating potential of EPA air regs, but could talk before 10 a.m. or later on > 5 p.m.

Thanks,
CS

Conrad Schneider
Advocacy Director
Clean Air Task Force
8 Museum Way
Brunswick, Maine 04011
(207) 721-8676
(207) 721-8696
cschneider@catf.us

Sent from my iPad

Begin forwarded message:

From: Kurt Waltzer <kwaltzer@catf.us>
Date: November 18, 2011 1:03:33 AM EST
To: coaltrans <coaltransition@lists.catf.us>
Subject: Fwd: [INTL CCS] INTL CCS: EPA to propose utility carbon rules next year (USA)

Jackson reiterates CCS "has a long way to go"

Begin forwarded message:

From: Chris Smith <csmithcommunications@gmail.com>
Subject: [INTL CCS] INTL CCS: EPA to propose utility carbon rules next year (USA)
Date: November 17, 2011 9:37:08 PM EST
To: international-engo-ccs-network@googlegroups.com

CCS brought into the discussion . . . EPA's Jackson comments: "It can be years, maybe a decade or more, until we have the technology available at commercial scale."

--

Chris Smith

Smith Communications

csmithcommunications@gmail.com | **817.229.1320**

EPA to propose utility carbon rules next year

4:15pm EST

WASHINGTON (Reuters) - The top U.S. environmental regulator will propose early next year twice-delayed rules on greenhouse gas emissions from power plants, she told the energyNOW television show.

"I can't tell you what the regulations say right now, but what we are planning to do is release them early next calendar year," Lisa Jackson, the Environmental Protection Agency administrator, told the program in a segment seen by Reuters that is to be broadcast over the weekend.

The EPA in June delayed the proposed rules on power plants, which are the largest source of U.S. greenhouse gas emissions, saying it needed more time after talking with businesses, states and green groups. It delayed them again in September.

Republicans in the House of Representatives have waged a war on EPA clean-air regulations, saying such rules will kill jobs and add costs to businesses suffering in a battered economy.

In September, President Barack Obama directed the EPA to delay a major rule on smog-forming pollutants until 2013, forcing Jackson to embrace a George W. Bush-era smog rule she previously described as legally indefensible.

The move led some environmentalists and health groups to worry the administration would subject other clean-air rules to long delays.

But earlier this month, the EPA sent the planned rules on carbon emissions from new power plants to the White House's Office of Management and Budget for review, a process that can take about 90 days.

The rules could force big coal-burning utilities, including Southern Co and American Electric Power, to use more natural gas, which is lower in carbon emissions, or to invest more in wind and solar power.

Jackson has said the agency's coming slate of clean-air rules can add jobs in technology to deal with smokestack emissions.

Lobbyists for utilities, however, say there is no affordable technology yet that can be bolted on to power plants to cut greenhouse gases.

A process to bury carbon dioxide emissions underground, known as carbon capture and sequestration or CCS, has been suggested as a way to help utilities cut emissions in coming years.

But Jackson, whose agency looked at CCS as it developed the rules, said the technology has a long way to go. "It can be years, maybe a decade or more, until we have the technology available at commercial scale," she said.

Cheaper options exist to cut emissions, she said.

"It would be shortsighted, or you would have to have blinders on, not to look at the fact that there are other game-changers out there like our nation's supply of natural gas that are going to be important as people look at where they want to make investment decisions," she said.

Lobbyists for the power industry say energy markets, not the EPA, should push utilities toward natural gas, adding that the chemical industry is also eyeing new natural gas supplies, which could eventually push up prices for the fuel.

(Reporting by Timothy Gardner; Editing by Dale Hudson)

From: Conrad Schneider <cschneider@catf.us>
Sent: Monday, January 30, 2012 9:20 AM
To: Michael Goo Ex. 6 - Personal Privacy
Subject: NJ: CLIMATE CHANGE RULES A MOVING TARGET

Michael-
I want to assure you that I am NOT the source on this article in NJ. I just got back from backcountry skiing in the North Woods. CS

CLIMATE CHANGE RULES A MOVING TARGET. Although EPA clean air chief Gina McCarthy has said the agency's long-awaited rules to reduce greenhouse gases at power plants would come out by the end of January, sources close to the agency say they're not holding their breath. The timeline for the controversial climate change rules, which have already been delayed twice, is now more fuzzy—"early in 2012," say people close to EPA. Environmental groups say one reason the White House may want to delay the climate rule is to keep it from getting caught up in the fight over extending the payroll tax cut, which expires in February. Republicans are expected to fight back hard on the climate rule, and could try to use the payroll tax cut extension as a vehicle to block the climate rule, replicating their tactics last year with the fight over the Keystone XL pipeline.

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From:	Conrad Schneider <cschneider@catf.us>
Sent:	Monday, November 14, 2011 6:40 PM
To:	Michael Goo Ex. 6 - Personal Privacy
Subject:	Utility Cash on Balance Sheet Analysis
Attach:	ATT31639.txt

Hi Michael-
Attached please find the utility "cash balance" analysis I mentioned. Conclusions: (1) Average net cash balance increased 18x from 1995 to 2010 (in real (2010) dollars). [Note: This does not even adjust for growth in asset value]; (2) As a percent of total assets, average net cash increased from 1.5% to 5.9% over the period.

We are weaving this into a story about the ability of power companies to adjust to the EPA regs: (a) interest rates are at an all-time low, so it is a good time to borrow money for modernization of the fleet; (b) load growth is flat, so there is no better time for outages for retrofits, retirements, etc. to modernize the fleet; and (c) utilities are sitting on an unprecedented amount of cash on their balance sheets meaning that they have the wherewithal to install emissions controls and replacement generation, plus regulations that mobilize this cash and deploy it in the economy will have a stimulative effect on economic activity and job creation.

Lastly, thinking more about the idea we discussed about preceding an NSPS proposal with some sort of process to "air" the issue, we think you need more than a paper by OAR for both substantive and optical reasons. As I mentioned when we spoke, we would recommend some sort of stakeholder discussion process. We agree that an ANPRM would provoke thousands of pages of comments and potentially slow you down too much. But, a talk/listen group -- maybe a reconvening of the BACT CAAAC group that has already chewed over some of these issues? -- starting in December running through February with an aggressive schedule of meetings, could allow parties to discuss and build understanding in the best case and create the impression that EPA has taken stakeholder advice in formulating the rule in the worst case. This would also give you a better political read on floating a proposal as well as a better sense of hot button issues and arguments you're likely to hear. EPA could kick it off with a white paper and get reactions and ask organizations with specific proposals to present them and get feedback (e.g., NRDC and us, etc.) It wouldn't be the normal FACA process of producing a report or recommendations. The goal would simply be to allow EPA to have the benefit of this thinking as it crafts its proposal. And, if you lock into a December 2012 date for the final rule, we think industry will take this seriously and participate in the discussion. Here's why: If you lock-in a final rule before the election, they will know it isn't real or that it won't be stringent. But, if you say you are finalizing after the election, they will believe you mean business -- if Obama wins, it will be tough and if Obama loses it will be tough. [The only downside to this is if the R candidate campaigns in coal country saying that Obama has a "December surprise" in store to kill coal.] In any case, if you want to test the politics and potentially draw the venom out of this issue politically, we'd recommend more than a paper. We think you need a process, albeit a very short one. Let's discuss.

Thanks,
CS

From: Tom Lawler Ex. 6 - Personal Privacy
Sent: Sunday, September 25, 2011 11:06 PM
To: michael Goo Ex. 6 - Personal Privacy
Subject: Re: Re: Re:

Thanks

Tom Lawler
Lawler Strategies
(202) 340-1960

On Sep 25, 2011, at 10:56 PM, michael Goo Ex. 6 - Personal Privacy wrote:

ok i will call number on text message

From: Tom Lawler Ex. 6 - Personal Privacy
To: michael Goo <
Sent: Sunday, September 25, 2011 10:19 PM
Subject: Re: Re:

Yeah a phone call would probably be best. Can you talk at 8?

Tom Lawler
Lawler Strategies
(202) 340-1960

On Sep 25, 2011, at 9:57 PM, michael Goo Ex. 6 - Personal Privacy wrote:

not sure what response to this you are looking for. Some of it might be right and some of it is definitely wrong....we should talk in the am maybe. Not sure where you got this from or what you will do with it so cant really comment.....thanks for sharing

From: Tom Lawler Ex. 6 - Personal Privacy
To: Ex. 6 - Michael Goo
Sent: Sunday, September 25, 2011 1:08 PM
Subject:

I feel like I need to start training for the Gooman 600. Sounds like a really tough race. Memo below. If I didn't have to have some answers by 9 tomorrow morning I wouldnt be bothering you today. Sorry.

EPA Air Program staff have been asked to prepare both 30 day and 60 day extension schedules for the September 30th court ordered deadline for proposal of Greenhouse Gas (GHG) New Source Performance Standards (NSPS) for Electric Generating Units (EGU).

Further, there are strong indications that the EPA political team is leaning toward issuing a proposed rule only for new sources, [CAA Section 111 (b)], while an Advanced Notice of Proposed Rulemaking (ANPR) would be issued for existing sources [CAA Section 111 (d)].

EPA has not yet secured agreement from the litigants (NRDC, EDF, Sierra Club, et.al.) to the potential schedule delay, but there are some indications that the litigants will not fight a 30-60 day delay if EPA sticks to the deadline for a final rule of May 26, 2012.

No New Coal

The GHG NSPS proposal for new sources would effectively eliminate future coal fired EGU s. The new source standards will be based on GHG emissions from Combined Cycle Natural Gas and are likely be about 1100 lbs. CO2/MWh. The best performing Super Critical coal plants achieve roughly 1700-1800 lbs. CO2/MWh and many are closer to 2100-2200 lbs. CO2/MWh. IGCC plants would likely need to achieve very high rates of carbon sequestration in order to be permitted.

Reasonable Standards for Existing Units

In contrast, the ANPRM for existing sources will contain a menu of energy efficiency improvements, from which EGU s could choose in order to achieve a roughly 5-8% efficiency improvement. The cost and potential benefit of each option will be described in some detail. States will be given substantial flexibility in determining how existing units achieve compliance.

A critical unresolved question involves a group of about 15 transitional plants those which have received some degree of permit approval but have not yet commenced construction. Since commercial construction is likely to be defined as the date of the proposed rule for new sources, EPA management must still decide how to treat these transitional sources.

If the September 30th date is delayed by 60 days, the May 26, 2012 final rule deadline may be very difficult to achieve, but the EPA political team is committed to avoiding any extension, which would push the final rule closer to the November election.

From: Tom Lawler Ex. 6 - Personal Privacy
Sent: Sunday, September 25, 2011 10:20 PM
To: michael Goo Ex. 6 - Personal Privacy
Subject: Re: Re:

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Lawler Strategies
(202) 340-1960

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Sent: Sunday, September 25, 2011 1:08 PM
To: Ex. 6 - Michael Goo
Subject:

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If the September 30th date is delayed by 60 days, the May 26, 2012 final rule deadline may be very difficult to achieve, but the EPA political team is committed to avoiding any extension, which would push the final rule closer to the November election.

From: Michael Bradley <mbradley@mjbradley.net>
Sent: Sunday, September 18, 2011 1:39 AM
To: Ex. 6 - Michael Goo
Subject: FW: CSAPR Concerns

Michael,

Below is the message I have sent to Gina and Joe. I can be reached before 10:00 AM eastern time tomorrow morning and after 3:30 PM when I arrive in DC.

Michael

From: Michael Bradley [mailto:mbradley@mjbradley.com]
Sent: Sunday, September 18, 2011 1:35 AM
To: Ex. 6 - Joe Goffman
Subject: FW: CSAPR Concerns

Joe,

Would you please send this email on to Gina for me? I would have sent it to her directly with a cc to you but I don't have a private email address for her and would prefer to not use an official email address. Your calls to Eric and Bob were very helpful in reassuring them that EPA is looking to be responsive to their State budget concerns but time is becoming an issue and others within PSEG and NGrid are pushing for a clear resolution in the very near term. Thanks.

Gina,

As you know, many of the CEG companies have been having a series of conversations with EPA

about the concerns on the final state budgets under the Cross-State Air Pollution Rule (CSAPR). The companies want to remain supportive of the final CSAPR because it is intended to reduce emissions. In general, the companies see the rule as improving on CAIR and being responsive to the D.C. Circuit's decision. However, we are continuing to identify errors in the final rule that we believe could undermine the legal stability of the rule. Our goal is to have a rule implemented that is legally sound, gives the industry the needed business certainty for investments in cleaner generation, and addresses the air transport issues affecting many of the state in which the CEG members operate. We would not want to see the rule stayed.

However, as we have discussed, the state budgets for NY, NJ, and FL were significantly reduced in the final rule. These changes are making supporting the implementation of the rule, as currently written, very difficult. While we understand EPA is willing to consider making technical adjustments to state budgets based on new technical information, we are concerned that despite efforts to provide EPA with additional information, EPA may not be able to adjust those state budgets until after October 7th – the deadline for when petitions for reconsideration and petitions to the DC Circuit are due. Additionally, since the rule's release, multiple levels of staff at the various CEG companies have become involved in evaluating the implications of the rule and suggesting various courses of action, which, as I am sure you can appreciate, make the dynamics difficult to manage.

Since the rule's release about 10 weeks ago, we have been working to explain the concerns we have with certain state budgets and highlight the technical errors that result from using the IPM model and not taking into account the transmission system constraints that are unique to certain areas in the U.S. The following explains our specific concerns related to New Jersey, New York and Florida as well as the outreach we have had with EPA.

Following Eric Svenson's outreach to you regarding PSEG's concerns, we have had several discussions with Joe Goffman and Sam Napolitano on the NJ state budget. Compared to the proposed budget, New Jersey's final annual NOx budget was reduced by 39 percent, the ozone season NOx budget was reduced by 36 percent, and New Jersey's SO2 budget was reduced by 51 percent. With fewer allowances available to the state, several of PSEG's generating units are projected to be short allowances beginning in 2012, despite having advanced pollution control equipment installed and operating. Additionally, since PSEG's generating fleet is generally well controlled, there are limited opportunities for further emissions reductions between now and 2012.

A similar situation exists for NY. Compared to 2010 emissions, NY state looks to be significantly short of the 2012 state budgets even with the assurance provisions. We understand

the NYDEC has been engaged with EPA to provide information to highlight the fact that there are many units in NY that must operate due to transmission constraints but for which the model predicted the units to have zero heat input. Both National Grid and Consolidated Edison of NY have also had calls with Sam and Joe to express similar concerns with the model and state budget, and had provided similar information about these must run units during the comment period. Without adjustments to the state budget, there are concerns that units needed for reliability purposes would not be able to operate.

NextEra has also met with Joe and Sam several times regarding the Florida state budget, and there we are also seeing that the IPM model fails to recognize that some units will need to run for reliability purposes due to natural gas constraints. This was an issue NextEra and others also raised during the comment period, and the inability of the model to make these adjustments significantly impacts the state allowance budget.

The concerns described above are creating a very difficult dynamic within the Clean Energy Group and for these individual companies to remain supportive of EPA's regulations. The approaches in the final rule appear to penalize the early investments many of the CEG companies made in anticipation of regulations. Additionally, the rule does not allow for economic growth as there is not updating of allowance allocations.

I am appreciative of EPA's efforts to try to make the necessary adjustments to state budgets that have clear errors while ensuring that any changes do not affect the timely implementation of the entire rule. The CEG members similarly want to make sure that right balance is struck so that the rule can remain effective in January 2012. Joe in particular has been very constructive in trying to find any appropriate solutions, but given the tight timeframe leading up to October 7th, I wanted you to be aware of the difficult position in which many of the CEG members are finding themselves.

Please do not hesitate to call me with any questions. I will be traveling tomorrow from the west coast to DC, arriving at 4:00 PM, and plan to be in DC all day on Monday and Tuesday. With the exception of the times when Sue Tierney, Paul Allen and I are presenting a Utility Toxics Rule briefing for House and Senate staff on Monday I'm available to discuss these issues with you and others.

Michael

From: Goo.Michael@epamail.epa.gov
Sent: Saturday, March 12, 2011 5:57 PM
To: Ex. 6 - Michael Goo
Subject: Fw: Per today's 316b meeting
Attach: 316b Jim Laity comments re cost benefit in rationale.pdf; 316(b) preamble rev VI.A EPA's approach to BTA 3 11 11.docx; 316(b) preamble rev VI.E Option Selection 3 11 11.docx

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----- Original Message -----
From: Julie Hewitt
Sent: 03/11/2011 10:38 PM EST
To: Bob Sussman; Nancy Stoner; Michael Goo; Bicky Corman
Cc: Ephraim King; Maryt Smith; Steven Neugeboren; MaryEllen Levine; Richard Witt; Alexander Cristofaro; Paul Balserak; Paul Shriner
Subject: Per today's 316b meeting

Bob and others,

Ex. 5 - Deliberative

It should be easy to make sure that these sections are not repetitive by Monday morning.
Julie

(See attached file: 316b Jim Laity comments re cost benefit in rationale.pdf)

(See attached file: 316(b) preamble rev VI.A EPA's approach to BTA 3 11 11.docx)

(See attached file: 316(b) preamble rev VI.E Option Selection 3 11 11.docx)

From: Goo, Michael <Michael.Goo@mail.house.gov>
Sent: Tuesday, January 25, 2011 10:37 PM
To: Unruh-Cohen, Ana <Ana.UnruhCohen@mail.house.gov>; Ex. 6 - Michael Goo
Cc: Freedhoff, Michal <Michal.Freedhoff@mail.house.gov>
Subject: RE: rough draft questions
Attach: markeysunsteinquestions.doc

Here are some questions--not totally sure we should go into clean air act specifics but here are some questions on boiler mact and cement kiln rule which might be useful if we need to go on defense for these rules...i will forward the backup docs including a draft supplemental memo that alexandra shared with me--you may already have it

---

From: Unruh-Cohen, Ana
Sent: Tuesday, January 25, 2011 4:55 PM
To: Goo, Michael; Ex. 6 - Michael Goo
Subject: Fw: rough draft questions

If you can help fill this in, this is all we've got right now.

Ana

Ana Unruh Cohen, Ph.D.
202 494 1954

From: Freedhoff, Michal
To: Duncan, Jeff; Unruh-Cohen, Ana
Sent: Tue Jan 25 14:29:39 2011
Subject: rough draft questions

Here is a very rough draft. OMB is supposed to send me more, including some suggestions from Sunstein, a bit later. Their leg people had never heard of many of the regs I said might be raised in the hearing (coal ash, toxics etc). this could be scary. I'm going to end up having to finish these later tonight but would appreciate suggestions/edits in the meantime. Any and all help welcomed, as I've been pretty focused on getting the spill bill together today and haven't had a ton of time to devote to these.

Thanks.

Questions, Edward J. Markey (D-MA)
Hearing, Oversight and Investigations Subcommittee
"The Views of the Administration on Regulatory Reform"
January 26, 2011

Questions for Cass Sunstein, Administrator of the Office of Information and Regulatory Affairs, OMB

I can't help but feel like I'm in the movie "Groundhog Day." In the 1990s, when Republicans took over Congress, we heard that regulations would lead to widespread job losses and economic devastation. Today, we are hearing the identical arguments, evidence to the contrary notwithstanding. Mr. Waxman illustrated this using the example of the Obama Administration's landmark 2009 fuel economy deal. This deal, which was basically the

regulatory equivalent of solving a Rubik's cube, accelerated the implementation of the 35 mile per gallon CAFE standards Democrats in Congress passed in 2007, while simultaneously ensuring the strong support of industry, environmentalists and the State of California, *and* that the litigation surrounding EPA's authority to set greenhouse gas standards for cars was dropped.

Before this deal was announced in 2009, the auto industry in this country was literally in the tank – more than 300,000 jobs lost, two American companies in bankruptcy, and consumers no longer willing to buy the gas guzzlers that the domestic automakers had bet the bank on.

And what has happened since the regulations? In 2010, auto sales soared more than 11 percent, snapping the industry out of its 4 year decline.

Companies are hiring thousands of workers back, and converting old SUV factories into facilities that will be used to make fuel efficient vehicles, and there has been a proliferation of new companies that plan to make and market electric vehicles.

So that's the automotive story. I'd like to ask you a few questions about the Administration's plans to regulate greenhouse gases coming out of stationary sources:

1) We saw in the automotive sector that regulations actually jump-started a number of electric and other advanced technology vehicle companies.
   a. Will any regulations that seek to limit global warming pollution from power plants or refineries take into account the *increase* in

jobs that could result from the development and installation of new technologies? [YES]

b. What about other benefits of these regulations – isn't it true that regulations to curb dangerous air pollutants could result in quantifiable cost *savings* in the form of medical expenses that won't be incurred or environmental damages that won't need to be mitigated? Will you be quantifying these savings as part of any regulatory analysis?

2. Mr. Sunstein—as you know since its adoption, the Clean Air Act has reduced key air pollutants by 60%, while at the same time the economy grew by over 200%. From 1990 to 2008 alone, the Clean Air Act reduced key air pollutants by over 40%, as the economy grew by almost 65%.

These pollution reductions saved lives and improve public health, particularly among children and senior citizens. A peer-reviewed EPA analysis estimates that in 2010 alone, the Clean Air Act prevented over 160,000 premature deaths, 130,000 cases of heart disease, and 1.7 million asthma attacks, as well as 86,000 hospital admissions and millions of respiratory illnesses. In 2010, the Clean Air Act also avoided over 3 million lost school days and 13 million lost work days, allowing our children to be better educated and making our workers more productive. The benefits of Clean Air Act programs outweigh the costs of clean-up, often by substantial margins, which means that our economy as a whole is strengthened by implementing these requirements. For example, the benefits of the acid rain program are estimated to outweigh the costs by 40:1.

More recently, EPA proposed a rule to regulate air toxic emissions from industrial boilers and EPA analysis indicates that the social cost of the proposed

rule would be $2.9 billion and the monetized benefits would be between $17 and $41 billion. Similarly, EPA's recently proposed cement kiln rule would have a cost between $350 and $377 million, with an unrealistic worst case scenario between $926 and $950 million annually. But EPA also estimates that the rule will yield $6.4 and $18 billion in social benefits. So even under the unrealistic worst case scenario the rule will generate between $7 and $18 in benefits for every $1 in costs.

Mr. Sunstein:

1. Are you aware that EPA's proposed cement rule kiln will annually generate between $17 and $47 dollars in health benefits for every dollar it costs industry. Isn't that a pretty good benefit to cost ratio?

2. Are you aware that EPA's proposed boilers rule would generate $5.9 and $14.1 in benefits for every $1 in social costs?

3. And isn't it the case that for rules like the cement kiln rule and the boiler rule EPA isn't always able to quantify all the benefits of a rule? For instance, isn't it the case that for the cement kiln rule, EPA did not monetize the benefits of reducing cement plants' emissions of mercury, lead, chromium, arsenic, and other hazardous air pollutants?

4. And haven't past industry projections of costs frequently been much higher than the actual costs of regulation?

From: Freedhoff, Michal <Michal.Freedhoff@mail.house.gov>
Sent: Tuesday, January 25, 2011 10:50 PM
To: Goo, Michael <Michael.Goo@mail.house.gov>; Unruh-Cohen, Ana <Ana.UnruhCohen@mail.house.gov>; Ex. 6 - Michael Goo
Subject: Re: rough draft questions

Thanks. The qs I have thus far are not specific but sort of like
"Epa said a bazillion small sources are not gonna have to have permits. Is that consistent with the executive order to impose the least burden on society and maximize the net benefits"

I will try to work these in similarly.
M
Michal Ilana Freedhoff, Ph.D.
Policy Director
Office of Representative Edward J. Markey
2108 Rayburn House Office Building
Washington, DC 20515
202-225-2836

Sent using BlackBerry

From: Goo, Michael
To: Unruh-Cohen, Ana; Ex. 6 - Michael Goo
Cc: Freedhoff, Michal
Sent: Tue Jan 25 22:37:20 2011
Subject: RE: rough draft questions

Here are some questions--not totally sure we should go into clean air act specifics but here are some questions on boiler mact and cement kiln rule which might be useful if we need to go on defense for these rules...i will forward the backup docs including a draft supplemental memo that alexandra shared with me--you may already have it

---

From: Unruh-Cohen, Ana
Sent: Tuesday, January 25, 2011 4:55 PM
To: Goo, Michael; Ex. 6 - Michael Goo
Subject: Fw: rough draft questions

If you can help fill this in, this is all we've got right now.

Ana

Ana Unruh Cohen, Ph.D.
202 494 1954

From: Freedhoff, Michal
To: Duncan, Jeff; Unruh-Cohen, Ana
Sent: Tue Jan 25 14:29:39 2011
Subject: rough draft questions

Here is a very rough draft. OMB is supposed to send me more, including some suggestions from Sunstein, a bit later. Their leg people had never heard of many of the regs I said might be raised in the hearing (coal ash, toxics etc). this could be scary. I'm going to end up having to finish these later tonight but would appreciate suggestions/edits in the meantime. Any and all help welcomed, as I've been pretty focused on getting the spill bill together today and haven't had a ton of time to devote to these.

Thanks.

From: Michael Goo [redacted]
Sent: Friday, November 15, 2013 5:32 PM
To: Wayland, Karen <Karen.Wayland@Hq.Doe.Gov>
Subject: Re: QER documents

Great. Thanks. Will review.

Sent from my iPhone

On Nov 15, 2013, at 4:13 PM, "Wayland, Karen" <Karen.Wayland@Hq.Doe.Gov> wrote:

VERY old documents I found in my gmail but should give you some idea of what we're doing.

From: Karen Wayland [mailto:[redacted]
Sent: Friday, November 15, 2013 4:00 PM
To: Wayland, Karen
Subject: Fwd: QER documents

---------- Forwarded message ----------
From: **Gershuny, Gregory** <GGershuny@hq.doe.gov>
Date: Tue, Jul 16, 2013 at 5:52 PM
Subject: QER documents
To: "Pershing, Jonathan" <Jonathan.Pershing@hq.doe.gov>, Judith Greenwald [redacted], "Difiglio, Carmine" <Carmine.Difiglio@hq.doe.gov>, "Bill Hederman (Hederman@alum.mit.edu)" <Hederman@alum.mit.edu>, "Chen, Hugh" <Yu-Han.Chen@hq.doe.gov>, [redacted] "Marlay, Robert" <Robert.Marlay@hq.doe.gov>, "carl.pechman@ferc.org" <carl.pechman@ferc.org>, "Hezir, Joseph" <Joseph.Hezir@hq.doe.gov>, [redacted]
Cc: "Kenderdine, Melanie" <Melanie.Kenderdine@hq.doe.gov>, "Gershuny, Gregory" <GGershuny@hq.doe.gov>, "Pickett, Adonica (Renee)" <Adonica.Pickett@hq.doe.gov>, "Bassett, Luke" <Luke.Bassett@hq.doe.gov>

Good evening,

The attached draft documents are for the Quadrennial Energy Review (QER) meeting on Thursday 7/18 at 1:00pm in 7A-219. These draft documents are internal and deliberative and aren't intended for anyone not on this email. Please let me know if you have any questions prior to the meeting.

Best,

Greg Gershuny

202-586-0711 | GGershuny@hq.doe.gov

--

Karen G. Wayland, Ph.D.

Ex. 6 - Personal Privacy

<Analysis for QER_NLDC (2).docx>

<QER Schedule (3).docx>

<Proposed Task Forces.docx>

<QER_Proposal_operative 4.docx>

<Presidential Memorandum on QER v2.docx>

<ENERGY INFRASTRUCTURE POLICY MATRIX mk.docx>

<Agency Roles (4).docx>

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, January 5, 2014 12:10 AM
To: Robin Bravender Ex. 6 - Personal Privacy
Subject: Re: Story about staffers

Lets talk Monday if that works. Thx

Sent from my iPhone

On Jan 3, 2014, at 12:35 PM, Robin Bravender Ex. 6 - Personal Privacy wrote:

> Happy New Year!
>
> I'm working on a story that includes five staffers who are influent ial behind the scenes at our various agencies and offices (EPA, DOE, Interior, the White House, Congress) and I wonder if you have a few minutes to chat on background. I want to make sure I'm including folks who are actually influential, which is hard to discern as an outsider.
>
> Do you have some time today or Monday?
>
> Thanks a ton. How's the new job going?
>
> Robin

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Saturday, October 26, 2013 7:43 PM
To: Jim Massie <jmassie@alpinegroup.com>
Subject: Re: Stuff

That's brilliant. Lets talk next week.

Sent from my iPhone

On Oct 26, 2013, at 6:36 PM, Jim Massie <jmassie@alpinegroup.com> wrote:

> Sad to have you turn to doe. But excited for you. MF might want a new job. She is tired of the hill. Let's talk next week. Have a great Sunday!
>
> Sent from my iPad
>
>> On Oct 26, 2013, at 12:18 PM, "Michael Goo" Ex. 6 - Personal Privacy wrote:
>>
>>
>> Ps. You might want to think about candidates to replace me in my job as head of policy. I'm thinking of contacting Lisa Moore. Debbie thinks she is doing too well to consider it but maybe she wants to refresh her government contacts. Or maybe there is someone else. The WH should think about having somebody there loyal to them.
>>
>>
>> Sent from my iPhone
>>
>>> On Oct 9, 2013, at 11:21 AM, Jim Massie <jmassie@alpinegroup.com> wrote:
>>>
>>>
>>> Subject: Job filled
>>>
>>> Utech got it.
>>>

From: Michael Goo [redacted] Ex. 6 - Personal Privacy
Sent: Wednesday, October 9, 2013 2:10 PM
To: Jim Massie <jmassie@alpinegroup.com>
Subject: Re: wh

Thanks for all you did Jim. I really appreciate it. Not unexpected and Utech is a friend and supporter. So overall it's good. I will give you a call later but thanks again.

Sent from my iPhone

On Oct 9, 2013, at 12:17 PM, Michael Goo Ex. 6 - Personal Privacy wrote:

> Thx. Overall. That is great news.
>
> Sent from my iPhone
>
> On Oct 9, 2013, at 11:21 AM, Jim Massie <jmassie@alpinegroup.com> wrote:
>
>>
>> Subject: Job filled
>>
>> Utech got it.
>>

From: Michael Goo <Ex. 6 - Personal Privacy
Sent: Wednesday, October 9, 2013 12:17 PM
To: Jim Massie <jmassie@alpinegroup.com>
Subject: Re: wh

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> Subject: Job filled
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To: Jim Massie <jmassie@alpinegroup.com>
Subject: Stuff

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Sent from my iPhone

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>
> Subject: Job filled
>
> Utech got it.
>

From:	Michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, October 25, 2013 2:56 PM
To:	goo.michael@epa.gov
Subject:	
Attach:	photo.PNG; ATT51623.txt

AT&T 5:22 PM 16%

Messages (8) **Nat Keohane** Edit

Call FaceTime Contact

Text Message

Jun 5, 2012, 8:58 PM

Laura Vaught very up to speed on this. She thinks we work from behind the scenes only. She will call you. You can call her Ex. 6 - Personal Privacy

Ex. 6 - Personal Privacy

Text Message Send

Sent from my iPhone

From:	Michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, October 25, 2013 2:57 PM
To:	goo.michael@epa.gov
Subject:	
Attach:	photo.PNG; ATT51629.txt

AT&T 5:22 PM 16%

Messages (8) +1 Ex. 6 - Personal Privacy Edit

Call FaceTime Add Contact

Text Message

Jun 6, 2012, 6:06 PM

Hi Michael, it's Nat. Can you give me a quick call if you are available now? Thanks.

Text Message Send

Sent from my iPhone

From: michael Goo Ex. 6 - Personal Privacy
Sent: Friday, May 10, 2013 5:38 PM
To: goo.michael@epa.gov
Subject: Fw: 316(b) Update

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Thursday, April 5, 2012 10:27 AM
Subject: FW: 316(b) Update

See the EEI email below which claims that they want the NODA published expeditiously. Dominion, PSEG, NextEra as well as other companies have contacted to request that OMB the NODA be published ASAP.

From: Shea, Quin [mailto:QShea@eei.org]
Sent: Thursday, April 05, 2012 9:27 AM
To: Bozek, Richard; Dominguez, Joseph (joseph.dominguez@exeloncorp.com); Labauve, Randy (randall_r_labauve@fpl.com); Svenson, Eric (Eric.Svenson@pseg.com); Lavinson, Melissa (melissa.lavinson@pge-corp.com); Matty, Bob (robert.matty@exeloncorp.com); Donohue, William J. (william.donohue@exeloncorp.com); Trojecki, Amy M. (amy.trojecki@exeloncorp.com); Ludecke, Kristen; Strickland, Mark F. (Mark.Strickland@pseg.com); Butts, Rayburn (ray_butts@fpl.com); Boyce, Cari (Cari.boyce@pgnmail.com); Loomis, Ann W (ann.w.loomis@dom.com); jxb@nei.org; Shannon.Banaga@pseg.com; Foster, Christopher
Cc: Bulleit, Kristy (kbulleit@hunton.com); Carrie Jenks; Simone, Hannah (hss@nei.org); Skaff Ph. D., William (wgs@nei.org); Obenshain, Karen; Bartholomot, Henri; Hunt, Meg; Ball, Sarah; Holdsworth, Eric
Subject: 316(b) Update
Importance: High

I hope you are enjoying some quality down time with your families during the Congressional recess and holiday season, both of which would be a little more enjoyable if we had some solid intelligence on where things stand with the NODA and our key issues. The balance of this note provides a few snippets for your consideration, as well as an initial draft of a new outreach piece developed with Congressional audiences in mind.

All of you likely are aware that last month s CEO meetings went well; our principals were on message and had done their homework, and Joe was like a fact-generating machine. Our subsequent game plan was to wait for the NODA to be issued presumably within a couple of weeks of our meetings and then to comment on same, to determine what additional analytical tasks might be appropriate, to pursue staff-level meetings with key agency staff, and to set up another round of CEO-level meetings. However, the NODA has been held up in part because of OMB objections and the recess/holiday schedule isn t helping matters. Importantly, several of us have

heard in the past few days from our Administration colleagues that it s unclear to them whether industry wants the NODA to come out. I m not sure about the basis for that comment as it is contrary to specific conversations that occurred during the CEO meetings and in more recent conversations with key agency and WH staff. It would be useful to compare notes on this point. For its part, EEI is seeking expeditious issuance of the NODA within the parameters requested by the CEOs, i.e., a *de facto* supplemental proposal that focuses on eliciting input on key substantive issues, but that is devoid of any outcome-determinative language that may have existed in the EPA draft. Finally, it s our understanding that there is an internal EPA meeting today to discuss the 316(b) issue, so hopefully we will get some clarification thereafter.

Separately, attached for your consideration is a draft document for Congressional audiences that perhaps also could be used in other forums. It is intended to be a very simple, clean messaging document that nonetheless is consistent with our core tenets.

Thanks for everyone s continued efforts on this important issue. I suggest sharing new information within the group as it becomes available.

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, August 19, 2013 2:14 PM
To: goo.michael@epa.gov
Subject: Fw: CCR Beneficial Use Methodology
Attach: graycol.gif; Summary of CCR Methodology for Encapsulated Beneficial Uses 5-16-12 final .docx

---

----- Forwarded Message -----
From: Michael Goo <Goo.Michael@epamail.epa.gov>
To: Ex. 6 - Michael Goo
Sent: Friday, June 8, 2012 9:23 AM
Subject: Fw: CCR Beneficial Use Methodology
----- Original Message -----**From:** Robin Kime**Sent:** 06/08/2012 09:08 AM EDT**To:** Michael Goo; Bob Sussman; Donald Maddox**Subject:** CCR Beneficial Use MethodologyHi,The attachment is pasted below.Don, Lets plan for Michael and Bob to talk soon, then later today a call to OMB. Thanks----- Forwarded by Robin Kime/DC/USEPA/US on 06/08/2012 09:06 AM -----

CCR Beneficial Use Methodology

Thu 05/17/2012
12:15 PM - 1:00 PM

Attendance is for Michael Goo

Chair: **Bob Perciasepe/DC/USEPA/US**

Sent By: **Teri Porterfield/DC/USEPA/US**

Location: 3412 ARN

Required: Arvin Ganesan/DC/USEPA/US@EPA, Bob Sussman/DC/USEPA/US@EPA, Lisa Feldt/DC/USEPA/US@EPA, Mathy Stanislaus/DC/USEPA/US@EPA, Michael Goo/DC/USEPA/US@EPA, Suzanne Rudzinski/DC/USEPA/US@EPA

Description

Attached is a revised version of the CCR BU Methodology one pager that we will use at the 12:15 meeting today. Our staff will bring copies of the revised version with them. (The previous version is not wrong....this just has more information.)

(See attached file: Summary of CCR Methodology for Encapsulated Beneficial Uses 5-16-12 final.docx)

Shawna Roesch Bergman
Chief of Staff
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency
Phone: 202.564.3641

Subject - CCR Beneficial Use Methodology
Invitees - Mathy Stanislaus, Lisa Feldt, Bob Sussman, Michael Goo, Suzanne Rudzinski

Length - 45 min

Nelida Torres (Nelly)
U. S. EPA,Office of Solid Waste & Emergency Response
Room 3146C West Building
202-564-5767

Personal Notes

DRAFT

Ex. 5 - Deliberative

Ex. 5 - Deliberative

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, May 13, 2013 3:02 PM
To: goo.michael@epa.gov
Subject: Fw: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, November 27, 2012 2:46 PM
Subject: Re: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

O.K. Try me on cell Ex. 6 - Personal Privacy when you can.

CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

On Nov 27, 2012, at 2:45 PM, Michael Goo wrote:

> Hey dude. Saw you called. Stuck in a retreat. Will call you in a while. Thanks for calling
>
> Sent from my iPhone
>
> On Nov 26, 2012, at 6:59 PM, Conrad Schneider <cschneider@catf.us> wrote:
>
>> Hi Michael-
>> Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial

reactions/feedback to our proposal and strategize about possible ways forward.
>>
>> Unlike some other proposals, ours is not "take it or leave it". As you could tell, we've tailored our proposal according to the specifications we've heard from you guys and the folks at the WH. But, if those change or want further refinement, please let us know. And, most importantly, if we are headed down a blind alley, that would be good to know ASAP.
>>
>> We met with several coal generators on our "winners" list after our meeting with you and are scheduling more meetings for later this week. One of the reactions we got from two companies is that our price impacts are too high because we are taking a historical view of gas price elasticities. [Our electricity price and total costs are almost totally dependent on changes in gas price due to heavier reliance on existing gas plants under our proposal.] They said that the shale boom has changed the game and that comparing gas price elasticities today to the average of the last 15 years is like looking at cotton prices delivered by steam ship in 1880 after cotton was being moved by rail. So, we are hearing that there is a respectable view that the cost impacts of our proposal may be less than we've shown and accordingly, we will check in with some other gas analysts and will run a lower gas price sensitivity (as well as devising an "safety valve" or alternative compliance payment to guard against the risk of higher than forecast gas prices).
>>
>> Let me know when would be a good time to talk, otherwise god knows when I'll bother you on your cellphone!
>>
>> Cheers,
>> CS
>>
>> Conrad G. Schneider
>> Advocacy Director
>> Clean Air Task Force
>> cschneider@catf.us
>> www.catf.us
>> 8 Museum Way
>> Brunswick, Maine 04011
>> 207/721-8676
>> 207/721-8696 (facsimile)
>>
>>
>>
>

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, May 13, 2013 3:02 PM
To: goo.michael@epa.gov
Subject: Fw: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, November 26, 2012 6:59 PM
Subject: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

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Cheers,

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Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: michael Goo [redacted]
Sent: Monday, May 13, 2013 3:02 PM
To: goo.michael@epa.gov
Subject: Fw: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

----- Forwarded Message -----
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To: Michael Goo [redacted]
Sent: Monday, November 26, 2012 6:59 PM
Subject: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

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Let me know when would be a good time to talk, otherwise god knows when I'll bother you on your cellphone!

Cheers,

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8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Monday, May 13, 2013 3:00 PM
To:	goo.michael@epa.gov
Subject:	Fw: Clarification on 111(d) comment

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, January 17, 2013 2:29 PM
Subject: Clarification on 111(d) comment

Hi Michael-
Thank you so much for setting up the meeting with Bob P. All in all, we felt that it went pretty well. We very much appreciated the support from you and Alex.

When you get a minute, I'd like to strategize about next steps. But, in the meantime, I had a question to clarify something Bob P. said. Towards the end of the meeting, he said that we (the royal "we" I assume) need to reach higher into the WH. He mentioned Cecilia Muñoz and the Domestic Policy Council and also Bevin Ashenmiller at CEA. What I didn't get (and didn't have the presence of mind to ask) was whether he thought he would need support at that level to get out a proposal or merely to start up the 111(d) process again (i.e., issue white paper, convene stakeholders). Whatever the answer, I want to strategize with you about what is needed and who we'd need to bring into the process to get meetings with that level of WH folks (and higher). We've gotten some more uptake by companies and there may be a way to have them engage.

Additionally, in our meeting last Friday with Rick Duke and Drew McConville, we asked them about sending a signal to EPA to end the stop work order on 111(d). They said that Lisa and Gina have already changed their public statements on 111(d) recently. They said that when they are asked, they no longer say, "we have no plans to do 111(d)" but rather "climate change is an important priority for this Administration." They also pointed to statements made in reaction to the release of NRDC's report. We responded that we are talking to companies that they haven't gotten the message. The change in rhetoric was too subtle a change in message for utility companies to believe that the Administration is moving forward to start up the regulatory process on 111(d). But, it strikes me that they may also have been saying that the message to EPA has been delivered and received. I'd like to discuss that with you.

Anyway, I'd like to grab a few minutes with you on all this (and more). Doesn't have to be long. Please let me know what day/time would work. Could be after hours or whenever. I'm around on cell.

Thanks again.

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: michael Goo Ex. 6 - Personal Privacy
Sent: Friday, May 10, 2013 5:37 PM
To: goo.michael@epa.gov
Subject: Fw: EEI

----- Forwarded Message -----
From: Michael Goo Ex. 6 - Personal Privacy
To: Michael Bradley <mbradley@mjbradley.com>
Sent: Wednesday, April 4, 2012 8:41 AM
Subject: Re: EEI

Thanks

Sent from my iPhone

On Apr 3, 2012, at 8:36 PM, Michael Bradley <mbradley@mjbradley.com> wrote:

Michael,

I learned late today that EEI will b e attempting to set up a meeting with you to go through the list of 316(B) revisions they are looking for. I believe you re going to receive an email from Amy Trojecki from Exelon requesting the meeting. I want to be clear that the EEI reps do not represent the CEG perspective on 316(B).

Since speaking with you this afternoon we have discussed the current delay with CEQ staff and your suspicion of EEI sending a message of hold back until all the key issues are resolved has been confirmed. I will be speaking with Lew Hay again tomorrow morning to discuss how best to get this back on track. I will be suggesting that we ask Tom Kuhn to call OMB to voice support for finalizing the NODA. I will let you know how this effort works out.

MJB

From: michael Goo Ex. 6 - Personal Privacy
Sent: Friday, May 10, 2013 5:37 PM
To: goo.michael@epa.gov
Subject: Fw: EEI

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Tuesday, April 3, 2012 8:36 PM
Subject: EEI

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MJB

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, May 9, 2013 4:56 PM
To: goo.michael@epa.gov
Subject: Fw: EPA air chief dodges questions on GHG rule for existing power plants

---

----- Forwarded Message -----
From: "Hawkins, Dave" <dhawkins@nrdc.org>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, March 28, 2012 6:02 PM
Subject: FW: EPA air chief dodges questions on GHG rule for existing power plants
This is not a good situation. Somebody needs to convince the WH that muzzling what the admin says about existing sources will just be made into an issue itself by Barton and others. Why not say, the law does require us and the states to develop programs for existing sources and when we start that work it will be done with the full consideration of costs, technologies, energy impacts, and benefits that the law specifies any such standards must be based on.

An E&E Publishing Service

CLIMATE: EPA air chief dodges questions on GHG rule for existing power plants (Wednesday, March 28, 2012)

Nick Juliano, E&E reporter

U.S. EPA's top air official engaged in some tricky rhetorical gymnastics on Capitol Hill today as she tried to ease concerns that the agency would follow up on its just-announced rule to limit greenhouse gas emissions from new coal plants with a similar measure targeting existing facilities. However, she refused to say such a measure would not come up if President Obama wins a second term.

After yesterday's proposal of rules that would effectively bar the construction of new coal-fired power plants unless those facilities capture and sequester their carbon dioxide emissions, EPA Administrator Lisa Jackson stressed that the agency has "no plans" for an existing source rule. Gina McCarthy, the agency's assistant administrator for air and radiation, echoed that line during a House subcommittee hearing today, although she left open the possibility that those plans would materialize at some point.

"So I can say that for the rest of the Obama administration, [Administrator] Lisa Jackson and the EPA are not going to issue a regulation for existing power plants, on greenhouse gases?" asked Rep. Joe Barton (R-Texas).

But McCarthy would not go that far.

"Right now we are focused solely on what we have already proposed, which is getting comment on new source standards, which is the premise for moving forward," she said. "We are looking forward to those comments, and we want to make sure we get the new source performance standard right, that we protect existing facilities at this point, to make sure that if we propose for existing in the

future, that would be a standard that would be established in a separate rulemaking."
Barton said that response reminded him of President Clinton's infamous quibbling with the definition of the word "is."
Later in the hearing, McCarthy defended EPA's proposed new-source rule as an unavoidable consequence of the 2007 Supreme Court decision in *Massachusetts v. EPA* that established CO2 and other heat-trapping gases were "pollutants" as defined by the Clean Air Act.
"The reason for regulating greenhouse gases from power plants is because greenhouse gases pose a danger to the public health and welfare, and they are a regulated pollutant, and as a regulated pollutant under the Clean Air Act, we must move forward with new source performance standards. That's why we did the rule," she said.
McCarthy would not answer when asked after the hearing whether that same obligation to regulate greenhouse gases applied to existing sources, and an EPA spokeswoman did not respond to requests for comment this afternoon.
Nonetheless, the law is clear that EPA will eventually have to promulgate a rule to apply to existing coal-fired power plants and other large sources of emissions, although the agency has broad discretion over how strict any requirements should be for existing facilities, said Patrick Parenteau, a professor at Vermont Law School.
"I know EPA is, for obvious reasons, playing pretty coy until after the election," he said. But "I would say they have a duty to do something as a result of *Mass.*; they don't have the luxury of doing nothing."
The new-source rule proposed yesterday emerged from the terms of a 2010 settlement agreement with environmental groups, under which the agency also agreed to craft greenhouse gas emissions rules for existing power plants and petroleum refineries. While the agency has strenuously avoided providing details on the development of those rules, environmental groups are confident they will be proposed eventually (*E&E Daily*, March 28).

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E&ENews PM is written and produced by the staff of E&E Publishing, LLC. A late afternoon roundup providing coverage of all the breaking and developing policy news from Capitol Hill, around the country and around the world, E&ENews PM is a must-read for the key players who need to be ahead of the next day's headlines. E&ENews PM publishes daily at 4:30 p.m.

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From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, August 19, 2013 2:49 PM
To: goo.michael@epa.gov
Subject: Fw: Getting in touch email

----- Forwarded Message -----
From: michael Goo Ex. 6 - Personal Privacy
To: "mbradley@mjbradley.com" <mbradley@mjbradley.com>
Sent: Friday, September 16, 2011 10:05 AM
Subject: Re: Getting in touch email

I have raised this with senior leadership and we are preparing to respond to the Izzo request for a meeting and also we are working on the impingement issue.....also dont assume i check this email much so if you want to have an offline chat just let me know you are using this channel....thanks

From: Michael Bradley <mbradley@mjbradley.net>
To: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, September 15, 2011 4:56 PM
Subject: Re: Getting in touch email

Michael

As follow up to our conversations, below is additional detail on the CSAPR and GHG NSPS

CSAPR
As discussed, we have been having a series of conversations with EPA about many of the CEG companies* concerns on the final state budgets under the Cross-State Air Pollution Rule (CSAPR). While the companies want to remain supportive of the final CSAPR, the state budgets for NY, NJ, and FL were significantly reduced in the final rule. These changes are making supporting the implementation of the rule as currently written very difficult. While we understand EPA is willing to make technical adjustments to state budgets based on new technical information, we are concerned that despite efforts to provide EPA with additional information, EPA is not inclined to adjust those state budgets until after October 7th * the deadline for when petitions for reconsideration and petitions to the DC Circuit are due.
Since the rule*s release about 10 weeks ago, we have been working to explain the concerns we have with certain state budgets and highlight the technical errors that result from using the IPM model and not taking into account the transmission system constraints that are unique to certain areas in the U.S. Following Eric Svenson*s outreach to Gina McCarthy regarding PSEG*s concerns, we have had several discussions with Joe Goffman and Sam Napolitano on the NJ

state budget. Compared to the proposed budget, New Jersey*s final annual NOx budget was reduced by 39 percent, the ozone season NOx budget was reduced by 36 percent, and New Jersey*s SO2 budget was reduced by 51 percent. With fewer allowances available to the state, several of PSEG*s generating units are projected to be short allowances beginning in 2012, despite having advanced pollution control equipment installed and operating. Additionally, since PSEG*s generating fleet is generally well controlled, there are limited opportunities for further emissions reductions between now and 2012.

A similar situation exists for NY. Compared to 2010 emissions, NY state looks to be significantly short of the 2012 state budgets even with the assurance provisions. We understand the NYDEC has been engaged with EPA to provide information to highlight the fact that there are many units in NY that must operate due to transmission constraints but for which the model predicted the units assumes a zero heat input. Both National Grid and Consolidated Edison of NY have also had calls with Sam and Joe to express similar concerns with the model and state budget, and had provided similar information about these must run units during the comment period. Without adjustments to the state budget, there are concerns that units needed for reliability purposes would not be able to operate.

NextEra has also met with Joe and Sam several times regarding the Florida state budget, and there we are also seeing that the IPM model fails to recognize that some units will need to run for reliability purposes due to natural gas constraints. The inability of the model to make these adjustments significantly impacts the state allowance budget.

These concerns described above are creating a very difficult dynamic within the Clean Energy Group and for these individual companies to remain supportive of EPA*s regulations. There is a concern that these issues are not getting the attention needed to ensure the appropriate technical fixes are made prior to the Oct 7th deadline. Additionally, the approaches in the final rule appear to penalize the early investments many of the CEG companies made in anticipation of regulations, which creates additional difficulties for these early actors.

I expect Ralph Izzo will likely reach out to Lisa Jackson on these concerns, and it would be helpful to explore whether EPA can make the appropriate technical adjustments related to transmission constraints for certain state budgets prior to the Oct 7th deadline.

<u>GHG NSPS</u>
With respect to GHG NSPS, we understand that Lisa Jackson has already signaled a delay for the release of the GHG NSPS proposal for the electric sector. It would be helpful to discuss what timing is being considered. To the extent possible, it may make sense to release the proposal after mid-November in order to try to mitigate the backlash on the other EPA air regulations. It would also be good to find some time in the next few weeks to discuss with you the issues CEG has been evaluating for existing units under 111(d).

Please do not hesitate to call with any questions.
Michael

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, May 10, 2013 5:25 PM
To:	goo.michael@epa.gov
Subject:	Fw: Getting in touch email

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.net>
To: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, September 15, 2011 4:56 PM
Subject: Re: Getting in touch email

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Please do not hesitate to call with any questions.
Michael

From: michael Goo Ex. 6 - Personal Privacy
Sent: Friday, May 10, 2013 5:34 PM
To: goo.michael@epa.gov
Subject: Fw: Highly Confidential

----- Forwarded Message -----
From: michael Goo Ex. 6 - Personal Privacy
To: "mbradley@mjbradley.com" <mbradley@mjbradley.com>
Sent: Wednesday, December 14, 2011 9:18 AM
Subject: Re: Highly Confidential

So apparently there is one more meeting with Cass this morning at 10 am with EEI and Cass. Not sure if letter actually went.
From: Michael Bradley <mbradley@mjbradley.net>
To: Ex. 6 - Michael Goo
Sent: Tuesday, December 13, 2011 4:49 PM
Subject: FW: Highly Confidential

Below is the central message of the EEI letter calling for the Section 112 President to issue an Executive Order for additional time. Please do not circulate or indicate where this info came from.

As members of EEI, we support the consensus view of our membership that the President should issue an Executive Order under section 112 of the Clean Air Act to provide additional time, as necessary, for power plants to achieve compliance with the utility MACT rule. This Executive Order should be issued at the time the MACT is finalized so that planning, evaluation and implementation for plants likely to need additional time can be undertaken expeditiously on a forward-looking basis.

Congress recognized that the availability of technology and national security interests are legitimate and justifiable reasons to extend a MACT deadline. Clean Air Act section 112(i)(4) allows the President to grant an exemption (i.e., an extension of time) to the utility MACT deadlines for up to two years based on a finding that (1) the technology to implement such standard is not available, and (2) it is in the national security interest of the United States to do so.

We represent the seven companies that were charged by EEI s Executive Committee with leading industry MACT discussions with both the Administration and the Environmental Protection Agency.

From:	michael Goo [redacted] Ex. 6 - Personal Privacy
Sent:	Friday, May 10, 2013 5:34 PM
To:	goo.michael@epa.gov
Subject:	Fw: Highly Confidential

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.net>
To: [redacted] Ex. 6 - Michael Goo
Sent: Tuesday, December 13, 2011 4:49 PM
Subject: FW: Highly Confidential

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We represent the seven companies that were charged by EEI s Executive Committee with leading industry MACT discussions with both the Administration and the Environmental Protection Agency.

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, May 9, 2013 4:59 PM
To: goo.michael@epa.gov
Subject: Fw: InsideEPA

----- Forwarded Message -----
From: "Hawkins, Dave" <dhawkins@nrdc.org>
To: Ex. 6 - Michael Goo
Sent: Tuesday, December 6, 2011 5:22 AM
Subject: InsideEPA

Dawn Reeves at Inside EPA says the following:
"Also im writing this week that the nsps at the white house sets a standard at nat gas combined cycle, sending a signal of no new coal w/o igcc and ccs."

We are not commenting.

From: michael Goo < Ex. 6 - Personal Privacy

Sent: Monday, August 19, 2013 2:15 PM

To: goo.michael@epa.gov

Subject: Fw: Material for Two Week Notice meeting, Friday, 6/8 - for 8:30 AM (call Ex. 6 - Personal Privacy)

Attach: graycol.gif; OMB Review - Two Week Decision Checklist for Friday Meeting 6-8-2012.doc; OMB Review Tracking and Planning thru 6-23-2012.doc; OMB Two Week Notice Status Summary as of 6-6-2012.doc

---

----- Forwarded Message -----
From: Michael Goo <Goo.Michael@epamail.epa.gov>
To: Ex. 5 - Michael Goo
Sent: Friday, June 8, 2012 8:30 AM
Subject: Fw: Material for Two Week Notice meeting, Friday, 6/8 - for 8:30 AM (call Ex. 6 - Personal Privacy Access Ex. 6 - Personal Privacy

----- Original Message -----**From:** Robin Kime**Sent:** 06/08/2012 07:33 AM EDT**To:** Michael Goo**Subject:** Fw: Material for Two Week Notice meeting, Friday, 6/8 - for 8:30 AM (call 866 299 3188 Access 873 7752) Good morningFiles are excerpted below Ex. 5 - Deliberative

Ex. 5 - Deliberative

by Robin Kime/DC/USEPA/US on 06/08/2012 07:26 AM -----From: Bruce Schillo/DC/USEPA/USTo: Bob Perciasepe/DC/USEPA/US@EPACc: Michael Goo/DC/USEPA/US@EPA, Alexander Cristofaro/DC/USEPA/US@EPA, Robin Kime/DC/USEPA/US@EPADate: 06/07/2012 05:32 PMSubject: Material for Two Week Notice meeting, Friday, 6/8

Attached are the three files to be used at tomorrow morning's Two Week Notice meeting. I left hard copies with your secretary.The checklist has two actions as candidates or discussion items for Two Week Notice (neither of which has been received in OP yet):

Ex. 5 - Deliberative

-

Both candidate actions were selected by me in consultation with Alex Cristofaro. I selected an OP-recommended "Notify OIRA Administrator" for both actions.In addition, there are three actions that I have placed "On Deck" (none of which has completed FAR, but all are on tight time frames if a 30 day OMB Review is to be achieved):

-
- **Ex. 5 - Deliberative**
-

Michael Goo recommends the following three topics to discuss with Cass:

Ex. 5 - Deliberative

DRAFT -- DELIBERATIVE -- INTERNAL DOCUMENTLast Revised on 6/7/2012 5:18 PM

Two Week Notice ListFor 6/8 Friday Meeting

DRAFT -- DELIBERATIVE -- INTERNAL DOCUMENTLast Revised on Jun-07-2012

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, May 10, 2013 5:32 PM
To:	goo.michael@epa.gov
Subject:	Fw: NERC Report and EEI tactics

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Tuesday, November 22, 2011 5:33 PM
Subject: NERC Report and EEI tactics

Michael,

The NERC Board approved the NERC Reliability Report today with revisions that show 316B causing the vast majority of the retirements and that the air regulations have a minor impact. It is scheduled to be released next Tuesday in advance of the FERC workshop. If you would like a copy of the report let me know. CEG will be issuing a press statement to point out that the weaknesses in the analysis as well as to spin the results as somewhat favorable. I will send you the press statement tomorrow.

As you are aware EEI is pushing very hard for the categorical 1 year extension as well as for the 2 year Presidential extension. EEI will be convening a CEO call early next week to agree on a strategy to convince the Administration to accept their proposed revisions which will entail making calls to Lisa and possibly a request for another EEI CEO meeting with Lisa. It would be useful if we could touch base tomorrow to discuss how best to manage these dynamics. We have a number of efforts planned for next week and it would be good to get your input.

I plan to be in the office until noon tomorrow and then can be reached on my cell.

Michael

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, May 13, 2013 3:04 PM
To: goo.michael@epa.gov
Subject: Fw: NJ: CLIMATE CHANGE RULES A MOVING TARGET

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, January 30, 2012 9:20 AM
Subject: NJ: CLIMATE CHANGE RULES A MOVING TARGET

Michael-
I want to assure you that I am NOT the source on this article in NJ. I just got back from backcountry skiing in the North Woods. CS

CLIMATE CHANGE RULES A MOVING TARGET. Although EPA clean air chief Gina McCarthy has said the agency's long-awaited rules to reduce greenhouse gases at power plants would come out by the end of January, sources close to the agency say they're not holding their breath. The timeline for the controversial climate change rules, which have already been delayed twice, is now more fuzzy "early in 2012," say people close to EPA. Environmental groups say one reason the White House may want to delay the climate rule is to keep it from getting caught up in the fight over extending the payroll tax cut, which expires in February. Republicans are expected to fight back hard on the climate rule, and could try to use the payroll tax cut extension as a vehicle to block the climate rule, replicating their tactics last year with the fight over the Keystone XL pipeline.

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, May 13, 2013 3:01 PM
To: goo.michael@epa.gov
Subject: Fw: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, January 6, 2013 5:53 PM
Subject: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

Hi Michael-
Happy New Year! Bruce Phillips and I are meeting on 1/11 with folks at the WH (Guzy, Duke, McConville, Samy) for the fourth time since the election on our 111(d) concept. They seem to be taking it pretty seriously. We also met with the OAR folks just before Christmas. We are meeting with some of them again this Friday. I'll be in town Thursday and Friday. Couple of questions for you:

(1) See the POLITICO article below saying Gov. Gregoire is being considered for Lisa's job. Should we put in a good word for Bob P. in our meeting? Is there anything else we can do to help Bob P.?

(2) We discussed getting a meeting with Bob P. on our 111(d) concept. What needs to happen for that to happen? At the last minute, Goffman had to bow out of our OAR meeting. Should we make sure he attends the Friday meeting?

(3) We've been meeting with Alex Barron on the potential for an O&G methane rule. There is a BIG opportunity there for near-term CH4 cuts -- as big or bigger in CO2e than our 111(d) proposal -- and together we think the two rules may get us to the Administration's 17 percent GHG reduction from 2005 levels by 2020 target . But, the net benefit of any 111(d) proposal that relies heavily on coal displacement with natural gas depends on the leak rate from the natural gas system. We aren't in the Howarth camp that natural gas entails more net GHG emissions than coal, but some of the recent field measurements are showing very high leak rates. The two-step here is to tighten up the natural gas system simultaneously with using gas to back out coal generation. CATF represents parties to the litigation challenging the O&G NSPS rule, but Alex and I have discussed teeing this up as a positive Obama Administration climate initiative rather than correcting insufficiencies in the rule/a response to a lawsuit. Even if we pursue a consent decree on the timeline for a rule, we need to discuss the details of regulatory development here. Anyway, it might make sense for us to discuss this

sooner than later.

Please let me know if you have some time to meet/talk on 1/10 or 1/11.

Cheers,
CS

>>>> Gregoire stock rising for EPA top job
>>>>
>>>> By Darren Samuelsohn and Erica Martinson
>>>>
>>>> 1/4/13 6:11 PM EST
>>>> Washington Gov. Chris Gregoire may be moving to the front of the pack in the contest to be named the new EPA administrator, according to a source familiar with the transition and a Seattle online newspaper.
>>>>
>>>> The Seattle Post-Intelligencer on Friday cited a very private prediction from a very senior source in Washington s congressional delegation saying she ll soon be nominated to replace Lisa Jackson.
>>>>
>>>> And a source familiar with the transition told POLITICO that the article naming Gregoire as a leading candidate for the EPA job is "quite real."
>>>>
>>>> Gregoire was an early backer of President Barack Obama and has received past support herself from Kansas Gov. Kathleen Sebelius and Arizona Gov. Janet Napolitano, both of whom became part of the president s Cabinet.
>>>>
>>>> The outgoing Washington governor s name has been circulated inside the Obama White House for a second term post, including EPA and the Interior Department, a job that traditionally goes to a Westerner, according to the source familiar with the transition.
>>>>
>>>> Her name has been on the list, said the source. She s looking for a spot and she s likely to get a spot.
>>>>
>>>> Others inside the Obama administration also have been vying for the EPA spot, including the agency's top air pollution official, Gina McCarthy, and the White House's top energy and climate adviser Heather Zichal. Bob Perciasepe, the current No. 2 at EPA, has also been named among the list of possible EPA candidates and is set to serve as the agency's acting chief pending the confirmation of Jackson's successor.
>>>>
>>>> We have not heard anything from the administration on such an offer, Gregoire s spokesman Cory Curtis said in an email response to a query.
>>>>
>>>> The White House declined comment.
>>>>
>>>> "She certainly would be an eminently qualified person, said Bill Ruckelshaus,

who acted as EPA administrator under Presidents Richard Nixon and Ronald Reagan.
I think she'd do a good job and my guess is she'd get confirmed.
>>>>
>>>> Gregoire will leave the governor s office this month after serving two terms in Olympia. Before that, she was the state attorney general and head of the Department of Ecology.
>>>>
>>>> President Obama is no fool. He s a smart guy. He knows what she s done as governor. If I were him, I d be talking to her about secretary ideas, said Laurie Dolan, who served from 2005 to 2009 as director of Gregoire s Executive Policy Office. She added that she s not heard anything about Gregoire s plans because she s very confidential.
>>>>
>>>> Former George H.W. Bush-era EPA Administrator William K. Reilly also told POLITICO he thought Gregoire would be a good choice.
>>>>
>>>> I tried to hire her as regional EPA administrator in 1989, when she was Washington state EPA chief. She knows the key statutes from her days in the state environmental job, and her experience as governor has added to her knowledge, her friends and her admirers, Reilly said in an email.
>>>>
>>>> To view online:
https://www.politicopro.com/go/?id=17659

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, May 13, 2013 3:00 PM
To: goo.michael@epa.gov
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From: Michael Goo Ex. 6 - Personal Privacy
To: Conrad Schneider <cschneider@catf.us>
Sent: Monday, January 7, 2013 9:47 AM
Subject: Re: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

Left you a voicemail

Sent from my iPhone

On Jan 6, 2013, at 5:53 PM, Conrad Schneider <cschneider@catf.us> wrote:

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> Please let me know if you have some time to meet/talk on 1/10 or 1/11.
>
> Cheers,
> CS
>
>>>>> Gregoire stock rising for EPA top job
>>>>>
>>>>> By Darren Samuelsohn and Erica Martinson
>>>>>
>>>>> 1/4/13 6:11 PM EST
>>>>> Washington Gov. Chris Gregoire may be moving to the front of the pack in the contest to be named the new EPA administrator, according to a source familiar with the transition and a Seattle online newspaper.
>>>>>
>>>>> The Seattle Post-Intelligencer on Friday cited a very private prediction from a very senior source in Washington s congressional delegation saying she ll soon be nominated to replace Lisa Jackson.
>>>>>
>>>>> And a source familiar with the transition told POLITICO that the article naming Gregoire as a leading candidate for the EPA job is "quite real."
>>>>>
>>>>> Gregoire was an early backer of President Barack Obama and has received past support herself from Kansas Gov. Kathleen Sebelius and Arizona Gov. Janet Napolitano, both of whom became part of the president s Cabinet.
>>>>>
>>>>> The outgoing Washington governor s name has been circulated inside the Obama White House for a second term post, including EPA and the Interior Department, a job that traditionally goes to a Westerner, according to the source familiar with the transition.
>>>>>
>>>>> Her name has been on the list, said the source. She s looking for a spot and she s likely to get a spot.
>>>>>
>>>>> Others inside the Obama administration also have been vying for the EPA spot, including the agency's top air pollution official, Gina McCarthy, and the White House's top energy and climate adviser Heather Zichal. Bob Perciasepe, the current No. 2 at EPA, has also been named among the list of possible EPA candidates and is set to serve as the agency's acting chief pending the confirmation of Jackson's successor.
>>>>>

>>>>> We have not heard anything from the administration on such an offer, Gregoire s spokesman Cory Curtis said in an email response to a query.
>>>>>
>>>>> The White House declined comment.
>>>>>
>>>>> "She certainly would be an eminently qualified person, said Bill Ruckelshaus, who acted as EPA administrator under Presidents Richard Nixon and Ronald Reagan. I think she'd do a good job and my guess is she'd get confirmed.
>>>>>
>>>>> Gregoire will leave the governor s office this month after serving two terms in Olympia. Before that, she was the state attorney general and head of the Department of Ecology.
>>>>>
>>>>> President Obama is no fool. He s a smart guy. He knows what she s done as governor. If I were him, I d be talking to her about secretary ideas, said Laurie Dolan, who served from 2005 to 2009 as director of Gregoire s Executive Policy Office. She added that she s not heard anything about Gregoire s plans because she s very confidential.
>>>>>
>>>>> Former George H.W. Bush-era EPA Administrator William K. Reilly also told POLITICO he thought Gregoire would be a good choice.
>>>>>
>>>>> I tried to hire her as regional EPA administrator in 1989, when she was Washington state EPA chief. She knows the key statutes from her days in the state environmental job, and her experience as governor has added to her knowledge, her friends and her admirers, Reilly said in an email.
>>>>>
>>>>> To view online:
> https://www.politicopro.com/go/?id=17659
>
> Conrad G. Schneider
> Advocacy Director
> Clean Air Task Force
> cschneider@catf.us
> www.catf.us
> 8 Museum Way
> Brunswick, Maine 04011
> 207/721-8676
> 207/721-8696 (facsimile)
>
>
>

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, August 19, 2013 2:57 PM
To: goo.michael@epa.gov
Subject: Fw: Percentage decline in emission rate by 2020 in your "formula" policy

---

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, June 13, 2011 11:13 AM
Subject: Percentage decline in emission rate by 2020 in your "formula" policy

Michael-

The environmental community has decided that the best way to "message" around NSPS policies is "percentage decline in emission rate by 2020". [I think this is primarily in contrast to "numbers of retirements", which they think is a poor public frame.] The consensus message that the enviros have agreed to deliver to the Administration is that an EGU GHG NSPS should result in a 10-15% reduction in fossil emission rate. The table below prepared by NorthBridge shows the performance of your 2100 lb. (and our 1350 lb.) "formula" policies expressed as a percentage decline in emission rate. You can see from this that your policy entails a 13% reduction in the rate by 2020 -- bang on with the enviro community "ask".

		2020		2025	
	2012	2100	1350	2100	1350
Power Sector CO2 MM Tonnes	2.263	2.173	2.163	2.141	2.046
Decline in Emissions %		4%	4%	5%	10%
Fossil Generation TWh	2746	3022	3022	3242	3242
Fossil Emission Rate (T/MWh)	0.82	0.72	0.72	0.66	0.63
Decline in Emission Rate %		13%	13%	20%	23%

Thanks,
CS
Conrad G. Schneider
Advocacy Director

Clean Air Task Force
cschneider@catf.us
http://www.catf.us/
169 Park Row
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, May 10, 2013 5:35 PM
To:	goo.michael@epa.gov
Subject:	Fw: Personal

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.net>
To: Ex. 6 - Michael Goo
Sent: Tuesday, January 10, 2012 12:33 PM
Subject: Personal

Michael

As follow up to our discussion, below are the key concerns that we have with the NODA based on our current understanding of the NODA.

In general, I see two key objectives with the NODA:
1) Make clear to the industry and stakeholders that EPA is changing course for the IM standard and will require units to comply with a technology-based standard rather than a numeric standard.
2) Provide enough certainty so that stakeholders can clearly agree that the rule will not drive a significant number of retirements causing reliability concerns predicted by NERC, for example.

Based on our conversations, we understand that the NODA will indicate that BTA is defined as:
- modified traveling screens, such as Ristroph screens or equivalent modified traveling screens, with a fish return system;
- approach velocity of 0.5 feet/second (fps) (the point of measurement is an issue we can continue to discuss with the Water Office once the NODA is released); or
- closed-cycle cooling. (For closed-cycle cooling, the definition and inclusion of cooling ponds is an outstanding issue that we understand will not be addressed in the NODA as any changes in the final rule will be a logical outgrowth of the proposal. As we have discussed, it will be important to continue to discuss the appropriate definition once the NODA is released.)

We would recommend that the NODA indicate that facilities relying on one of the three options above are required to operate that technology consistent with best management practices and manufacturers specifications. CEG would oppose a requirement to perform annual or monthly tests to demonstrate optimization of that technology. Rather, the five year permit review process should serve as a process to ensure that the

technology is operated appropriately and continues to be BTA.

For units that do not meet one of the three BTA options listed above, we understand EPA would require companies to demonstrate that the alternative technology achieves the numeric IM reduction. We have two concerns with this approach. First, to the extent the NODA contains the same numeric standards, I expect you will see significant concern from the industry. While we understand the NODA will suggest EPA is reviewing the comments and recognize stakeholders concerns, given that the 12% and 31% numbers were based on a such a limited data set, I am concerned that industry will simply focus on the fact that they will need to compare any alternative technology to those numbers regardless of whether EPA revises them in the end. Thus, the tone surrounding the 12% and 31% numbers will be important to counter retirement predictions and the inevitable Congressional pushback.

Second, a straight application of any national numeric standard without consideration of cost will raise significant concerns. For example, the other pre approved BTA technology CEG had proposed was an offshore velocity cap. We understand the NODA currently would allow a company with an offshore velocity cap to compare the IM level to the numeric limit in the final rule. The concern with identifying a single number that is appropriate for every site is that the final standard may be too high for one and too low for another based on site specific factors. For the offshore velocity cap example, I could imagine a case where a company has existing data that shows an impingement level just above the numeric standard finalized by EPA. If it is a straight numeric application to determine BTA, it is unclear what else a company can do. For an offshore velocity cap located 7,000 feet offshore in 60 feet of water, there is not a lot of additional technology that can be added without significant cost. Thus, cost has to be a factor that the permitting director can consider and weigh against the benefits of any additional technologies. We hope the NODA will avoid suggesting that a facility with an existing offshore velocity cap, achieving an 80% reduction in mortality, would be forced to install a cooling tower because it exceeds the numeric standard by a small margin. In such a case, stakeholders will assume those units will elect to retire instead.

The other key issue for CEG is the de minimis exception. CEG has discussed with EPA PG&E s Diablo Canyon example, and I believe Tony Earley discussed the plant in his meeting with Lisa Jackson. The intake at Diablo Canyon was designed to minimize impingement and the impingement numbers demonstrate its success the plant s annual impingement losses are under 800 pounds per year (approximately 2 pounds or 12 fish per day), while circulating approximately 2.5 billion gallons of water per day. The open ocean environment means that most species are adapted to large changes in tides, as well as significant swells. During the 2003 NPDES renewal process, the Central Coast Regional Water Quality Control Board testified that Regarding impingement of adult fish in the intake structure, the number of fish lost per year is so minor (a few hundred fish per year) that intake structure modifications or operational changes are not necessary. If EPA included a number in the NODA for the de minimis exemption that is more stringent than one approved by California, I am concerned about the political pushback on the rule.

To summarize, the following are the key issues that we hope to resolve in the NODA as well as suggested improvements, but it would probably be helpful to discuss further:
1) De minimis exemption ensure the de minimis cut off in the NODA is consistent with examples in states, such as California, where the state has concluded no additional technology is needed because of the low impingement levels.
2) Treatment of offshore velocity caps consider suggesting in the NODA that offshore velocity caps operating consistent with best management practices are BTA and take comment on what existing data can be submitted to demonstrate effectiveness. Clearly, a 60% reduction may not be BTA but permitting authorities should have the ability to determine that a reduction above 80%, for example, is BTA.
3) The comparison of alternative technologies to one single numeric standard without consideration of cost - I would recommend that EPA at least take comment on how best to consider cost for alternative BTA for the limited number of sites where the pre approved BTA is technically infeasible.

Carrie and I will be in DC on January 17th and if it makes sense to meet that morning, we would be happy to do so. In the meantime, please do not hesitate to call with any questions.

Thanks

Michael

From: michael Goo Ex. 6 - Personal Privacy
Sent: Monday, August 19, 2013 2:17 PM
To: goo.michael@epa.gov
Subject: Fw: Re: Re:

----- Forwarded Message -----
From: Tom Lawler Ex. 6 - Personal Privacy
To: michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, September 25, 2011 11:05 PM
Subject: Re: Re: Re:

Thanks

Tom Lawler
Lawler Strategies
(202) 340-1960

On Sep 25, 2011, at 10:56 PM, michael Goo Ex. 6 - Personal Privacy wrote:

ok i will call number on text message

From: Tom Lawler Ex. 6 - Personal Privacy
To: michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, September 25, 2011 10:19 PM
Subject: Re: Re:

Yeah a phone call would probably be best. Can you talk at 8?

Tom Lawler
Lawler Strategies
(202) 340-1960

On Sep 25, 2011, at 9:57 PM, michael Goo Ex. 6 - Personal Privacy wrote:

not sure what response to this you are looking for. Some of it might be right and some of it is definitely wrong....we should talk in the am maybe. Not sure where you got this from or what you will do with it so cant really comment.....thanks for sharing

From: Tom Lawler Ex. 6 - Personal Privacy

To: Ex. 6 - Michael Goo
Sent: Sunday, September 25, 2011 1:08 PM
Subject:

I feel like I need to start training for the Gooman 600. Sounds like a really tough race. Memo below. If I didn't have to have some answers by 9 tomorrow morning I wouldnt be bothering you today. Sorry.

EPA Air Program staff have been asked to prepare both 30 day and 60 day extension schedules for the September 30th court ordered deadline for proposal of Greenhouse Gas (GHG) New Source Performance Standards (NSPS) for Electric Generating Units (EGU).

Further, there are strong indications that the EPA political team is leaning toward issuing a proposed rule only for new sources, [CAA Section 111 (b)], while an Advanced Notice of Proposed Rulemaking (ANPR) would be issued for existing sources [CAA Section 111 (d)].

EPA has not yet secured agreement from the litigants (NRDC, EDF, Sierra Club, et.al.) to the potential schedule delay, but there are some indications that the litigants will not fight a 30-60 day delay if EPA sticks to the deadline for a final rule of May 26, 2012.

No New Coal

The GHG NSPS proposal for new sources would effectively eliminate future coal fired EGU s. The new source standards will be based on GHG emissions from Combined Cycle Natural Gas and are likely be about 1100 lbs. CO2/MWh. The best performing Super Critical coal plants achieve roughly 1700-1800 lbs. CO2/MWh and many are closer to 2100-2200 lbs. CO2/MWh. IGCC plants would likely need to achieve very high rates of carbon sequestration in order to be permitted.

Reasonable Standards for Existing Units

In contrast, the ANPRM for existing sources will contain a menu of energy efficiency improvements, from which EGU s could choose in order to achieve a roughly 5-8% efficiency improvement. The cost and potential benefit of each option will be described in some detail. States will be given substantial flexibility in determining how existing units achieve compliance.

A critical unresolved question involves a group of about 15 transitional plants those which have received some degree of permit approval but have not yet commenced construction. Since commercial construction is likely to be defined as the date of the proposed rule for new sources, EPA management must still decide how to treat these transitional

sources.

If the September 30th date is delayed by 60 days, the May 26, 2012 final rule deadline may be very difficult to achieve, but the EPA political team is committed to avoiding any extension, which would push the final rule closer to the November election.

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Monday, May 13, 2013 3:01 PM
To:	goo.michael@epa.gov
Subject:	Fw: Recap of our call

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Saturday, December 1, 2012 11:51 AM
Subject: Recap of our call

Hey Michael-
Thanks for making what time you could to talk yesterday. Here's my recap. Please let me know if I've got anything wrong or if you have anything to add:

Next steps with EPA:

1. Bruce and I get a meeting with the OAR crowd (some configuration of Culligan, Ketchum-Colwill, Beauvais, Schmidt, Goffman, etc.)

2. Afterwards, if they are not openly hostile, you facilitate a meeting with Bob P and us to present our analyis.

3. Bruce follows up with Dave Evans on modeling issues.

4. I get a price quote from Venkatesh at ICF regarding how much it would cost to refine IPM to be able to accurately estimate the impacts of our redispatch policy. We discuss how to split the costs -- perhaps EPA pays for the model platform upgrade and CATF pays for the runs.

5. We keep you apprised of our progress with outreach to coal generators.

What we want EPA to do:

1. Start the party on 111(d) i.e., send a signal to the world that the process is starting up again.

2. Process might include release of the white paper, empaneling a stakeholder process to socialize the issue, etc.

Next steps with WH:

1. CATF works the folks we met with at the WH last week for a meeting with Heather Zichal with the intent of engaging her in helping creating enough space with OMB to let EPA start the party on 111(d).

2. Continue to engage the Energy and Climate/CEQ staff on the details of our policy evolution and keep them apprised of our progress with outreach to coal generators.

How you can help CATF with funders:

1. We can tell foundation program officers that we are engaged in discussions with highly-placed officials in the Obama Administration regarding viable pathways forward on 111(d). That we have presented our redispatch policy proposal to EPA and the WH and there is significant interest in the opportunity for low cost CO2 emission reductions represented by the current underutilized natural gas capacity.

2. CATF's outreach to coal generators could be very valuable to this process (helping create the political "space" for EPA to issue a meaningful rule) and is unique among environmental NGOs.

3. CATF needs substantial incremental funding to maintain the engagement with EPA and coal generators both in terms of support for staff time but also consultants (e.g., NorthBridge, ICF) as well as the jobs study (on net employment impacts of CSAPR, MATS, and NSPS) that IEc/INFORUM is performing for us and the benefit-cost (i.e., health benefits of reduced coal generation) and SCC analyses we are performing to show that the policy is cost-effective, benefit-cost justified, and below the SCC.

4. I can tell foundation program officers to call you: (a) for your take on the prospects for moving a 111(d) rule; and (b) to vouch for CATF's value-added in the 111(d) (and 111(b)) processes.

One other thing I can't remember if I mentioned: we are hearing from several companies (NRG and AEP principally) that NorthBridge's cost estimates of our 5 percent policy are probably too high. They feel this is due to NorthBridge using historic price elasticities for predicting future natural gas prices under the policy. These folks believe that shale gas is a "game changer" and that the system can absorb 3 TCF of incremental gas with little gas price impact. [One industry said that using past gas price elasticities today is like pricing cotton based on steam ship transport after the railroads were carrying cotton to market.) We will run a low gas price sensitivity to reflect this. Rather than run a high gas price sensitivity to represent the competing view that we are currently in a gas bubble that will burst and lead to higher than forecast gas prices going forward, our current thought is to devise a "safety valve" mechanism to guard against upside gas price risk. We'll need to engage with OGC to see if they think something like this can be countenanced under section 111. Be interested in your thoughts about this.

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Monday, May 13, 2013 3:03 PM
To:	goo.michael@epa.gov
Subject:	Fw: Thoughts about next steps on 111(d)

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, November 14, 2012 9:15 AM
Subject: Re: Thoughts about next steps on 111(d)

Hi Michael-
Update on scheduling: Alex asked about early next week and I replied that Bruce Phillips and I can do a meeting Monday 11/19 before 2 p.m. or Tuesday 11/20 anytime.

Thanks,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

On Nov 14, 2012, at 9:10 AM, Michael Goo wrote:

> Ok cool. We will get back to you.
>
> Sent from my iPhone
>
> On Nov 11, 2012, at 10:01 PM, Conrad Schneider <cschneider@catf.us> wrote:
>
>> O.K. Bruce and I can do Wednesday 11/14 anytime before 2 p.m. or any day the following week (week of 11/19). Let us know what works for you.
>>
>> Thanks,

>> CS
>>
>> Conrad Schneider
>> Advocacy Director
>> Clean Air Task Force
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>> (207) 721-8676
>> (207) 721-8696 (facsimile)
>> cschneider@catf.us
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>> Sent from my iPad
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>> On Nov 11, 2012, at 7:23 AM, Michael Goo Ex. 6 - Personal Privacy wrote:
>>
>>> Thanks for reaching out. Let's set something Up
>>> For
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>>> Week.
>>> Things
>>> Are
>>> Great!
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>>> Sent from my iPhone
>>>
>>> On Nov 10, 2012, at 10:21 AM, Conrad Schneider <cschneider@catf.us> wrote:
>>>
>>>> Hi Michael-
>>>> Congratulations (on still having a job)!!! Now, its post-election, and a young man's fancy turns to . . . you guessed it, sec. 111(d)! As you and your folks are thinking about whether/how to move forward on CO2 emissions from existing coal plants, I want you to be aware of some new analysis that CATF has recently completed with the NorthBridge Group that could help shape your thinking about how much upside there is here i.e., is there a "win"? We've all been looking for the "sweet spot" on this issue, i.e., where we can get more (CO2 reductions) for less (money). We think we've found such a sweet spot and want to share our analysis with you, Alex, and whoever else needs to see it as you are composing your thoughts and recommendations. What's nice about our analysis too is that we've run the policy at various levels of stringency, so you can see what you get for an incrementally more (or less) stringent version of our policy. Bruce Phillips (from NorthBridge) and I can be down at your convenience to run you through the policy, which we've designed to meet as many of your criteria regarding: CO2 emissions reductions (meaningful, not trivial), cost (a fraction of MATS), retirements (as few as possible), price impacts (very modest), regional redistribution of wealth (none), and possibly most importantly, identifying companies with coal-fired generation that are economic winners under the policy (lots). We've heard the need for this last one from the WH several times -- they really want some companies with coal generation on-board. Pre-election, we were already beginning to reach out to those

companies we've identified as winners in order to gain their support. Many of the companies we've spoken with are interested, several are very interested. Now, they are now calling us. So, in sum, we'd like to meet with you and (as appropriate) your team, confirm that these design criteria are still applicable, show you our policy and economic analysis, and get your thoughts. Please let me know how you would like to proceed.
>>>>
>>>> Hope you, Debbie, and Fiona are well!
>>>>
>>>> Cheers,
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From: Michael Goo Ex. 6 - Personal Privacy
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Sent: Sunday, November 11, 2012 7:23 AM
Subject: Re: Thoughts about next steps on 111(d)

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Sent from my iPhone

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From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Monday, May 13, 2013 3:04 PM
To:	goo.michael@epa.gov
Subject:	Fw: Thoughts about next steps on 111(d)

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To: Michael Goo Ex. 6 - Personal Privacy
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From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Monday, August 19, 2013 2:55 PM
To:	goo.michael@epa.gov
Subject:	Fw: Thoughts about next steps on 111(d)

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To: Conrad Schneider <cschneider@catf.us>
Sent: Sunday, November 11, 2012 7:23 AM
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> Conrad G. Schneider
> Advocacy Director
> Clean Air Task Force
> cschneider@catf.us
> http://www.catf.us/
> 8 Museum Way
> Brunswick, Maine 04011
> 207/721-8676
> 207/721-8696 (facsimile)
>
>
>

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Monday, May 13, 2013 3:05 PM
To:	goo.michael@epa.gov
Subject:	Fw: Utility Cash on Balance Sheet Analysis

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, November 14, 2011 6:40 PM
Subject: Utility Cash on Balance Sheet Analysis

Hi Michael-
Attached please find the utility "cash balance" analysis I mentioned. Conclusions: (1) Average net cash balance increased 18x from 1995 to 2010 (in real (2010) dollars). [Note: This does not even adjust for growth in asset value]; (2) As a percent of total assets, average net cash increased from 1.5% to 5.9% over the period.

We are weaving this into a story about the ability of power companies to adjust to the EPA regs: (a) interest rates are at an all-time low, so it is a good time to borrow money for modernization of the fleet; (b) load growth is flat, so there is no better time for outages for retrofits, retirements, etc. to modernize the fleet; and (c) utilities are sitting on an unprecedented amount of cash on their balance sheets meaning that they have the wherewithal to install emissions controls and replacement generation, plus regulations that mobilize this cash and deploy it in the economy will have a stimulative effect on economic activity and job creation.

Lastly, thinking more about the idea we discussed about preceding an NSPS proposal with some sort of process to "air" the issue, we think you need more than a paper by OAR for both substantive and optical reasons. As I mentioned when we spoke, we would recommend some sort of stakeholder discussion process. We agree that an ANPRM would provoke thousands of pages of comments and potentially slow you down too much. But, a talk/listen group -- maybe a reconvening of the BACT CAAAC group that has already chewed over some of these issues? -- starting in December running through February with an aggressive schedule of meetings, could allow parties to discuss and build understanding in the best case and create the impression that EPA has taken stakeholder advice in formulating the rule in the worst case. This would also give you a better political read on floating a proposal as well as a better sense of hot button issues and arguments you're likely to hear. EPA could kick it off with a white paper and get reactions and ask organizations with specific proposals to present them and get feedback (e.g., NRDC and us, etc.) It wouldn't be the normal FACA process of producing a report or recommendations. The goal would simply be to allow EPA to have the benefit of this thinking as it crafts its proposal. And, if you lock into a

December 2012 date for the final rule, we think industry will take this seriously and participate in the discussion. Here's why: If you lock-in a final rule before the election, they will know it isn't real or that it won't be stringent. But, if you say you are finalizing after the election, they will believe you mean business -- if Obama wins, it will be tough and if Obama loses it will be tough. [The only downside to this is if the R candidate campaigns in coal country saying that Obama has a "December surprise" in store to kill coal.] In any case, if you want to test the politics and potentially draw the venom out of this issue politically, we'd recommend more than a paper. We think you need a process, albeit a very short one. Let's discuss.

Thanks,
CS

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, January 7, 2013 9:47 AM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

Left you a voicemail

Sent from my iPhone

On Jan 6, 2013, at 5:53 PM, Conrad Schneider <cschneider@catf.us> wrote:

> Hi Michael-
> Happy New Year! Bruce Phillips and I are meeting on 1/11 with folks at the WH (Guzy, Duke, McConville, Samy) for the fourth time since the election on our 111(d) concept. They seem to be taking it pretty seriously. We also met with the OAR folks just before Christmas. We are meeting with some of them again this Friday. I'll be in town Thursday and Friday. Couple of questions for you:
>
> (1) See the POLITICO article below saying Gov. Gregoire is being considered for Lisa's job. Should we put in a good word for Bob P. in our meeting? Is there anything else we can do to help Bob P.?
>
> (2) We discussed getting a meeting with Bob P. on our 111(d) concept. What needs to happen for that to happen? At the last minute, Goffman had to bow out of our OAR meeting. Should we make sure he attends the Friday meeting?
>
> (3) We've been meeting with Alex Barron on the potential for an O&G methane rule. There is a BIG opportunity there for near-term CH4 cuts -- as big or bigger in CO2e than our 111(d) proposal -- and together we think the two rules may get us to the Administration's 17 percent GHG reduction from 2005 levels by 2020 target . But, the net benefit of any 111(d) proposal that relies heavily on coal displacement with natural gas depends on the leak rate from the natural gas system. We aren't in the Howarth camp that natural gas entails more net GHG emissions than coal, but some of the recent field measurements are showing very high leak rates. The two-step here is to tighten up the natural gas system simultaneously with using gas to back out coal generation. CATF represents parties to the litigation challenging the O&G NSPS rule, but Alex and I have discussed teeing this up as a positive Obama Administration climate initiative rather than correcting insufficiencies in the rule/a response to a lawsuit. Even if we pursue a consent decree on the timeline for a rule, we need to discuss the details of regulatory development here. Anyway, it might make sense for us to discuss this sooner than later.
>
> Please let me know if you have some time to meet/talk on 1/10 or 1/11.
>
> Cheers,
> CS
>
>>>>> Gregoire stock rising for EPA top job
>>>>>
>>>>> By Darren Samuelsohn and Erica Martinson
>>>>>
>>>>> 1/4/13 6:11 PM EST
>>>>> Washington Gov. Chris Gregoire may be moving to the front of the pack in the contest to be named the new EPA administrator, according to a source familiar with the transition and a Seattle online newspaper.
>>>>>

>>>>> The Seattle Post-Intelligencer on Friday cited a very private prediction from a very senior source in Washingtons congressional delegation saying shell soon be nominated to replace Lisa Jackson.
>>>>>
>>>>> And a source familiar with the transition told POLITICO that the article naming Gregoire as a leading candidate for the EPA job is "quite real."
>>>>>
>>>>> Gregoire was an early backer of President Barack Obama and has received past support herself from Kansas Gov. Kathleen Sebelius and Arizona Gov. Janet Napolitano, both of whom became part of the presidents Cabinet.
>>>>>
>>>>> The outgoing Washington governors name has been circulated inside the Obama White House for a second term post, including EPA and the Interior Department, a job that traditionally goes to a Westerner, according to the source familiar with the transition.
>>>>>
>>>>> Her name has been on the list, said the source. Shes looking for a spot and shes likely to get a spot.
>>>>>
>>>>> Others inside the Obama administration also have been vying for the EPA spot, including the agency's top air pollution official, Gina McCarthy, and the White House's top energy and climate adviser Heather Zichal. Bob Perciasepe, the current No. 2 at EPA, has also been named among the list of possible EPA candidates and is set to serve as the agency's acting chief pending the confirmation of Jackson's successor.
>>>>>
>>>>> We have not heard anything from the administration on such an offer, Gregoires spokesman Cory Curtis said in an email response to a query.
>>>>>
>>>>> The White House declined comment.
>>>>>
>>>>> "She certainly would be an eminently qualified person, said Bill Ruckelshaus, who acted as EPA administrator under Presidents Richard Nixon and Ronald Reagan. I think she'd do a good job and my guess is she'd get confirmed.
>>>>>
>>>>> Gregoire will leave the governors office this month after serving two terms in Olympia. Before that, she was the state attorney general and head of the Department of Ecology.
>>>>>
>>>>> President Obama is no fool. Hes a smart guy. He knows what shes done as governor. If I were him, Id be talking to her about secretary ideas, said Laurie Dolan, who served from 2005 to 2009 as director of Gregoires Executive Policy Office. She added that shes not heard anything about Gregoires plans because shes very confidential.
>>>>>
>>>>> Former George H.W. Bush-era EPA Administrator William K. Reilly also told POLITICO he thought Gregoire would be a good choice.
>>>>>
>>>>> I tried to hire her as regional EPA administrator in 1989, when she was Washington state EPA chief. She knows the key statutes from her days in the state environmental job, and her experience as governor has added to her knowledge, her friends and her admirers, Reilly said in an email.
>>>>>
>>>>> To view online:
> https://www.politicopro.com/go/?id=17659
>
> Conrad G. Schneider
> Advocacy Director
> Clean Air Task Force
> cschneider@catf.us
> www.catf.us
> 8 Museum Way
> Brunswick, Maine 04011
> 207/721-8676

> 207/721-8696 (facsimile)
>
>
>

From: michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, September 18, 2011 1:33 PM
To: goo.michael@epa.gov
Subject: Fw: CSAPR Concerns

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.net>
To: Ex. 6 - Michael Goo
Sent: Sunday, September 18, 2011 1:38 AM
Subject: FW: CSAPR Concerns

Michael,

Below is the message I have sent to Gina and Joe. I can be reached before 10:00 AM eastern time tomorrow morning and after 3:30 PM when I arrive in DC.

Michael

From: Michael Bradley [mailto:mbradley@mjbradley.com]
Sent: Sunday, September 18, 2011 1:35 AM
To: Ex. 6 - Joe Goffman
Subject: FW: CSAPR Concerns

Joe,
Would you please send this email on to Gina for me? I would have sent it to her directly with a cc to you but I don t have a private email address for her and would prefer to not use an official email address. Your calls to Eric and Bob were very helpful in reassuring them that EPA is looking to be responsive to their State budget concerns but time is becoming an issue and others within PSEG and NGrid are pushing for a clear resolution in the very near term. Thanks.

Gina,

As you know, many of the CEG companies have been having a series of conversations with EPA about the concerns on the final state budgets under the Cross-State Air Pollution Rule (CSAPR). The companies want to remain supportive of the final CSAPR because it is intended to reduce emissions. In general, the companies see the rule as improving on CAIR and being responsive to the D.C. Circuit s decision. However, we are continuing to identify errors in the final rule that we believe could undermine the legal stability of the rule. Our goal is to have a rule implemented that is legally sound, gives the industry the needed business certainty for investments in cleaner generation, and addresses the air transport issues affecting many of the state in which the CEG members operate. We would not want to see the rule stayed.

However, as we have discussed, the state budgets for NY, NJ, and FL were significantly reduced in the final rule. These changes are making supporting the implementation of the rule, as currently written, very difficult. While we understand EPA is willing to consider making technical adjustments to state budgets based on new technical information, we are concerned that despite efforts to provide EPA with additional information, EPA may not be able to adjust those state budgets until after October 7th the deadline for when petitions for reconsideration and petitions to the DC Circuit are due. Additionally, since the rule s release, multiple levels of staff at the various CEG companies have become involved in evaluating the implications of the rule and suggesting various courses of action, which, as I am sure you can appreciate, make the dynamics difficult to manage.

Since the rule s release about 10 weeks ago, we have been working to explain the concerns we have with certain state budgets and highlight the technical errors that result from using the IPM model and not taking into account the transmission system constraints that are unique to certain areas in the U.S. The following explains our specific concerns related to New Jersey, New York and Florida as well as the outreach we have had with EPA.

Following Eric Svenson s outreach to you regarding PSEG s concerns, we have had several discussions with Joe Goffman and Sam Napolitano on the NJ state budget. Compared to the proposed budget, New Jersey s final annual NOx budget was reduced by 39 percent, the ozone season NOx budget was reduced by 36 percent, and New Jersey s SO2 budget was reduced by 51 percent. With fewer allowances available to the state, several of PSEG s generating units are projected to be short allowances beginning in 2012, despite having advanced pollution control equipment installed and operating. Additionally, since PSEG s generating fleet is generally well controlled, there are limited opportunities for further emissions reductions between now and 2012.

A similar situation exists for NY. Compared to 2010 emissions, NY state looks to be significantly short of the 2012 state budgets even with the assurance provisions. We understand the NYDEC has been engaged with EPA to provide information to highlight the fact that there are many units in NY that must operate due to transmission constraints but for which the model predicted the units to have zero heat input. Both National Grid and Consolidated Edison of NY have also had calls with Sam and Joe to express similar concerns with the model and state budget, and had provided similar information about these must run units during the comment period. Without adjustments to the state budget, there are concerns that units needed for reliability purposes would not be able to operate.

NextEra has also met with Joe and Sam several times regarding the Florida state budget, and there we are also seeing that the IPM model fails to recognize that some units will need to run for reliability purposes due to natural gas constraints. This was an issue NextEra and others also raised during the comment period, and the inability of the model to make these adjustments significantly impacts the state allowance budget.

The concerns described above are creating a very difficult dynamic within the Clean Energy Group and for these individual companies to remain supportive of EPA s regulations. The approaches in the final rule appear to penalize the early investments many of the CEG companies made in anticipation of regulations. Additionally, the rule does not allow for economic growth as there is not updating of allowance allocations.

I am appreciative of EPA s efforts to try to make the necessary adjustments to state budgets that have clear errors while ensuring that any changes do not affect the timely implementation of the entire rule. The CEG members similarly want to make sure that right balance is struck so that the rule can remain effective in January 2012. Joe in particular has been very constructive in trying to find any appropriate solutions, but given the tight timeframe leading up to October 7th, I wanted you to be aware of the difficult position in which many of the CEG members are finding themselves.

Please do not hesitate to call me with any questions. I will be traveling tomorrow from the west coast to DC, arriving at 4:00 PM, and plan to be in DC all day on Monday and Tuesday. With the exception of the times when Sue Tierney, Paul Allen and I are presenting a Utility Toxics Rule briefing for House and Senate staff on Monday I m available to discuss these issues with you and others.

Michael
.

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, May 31, 2012 6:22 PM
To: cjenks@mjbradley.com
Subject: Fw: NODAs
Attach: EO12866_2040-AE95_Cooling water intake NODA 2 053112.clean.docx; EO12866_2040-AE95_Cooling water intake NODA 1_clean_053012.docx

---

Pls delete the noda on stated preference upon reciept.....both docs on need to know basis

----- Forwarded Message -----
From: Michael Goo <Goo.Michael@epamail.epa.gov>
To: Ex. 6 - Michael Goo
Sent: Thursday, May 31, 2012 6:20 PM
Subject: Fw: NODAs

----- Forwarded by Michael Goo/DC/USEPA/US on 05/31/2012 06:20 PM -----

From: Paul Balserak/DC/USEPA/US
To: Michael Goo/DC/USEPA/US@EPA
Date: 05/31/2012 06:13 PM
Subject: Fw: NODAs

just in case, here are both NODAs. Obv, NODA 1 is titled "NODA_1" and is the flexibility changes. NODA 2 is the stated preference and is titled "NODA_2"
Paul

(See attached file: EO12866_2040-AE95_Cooling water intake NODA 2 053112.clean.docx)(See attached file: EO12866_2040-AE95_Cooling water intake NODA 1_clean_053012.docx)

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 122, 123, 124, and 125

[EPA-HQ-OW-2008-0667, FRL – 9681-5]

RIN 2040–AE95

National Pollutant Discharge Elimination System — Proposed Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities; Notice of Data Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Data Availability.

SUMMARY: On April 20, 2011, EPA published proposed standards for cooling water intake structures at all existing power generating, manufacturing, and industrial facilities as part of implementing section 316(b) of the Clean Water Act (CWA). This notice presents a summary of new information EPA has developed since the rule proposal. The information results from a stated preference survey that EPA conducted after the proposed rule was published. Stated preference surveys are an attempt to determine the economic value of goods or services by means other than by assessing the effects of changes in the market for the goods and services. In this notice EPA solicits comment on the information presented in this notice and on what role, if any, it should play in EPA's assessment of the benefits of regulatory options for the final rule, pending completion of the survey and external peer review.

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DATES: Comments must be received on or before [INSERT DATE 30 days after publication in the Federal Register.]

ADDRESSES: Submit your comments, identified by Docket No. EPA-HQ-OW-2008-0667 by one of the following methods:

- *http:www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail:* OW–Docket@epa.gov, Attention Docket ID No. EPA-HQ-OW-2008-0667.
- *Mail:* Water Docket, U.S. Environmental Protection Agency, Mail Code: 4203M, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Attention Docket ID No. EPA-HQ-OW-2008-0667. Please include a total of 3 copies. In addition, please mail a copy of your comments on information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th St., NW., Washington, DC 20503.
- *Hand Delivery:* Water Docket, EPA Docket Center, EPA West Building Room 3334, 1301 Constitution Ave., NW., Washington, DC, Attention Docket ID No. EPA-HQ-OW-2008-0667. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information by calling 202–566–2426.

Instructions: Direct your comments to Docket No. EPA-HQ-OW-2008-0667. EPA's

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policy is that all comments received will be included in the public docket without change and may be made available online at http://www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider to be CBI or otherwise protected should not be submitted through www.regulations.gov or e-mail. The www.regulations.gov web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through http://www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the http://www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in http://www.regulations.gov or in

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hard copy at the Water Docket in the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is 202–566–1744, and the telephone number for the Water Docket is 202–566–2426.

FOR FURTHER INFORMATION CONTACT: For additional technical information, contact Paul Shriner at 202-566-1076; e-mail: shriner.paul@epa.gov. For additional economic information, contact Erik Helm at 202-566-1049; e-mail: helm.erik@epa.gov or Wendy Hoffman at 202-564-8794; email: hoffman.wendy@epa.gov. For additional biological information, contact Tom Born at 202-566-1001; e-mail: born.tom@epa.gov.

SUPPLEMENTARY INFORMATION

Supporting Documentation

A. Docket

EPA has established an official public docket for this action under Docket ID No. EPA-HQ-OW-2008-0667. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include information claimed as Confidential Business Information (CBI) or other information for which the disclosure is restricted by statute. For information on how to access materials in the docket, refer to the preceding "ADDRESSES" section. To view docket materials, please call ahead to schedule an appointment. Every user is entitled to copy 266 pages per day before incurring a charge. The Docket may charge 15

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cents for each page over the 266-page limit plus an administrative fee of $25.00.

B. Electronic Access

You may access this Federal Register document and the docket electronically, as well as submit public comments, through the website http://www.regulations.gov by searching for Docket ID No. EPA-HQ-OW-2008-0667. For additional information about the public docket, visit the EPA Docket Center homepage at http://www.epa.gov/epahome/dockets.htm.

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I. Purpose of This Notice

On April 20, 2011, EPA published proposed standards for cooling water intake structures at all existing power generating facilities and existing manufacturing and industrial facilities as part of EPA's implementation of its responsibilities under section 316(b) of the Clean Water Act (CWA), at 76 FR 22174. EPA received voluminous comments and data submissions during the 90-day public comment period. After many commenters requested additional time to review the proposal, on July 20, 2011, EPA extended the comment period by an additional 30 days (76 FR 43230).

In today's NODA, EPA is providing additional preliminary data that may be

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relevant to the benefits of the rule, based on the results of a stated preference survey. Stated preference surveys are an attempt to determine the economic value of goods or services outside of the context of the marketplace. Simply described, a stated preference survey attempts to gauge the value of an item through questions designed to mimic consumer decision-making in actual markets. A stated preference survey, in this case, was used to measure values associated with ecosystem improvements. Such values were only partially monetized at proposal. The stated preference survey estimates the value held by the public for ecosystem improvements based on the choices the surveyed members of the public make between hypothetical policy options and current conditions. EPA solicits public comment on all aspects of the study, including the methodology used, the strengths and weaknesses of stated preferences methods generally, and the appropriate role, if any, the study should play in the analysis of the final rule.

EPA notes that the preliminary results presented in this NODA are dependent on the background information that was presented to respondents to the stated preference survey, including information about regional and national impacts on aquatic resources both in the baseline and under various policy scenarios. Thus, these preliminary national and regional results are not directly transferable to site specific assessments.

Section II provides a brief description of the stated preference survey to date, and refers to technical support documents available on EPA's website and in the docket for the proposal, which includes the data and a set of preliminary statistical results in which each respondent's answers are given similar weight, even as some groups may be over- or underrepresented. Such unweighted results are presented for the Northeast, Southeast,

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Inland, Pacific regions, and a national survey. EPA is making the preliminary results of this study available for public comment and peer review in order to inform its determination of whether to include these results in the benefits analysis for the final rule.

This information is presented in more detail in a document referred to hereinafter as the Survey Support Document (SSD). In addition to the unweighted models presented, EPA is also presenting preliminary weighted model results for the Northeast region. At the time this NODA was prepared, EPA had only developed weights for the Northeast region as it is the only region whose non-response study has been completed. The weights control for statistical differences between individuals who responded to the main survey and those individuals who did not respond. Weighted models for the remaining regions and the national surveys are not presented in the technical support documents, but will be made available to the public on EPA's website at a later date.

EPA invites comment on the study's preliminary results, including the extent to which those results are consistent with previous studies of stated or revealed public preferences; ways of assessing the external validity of the underlying per household estimates and implied aggregate WTP, for example by comparison with estimates in the published literature of WTP for increased species abundance or other ecosystem attributes; and whether further analyses are needed, and if so what analyses might be most useful. EPA also invites comment on how the certainty associated with the environmental attributes in this survey accord with certainty levels in other stated preference surveys, and whether that could affect responses.

EPA's rationale for the preferred regulatory option is detailed in the BTA

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Consideration section of EPA's proposal (76 FR 22174, Section VI). This notice is intended only to offer additional information collected as a result of conducting a stated preference survey. Several key elements of that proposal are worth restating. "EPA concluded that closed cycle cooling is not the best technology available for minimizing adverse environmental impact on a national basis" (76 FR 22174, Section VI.E). "Four factors, in particular, led EPA, for this proposal, to reject a uniform standard based on closed cycle cooling" (76 FR 22174, Section VI.E). The four factors have not changed on the basis of data collected through the stated preference survey, nor does EPA anticipate that these factors would be changed by any revisions to the national or regional benefits analysis based on these data, if such revisions are made in the final rule. The four factors are energy reliability, air emissions, land availability, and remaining useful plant life, each of which should be evaluated on a localized basis.

EPA's estimated benefits for this regulation in the original proposal were partial estimates only – EPA was not able to monetize all benefits, especially non-use benefits. As part of the proposal, EPA indicated it was in the process of developing a stated preference survey to estimate total willingness to pay (WTP) for improvements to fishery resources affected by impingement and entrainment (I&E) mortality from in-scope 316(b) facilities (75 FR 42438, July 21, 2010). EPA acknowledged it did not have sufficient time to fully develop and implement this survey for the proposed regulation (76 FR 22174. EPA indicated its intent to issue a Notice of Data Availability (NODA) pending survey implementation and data analysis. Section II provides an overview of this new data and preliminary analysis for the Northeast, Southeast, Inland, and Pacific

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regions as well as the national survey, and refers to the technical support documents on EPA's website. EPA presents a set of unweighted models that do not account for possible systematic variations between the populations of individuals that responded and did not respond to the surveys. The survey non-response assessment work has been completed for the Northeast region; therefore EPA presents a weighted model which statistically adjusts for the differences among those populations for that region. EPA has not yet completed the non-response assessments for the Pacific, Southeast, and Inland regions and the national survey. EPA does not plan to publish another NODA presenting the full set of adjusted results. Instead, EPA will post these results on its web site at http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/. EPA encourages the interested public to monitor this web site periodically for additional information about the survey. EPA will also add the technical support documents to the docket for this rule, and interested parties may wish to sign up for the notification feature for this docket at regulations.gov, to be notified automatically via email when these results are posted. This notice is intended to apprise the public of the preliminary results of the stated preference survey, make this information available for public review, and provide an opportunity for the public to comment on this new information. EPA has not decided whether to use the results of the stated preference survey in the benefits analysis for the final rule. After completing the non-response studies, conducting scope and validity testing, and reviewing and responding to public comment, EPA will revise its results (including a summary of the public comments) and present these materials for external peer review. After making any additional revisions based on the peer review, EPA will

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determine whether the monetized benefits based on the stated preference survey should be included in the benefits analysis for the final rule, and if so, what role they should play. However, EPA notes that the Agency is not reopening the proposed rule for comment through this notice.

II. Willingness to Pay Survey

In today's NODA, EPA is documenting the availability of data collected from a stated preference survey designed to facilitate the estimation of households' willingness to pay to reduce the number of fish impinged or entrained in cooling water intake structures. Stated preference methods provide a non-market approach to quantifying values associated with ecosystem improvements, such as increased protection of aquatic species or the restoration of habitats with specific attributes. These methods rely on an analysis of responses to survey questions through which individuals state information about their values.

Estimation of monetized non-use benefits is challenging, since market proxies are generally not available, and in the absence of such proxies, they can only be estimated by using either stated preference methods or benefits transfer based on prior stated preference results. For this reason, non-use benefits are often discussed qualitatively instead of attaching monetized values to them. Today's notice presents data collected from a stated preference study (EPA ICR # 2402.01) that EPA conducted regarding total (use plus non-use) benefits from reductions in fish mortality at cooling water intake structures. EPA's peer-reviewed guidelines for benefits analysis (U.S. EPA 2010, pp. 7-41) recognize "advantages of [stated preference] methods includ[ing] their ability to

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estimate non-use values and to incorporate hypothetical scenarios that closely correspond to a policy case."

The data described in this NODA were collected using a stated preference survey based on a "choice experiment" design. Choice experiments involve asking survey respondents to indicate their most preferred option from a set of two or more hypothetical options and a "status quo" or "no policy" option. The options differ in the levels of environmental improvements and impose different costs on the respondent's household.

Stated preference methods have "… been tested and validated through years of research and are widely accepted by … government agencies and the U.S. courts as reliable techniques for estimating non-market values" (Bergstrom and Ready 2009, p. 26). EPA's own peer reviewed Guidelines for Preparing Economic Analysis (US EPA 2010) indicates that the use of stated preference study data, when the study is conducted properly in accord with best current practices, is the only potential method for monetizing non-use values. Nonetheless, EPA recognizes that several issues have been raised regarding the estimation of welfare values from stated preference surveys. For example, the stated preference study discussed in this NODA creates a hypothetical market where respondents are asked to state their values for increases in "fish saved" in conjunction with increases in fish populations (total and commercial) and aquatic conditions by voting for or against alternative hypothetical policies that would regulate cooling water intake structures and that would impose increases in annual household cost of living. The issue of whether respondents are capable of respecting hypothetical budget constraints,

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knowing that their responses to the survey would not compel them to incur any costs, is a concern that has been cited as a reason to question the results of stated preference studies. The hypothetical nature of the market has raised questions as to whether this type of elicitation accurately reveals and elicits WTP associated with the good being considered.

Substantial research has been conducted over the past two decades on hypothetical bias in stated preference surveys. While many studies have found evidence of hypothetical bias (List and Gallet 2001), a recent meta-analysis indicates that "hypothetical bias in SP studies may not be as important" as some have argued previously (Murphy et al. 2005). This mirrors similar findings in prior studies that compare hypothetical and actual referenda (see discussion in Johnston 2006). EPA solicits comment on the degree to which the potential for hypothetical bias may still be present in the 316(b) survey, and whether EPA has taken appropriate steps to ameliorate issues of bias and to what degree potential biases may have been reduced.

Stated preference surveys also require the provision of information to enable respondents to comprehend the potential implications of their hypothetical choices. For example, in this case, respondents may not be aware that the "fish saved" by actions addressing cooling water intake structures include large numbers of eggs and larvae as well as fish, or that the vast majority of those organisms are species that provide no consumptive use (e.g., commercial or recreational fishing) to humans. Even if they are aware of this issue in a general way, it is unlikely that most respondents will have previously considered what preserving those species is worth to them. In order to elicit informed responses, it is necessary to provide information to respondents about the

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general context and scope of the issue. Following standard practice, EPA pretested the information provided to respondents in focus groups and cognitive interviews to determine what quantity and types of information were required by respondents in order to feel confident and well-informed in their responses (DCN 11-4710). For example, in the introductory materials accompanying the four regional and national stated preference surveys, EPA presents the number of "young adult fish" (also called "age-one-equivalents") that are "lost" in coastal and fresh waters due to cooling water use and notes that these losses include eggs and larvae. That educational material was designed to inform survey respondents that reported effects on "fish saved per year" in the valuation questions partially result from reduced mortality of eggs and larvae. The presentation of this type of background information, if not properly vetted in the survey instrument development process, can result in focusing respondent attention on particular environmental amenities to the exclusion of other market and non-market goods that may also be important to some respondents' decision making with regard to the choice questions.

Consistent with established best practices for stated preference surveys, EPA has sought to minimize possible biases by careful and thorough construction and testing of the survey instrument. The Agency recognizes that potential biases may still remain and may influence the results of the study. While in EPA's view, the study incorporates current best professional practice in the conduct of stated preference studies, EPA acknowledges that the results of any empirical study depend on the methodology applied. EPA has not yet completed its statistical analyses of these survey data and therefore has

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not determined whether the results of the stated preference survey will play a role in the benefits analysis for the final rule, and if so what role they will play. EPA requests comment on these issues.

At the time this NODA was prepared, EPA had finished fielding all five versions of the main mail survey (four regional and one national). EPA undertook the Northeast version in advance of the other versions as a pilot study to inform potential changes to other survey versions, as described in the ICR for the 316(b) stated preference survey (EPA ICR # 2402.01) and as recommended in published guidance for stated preference survey design (Arrow et al. 1993; Bateman et al. 2002). As noted above, the preliminary results of the survey are available in the docket and at http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/.

EPA notes that the stated preference survey regions differ from the benefits regions used in the Environmental and Economic Benefits Assessment (EEBA) document for the proposed rule.[1] The Agency will perform additional analysis comparing the results of the regional survey versions to the results of the national survey version. This additional analysis will allow EPA to look at the impacts of program size (regional vs. national) on willingness to pay and consider the implications of any differences for the validity of results. Before considering any application of this information in the final rule, EPA will also provide the full results and public comments to the planned peer-review panel. EPA does not regard these data as ready for consideration for use in any benefit cost analysis at this time until the results of additional EPA internal review, public

[1] See Exhibit II-3 of the Survey Support Document for a list of the states included in each region.

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comment and independent peer review have been completed. For the final benefits analysis, EPA may present a range for the total national benefit estimates produced by the stated preference research. Alternatively, EPA may decide not to use the results from this study, and instead to consider non-use benefits qualitatively and/or by using benefits transfer, as was done for the proposed rule.

At the time this NODA was prepared, EPA had produced preliminary estimates of average willingness-to-pay per household per percentage point improvement in each of the attributes, based on unweighted models (see Section II.E of the Survey Support Document for more details). For example, the average dollar value per household per percentage point of reduced fish mortality at cooling water intake structures ranges from $0.75 and $0.78 in the Southeast and Inland regions, respectively, to $1.12 and $1.13 in the Northeast and national versions, respectively, to $2.52 in the Pacific region.

EPA is also conducting a non-response study for each version of the survey, to account for the possibility that respondents are fundamentally different from non-respondents. EPA would use the non-response study results to develop weights that correct for any differences, reducing the weight placed on overrepresented respondent groups, while increasing the weight placed on any underrepresented respondent groups. See Section II.G of the Survey Support Document for details on the non-response study for the Northeast region of the survey (the only region for which the non-response study has been completed to date). EPA emphasizes that the relationship between unweighted and weighted models for the Northeast may not be the same for the other regional and national versions. EPA currently is still fielding the non-response studies for the other

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three regional and national versions of the survey. EPA intends to complete weighted models for the remaining regions and the national surveys. After completing the non-response studies for all regions, reviewing public comment, and conducting additional scope and validity testing, EPA will present a more complete set of stated preference survey materials for an external peer review.

EPA invites comment on the study's preliminary results, including the extent to which those results are consistent with previous studies of stated or revealed public preferences; ways of assessing the external validity of the underlying per household estimates and implied aggregate WTP, for example by comparison with estimates in the published literature of WTP for increased species abundance or other ecosystem attributes; whether further analyses are needed, and if so what analyses might be most useful; and the certainty levels of attributes in this survey. After reviewing and responding to public comment, the results from the planned external peer review, and additional validity testing informed by public comment, EPA will determine whether the results of the stated preference survey should be included in the benefits analysis for the final rule, and if so, what role they should play.

This notice is intended to apprise the public of the new information, make this information available for public review and provide an opportunity to comment on the new information that the Agency has collected. However, EPA notes that the Agency is not reopening the proposed rule for comment through this notice.

III. General Solicitation of Comment

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EPA encourages public participation and requests comments on all aspects of the data and analyses presented in this notice of data availability and in the SSD that EPA is making available on its website.

EPA invites all parties to coordinate their data collection activities with the Agency to facilitate mutually beneficial and cost-effective data submissions. Please refer to the **FOR FURTHER INFORMATION CONTACT** section at the beginning of this preamble for technical contacts at EPA.

To ensure that EPA can properly respond to comments, the Agency prefers that commenters cite, where possible, the paragraph(s) or sections in the document or supporting documents to which each comment refers. Please submit copies of your comments and enclosures (including references) as specified in the **ADDRESSES** section at the beginning of this notice.

Dated:

Nancy K. Stoner

Acting Assistant Administrator

Office of Water

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6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 122, 123, 124, and 125

[EPA-HQ-OW-2008-0667, FRL – 9681-4]

RIN 2040–AE95

National Pollutant Discharge Elimination System — Proposed Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities; Notice of Data Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Data Availability.

SUMMARY: On April 20, 2011, EPA published proposed standards for cooling water intake structures at all existing power generating facilities and existing manufacturing and industrial facilities as part of implementing section 316(b) of the Clean Water Act (CWA). As a result of that notice, EPA received extensive comments on its proposal. These comments included a substantial amount of new information accompanied by reports, studies and other documents often supplemented with the substantiating data. In some cases, the materials may not have included the underlying data supporting the documents' conclusions. Consequently, in many circumstances, EPA contacted the commenters to obtain the raw data underlying the documents for EPA's use in further assessing its proposal. This notice presents a summary of the significant new information and data EPA has received since proposal and a discussion of possible revisions to the

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final rule that EPA is considering that were suggested by the data and comments. EPA solicits public comment on the data and possible revisions presented in this notice and the record supporting this notice.

DATES: Comments must be received on or before [INSERT DATE 30 days after publication in the Federal Register].

ADDRESSES: Submit your comments, identified by Docket No. EPA-HQ-OW-2008-0667 by one of the following methods:

- *http:www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail:* OW–Docket@epa.gov, Attention Docket ID No. EPA-HQ-OW-2008-0667.
- *Mail:* Water Docket, U.S. Environmental Protection Agency, Mail Code: 4203M, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Attention Docket ID No. EPA-HQ-OW-2008-0667. Please include a total of 3 copies. In addition, please mail a copy of your comments on information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), *Attn:* Desk Officer for EPA, 725 17th St., NW, Washington, DC 20503.
- *Hand Delivery:* Water Docket, EPA Docket Center, EPA West Building Room 3334, 1301 Constitution Ave., NW., Washington, DC, Attention Docket ID No. EPA-HQ-OW-2008-0667. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information by calling 202–566–2426.

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Instructions: Direct your comments to Docket No. EPA-HQ-OW-2008-0667. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at http://www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider to be CBI or otherwise protected should not be submitted through www.regulations.gov or e-mail. The www.regulations.gov web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through http://www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the http://www.regulations.gov index. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available

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docket materials are available either electronically in http://www.regulations.gov or in hard copy at the Water Docket in the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is 202–566–1744, and the telephone number for the Water Docket is 202–566–2426.

FOR FURTHER INFORMATION CONTACT: For additional technical information, contact Paul Shriner at 202-566-1076; e-mail: shriner.paul@epa.gov. For additional economic information, contact Erik Helm at 202-566-1049; e-mail: helm.erik@epa.gov or Wendy Hoffman at 202-564-8794; email: hoffman.wendy@epa.gov. For additional biological information, contact Tom Born at 202-566-1001; e-mail: born.tom@epa.gov.

SUPPLEMENTARY INFORMATION

Supporting Documentation

A. Docket

EPA has established an official public docket for this action under Docket ID No. EPA-HQ-OW-2008-0667. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include information claimed as Confidential Business Information (CBI) or other information for which the disclosure is restricted by statute. For information on how to access materials in the docket, refer to the preceding "ADDRESSES" section. To view docket materials, please call ahead to schedule an appointment. Every user is

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entitled to copy 266 pages per day before incurring a charge. The Docket may charge 15 cents for each page over the 266-page limit plus an administrative fee of $25.00.

B. Electronic Access

You may access this Federal Register document and the docket electronically, as well as submit public comments, through the website http://www.regulations.gov by searching for Docket ID No. EPA-HQ-OW-2008-0667. For additional information about the public docket, visit the EPA Docket Center homepage at http://www.epa.gov/epahome/dockets.htm.

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III. General Solicitation of Comment

I. Purpose of This Notice

On April 20, 2011, EPA published proposed standards for cooling water intake structures at all existing power generating facilities and existing manufacturing and industrial facilities as part of EPA's implementation of its responsibilities under section 316(b) of the Clean Water Act (CWA) (76 FR 22174). EPA received voluminous comments and data submissions during the 90-day public comment period. After many commenters requested additional time to review the proposal, on July 20, 2011, EPA extended the comment period by an additional 30 days (76 FR 43230).

Along with the comments on the proposal, EPA also received more than 50 documents containing new impingement and entrainment data. In addition, after the comment period ended, EPA followed up with those commenters whose comments referred to studies or summarized data in their comments, but had not submitted the underlying studies or raw data referenced in their comments. As a result, these commenters also provided over 30 additional documents containing new impingement and entrainment data. EPA is reviewing each of these roughly 80 documents for possible use in developing the final impingement mortality limitations. This notice makes these data available and discusses the relevance of these data to the analyses conducted by EPA. EPA solicits comment both on the information presented in this notice and the record supporting this notice.

EPA requested comment on all aspects of the proposed existing facility rule,

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including specific solicitation of comments and data on 28 key issues (76 FR 22174, Section XI). EPA received more than 1,100 comment letters, several of which provided specific recommendations for changes to the proposed regulatory language. Some of the suggested revisions, if adopted, may help to address EPA's intent to greatly reduce the damage to ecosystems while accommodating site specific circumstances and providing cost effective options for compliance. Some of these suggestions relate to the impingement mortality standard, and are discussed in this notice along with accompanying new data.

EPA notes that all data and options and issues discussed in its proposal are still under consideration for the final rule. This notice is intended to apprise the public of the new information, make this information available for public review and provide an opportunity to comment on the new information that the Agency will consider in making its decisions for the final rule. However, EPA notes that the Agency is not reopening the proposed rule for comment through this notice.

A. Summary of Proposed Rule for Existing Facilities

The proposed rule would establish requirements under section 316(b) of the Clean Water Act (CWA) for all existing power generating facilities and existing manufacturing and industrial facilities that withdraw more than 2 million gallons per day (MGD) of water from waters of the U.S. and use at least 25 percent of the water they withdraw exclusively for cooling purposes. The proposed national requirements, which would be implemented through National Pollutant Discharge Elimination System (NPDES)

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permits, would establish national requirements applicable to the location, design, construction, and capacity of cooling water intake structures at these facilities by setting requirements that reflect the best technology available (BTA) for minimizing adverse environmental impact. The proposed rule responds to the remands of the Phase II existing facility rule and the existing facilities portion of the Phase III rule from the U.S. Courts of Appeals for the Second Circuit and Fifth Circuit. In addition, EPA responded to the decision in *Riverkeeper, Inc. v. EPA*, 358 F.3d 174 (2d cir. 2004) and proposed to remove from the Phase I new facility rule the restoration-based compliance alternative and the associated monitoring and demonstration requirements.

The proposed rule provided significant flexibility in complying with the proposed technology standards for impingement and entrainment. For the proposal, EPA concluded that the best technology available for reducing impingement mortality was modified travelling screens. Based on this BTA technology, EPA proposed standards for impingement that would require existing facilities to reduce impingement mortality. The owner or operator of the facility would be able to choose one of two options to comply with the impingement standard. Under the first option, a numeric fish impingement mortality limitation, the owner or operator would have to sample to measure fish mortality directly to show it will meet the specified mortality performance standards. The owner or operator could use any appropriate technology to meet the standard. Under the second option, a velocity limitation, a facility would have to demonstrate to the permitting authority that its maximum intake velocity will not exceed 0.5 feet per second under specified design conditions. Operation of its intake system in compliance with

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these specified design conditions would become part of the facility's permit requirements. EPA estimated that more than half of the facilities that could be impacted by the proposed rule already employ readily available technologies that are likely to put them into compliance with the proposed standard.

For entrainment, EPA proposed a site-specific determination to be made by the Director based on local concerns and on the unique circumstances of each facility. The proposed rule would establish requirements for the owner or operator of a facility with actual intake flows in excess of 125 MGD to conduct comprehensive studies, and for all facilities to develop certain information as part of the permit application. Under the procedures proposed to be established in the proposal, the permit authority would determine the appropriate technology to reduce entrainment mortality, if any, to be implemented at each facility after considering site-specific factors.

II. New Information Received Concerning Proposed Impingement Mortality (IM) Requirements

EPA received a substantial number of comments on how the final rule should address impingement mortality (IM). EPA based its proposed national impingement mortality limitations on the performance of modified traveling screens. And, as noted above, as an alternative EPA proposed that a facility could demonstrate that either the design intake velocity or the actual intake velocity at its operation was less than 0.5 feet per second. Most of the commenters, including members of the U.S. Congress, state and local elected officials, and industry stakeholders, requested additional flexibility in

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complying with the IM requirements.

While the proposal would not specifically require the use of modified traveling screens with a fish handling and return system to meet the IM limits, some commenters interpreted the proposed rule as requiring this. EPA's proposed IM limits are expressed as a monthly average and an annual average. A facility could meet the limitation through any technology it chose. In EPA's view, this approach is a more flexible one than establishing a design standard (i.e., requiring a specific technology) because it would allow facilities to choose a compliance technology that best meets the individual facility requirements dictated by site and other conditions. Further, such an approach allows for innovation in meeting the national impingement mortality limitations. EPA recognizes, however, that some regulated entities may find a technology-based compliance option, rather than a performance based approach, more attractive. Such an approach, particularly the specification of pre-approved technologies, may offer higher regulatory certainty, easier demonstration of compliance, and may offer a less expensive alternative due to reduced monitoring requirements associated with pre-approved technologies. Some commenters viewed the proposed IM standard as overly stringent and requested that EPA establish alternative IM requirements, including site-specific IM requirements similar to those proposed for entrainment. Other commenters provided data pertaining to the performance of technologies, including modified traveling screens used as the basis for the IM limitations.

EPA reviewed all the performance data submitted. EPA is considering these performance data in its evaluation of BTA, including likely revisions to the IM annual

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and monthly numeric limits, different approaches that may better streamline compliance, and additional options that would better facilitate a demonstration of performance that is equivalent to the proposed BTA. EPA also received several comments that proposed alternative regulatory approaches or provided specific alternative regulatory language. EPA is also reviewing these comments and considering the alternative regulatory approaches suggested. The data received and corresponding issues are described in more detail in the following sections.

A. New Information Received

As discussed in section I, EPA received more than 80 additional documents containing impingement and entrainment data. In some cases, the only data available was the facility name plus raw sampling data for a number of different species of fish and/or shellfish. Other documents focus on source water characterization data. EPA identified more than 40 distinct sets of additional impingement sampling and performance data from these documents. EPA is reviewing the data in each of these documents for potential inclusion in EPA's evaluation of an IM limitation. In light of these data and accompanying comments, EPA is also reviewing the criteria it adopted for including a study in the limit calculations. EPA's proposed criteria were described in Chapter 11 of the Technical Development Document (DCN 10-0004, EPA-HQ-OW-2008-0667-1282).

In addition to the new impingement and entrainment data, some stakeholders suggested alternative regulatory frameworks for impingement mortality. Under the proposed rule, a facility would be permitted to adopt any technology it chooses so long as

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it will achieve the required impingement limitation. Thus, a facility could demonstrate the reductions in impingement mortality by either (1) increasing the survival of those fish and shellfish that are impinged, or (2) by reducing the fish and shellfish impingement rates in the first place. EPA had concluded, based on the information it reviewed, that the design standards pertaining to intake velocity would achieve the impingement mortality limitations, and proposed such design criteria as having met the impingement mortality limitation. Therefore, compliance with intake velocity limitation would achieve full compliance with the numeric impingement mortality limitations and no additional control technology would be required.

Several industry stakeholders stated that, despite EPA's best intentions, the proposed rule applied a one-size-fits-all approach for impingement mortality. While all of the suggested changes to the proposal seek to provide additional flexibility through a variety of approaches, most of the comments had several elements in common:

- Commenters suggested defining modified traveling screens as a pre-approved technology or otherwise streamlining the NPDES process for facilities using the candidate technology upon which BTA is based. Thus, EPA would designate certain technologies or certain conditions as complying with the impingement requirement;
- Providing a mechanism to identify other technologies that perform comparably to modified traveling screens;
- Modifying the proposal so that facilities that have already reduced the rate of impingement may obtain credit towards the IM limit;

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- Developing a more tailored approach to protecting shellfish;
- Creating alternatives for facilities with very low impingement levels or mortality rates; and
- Providing additional clarity on species of concern as it pertains to demonstrating compliance with the IM limitations.

In addition, as noted above, EPA also received a number of comments suggesting that it adopt a site-specific approach to reducing impingement mortality similar to the proposed approach for addressing entrainment, rather than uniform national requirements for IM and a site-specific approach for entrainment only. Should EPA decide to adopt uniform national performance or technology based standards for IM, as in the proposal, EPA is also considering a number of flexibilities, such as the site-specific approach for measuring compliance with IM limits detailed in section III.B.4 below. EPA also received requests to meet with or hold conference calls with a number of stakeholders to discuss each of these approaches. The stakeholders with whom EPA met include the Utility Water Act Group (UWAG), the Clean Energy Group (CEG), the Cooling Water Intake Structure Coalition, the Association of Clean Water Administrators (ACWA), and Riverkeeper, as well as several individual firms and companies. Documentation of these meetings may be found in EPA's docket (11-6500). The following sections present the data and suggested approaches EPA may use in developing the final rule.

B. Alternative Approaches Under Consideration

1. Site Specific Approach for Reducing Impingement Mortality

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EPA received a number of comments suggesting that it adopt a site specific approach for both IM and entrainment, rather than uniform national requirements for IM and a site-specific approach for entrainment only. At proposal, EPA considered an approach that would establish both impingement and entrainment mortality requirements on a case-by-case basis taking into account the factors at a particular facility, but did not propose such an approach based on its preliminary determination at proposal that there are low cost technologies for impingement mortality that are available, feasible, and demonstrated for facilities on a national basis (76 FR 22174, Section VI.D.4). EPA recognizes both advantages and disadvantages of uniform national requirements. Such requirements would ensure a minimum level of IM reduction at all facilities. Moreover, if the final rule provides additional flexibility such as those measures discussed in Section III.B.3, it is EPA's understanding, based on comments received and its own technical analysis, that a substantial majority of the industry would meet the IM limitations based on model technologies considered by the Agency (see Section III.B.3 for more information). However, uniform national requirements may also be challenging to implement on a national level, given the wide range of facility types and intake structure configurations covered by the rule. Commenters stated that in some cases the technologies available for a particular site may not be able to achieve the IM limitations. Commenters further stated that, in certain circumstances, the costs of impingement technologies may be unusually high due to site-specific factors. EPA is now considering whether to adopt an approach that would allow establishment of impingement controls on a site-specific basis either generally or limited to those circumstances in which the

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facility demonstrated that the national controls were not feasible. Under such an approach, the facility could demonstrate to the Director that site-specific factors warrant a site-specific BTA for both entrainment and IM. The comprehensive study and other planning requirements could be enhanced to include information that the permitting authority would use to determine site-specific BTA for both entrainment and IM. The decision criteria for choosing BTA would be the same for IM and for entrainment, and EPA expects that permitting authorities and facilities would view the two together in an integrated planning and decision making framework. EPA requests comment on such an approach and further information on why uniform controls should not be adopted.

2. Closed-Cycle Recirculating Systems

EPA received a number of comments suggesting that a facility (or intake) employing a cooling tower as a closed-cycle recirculating system (CCRS) should be exempt from IM requirements. EPA did not propose that a facility that fully employs cooling towers would automatically meet the IM standards for a number of reasons. First, the largest facilities with wet cooling towers still have the potential to withdraw significant volumes of water; in some cases, 100 MGD or more in makeup water alone. Second, at proposal, EPA did not provide an additional alternative that specifically established cooling towers as a pre-approved technology for complying with the IM limits because data from EPA's industry questionnaire and site visits indicate that most intakes providing cooling water to a cooling tower already met the proposed intake velocity limitation of less than or equal to 0.5 feet per second [DCN 11-6601][1]. Further,

[1] EPA also notes that the Phase I new facility rule requires low intake velocity (0.5 feet per second) in addition to flow reduction commensurate with closed cycle cooling.

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based on the performance observed in site visits and questionnaires, EPA anticipated that a properly operated cooling tower installed as a retrofit would typically meet the proposed intake velocity limitation alternative[2]. Thus, EPA anticipated all facilities employing wet cooling towers would already meet the IM limitations. However, commenters pointed out that not all facilities employing a wet cooling tower or some other CCRS as their original technology (i.e., not a retrofit) would necessarily have been designed to meet the 0.5 feet per second intake velocity threshold.

Third, EPA has found several instances where a cooling tower has been installed but not operated to minimize the volume of water withdrawn. For example, EPA found in site visits that cooling water may be passed through a cooling tower to reduce the discharge temperature of the water, but little or no water was recycled back to the facility cooling system. In other words, the cooling tower was in place but cooling water was used in a single pass mode, with overall water use identical to a typical once-through cooling system, resulting in no reductions in impingement or entrainment. Operation in this manner is not feasible or in most cases even possible at a new facility because the intake at a new facility is only sized for supplying make-up and blowdown flows. Accordingly, in developing the existing facility definition for CCRS in the proposed rule, EPA began with the Phase I new facility rule definition of CCRS but added criteria to it in order to clarify the meaning of minimized make-up and blowdown flows. EPA proposed that a properly operated cooling tower is one that operates at a minimum cycles

[2] In a retrofit scenario, the facility's pre-retrofit intake velocity would have been calculated for flow through multiple intake screens. After the retrofit, the volume of water withdrawn is significantly reduced, but is often still withdrawn through the same number of screens, leading to a significantly reduced intake velocity.

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of concentration of 3.0 for freshwater and 1.5 for saltwater or brackish water. EPA solicited comment on this definition.

EPA does not intend for facilities to install cooling towers solely for the purpose of meeting the IM requirements. In fact, EPA expects all facilities could comply with the proposed IM requirements without relying on closed-cycle cooling. However, consistent with EPA's position that flow reduction is strongly correlated to reductions in impingement and entrainment,[3] a properly operated cooling tower would provide significant reductions in IM. An optimized cooling tower would typically reduce water usage by 94.9 percent to 97.5 percent, reflecting salt water and fresh water sources respectively. Thus, in this case, such a cooling tower would exceed the level of performance required by the proposed IM limitations.

EPA is now considering a further alternative compliance provision in the regulatory language that would allow the owner or operator of a facility to demonstrate compliance with the fish impingement mortality limitation though either defined technologies or studies that demonstrate the impingement mortality reduction performance of optimized travelling screens at a facility. This alternative could include a provision that would deem a facility in compliance with the IM limitations if the facility employed a CCRS (such as a wet cooling tower) that minimizes water withdrawals. In addition, EPA received many comments specific to the proposed definition of CCRS. Some commenters stated that while they may have been effectively operating as closed-cycle units for many years, they have concerns with their ability to comply with the new

[3] See, e.g., 69 FR 41576, July 9, 2004, Section VII.C.1. A reduction in flow leads to a corresponding reduction in impingement and entrainment.

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definition. We continue to look closely at these comments. EPA may consider revising the definition of CCRS to provide existing facilities flexibility in demonstrating they already have a properly operated CCRS, such as a minimum level of flow reduction or water usage, a minimum level of cycles of concentration, and/or a narrative set of requirements demonstrating site-specific minimized make-up and blowdown flows. We request additional comment and supporting data, specifically including ways to define CCRS that accommodates those existing CCRS systems that are properly operated. EPA is also considering adopting the same definition of closed cycle cooling for the existing facilities rule that it used for the new facilities (and Phase II) rule. EPA acknowledges the argument that requirements for existing facilities should not be "more stringent" than the comparable requirements for new facilities. Some commenters have interpreted the proposed definition of closed cycle cooling to be "more stringent" than the definition used in the new facilities rule because it places additional restrictions on how a facility must be operated to be considered "closed cycle." In the Phase II rule EPA included as a compliance option a demonstration that the facility "[has] reduced or will reduce [its] flow commensurate with a closed-cycle recirculating system." EPA requests comment on using similar language for a compliance option in this rule.

Similarly, EPA is aware that a facility may obtain substantial flow reductions due to partial CCRS systems, variable speed pumps, seasonal operation, and other operational measures which result in reduced impingement. For example, a facility that reduces intake flow by half has reduced impingement by half; consequently, impingement mortality has been reduced by 50 percent. EPA is therefore considering adding in the

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final rule an opportunity for a facility to get credit for an equivalent reduction in impingement mortality when it reduces its intake flow (in comparison to a once-through cooling system). Thus, the regulatory language could provide for submission of such information as part of a performance study provided to the permit writer to demonstrate compliance with the impingement mortality limitations. Section 4 below describes how the credit for flow reductions could be used to determine compliance with the IM limitations.

3. Measurement of Intake Velocity

EPA proposed an intake velocity limitation corresponding to a facility's design intake flow (DIF) as a design standard for demonstrating compliance with the IM limitation. EPA's record shows an intake velocity of 0.5 feet per second or lower provides similar or greater reductions in impingement, and therefore impingement mortality, than the BTA technology of modified traveling screens. Therefore EPA proposed the intake velocity limitation as a compliance alternative. EPA is aware that low intake velocity is sometimes confused with velocity cap technologies, and EPA would like to clarify that these concepts are not the same. Most velocity caps do not operate as a fish diversion technology at low velocities, and in fact are often designed for an intake velocity exceeding one foot per second. Thus a velocity cap will not typically meet the low intake velocity impingement mortality limitation. The velocity cap is located offshore and under the water's surface, and uses the intake velocity to create variations in horizontal flow which are recognizable by fish. The change in flow pattern created by the velocity cap triggers an avoidance response mechanism in fish, thereby

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avoiding impingement.

The proposed velocity IM limitation is based on DIF, thus the calculated velocity would reflect the maximum intake velocity as water passes through the structural components of a screen, measured perpendicular to the screen mesh. If the intake does not have a screen, EPA assumes that in most cases the maximum intake velocity is perpendicular to the opening of the intake.

The following discussion explains how velocity would be determined, and thus compliance with the intake velocity limitation demonstrated. In general, EPA anticipates the first point of contact of the intake with the source water is the likely point of compliance, and would be the location for measurement of intake velocity. For example, some intakes use a channel or canal to transport the water to the facility. In those cases, the point of measurement is typically the channel or canal entrance, and not at the screen face of the facility's forebay. Similarly, if a facility employs a velocity cap, the point of measurement is the velocity cap opening (as described above, most velocity caps would not have a velocity low enough to meet the 0.5 feet per second limitation, but some may).

In the proposal, EPA clarified that DIF need not be the original design of the facility. For example, redundant pumps, emergency service water, and fire suppression systems could be excluded from a facility's DIF. As an additional flexibility, EPA proposed to allow actual intake velocity to be used to demonstrate compliance with the maximum intake velocity requirement. In this case, the actual flow (i.e., volume) across the screen surface area would be used to calculate the maximum expected velocity through that screen. The proposed rule indicated that the maximum velocity must be

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achieved under all conditions, including during minimum ambient source water surface elevation and during periods of maximum head loss across the screens or other devices during normal operation of the intake structure.

EPA received several comments regarding the velocity compliance alternative. For example, some comments suggested that the requirement to meet the intake velocity "under all conditions" was overly conservative and may render this alternative technologically infeasible and/or economically impracticable. These comments provided data suggesting infrequent events with short durations can occur, during which time the intake velocity could increase to a rate greater than 0.5 feet per second. Examples of such events might include variations in river flows related to other uses of the water, weather related variations (e.g., reduced or increased precipitation) or flow changes related to dams. Some comments indicated these short duration events would not result in measurable harm related to increased impingement. Other comments point out that monitoring velocity at screens with low levels of screen blockages (such as the maximum of 15 percent allowable blockage presented in the proposed rule) is technically problematic with standard 3/8 inch mesh screens. It was further suggested that changes to pressure or flow as a means of measuring velocity are often indiscernible under such conditions. Industry comments also indicated that, in general, debris fouling is minimized through typical operations and maintenance procedures that must be performed to ensure that cooling water flow is not disrupted. For example, a facility would not allow conditions that could result in pump cavitations, other damage to circulating water pumps and their related systems, or anything else that could compromise cooling capabilities or

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affect plant reliability.

EPA also received comments suggesting that a direct velocity measurement posed technical challenges. Some of these comments suggested that EPA provide the flexibility to calculate velocity based on other direct measurements, such as water depth, pressure differential, and plant intake flow. Based on the comments and data received in response to the proposed rule, EPA is actively considering changes to the intake velocity compliance alternative, as described below.

Actual through-screen intake velocity can be measured directly. However, after further discussion with vendors, EPA is aware that some sites may have difficulty measuring through-screen velocity (DCN 11-6602). EPA is considering rule language clarifying that velocity may be calculated from a facility's actual intake flow rate (AIF), the screen open face area, and the source water surface elevation at the time of flow measurement. (If there is no screen, the opening of the intake is the open face area.) The volumetric intake flow would be representative of routine operations, and may not include periods of zero flow. As with DIF, the point of measurement would be the point of first contact with the source water (e.g., the canal entrance, velocity cap opening, or shoreline screen face).

To demonstrate compliance with the actual intake velocity criteria, EPA expects that a facility would record the average monthly velocity. This would be measured directly or calculated from the volumetric flow and source water surface elevation measured no less frequently than once per week reflecting normal operations. Such measurements would already reflect current water levels; therefore a separate evaluation

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of low flow conditions would be unnecessary. For example, low source water elevation over a three month period would be represented in the measured or calculated through-screen velocity and reflected in the reported monthly values. However, it was not EPA's intention to penalize a facility in the event of unusual and irregular conditions. Thus, for example, in an unusual circumstance that causes the surface elevation to be low for just one day, it may be acceptable that this condition is not represented in the reported data because it does not reflect conditions that are likely to have a lasting impact on aquatic life. EPA solicits data on all of these assumptions and solicits comment on making this clear in the final regulatory text or preamble to the final rule.

It is important to clarify that the velocity of water as it approaches the screen, or even immediately adjacent to the screen, is not equivalent to the through-screen velocity. The screen surface area decreases the area through which a given volume of water has to pass, therefore the velocity of the water increases as it passes through the screen. Because the velocity compliance option functions in two ways – protecting fish from injury due to being impinged on the screen's surface, and allowing fish the opportunity to escape from the intake – EPA proposed that the point of compliance must be the velocity through the screen or intake structure and not at some point in front of the screen. Velocity at other points near the intake can vary based on many factors such as dead spots and hydraulic zones. However, as stated above, EPA understands that there may be technical challenges in some cases to measuring through-screen velocity. EPA will continue to consider comments from the proposal on this issue and may modify the monitoring requirements as appropriate.

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For the Phase I rule, EPA compiled data from three studies on fish swim speeds and found that a velocity of 0.5 feet per second would protect 96 percent of fish tested (66 FR 65256, December 18, 2001, Section V.B.1.b.1). EPA recognizes that the flow directly in front of a screen designed for 0.5 feet per second through-screen velocity will always be lower than the velocity standard (it may be as much as half the through-screen velocity in the case of a standard 3/8 inch screen). Therefore, EPA's proposed velocity standard as measured through the screen surface already includes a margin of safety. This potentially allows more fish to sense the change in velocity and invoke an avoidance response before being impinged. Because the 0.5 feet per second limit as a through-screen measurement already includes a margin of safety, EPA's current view is that additional criteria regarding screen blockage and related monitoring may be unnecessary. EPA solicits comment on the data and possible changes to the rule language for the intake velocity design standard to reflect such modifications.

4. Impingement Mortality Limitations

EPA proposed two ways in which a facility could demonstrate compliance with the impingement mortality limitations. The owner or operator of the facility could conduct monitoring to show the specified performance standards for impingement mortality of fish and shellfish have been met through use of any appropriate best performing technology, or they could demonstrate to the permitting authority that the intake velocity meets the specified design criteria. The performance standards for impingement mortality were proposed as monthly and annual limitations in impingement mortality, measured as a percent mortality not to be exceeded. These proposed standards

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were applicable to all existing facilities with a DIF greater than 2 MGD. EPA specifically solicited comments on how to give credit for existing technologies, and using those site-specific adjustments to implement the national uniform IM standard in a site-specific manner. The data and comments on this approach will be further discussed in sections 4 and 5.

As explained in the proposed rule, EPA applied four general criteria when reviewing studies for acceptance in the impingement analyses: (1) the data must be specific to the technology under consideration; (2) impingement mortality must have been reported as an absolute number or a percentage of impinged fish that were killed; (3) the data must reflect technology performance that is representative of conditions that exist under actual facility operations, and; (4) reported values must be actual measurements, rather than estimates. EPA based the proposed limitations on the performance of modified traveling screens with a fish return system. Additional criteria were used to select data as the basis for impingement mortality calculations. The limitations were based on all life stages of fish collected or retained in a 3/8 inch sieve and held for a period of 24 to 48 hours to assess latent mortality. Further, EPA rejected studies that did not evaluate species typical of the location conducting the testing. At proposal, EPA found four data sets at three facilities in New York State that met these criteria; see Chapter 11 of the proposed Technical Development Document (TDD) for more information (DCN 10-0004; EPA-HQ-OW-2008-0667-1282).

As described in section I of this notice, EPA received more than 80 documents and studies, several of which include impingement studies. These additional studies

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represent facilities from a variety of geographic regions and waterbody types, and include a broader representation of species than those comprising the basis for the proposed rule limitations. EPA solicits comment on recalculating the impingement mortality limits using the new studies that meet EPA's criteria as just described. EPA also solicits comment on whether such a single monthly and annual limit could be sufficiently protective for all facilities and also recognize site specific variations. In response to the comments and data regarding fragile species and abundant species, EPA may consider alternative procedures to determining the limits, such as giving equal weight to each species instead of to the total organism counts, or determining different limits for different groups of organisms. Further, EPA has received several studies that include counts of shellfish. EPA is considering whether the revised limitation should include both fish and shellfish. Accordingly, EPA may eliminate the specific requirement to employ technologies comparable in performance to barrier nets in order to protect shellfish. Alternatively, EPA is considering whether the need for additional impingement controls for shellfish can be determined by the Director based on site-specific assessments and consideration of the species of concern for each facility.

In addition, EPA received information suggesting one or more of the acceptance criteria used to evaluate the studies for inclusion in EPA's calculations were too stringent. For example, EPA received comments and data concerning the holding time of 24 to 48 hours. Some studies suggest that shorter holding times may still be sufficient for purposes of determining latent mortality. Yet other information suggests comparable performance with 3/8 inch square mesh and ¼ by 1/8 inch mesh,[4] and therefore EPA

[4] Note EPA still intends to exclude data for fine mesh screens to avoid confusion over the status of

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solicits comment on including either technology specification in the limit calculations. EPA is reviewing these data and may revise the criteria as appropriate.

Many commenters suggested that EPA should consider modified traveling screens with a fish return as a pre-approved technology as this technology forms the BTA basis of numeric limits. Alternatively, comments suggested that EPA should streamline the permitting process and reduce monitoring for facilities employing the candidate BTA technology. Commenters went on to say if this technology is the candidate BTA technology, then the proper design, installation, operation, and maintenance should be deemed compliant with any limit based on the technology.

EPA still views properly operated, modified traveling screens as BTA. Accordingly, EPA has concluded that an alternative compliance option that would streamline the permitting process as well as provide for reduced monitoring requirements may be appropriate for facilities employing the model BTA technology. The BTA technology properly operated according to best management practices would then be deemed compliant with the IM standards. Under this approach, EPA might require the facility to provide site-specific performance data to identify the operational conditions that would ensure that the technology is being operated appropriately. EPA's current understanding suggests that two-years of data may be an appropriate amount to make this determination. Note the biological monitoring conducted as part of a performance study would not be used to demonstrate compliance with the limit, but rather would be used to

"impinged entrainables" (76 FR 22174, Section VI.B).

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help set operational parameters for the facility. The performance data could consist of a two year study focused on the operational conditions that optimize the proper design, installation, operation and maintenance of modified traveling screens with fish return systems. A facility could use relevant data already collected as part of the study, or conduct a new two-year performance study. Once these operational conditions have been identified, EPA would expect the permit writer to incorporate these operational parameters as conditions of the permit.

The data from EPA's technical survey shows at least 79 percent of existing power plants have traveling screens. EPA realizes not all facilities could retrofit existing traveling screens to modified traveling screens. In particular, the installation of a fish handling and return system is not feasible at some facilities. However, EPA expects the majority of those facilities currently employing traveling screens would modify their traveling screens to comply with the IM limitations. Therefore, EPA expects these same facilities could take advantage of the reduced monitoring requirements and the streamlined compliance associated with this alternative. Further, EPA's data show 15 percent of facilities meet the low intake velocity limitation. Combining all of the IM limitation alternatives, EPA anticipates more than 90 percent of the facilities could take advantage of design standards rather than choosing to comply with the numerical IM limitations if EPA adopted this approach. EPA expects some facilities would explore innovative and creative approaches taking site-specific characteristics of their facility into account to provide performance comparable to the BTA technology, and EPA would maintain the numerical IM limitation to provide for such flexibilities. EPA solicits

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comment on providing this compliance flexibility and data on these assumptions.

Under this approach, as long as the owner or operator of the facility complies with the specified operational conditions, the impingement mortality limitations would be deemed to have been met. Subsequently, the owner or operator would not have to conduct any biological monitoring to show compliance with the impingement mortality limitations. In subsequent permit terms, and in the absence of major changes to the operation of the intake structure or the biology of the source water, EPA expects the Director would waive any further requirement for a study or compliance monitoring for the facility. EPA is considering modifying the regulations to provide specifically for such a waiver. If EPA were to adopt these revisions in the final rule, EPA would make corresponding changes to the permit application requirements. EPA solicits comment on this alternative approach for compliance with IM standards. The Agency also takes comment on the appropriate level of data for assuring that the technology is operated suitably to minimize adverse environmental impact. For example, EPA solicits comment on whether some monitoring of operational parameters should be required in lieu of biological monitoring, whether EPA should specify some minimum set of operational parameters, or whether such a determination is best left to the discretion of the permitting authority.

EPA also received comments regarding the need for separate requirements to address entrapment. Some commenters indicated that the requirements in the proposed rule would not be feasible to implement at all facilities. EPA is considering these comments and requests specific information on issues related to the feasibility of

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preventing entrapment, including examples of where it is impractical or infeasible to return entrapped organisms to the waterbody or prevent their entrapment in the first place. EPA will consider this information as it finalizes the rule.

5. Credit for Existing or Newly Installed Technologies

EPA's objective in establishing the IM limitations is to minimize adverse environmental impacts by ensuring that fewer aquatic organisms such as fish and shellfish are killed by cooling water intake structures. The limitations are based upon the model best technology available which reduces impingement mortality of fish and shellfish. As EPA's proposal noted, this model technology does not include, nor account for, elements of impingement reduction technologies already installed at some facilities. There are many cases where facilities have installed and continue to operate technologies to reduce impingement. These technologies may have been approved by the appropriate permitting authorities, including required provision of supporting studies and assessments of the impact of the plant on the local aquatic environment. However, these technologies may not have been designed in such a way that they would meet the proposed IM requirements, particularly the monthly and annual IM numeric limits. Further, the structure and design of the proposed rule IM numeric limits make accounting for the benefits of these existing technologies very difficult. For example, EPA received new information showing diversion technology at one specific facility reduced impingement of one or more species by more than 90 percent, and consequently, fewer fish would have been killed as a result of impingement mortality. However, the limitations are strictly based upon the performance of the model technology and were derived by applying

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statistical methods to observed data from facilities with the model technology.

In the proposal, EPA intended that facilities would receive credit for both pre-existing and/or newly installed technologies when demonstrating compliance with the statistically derived IM limitations. After reviewing the comments, EPA is providing additional discussion of how reductions in impingement may be used to comply with the IM requirements. In meeting EPA's overall objective, a facility should be able to take credit for reducing the number of organisms killed by a CWIS regardless of the technology used. If the alternative provision were to provide credit for other technologies, the facility would need some way to demonstrate that the technologies result in no more impinged fish being killed than would have resulted from the model technology (modified traveling screens) alone. With these alternative provisions that EPA is considering, it is possible that a facility might be able to meet the limitations by means other than installing and operating the model technology. EPA examined the effect of alternative provisions in demonstrating compliance with the annual average limitation and the monthly average limitation.

In establishing the IM limitations, EPA seeks to minimize impingement mortality on an ongoing basis, each year, at a level that is achievable for a facility. Both the annual average limit and monthly average play an important role in ensuring that facilities optimize performance of their technology. Compliance with the monthly average limitation is demonstrated by comparing the average IM value from the samples collected during each month (or other 30-day period designated by the Director). At the end of the 12-month period, the facility calculates the annual average as the arithmetic average of

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the monthly averages during that period. The facility would then compare its annual average to the annual average limitation to demonstrate compliance.

With the alternative provisions that the Agency is considering, a facility would provide use data from long-term (e.g., 1-2 year) performance studies and/or calculation baseline assessments to quantify the impingement and/or IM reductions relative to what would be expected from the model technology alone. Because monthly averages are used to demonstrate compliance with both monthly average limitation and annual average limitation (i.e., monthly averages are averaged to produce the annual average), facilities would incorporate estimated reductions into the monthly average IM percent calculations. To calculate an adjustment using only data for a particular month (e.g., June) would require data for a very long term, such as 4-years or more. EPA would not require, nor recommend, this level of refinement in the calculations for two reasons. First, EPA does not expect that many facilities would have such long-term data available. Second, the calculations for each month would require a different set of adjustments that would create additional, unnecessary, complications for the facility and permit authority. To simplify the adjustment procedures, a facility would estimate the monthly reduction using the total reduction divided by the number of months in the study. The facility then would use this estimated monthly value to adjust the observed numbers of impinged fish and killed fish in the IM percent calculations for each and every month. Depending on the technology used, the reductions would be to the number of impinged fish and/or number of impinged fish that do not survive the holding time ("killed fish").

If the technology reduces impingement, the alternative provision calculations

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would increase the number of the observed impinged fish by the estimated number that would have been impinged without the technology. The monthly average calculation then would compare the observed number of killed fish to the larger total number of impinged fish (i.e., the sum of observed and estimated number reduced by technology). This comparison would result in a lower IM rate than the unadjusted, observed value.

The adjustments to the monthly average calculations, in turn, affect the value of the annual average calculated by the facility, because the facility's annual average is set equal to the arithmetic average of the monthly averages. In other words, the facility's annual average is solely based upon the values of the monthly averages. Thus, when the monthly averages are adjusted downward by the alternative provisions, the annual average also will be adjusted.

The following example illustrates how the alternative provisions would adjust for flow, location, and other technologies in demonstrating compliance with the IM monthly average limitations. The example uses values that simplify the calculations to better illustrate the adjustments, and are not intended to reflect values that EPA expects at any facility. To simplify the example further, the facility has only fish and does not have shellfish in its source waters. EPA also recognizes that facilities often examine the combined effect of two or more technologies (e.g., deterrents and offshore location) within a single study. In applying the alternative provision, the facility could use the outcomes associated with the combined performance of multiple technologies. However, for a more complete example, EPA has chosen a hypothetical facility that examined each change in a separate study.

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The hypothetical facility is located at an offshore location, has a velocity cap, and installed variable speed drives. For the purposes of this example, assume its permit requires that it collect samples once a week and evaluate the impinged fish after 24 hours. The facility has just completed sampling at the forebay each week during June, and has identified the counts of the facility specific species of concern as follows. The four samples had 1,500, 1,000, 500, and 1,000 impinged fish, for a total of 4,000 impinged fish. During the 24-hour holding period, 400, 100, 150, and 350 fish died, for a total of 1,000 dead fish. The facility then calculated the forebay's IM as 25 percent, using the equation provided in the proposed rule preamble (76 FR 22174, Section IX.F.1) as follows:

$$\% \text{ IM} = \frac{\text{(impinged fish that are killed)}}{\text{(total number of impinged fish)}} \times 100$$

$$= (1{,}000/4{,}000) \times 100$$

$$= 25\%$$

To adjust the observed percent IM for its offshore location and velocity cap, the facility first extracts information from its previously conducted studies related to performance and calculation baseline. For the offshore location adjustment, fish density and flow data show the offshore location reduces the rate of impingement for all species of concern by 30,000 fish annually, or, on average, 2,500 each month (i.e., calculated as 30,000 fish divided by12 months). For the velocity cap, performance data show the velocity cap reduces impingement of fish and shellfish by 24,000 organisms annually, or a monthly average of 2,000 organisms. Therefore, the facility has reduced impingement of all species of concern, on average each month, by 4,500 organisms (i.e., sum of 2,500

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for offshore location and 2,000 for velocity cap). The facility then applies the reduction to the denominator of the percent IM calculations as follows:

$$\% \text{ IM} = \frac{\text{(impinged fish that are killed) x 100}}{\text{(total number of impinged fish + reductions in fish impinged due to other technologies)}}$$

$$= ((1{,}000 / (4{,}000 + 4{,}500)) \times 100$$

$$= 12\%$$

In summary, calculating percent IM at the forebay yields a 25 percent IM, and then applying the alternative provisions for other technologies shows the effective percent IM is 12. Next, to adjust for the variable speed drives, the facility has determined from engineering and design calculations that the volume of cooling water flow has been reduced by 11 percent. The volume of reduced flow multiplied by the density of fish near the intake is calculated, and the facility projects that the reduced flow excludes, on average for each month, an additional 1,100 fish from impingement. Then the facility would apply the reduction in impinged fish to the denominator, as follows:

$$\% \text{ IM} = \frac{\text{(impinged fish that are killed) x 100}}{\text{(total number of impinged fish + reductions in fish impinged due to other technologies)}}$$

$$= ((1{,}000) / (4{,}000 + 4{,}500 + 1{,}100)) \times 100$$

$$= 10\ \%$$

This example is intended to illustrate how facilities would obtain credit for existing technologies. While this example includes a velocity cap, it does not imply that a velocity cap is the appropriate technology for all facilities. EPA's data shows in most cases, a properly located velocity cap alone would be sufficient to achieve the limitations.

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In the case where a velocity cap (or any other technology) alone would not be sufficient to meet the limitations, EPA expects that each facility would identify and install a suite of cost effective technologies to achieve the IM requirements (i.e., variable speed drives in this example). EPA solicits comment on whether this approach reasonably addresses commenters' request that EPA identify velocity caps to be a pre-approved BTA for IM by appropriately taking into account facilities' existing technologies in determining whether a facility meets the proposed IM requirements. In summary, the hypothetical facility would observe a 25 percent IM rate for June; which would then be adjusted downward to 12 percent for its offshore location and velocity cap; and then further adjusted downward to 10 percent for its flow reduction. The value that the facility would report for compliance purposes would be the 10 percent value. At the end of the 12-month monitoring period, the facility also would use the 10 percent value for that month with the other 11 adjusted monthly values to calculate the annual average IM rate. In the final rule, EPA may decide to include the equations for calculating IM and the alternative provision in the rule language to provide additional clarity. EPA solicits comment on how frequently a facility would need to calculate credit for existing technology after the initial demonstration.

Comments from some Phase II facilities indicate facilities may have already collected data and performed baseline calculations required as part of the 2004 Phase II rule. While EPA identified considerable challenges implementing calculation baseline in the 2011 proposed rule (76 FR 22174, Section III.B.1), these commenters went on to suggest that a facility should have the option to use these data and analyses in

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demonstrating compliance with the IM limitations. In many cases these data are sufficient to show their site specific impingement rates as well as the performance of any technologies installed at their site. Therefore, EPA is considering a provision that would allow existing facilities to use data already collected as part of a site-specific analysis of calculation baseline to demonstrate compliance with the alternative provisions. EPA solicits comment on these data and possible changes to the rule language for providing credit in reductions in impingement calculations to demonstrate compliance with the annual average and monthly average IM limitations.

EPA recognizes that it may be challenging for a facility to determine in some cases what its calculation baseline should be, particularly if it has had a technology in place for many years. Thus it may be difficult to establish precisely what the performance of a technology is relative to a situation in which the technology was not employed (a situation that may not have existed at the facility for a long time). EPA is thus also considering identifying additional technologies (which could include velocity caps) as satisfying the IM performance standards without having to conduct the type of study and calculation discussed in this example. EPA requests comment on this approach, on what technologies could be deemed compliant under this approach, and on what requirements or demonstrations would be appropriate to establish the technology as a compliance alternative. EPA also requests comment on whether the final rule should allow permitting authorities to approve additional technologies as satisfying the IM requirements, and if so, what specific demonstrations or procedures would be appropriate for permitting authorities to use in making such determinations.

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6. Facilities with Low Impingement Rates

EPA received data showing some facilities have very low impingement rates. This is usually due to intake location for the specific waterbody from which water is withdrawn for cooling, or the implementation of other technologies. For example, EPA is aware of a facility located on the inside bend of a large freshwater river which seasonally employs large mesh barrier nets. The facility impinges an average of several fish per month. In another case, the intake is located downstream of a dam, and the fish avoid the cold water coming from the dam. Recent data show the facility impinged one fish over two 24 hour periods. Under such low impingement rate conditions, technology performance is unlikely to be meaningfully evaluated. Moreover, in EPA's view, these facilities are not likely having an adverse effect on aquatic life. It is probable that in most cases requiring additional technology would not be necessary to further minimize adverse environmental impacts.

EPA has received several suggestions on how to establish requirements for such facilities with very low impingement rates. One suggested approach was to establish an exemption based on an annual limit on biomass impinged. EPA found a small number of studies have available performance data that are expressed as biomass, and the amount of data within these studies are generally limited (see proposed TDD, Chapter 11, Appendix B). Another approach that would be easier to implement is to establish an annual limit on the absolute number of fish that may be impinged. Facilities meeting this limit on the rate of impingement would be deemed in compliance with the IM limitations, and therefore would not be required to install additional technologies. In other words, the existing

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technology in place would be deemed BTA for that facility. Alternatively, if EPA were to consider the number of fish killed (rather than as a percent of impinged fish) as a limitation for the final rule, EPA might statistically model the data to derive the limit, or EPA may select the minimum observed value (see TDD, Chapter 11, Appendix D for further discussion of the methodology).

Comments by some state agencies indicated concern that such an approach does not fully consider the affected species. For example, while the total number of impinged fish that die might be low, they might all be species of concern, or may include a locally important species under NOAA's NMFS conservation watch status. If EPA adopts this approach, EPA might need to provide certain safeguards to ensure adequate protection of specific fish populations.

EPA is considering authorizing the permit writer to determine that a facility using a given technology complies with the IM requirements because it does not impinge greater than some absolute number of fish. Such a provision would then authorize the Director to make a site-specific determination that the facility is already employing BTA. Under this approach, a facility impinging fewer than the specified number of organisms might submit some minimum amount (e.g., two years) of impingement rate or impingement mortality data, including a demonstration that no threatened and endangered (T&E) or other protected species are identified in the vicinity of the intake. Additional factors the Director should consider might include any impacts to significant recreational or commercial fisheries, a review of locally important aquatic life such as those identified by NOAA's NMFS regarding local or state conservation status of any

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species of concern, value of impinged species, prevalence of nuisance or invasive species, or other local conditions. The Director could then make a determination that the very low impingement rate is BTA due to the facility's existing technology. EPA solicits comment on the data and approaches under consideration for facilities that already have very low impingement rates. EPA also solicits comment on whether EPA should identify in the final rule a specific upper limit on what could be considered a very low level of impingement mortality, or if this should be left to the discretion of the permitting authority. In addition, as noted above, EPA is soliciting comment on recommendations it received following proposal that EPA consider a regulation under which impingement requirements (like entrainment requirements) would be established on a site-specific basis. If EPA adopted the approach proposed for entrainment, the permit writer could weigh site-specific costs and benefits, among the factors being assessed, in the decision whether to require further impingement controls. EPA also requests comment on a hybrid approach under which the permittee could choose among several compliance options that might include both meeting an IM performance standard or requesting a site-specific determination of BTA for both impingement and entrainment, if the benefits of meeting the performance standard did not justify the costs on a site-specific basis. This could be structured in a manner similar to the "cost-benefit variance" that was included as a compliance option in the final Phase II rule. EPA requests comment on all of these approaches.

7. Species of Concern

In recognizing the variability in each facility's source water characterization,

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particularly with respect to the specific species and life stages of fish and shellfish, EPA proposed the IM standards should be applied to site-specific species of concern. EPA intended this provision to provide flexibility to the Director to focus the technology based requirements on those species deemed important at a given site. Some commenters indicated that many states have already determined the species of concern as inclusive of forage fish, fragile fish, and abundant representative indicator species. Therefore, commenters indicated EPA's intended flexibility might not work.

In this notice, EPA is clarifying the proposed rule approach to species of concern is intended to allow the Director to prioritize certain fish and shellfish in a site-specific manner. EPA generally intended that the highly abundant, fecund forage fish species (such as the clupeid species) would not be considered species of concern. However, the Director could determine such species are species of concern if they were considered: important migratory or commercial species; threatened or endangered; or of insufficient abundance in the source water to support the growth and abundance of those species that prey upon them. To provide the Director with the appropriate data to make such a determination, and to avoid the unnecessary burden of requiring a facility to comply with the IM limitations for all species, EPA is considering a regulatory provision that would distinguish representative indicator species (RIS) from the site-specific species of concern. Under such an approach, a facility may be required by the Director to monitor for those species identified as RIS, but the IM limitations would only be applicable to the species of concern. The species of concern would not necessarily include all RIS. EPA solicits comment on the data and approaches under consideration here that best address

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the variability in species and life stages of fish and shellfish. Alternatively, EPA takes comment on the suggested addition of defined species of concern, explicitly identifying those specific species that are not subject to the IM limitations.

III. General Solicitation of Comment

EPA encourages public participation in this rulemaking and requests comments on this notice of data availability supporting the proposed rule for cooling water intake structures.

EPA invites all parties to coordinate their data collection activities with the Agency to facilitate mutually beneficial and cost-effective data submissions. Please refer to the **FOR FURTHER INFORMATION CONTACT** section at the beginning of this preamble for technical contacts at EPA.

To ensure that EPA can properly respond to comments, the Agency prefers that commenters cite, where possible, the paragraph(s) or sections in the document or supporting documents to which each comment refers. Please submit copies of your comments and enclosures (including references) as specified in the **ADDRESSES** section at the beginning of this preamble.

Dated:

GOO-A-0014689

Nancy K. Stoner

Acting Assistant Administrator

Office of Water

GOO-A-0014689

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, January 26, 2012 3:31 AM
To: Darren Samuelsohn <dsamuelsohn@politico.com>
Subject: Re: A few things

Yes let's get lunch soon. Btw send me the story if you would. In retrospect I'm sort of hoping you didn't use the second quote about the lack of a champion. Some people might be touchy about that. Anyway the next recess lets have lunch.

Sent from my iPhone

On Jan 25, 2012, at 11:19 PM, Darren Samuelsohn <dsamuelsohn@politico.com> wrote:

> Sure thing. Thanks for the quick turn around. Great chatting with you. Let*s try for a lunch on a Monday or Friday when Congress isn*t around.
>
> On 1/25/12 11:17 PM, "Michael Goo" Ex. 6 - Personal Privacy wrote:
>
> > Sure. Maybe say former
> > Senate democratic aide. Thx
> >
> > Sent from my iPhone
> >
> > On Jan 25, 2012, at 11:10 PM, Darren Samuelsohn <dsamuelsohn@politico.com> wrote:
> >
> > A few things I might want to use a few of these in my story. Here they are. Let me know if they are OK. I*d attribute as a *former house democratic aide* if that works for you.
> >
> > Expect Obama to stay away from specific ideas over the next year for a second term given the current political climate. "You need to be very careful about articulating that," a former House Democratic aide said.

At the White House level, Obama*s energy policies have largely been run out of the chief of staff's office since Carol Browner left last year. "You don't have a champion for that kind of thing," said a former House Democratic aide.

The long shot prospects of getting back to climate would require winning back control of the House and keeping the Senate, though even then the dynamics of 2009-10 remain. "You'd have to take back the moderate seats to gain the House back. And those guys are not going to be happy about being BTU'd or Waxman-Markeyed,* the former House Democratic aide said. *You've got a lot of uphill battles to get that passed."

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, January 25, 2012 11:18 PM
To: Darren Samuelsohn <dsamuelsohn@politico.com>
Subject: Re: A few things

Sure. Maybe say former
Senate democratic aide. Thx

Sent from my iPhone

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"You'd have to take back the moderate seats to gain the House back. And those guys are not going to be happy about being BTU'd or Waxman-Markeyed,* the former House Democratic aide said.

*You've got a lot of uphill battles to get that passed."

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, November 27, 2012 2:45 PM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

Hey dude. Saw you called. Stuck in a retreat. Will call you in a while. Thanks for calling

Sent from my iPhone

On Nov 26, 2012, at 6:59 PM, Conrad Schneider <cschneider@catf.us> wrote:

> Hi Michael-
> Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial reactions/feedback to our proposal and strategize about possible ways forward.
>
> Unlike some other proposals, ours is not "take it or leave it". As you could tell, we've tailored our proposal according to the specifications we've heard from you guys and the folks at the WH. But, if those change or want further refinement, please let us know. And, most importantly, if we are headed down a blind alley, that would be good to know ASAP.
>
> We met with several coal generators on our "winners" list after our meeting with you and are scheduling more meetings for later this week. One of the reactions we got from two companies is that our price impacts are too high because we are taking a historical view of gas price elasticities. [Our electricity price and total costs are almost totally dependent on changes in gas price due to heavier reliance on existing gas plants under our proposal.] They said that the shale boom has changed the game and that comparing gas price elasticities today to the average of the last 15 years is like looking at cotton prices delivered by steam ship in 1880 after cotton was being moved by rail. So, we are hearing that there is a respectable view that the cost impacts of our proposal may be less than we've shown and accordingly, we will check in with some other gas analysts and will run a lower gas price sensitivity (as well as devising an "safety valve" or alternative compliance payment to guard against the risk of higher than forecast gas prices).
>
> Let me know when would be a good time to talk, otherwise god knows when I'll bother you on your cellphone!
>
> Cheers,
> CS
>
> Conrad G. Schneider
> Advocacy Director
> Clean Air Task Force
> cschneider@catf.us
> www.catf.us
> 8 Museum Way
> Brunswick, Maine 04011
> 207/721-8676
> 207/721-8696 (facsimile)
>
>
>

From: michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, November 27, 2012 12:16 AM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

---

yep-lets talk. just give me a call or text on my cell. Ex. 6 - Personal Privacy Im in an all day retreat tommorrow with the administrator but there may be some moments to talk. Wednesday may also work.....

From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, November 26, 2012 6:59 PM
Subject: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

Hi Michael-
Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial reactions/feedback to our proposal and strategize about possible ways forward.

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Let me know when would be a good time to talk, otherwise god knows when I'll bother you on your cellphone!

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
http://www.catf.us/
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, April 4, 2012 8:42 AM
To: Michael Bradley <mbradley@mjbradley.com>
Subject: Re: EEI

Thanks

Sent from my iPhone

On Apr 3, 2012, at 8:36 PM, Michael Bradley <mbradley@mjbradley.com> wrote:

Michael,

I learned late today that EEI will be attempting to set up a meeting with you to go through the list of 316(B) revisions they are looking for. I believe youre going to receive an email from Amy Trojecki from Exelon requesting the meeting. I want to be clear that the EEI reps do not represent the CEG perspective on 316(B).

Since speaking with you this afternoon we have discussed the current delay with CEQ staff and your suspicion of EEI sending a message of hold back until all the key issues are resolved has been confirmed. I will be speaking with Lew Hay again tomorrow morning to discuss how best to get this back on track. I will be suggesting that we ask Tom Kuhn to call OMB to voice support for finalizing the NODA. I will let you know how this effort works out.

MJB

From:	michael Goo Ex. 6 - Personal Privacy
Sent:	Friday, September 16, 2011 10:06 AM
To:	mbradley@mjbradley.com
Subject:	Re: Getting in touch email

I have raised this with senior leadership and we are preparing to respond to the Izzo request for a meeting and also we are working on the impingement issue.....also dont assume i check this email much so if you want to have an offline chat just let me know you are using this channel....thanks

From: Michael Bradley <mbradley@mjbradley.net>
To: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, September 15, 2011 4:56 PM
Subject: Re: Getting in touch email

Michael

As follow up to our conversations, below is additional detail on the CSAPR and GHG NSPS

CSAPR

As discussed, we have been having a series of conversations with EPA about many of the CEG companies* concerns on the final state budgets under the Cross-State Air Pollution Rule (CSAPR). While the companies want to remain supportive of the final CSAPR, the state budgets for NY, NJ, and FL were significantly reduced in the final rule. These changes are making supporting the implementation of the rule as currently written very difficult. While we understand EPA is willing to make technical adjustments to state budgets based on new technical information, we are concerned that despite efforts to provide EPA with additional information, EPA is not inclined to adjust those state budgets until after October 7th * the deadline for when petitions for reconsideration and petitions to the DC Circuit are due.
Since the rule*s release about 10 weeks ago, we have been working to explain the concerns we have with certain state budgets and highlight the technical errors that result from using the IPM model and not taking into account the transmission system constraints that are unique to certain areas in the U.S. Following Eric Svenson*s outreach to Gina McCarthy regarding PSEG*s concerns, we have had several discussions with Joe Goffman and Sam Napolitano on the NJ state budget. Compared to the proposed budget, New Jersey*s final annual NOx budget was reduced by 39 percent, the ozone season NOx budget was reduced by 36 percent, and New Jersey*s SO2 budget was reduced by 51 percent. With fewer allowances available to the state, several of PSEG*s generating units are projected to be short allowances beginning in 2012, despite having advanced pollution control equipment installed and operating. Additionally, since PSEG*s generating fleet is generally well controlled, there are limited opportunities for further emissions reductions between now and 2012.

A similar situation exists for NY. Compared to 2010 emissions, NY state looks to be significantly short of the 2012 state budgets even with the assurance provisions. We understand the NYDEC has been engaged with EPA to provide information to highlight the fact that there are many units in NY that must operate due to transmission constraints but for which the model predicted the units assumes a zero heat input. Both National Grid and Consolidated Edison of NY have also had calls with Sam and Joe to express similar concerns with the model and state budget, and had provided similar information about these must run units during the comment period. Without adjustments to the state budget, there are concerns that units needed for reliability purposes would not be able to operate.

NextEra has also met with Joe and Sam several times regarding the Florida state budget, and there we are also seeing that the IPM model fails to recognize that some units will need to run for reliability purposes due to natural gas constraints. The inability of the model to make these adjustments significantly impacts the state allowance budget.

These concerns described above are creating a very difficult dynamic within the Clean Energy Group and for these individual companies to remain supportive of EPA*s regulations. There is a concern that these issues are not getting the attention needed to ensure the appropriate technical fixes are made prior to the Oct 7th deadline. Additionally, the approaches in the final rule appear to penalize the early investments many of the CEG companies made in anticipation of regulations, which creates additional difficulties for these early actors.

I expect Ralph Izzo will likely reach out to Lisa Jackson on these concerns, and it would be helpful to explore whether EPA can make the appropriate technical adjustments related to transmission constraints for certain state budgets prior to the Oct 7th deadline.

<u>GHG NSPS</u>
With respect to GHG NSPS, we understand that Lisa Jackson has already signaled a delay for the release of the GHG NSPS proposal for the electric sector. It would be helpful to discuss what timing is being considered. To the extent possible, it may make sense to release the proposal after mid-November in order to try to mitigate the backlash on the other EPA air regulations. It would also be good to find some time in the next few weeks to discuss with you the issues CEG has been evaluating for existing units under 111(d).

Please do not hesitate to call with any questions.
Michael

From: michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, December 14, 2011 9:19 AM
To: mbradley@mjbradley.com
Subject: Re: Highly Confidential

So apparently there is one more meeting with Cass this morning at 10 am with EEI and Cass. Not sure if letter actually went.

From: Michael Bradley <mbradley@mjbradley.net>
To: Ex. 6 - Michael Goo
Sent: Tuesday, December 13, 2011 4:49 PM
Subject: FW: Highly Confidential

Below is the central message of the EEI letter calling for the Section 112 President to issue an Executive Order for additional time. Please do not circulate or indicate where this info came from.

As members of EEI, we support the consensus view of our membership that the President should issue an Executive Order under section 112 of the Clean Air Act to provide additional time, as necessary, for power plants to achieve compliance with the utility MACT rule. This Executive Order should be issued at the time the MACT is finalized so that planning, evaluation and implementation for plants likely to need additional time can be undertaken expeditiously on a forward-looking basis.

Congress recognized that the availability of technology and national security interests are legitimate and justifiable reasons to extend a MACT deadline. Clean Air Act section 112(i)(4) allows the President to grant an exemption (i.e., an extension of time) to the utility MACT deadlines for up to two years based on a finding that (1) the technology to implement such standard is not available, and (2) it is in the national security interest of the United States to do so.

We represent the seven companies that were charged by EEI s Executive Committee with leading industry MACT discussions with both the Administration and the Environmental Protection Agency.

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, February 2, 2012 9:49 AM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: NJ: CLIMATE CHANGE RULES A MOVING TARGET

COMING FOR YOUR CARBON - Top Energy and Commerce R epublicans want the White House to pull back EPA's planned rulemaking on greenhouse gas emissions for new power plants, saying they worry the standards would require costly technologies like carbon capture and sequestration. "Such standards would be a back door cap-and-tax regime, circumventing the will of Congress and the American people," E&C Chairman Fred Upton and Reps. Joe Barton and Ed Whitfield wrote in a letter today to the White House. The letter: http://bit.ly/yEvHah.
WHO'S COUNTING? The greenhouse gas new source performance standards have been at OMB since Nov. 7, meaning that today marks day 87 of the 90 day review period. The EPA originally agreed, in response to a lawsuit, to propose the rule by July 2011, but now remains in settlement (re)negotiations.

From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, January 30, 2012 9:20 AM
Subject: NJ: CLIMATE CHANGE RULES A MOVING TARGET

Michael-
I want to assure you that I am NOT the source on this article in NJ. I just got back from backcountry skiing in the North Woods. CS

CLIMATE CHANGE RULES A MOVING TARGET. Although EPA clean air chief Gina McCarthy has said the agency's long-awaited rules to reduce greenhouse gases at power plants would come out by the end of January, sources close to the agency say they're not holding their breath. The timeline for the controversial climate change rules, which have already been delayed twice, is now more fuzzy "early in 2012," say people close to EPA. Environmental groups say one reason the White House may want to delay the climate rule is to keep it from getting caught up in the fight over extending the payroll tax cut, which expires in February. Republicans are expected to fight back hard on the climate rule, and could try to use the payroll tax cut extension as a vehicle to block the climate rule, replicating their tactics last year with the fight over the Keystone XL pipeline.

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, September 4, 2012 1:36 PM
To: Ken Kopocis <Kopocis.Ken@epamail.epa.gov>
Subject: Re: Steam Electric ELG

Not yet

Sent from my iPhone

On Sep 4, 2012, at 1:31 PM, Ken Kopocis <Kopocis.Ken@epamail.epa.gov> wrote:

Still have no response?

<graycol.gif>Ken Kopocis

----- Original Message -----
From: Ken Kopocis
Sent: 09/04/2012 09:33 AM EDT
To: Michael Goo
Subject: Steam Electric ELG
Michael,
Has the loop been closed with OMB re extending the date for the proposal?
Anything we need to do?
Thanks,

Ken Kopocis
Office of Water
U.S. Environmental Protection Agency
(202) 564-5700

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Wednesday, November 14, 2012 9:11 AM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: Thoughts about next steps on 111(d)

Ok cool. We will get back to you.

Sent from my iPhone

On Nov 11, 2012, at 10:01 PM, Conrad Schneider <cschneider@catf.us> wrote:

> O.K. Bruce and I can do Wednesday 11/14 anytime before 2 p.m. or any day the following week (week of 11/19). Let us know what works for you.
>
> Thanks,
> CS
>
> Conrad Schneider
> Advocacy Director
> Clean Air Task Force
> 8 Museum Way
> Brunswick, Maine 04011
> (207) 721-8676
> (207) 721-8696 (facsimile)
> cschneider@catf.us
>
> Sent from my iPad
>
> On Nov 11, 2012, at 7:23 AM, Michael Goo Ex. 6 - Personal Privacy wrote:
>
>> Thanks for reaching out. Let's set something Up
>> For
>> Next
>> Week.
>> Things
>> Are
>> Great!
>>
>> Sent from my iPhone
>>
>> On Nov 10, 2012, at 10:21 AM, Conrad Schneider <cschneider@catf.us> wrote:
>>
>>> Hi Michael-
>>> Congratulations (on still having a job)!!! Now, its post-election, and a young man's fancy turns to . . . you guessed it, sec. 111(d)! As you and your folks are thinking about whether/how to move forward on CO2 emissions from existing coal plants, I want you to be aware of some new analysis that CATF has recently completed with the NorthBridge Group that could help shape your thinking about how much upside there is here i.e., is there a "win"? We've all been looking for the "sweet spot" on this issue, i.e., where we can get more (CO2 reductions) for less (money). We think we've found such a sweet spot and want to share our analysis with you, Alex, and whoever else

needs to see it as you are composing your thoughts and recommendations. What's nice about our analysis too is that we've run the policy at various levels of stringency, so you can see what you get for an incrementally more (or less) stringent version of our policy. Bruce Phillips (from NorthBridge) and I can be down at your convenience to run you through the policy, which we've designed to meet as many of your criteria regarding: CO2 emissions reductions (meaningful, not trivial), cost (a fraction of MATS), retirements (as few as possible), price impacts (very modest), regional redistribution of wealth (none), and possibly most importantly, identifying companies with coal-fired generation that are economic winners under the policy (lots). We've heard the need for this last one from the WH several times -- they really want some companies with coal generation on-board. Pre-election, we were already beginning to reach out to those companies we've identified as winners in order to gain their support. Many of the companies we've spoken with are interested, several are very interested. Now, they are now calling us. So, in sum, we'd like to meet with you and (as appropriate) your team, confirm that these design criteria are still applicable, show you our policy and economic analysis, and get your thoughts. Please let me know how you would like to proceed.
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>>> Hope you, Debbie, and Fiona are well!
>>>
>>> Cheers,
>>> CS
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>>> Conrad G. Schneider
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>>>
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>>>
>>

From: Michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, November 11, 2012 7:24 AM
To: Conrad Schneider <cschneider@catf.us>
Subject: Re: Thoughts about next steps on 111(d)

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For
Next
Week.
Things
Are
Great!

Sent from my iPhone

On Nov 10, 2012, at 10:21 AM, Conrad Schneider <cschneider@catf.us> wrote:

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>
>
>

From: michael Goo Ex. 6 - Personal Privacy
Sent: Sunday, September 25, 2011 9:58 PM
To: Tom Lawler Ex. 6 - Personal Privacy
Subject: Re:

---

not sure what response to this you are looking for. Some of it might be right and some of it is definitely wrong....we should talk in the am maybe. Not sure where you got this from or what you will do with it so cant really comment.....thanks for sharing

From: Tom Lawler Ex. 6 - Personal Privacy
To: Ex. 6 - Michael Goo
Sent: Sunday, September 25, 2011 1:08 PM
Subject:

I feel like I need to start training for the Gooman 600. Sounds like a really tough race. Memo below. If I didn't have to have some answers by 9 tomorrow morning I wouldnt be bothering you today. Sorry.

EPA Air Program staff have been asked to prepare both 30 day and 60 day extension schedules for the September 30th court ordered deadline for proposal of Greenhouse Gas (GHG) New Source Performance Standards (NSPS) for Electric Generating Units (EGU).

Further, there are strong indications that the EPA political team is leaning toward issuing a proposed rule only for new sources, [CAA Section 111 (b)], while an Advanced Notice of Proposed Rulemaking (ANPR) would be issued for existing sources [CAA Section 111 (d)].

EPA has not yet secured agreement from the litigants (NRDC, EDF, Sierra Club, et.al.) to the potential schedule delay, but there are some indications that the litigants will not fight a 30-60 day delay if EPA sticks to the deadline for a final rule of May 26, 2012.

No New Coal

The GHG NSPS proposal for new sources would effectively eliminate future coal fired EGU s. The new source standards will be based on GHG emissions from Combined Cycle Natural Gas and are likely be about 1100 lbs. CO2/MWh. The best performing Super Critical coal plants achieve roughly 1700-1800 lbs. CO2/MWh and many are closer to 2100-2200 lbs. CO2/MWh. IGCC plants would likely need to achieve very high rates of carbon sequestration in order to be permitted.

Reasonable Standards for Existing Units

In contrast, the ANPRM for existing sources will contain a menu of energy efficiency improvements, from which EGU s could choose in order to achieve a roughly 5-8% efficiency improvement. The cost and potential benefit of each option will be described in some detail. States will be given substantial flexibility in determining how existing units achieve compliance.

A critical unresolved question involves a group of about 15 transitional plants those which have received some degree of permit approval but have not yet commenced construction. Since commercial construction is likely to be defined as the date of the proposed rule for new sources, EPA management must still decide how to treat these transitional sources.

If the September 30th date is delayed by 60 days, the May 26, 2012 final rule deadline may be very difficult to achieve, but the EPA political team is committed to avoiding any extension, which would push the final rule closer to the November election.

From: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, May 31, 2012 6:19 PM
To: mbradley@mjbradley.com
Cc: cjenks@mjbradley.com
Subject:

EO12866_2040-AE95_Cooling water intake NODA 1_clean_053012.docx

From: michael Goo Ex. 6 - Personal Privacy
Sent: Friday, October 21, 2011 5:49 PM
To: Ex. 6 - Seth Oster
Subject: what we talked about

WSJ Weekend Interview potential quotes relating to EPA

And I was the carbon bandit, Mr. Rowe continues, with his matter-of-fact candor. I was the champion of climate regulation in the utility industry, and we are the people who back EPA regulation.

What we are trying to do, Mr. Rowe argues, partly out of self-interest and partly to avoid sticking our customers with things that are really expensive, is to push for some sort of orderly environmental framework on the markets. He concedes that we can make some money on the EPA rules because Exelon has little coal in its energy mix and we don t apologize for trying to make money on having cleaner energy.

On EPA: a lot better than to have every political party picking its favorite technology, and either subsidizing the hell out of it with government money or asking the utility to subsidize the hell out of it on customers.

Has EPA been orderly: The current leadership of EPA rightly or wrongly, largely rightly, sees cleaning up the energy fleet as its reason for being, he explains. It wouldn t shock me at all if in some places they overdo it. It also wouldn t shock me if at some places, they see the [traditional] criteria pollutants as a way of substituting for the carbon regulation they wanted to do and didn t get. Both, all of those things are probably true, and yet it s also true that people with the old coal plants are gaming the system.

The real enemy here, Mr. Rowe continues, isn t the EPA. It s what a whole lot of people who call themselves entrepreneurs, but really are living on their lobbyist, are doing getting legislators around the country to require utilities to buy power from stuff that has no connection with the economics at all.

the market will choose the technology of choice when it becomes economic, which will almost certainly be gas.

Obama will continue to make concessions on the environmental front, because in truth it s not one of his big priorities. It s [EPA chief] Lisa Jackson s priority, but not the president. I don t think he will collapse on it. He will hold the line on the hazardous air pollutants, I believe.

To: Goo, Michael[Goo.Michael@epa.gov]
From: Michael Goo
Sent: Fri 10/25/2013 6:57:11 PM
photo.PNG
ATT00001.txt

AT&T 5:29 PM 14%

Messages (8) **Coequyt** Edit

hope of regulation of fracking then give us more time to try and remove the gun from our head and talk sense into OMB dickheads. Call in am

Oct 3, 2012, 1:35 PM

I am with lpj. Re decision on naaqs urgent?

Oct 3, 2012, 1:49 PM

Dude. Urgent?

Or pocket dial

Apr 8, 2013, 1:38 PM

Call me if u can before 230. Not urgent if you don't but possibly helpful.

Text Message Send

AT&T 5:22 PM 16%

Messages (8) Brendan Edit

Call FaceTime Contact

Text Message

Jul 17, 2012, 10:40 AM

Want me to step out and cal u?

Text Message Send

AT&T 5:28 PM 14%

Messages (8) **Coequyt** Edit

Call FaceTime Contact

Text Message

Dec 7, 2011, 3:49 PM

What up. See u soon

This is to reassure u guys

Dec 15, 2011, 1:38 PM

Hey. In a meeting. Do I need to step out ?

Apr 3, 2012, 12:07 AM

If you want the oil and gas nsps to give fracking a free pass, as OMB would like then don't give us the extension. If you want any hope of regulation of fracking then give us more

Text Message Send

To: Goo, Michael[Goo.Michael@epa.gov]
From: Michael Goo
Sent: Fri 10/25/2013 6:56:38 PM
photo.PNG
ATT00001.txt

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:05:09 PM
Subject: Fw: Utility Cash on Balance Sheet Analysis

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Monday, November 14, 2011 6:40 PM
Subject: Utility Cash on Balance Sheet Analysis

Hi Michael-
Attached please find the utility "cash balance" analysis I mentioned. Conclusions: (1) Average net cash balance increased 18x from 1995 to 2010 (in real (2010) dollars). [Note: This does not even adjust for growth in asset value]; (2) As a percent of total assets, average net cash increased from 1.5% to 5.9% over the period.

We are weaving this into a story about the ability of power companies to adjust to the EPA regs: (a) interest rates are at an all-time low, so it is a good time to borrow money for modernization of the fleet; (b) load growth is flat, so there is no better time for outages for retrofits, retirements, etc. to modernize the fleet; and (c) utilities are sitting on an unprecedented amount of cash on their balance sheets meaning that they have the wherewithal to install emissions controls and replacement generation, plus regulations that mobilize this cash and deploy it in the economy will have a stimulative effect on economic activity and job creation.

Lastly, thinking more about the idea we discussed about preceding an NSPS proposal with some sort of process to "air" the issue, we think you need more than a paper by OAR for both substantive and optical reasons. As I mentioned when we spoke, we would recommend some sort of stakeholder discussion process. We agree that an ANPRM would provoke thousands of pages of comments and potentially slow you down too much. But, a talk/listen group -- maybe a reconvening of the BACT CAAAC group that has already chewed over some of these issues? -- starting in December running through February with an aggressive schedule of meetings, could allow parties to discuss and build understanding in the best case and create the impression that EPA has taken stakeholder advice in formulating the rule in the worst case. This would also give you a better political read on floating a proposal as well as a better sense of hot button issues and arguments you're likely to hear. EPA could kick it off with a white paper and get reactions and ask organizations with specific proposals to present them and get feedback (e.g., NRDC and us, etc.) It wouldn't be the normal FACA process of producing a report or recommendations. The goal would simply be to allow EPA to have the benefit of this thinking as it crafts its proposal. And, if you lock into a December 2012 date for the final rule, we think industry will take this seriously and participate in the discussion. Here's why: If you lock-in a final rule before the election, they will know it isn't real or that it won't be stringent. But, if you say you are finalizing after the election, they will believe you mean business -- if Obama wins, it will be tough and if Obama loses it will be tough. [The only downside to this is if the R candidate

campaigns in coal country saying that Obama has a "December surprise" in store to kill coal.] In any case, if you want to test the politics and potentially draw the venom out of this issue politically, we'd recommend more than a paper. We think you need a process, albeit a very short one. Let's discuss.

Thanks,
CS

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:03:52 PM
Subject: Fw: Thoughts about next steps on 111(d)

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Saturday, November 10, 2012 10:21 AM
Subject: Thoughts about next steps on 111(d)

Hi Michael-
Congratulations (on still having a job)!!! Now, its post-election, and a young man's fancy turns to . . . you guessed it, sec. 111(d)! As you and your folks are thinking about whether/how to move forward on CO2 emissions from existing coal plants, I want you to be aware of some new analysis that CATF has recently completed with the NorthBridge Group that could help shape your thinking about how much upside there is here i.e., is there a "win"? We've all been looking for the "sweet spot" on this issue, i.e., where we can get more (CO2 reductions) for less (money). We think we've found such a sweet spot and want to share our analysis with you, Alex, and whoever else needs to see it as you are composing your thoughts and recommendations. What's nice about our analysis too is that we've run the policy at various levels of stringency, so you can see what you get for an incrementally more (or less) stringent version of our policy. Bruce Phillips (from NorthBridge) and I can be down at your convenience to run you through the policy, which we've designed to meet as many of your criteria regarding: CO2 emissions reductions (meaningful, not trivial), cost (a fraction of MATS), retirements (as few as possible), price impacts (very modest), regional redistribution of wealth (none), and possibly most importantly, identifying companies with coal-fired generation that are economic winners under the policy (lots). We've heard the need for this last one from the WH several times -- they really want some companies with coal generation on-board. Pre-election, we were already beginning to reach out to those companies we've identified as winners in order to gain their support. Many of the companies we've spoken with are interested, several are very interested. Now, they are now calling us. So, in sum, we'd like to meet with you and (as appropriate) your team, confirm that these design criteria are still applicable, show you our policy and economic analysis, and get your thoughts. Please let me know how you would like to proceed.

Hope you, Debbie, and Fiona are well!

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us

8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:03:28 PM
Subject: Fw: Thoughts about next steps on 111(d)

----- Forwarded Message -----
From: Michael Goo **Ex. 6 - Personal Privacy**
To: Conrad Schneider <cschneider@catf.us>
Sent: Sunday, November 11, 2012 7:23 AM
Subject: Re: Thoughts about next steps on 111(d)

Thanks for reaching out. Let's set something Up
For
Next
Week.
Things
Are
Great!

Sent from my iPhone

On Nov 10, 2012, at 10:21 AM, Conrad Schneider <cschneider@catf.us> wrote:

> Hi Michael-
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>
>
>

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:02:29 PM
Subject: Fw: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo < Ex. 6 - Personal Privacy
Sent: Monday, November 26, 2012 6:59 PM
Subject: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

Hi Michael-
Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial reactions/feedback to our proposal and strategize about possible ways forward.

Unlike some other proposals, ours is not "take it or leave it". As you could tell, we've tailored our proposal according to the specifications we've heard from you guys and the folks at the WH. But, if those change or want further refinement, please let us know. And, most importantly, if we are headed down a blind alley, that would be good to know ASAP.

We met with several coal generators on our "winners" list after our meeting with you and are scheduling more meetings for later this week. One of the reactions we got from two companies is that our price impacts are too high because we are taking a historical view of gas price elasticities. [Our electricity price and total costs are almost totally dependent on changes in gas price due to heavier reliance on existing gas plants under our proposal.] They said that the shale boom has changed the game and that comparing gas price elasticities today to the average of the last 15 years is like looking at cotton prices delivered by steam ship in 1880 after cotton was being moved by rail. So, we are hearing that there is a respectable view that the cost impacts of our proposal may be less than we've shown and accordingly, we will check in with some other gas analysts and will run a lower gas price sensitivity (as well as devising an "safety valve" or alternative compliance payment to guard against the risk of higher than forecast gas prices).

Let me know when would be a good time to talk, otherwise god knows when I'll bother you on your cellphone!

Cheers,
CS

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To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:02:11 PM
Subject: Fw: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
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To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:01:33 PM
Subject: Fw: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Tuesday, November 27, 2012 2:46 PM
Subject: Re: Can I grab 5 minutes of your time this week to hear your reaction to our 111(d) presentation?

O.K. Try me on cell Ex. 6 - Personal Privacy when you can.

CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

On Nov 27, 2012, at 2:45 PM, Michael Goo wrote:

> Hey dude. Saw you called. Stuck in a retreat. Will call you in a while. Thanks for calling
>
> Sent from my iPhone
>
> On Nov 26, 2012, at 6:59 PM, Conrad Schneider <cschneider@catf.us> wrote:
>
>> Hi Michael-
>> Hope you all had a good Thanksgiving! Thanks again for setting up the meeting last week. Alex has already followed up with me and the WH has asked for some more information. I would love to grab a few minutes with you to get your initial reactions/feedback to our proposal and strategize about possible ways forward.
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>>
>>
>>
>

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:01:07 PM
Subject: Fw: Recap of our call

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Saturday, December 1, 2012 11:51 AM
Subject: Recap of our call

Hey Michael-
Thanks for making what time you could to talk yesterday. Here's my recap. Please let me know if I've got anything wrong or if you have anything to add:

Next steps with EPA:

1. Bruce and I get a meeting with the OAR crowd (some configuration of Culligan, Ketchum-Colwill, Beauvais, Schmidt, Goffman, etc.)

2. Afterwards, if they are not openly hostile, you facilitate a meeting with Bob P and us to present our analyis.

3. Bruce follows up with Dave Evans on modeling issues.

4. I get a price quote from Venkatesh at ICF regarding how much it would cost to refine IPM to be able to accurately estimate the impacts of our redispatch policy. We discuss how to split the costs -- perhaps EPA pays for the model platform upgrade and CATF pays for the runs.

5. We keep you apprised of our progress with outreach to coal generators.

What we want EPA to do:

1. Start the party on 111(d) i.e., send a signal to the world that the process is starting up again.

2. Process might include release of the white paper, empaneling a stakeholder process to socialize the issue, etc.

Next steps with WH:

1. CATF works the folks we met with at the WH last week for a meeting with Heather Zichal with the intent of engaging her in helping creating enough space with OMB to let EPA start the party on 111(d).

2. Continue to engage the Energy and Climate/CEQ staff on the details of our policy

evolution and keep them apprised of our progress with outreach to coal generators.

How you can help CATF with funders:

1. We can tell foundation program officers that we are engaged in discussions with highly-placed officials in the Obama Administration regarding viable pathways forward on 111(d). That we have presented our redispatch policy proposal to EPA and the WH and there is significant interest in the opportunity for low cost CO2 emission reductions represented by the current underutilized natural gas capacity.

2. CATF's outreach to coal generators could be very valuable to this process (helping create the political "space" for EPA to issue a meaningful rule) and is unique among environmental NGOs.

3. CATF needs substantial incremental funding to maintain the engagement with EPA and coal generators both in terms of support for staff time but also consultants (e.g., NorthBridge, ICF) as well as the jobs study (on net employment impacts of CSAPR, MATS, and NSPS) that IEc/INFORUM is performing for us and the benefit-cost (i.e., health benefits of reduced coal generation) and SCC analyses we are performing to show that the policy is cost-effective, benefit-cost justified, and below the SCC.

4. I can tell foundation program officers to call you: (a) for your take on the prospects for moving a 111(d) rule; and (b) to vouch for CATF's value-added in the 111(d) (and 111(b)) processes.

One other thing I can't remember if I mentioned: we are hearing from several companies (NRG and AEP principally) that NorthBridge's cost estimates of our 5 percent policy are probably too high. They feel this is due to NorthBridge using historic price elasticities for predicting future natural gas prices under the policy. These folks believe that shale gas is a "game changer" and that the system can absorb 3 TCF of incremental gas with little gas price impact. [One industry said that using past gas price elasticities today is like pricing cotton based on steam ship transport after the railroads were carrying cotton to market.) We will run a low gas price sensitivity to reflect this. Rather than run a high gas price sensitivity to represent the competing view that we are currently in a gas bubble that will burst and lead to higher than forecast gas prices going forward, our current thought is to devise a "safety valve" mechanism to guard against upside gas price risk. We'll need to engage with OGC to see if they think something like this can be countenanced under section 111. Be interested in your thoughts about this.

Cheers,
CS

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To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:00:48 PM
Subject: Fw: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo [redacted]
Sent: Sunday, January 6, 2013 5:53 PM
Subject: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

Hi Michael-
Happy New Year! Bruce Phillips and I are meeting on 1/11 with folks at the WH (Guzy, Duke, McConville, Samy) for the fourth time since the election on our 111(d) concept. They seem to be taking it pretty seriously. We also met with the OAR folks just before Christmas. We are meeting with some of them again this Friday. I'll be in town Thursday and Friday. Couple of questions for you:

(1) See the POLITICO article below saying Gov. Gregoire is being considered for Lisa's job. Should we put in a good word for Bob P. in our meeting? Is there anything else we can do to help Bob P.?

(2) We discussed getting a meeting with Bob P. on our 111(d) concept. What needs to happen for that to happen? At the last minute, Goffman had to bow out of our OAR meeting. Should we make sure he attends the Friday meeting?

(3) We've been meeting with Alex Barron on the potential for an O&G methane rule. There is a BIG opportunity there for near-term CH4 cuts -- as big or bigger in CO2e than our 111(d) proposal -- and together we think the two rules may get us to the Administration's 17 percent GHG reduction from 2005 levels by 2020 target . But, the net benefit of any 111(d) proposal that relies heavily on coal displacement with natural gas depends on the leak rate from the natural gas system. We aren't in the Howarth camp that natural gas entails more net GHG emissions than coal, but some of the recent field measurements are showing very high leak rates. The two-step here is to tighten up the natural gas system simultaneously with using gas to back out coal generation. CATF represents parties to the litigation challenging the O&G NSPS rule, but Alex and I have discussed teeing this up as a positive Obama Administration climate initiative rather than correcting insufficiencies in the rule/a response to a lawsuit. Even if we pursue a consent decree on the timeline for a rule, we need to discuss the details of regulatory development here. Anyway, it might make sense for us to discuss this sooner than later.

Please let me know if you have some time to meet/talk on 1/10 or 1/11.

Cheers,

CS

>>>> Gregoire stock rising for EPA top job
>>>>
>>>> By Darren Samuelsohn and Erica Martinson
>>>>
>>>> 1/4/13 6:11 PM EST
>>>> Washington Gov. Chris Gregoire may be moving to the front of the pack in the contest to be named the new EPA administrator, according to a source familiar with the transition and a Seattle online newspaper.
>>>>
>>>> The Seattle Post-Intelligencer on Friday cited a “very private prediction from a very senior source in Washington’s congressional delegation” saying she’ll soon be nominated to replace Lisa Jackson.
>>>>
>>>> And a source familiar with the transition told POLITICO that the article naming Gregoire as a leading candidate for the EPA job is "quite real."
>>>>
>>>> Gregoire was an early backer of President Barack Obama and has received past support herself from Kansas Gov. Kathleen Sebelius and Arizona Gov. Janet Napolitano, both of whom became part of the president’s Cabinet.
>>>>
>>>> The outgoing Washington governor’s name has been circulated inside the Obama White House for a second term post, including EPA and the Interior Department, a job that traditionally goes to a Westerner, according to the source familiar with the transition.
>>>>
>>>> “Her name has been on the list,” said the source. “She’s looking for a spot and she’s likely to get a spot.”
>>>>
>>>> Others inside the Obama administration also have been vying for the EPA spot, including the agency's top air pollution official, Gina McCarthy, and the White House's top energy and climate adviser Heather Zichal. Bob Perciasepe, the current No. 2 at EPA, has also been named among the list of possible EPA candidates and is set to serve as the agency's acting chief pending the confirmation of Jackson's successor.
>>>>
>>>> “We have not heard anything from the administration on such an offer,” Gregoire’s spokesman Cory Curtis said in an email response to a query.
>>>>
>>>> The White House declined comment.
>>>>
>>>> "She certainly would be an eminently qualified person,” said Bill Ruckelshaus, who acted as EPA administrator under Presidents Richard Nixon and Ronald Reagan. “I think she'd do a good job and my guess is she'd get confirmed.”
>>>>
>>>> Gregoire will leave the governor’s office this month after serving two terms in Olympia. Before that, she was the state attorney general and head of the Department of

Ecology.
>>>>
>>>> “President Obama is no fool. He’s a smart guy. He knows what she’s done as governor. If I were him, I’d be talking to her about secretary ideas,” said Laurie Dolan, who served from 2005 to 2009 as director of Gregoire’s Executive Policy Office. She added that she’s not heard anything about Gregoire’s plans “because she’s very confidential.”
>>>>
>>>> Former George H.W. Bush-era EPA Administrator William K. Reilly also told POLITICO he thought Gregoire would be a good choice.
>>>>
>>>> “I tried to hire her as regional EPA administrator in 1989, when she was Washington state EPA chief. She knows the key statutes from her days in the state environmental job, and her experience as governor has added to her knowledge, her friends and her admirers,” Reilly said in an email.
>>>>
>>>> To view online:
https://www.politicopro.com/go/?id=17659

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----- Forwarded Message -----
From: Michael Goo Ex. 6 - Personal Privacy
To: Conrad Schneider <cschneider@catf.us>
Sent: Monday, January 7, 2013 9:47 AM
Subject: Re: POLITICO article on Gregoire for EPA Administrator -- I'm meeting at WH on 1/11. Should I put in a good word for Bob P.?

Left you a voicemail

Sent from my iPhone

On Jan 6, 2013, at 5:53 PM, Conrad Schneider <cschneider@catf.us> wrote:

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>>>>> Gregoire was an early backer of President Barack Obama and has received past support herself from Kansas Gov. Kathleen Sebelius and Arizona Gov. Janet Napolitano, both of whom became part of the president’s Cabinet.
>>>>>
>>>>> The outgoing Washington governor’s name has been circulated inside the Obama White House for a second term post, including EPA and the Interior Department, a job that traditionally goes to a Westerner, according to the source familiar with the transition.
>>>>>
>>>>> “Her name has been on the list,” said the source. “She’s looking for a spot and she’s likely to get a spot.”
>>>>>
>>>>> Others inside the Obama administration also have been vying for the EPA spot, including the agency's top air pollution official, Gina McCarthy, and the White House's top energy and climate adviser Heather Zichal. Bob Perciasepe, the current No. 2 at EPA, has also been named among the list of possible EPA candidates and is set to serve as the agency's acting chief pending the confirmation of Jackson's successor.
>>>>>
>>>>> “We have not heard anything from the administration on such an offer,” Gregoire’s spokesman Cory Curtis said in an email response to a query.
>>>>>
>>>>> The White House declined comment.
>>>>>

>>>>> "She certainly would be an eminently qualified person," said Bill Ruckelshaus, who acted as EPA administrator under Presidents Richard Nixon and Ronald Reagan. "I think she'd do a good job and my guess is she'd get confirmed."
>>>>>
>>>>> Gregoire will leave the governor's office this month after serving two terms in Olympia. Before that, she was the state attorney general and head of the Department of Ecology.
>>>>>
>>>>> "President Obama is no fool. He's a smart guy. He knows what she's done as governor. If I were him, I'd be talking to her about secretary ideas," said Laurie Dolan, who served from 2005 to 2009 as director of Gregoire's Executive Policy Office. She added that she's not heard anything about Gregoire's plans "because she's very confidential."
>>>>>
>>>>> Former George H.W. Bush-era EPA Administrator William K. Reilly also told POLITICO he thought Gregoire would be a good choice.
>>>>>
>>>>> "I tried to hire her as regional EPA administrator in 1989, when she was Washington state EPA chief. She knows the key statutes from her days in the state environmental job, and her experience as governor has added to her knowledge, her friends and her admirers," Reilly said in an email.
>>>>>
>>>>> To view online:
> https://www.politicopro.com/go/?id=17659
>
> Conrad G. Schneider
> Advocacy Director
> Clean Air Task Force
> cschneider@catf.us
> www.catf.us
> 8 Museum Way
> Brunswick, Maine 04011
> 207/721-8676
> 207/721-8696 (facsimile)
>
>
>

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Mon 5/13/2013 7:00:05 PM
Subject: Fw: Clarification on 111(d) comment

----- Forwarded Message -----
From: Conrad Schneider <cschneider@catf.us>
To: Michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, January 17, 2013 2:29 PM
Subject: Clarification on 111(d) comment

Hi Michael-
Thank you so much for setting up the meeting with Bob P. All in all, we felt that it went pretty well. We very much appreciated the support from you and Alex.

When you get a minute, I'd like to strategize about next steps. But, in the meantime, I had a question to clarify something Bob P. said. Towards the end of the meeting, he said that we (the royal "we" I assume) need to reach higher into the WH. He mentioned Cecilia Muñoz and the Domestic Policy Council and also Bevin Ashenmiller at CEA. What I didn't get (and didn't have the presence of mind to ask) was whether he thought he would need support at that level to get out a proposal or merely to start up the 111(d) process again (i.e., issue white paper, convene stakeholders). Whatever the answer, I want to strategize with you about what is needed and who we'd need to bring into the process to get meetings with that level of WH folks (and higher). We've gotten some more uptake by companies and there may be a way to have them engage.

Additionally, in our meeting last Friday with Rick Duke and Drew McConville, we asked them about sending a signal to EPA to end the stop work order on 111(d). They said that Lisa and Gina have already changed their public statements on 111(d) recently. They said that when they are asked, they no longer say, "we have no plans to do 111(d)" but rather "climate change is an important priority for this Administration." They also pointed to statements made in reaction to the release of NRDC's report. We responded that we are talking to companies that they haven't gotten the message. The change in rhetoric was too subtle a change in message for utility companies to believe that the Administration is moving forward to start up the regulatory process on 111(d). But, it strikes me that they may also have been saying that the message to EPA has been delivered and received. I'd like to discuss that with you.

Anyway, I'd like to grab a few minutes with you on all this (and more). Doesn't have to be long. Please let me know what day/time would work. Could be after hours or whenever. I'm around on cell.

Thanks again.

Cheers,
CS

Conrad G. Schneider
Advocacy Director
Clean Air Task Force
cschneider@catf.us
www.catf.us
8 Museum Way
Brunswick, Maine 04011
207/721-8676
207/721-8696 (facsimile)

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:37:44 PM
Subject: Fw: 316(b) Update

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Thursday, April 5, 2012 10:27 AM
Subject: FW: 316(b) Update

See the EEI email below which claims that they want the NODA published expeditiously. Dominion, PSEG, NextEra as well as other companies have contacted to request that OMB the NODA be published ASAP.

From: Shea, Quin [mailto:QShea@eei.org]
Sent: Thursday, April 05, 2012 9:27 AM
To: Bozek, Richard; Dominguez, Joseph (joseph.dominguez@exeloncorp.com); Labauve, Randy (randall_r_labauve@fpl.com); Svenson, Eric (Eric.Svenson@pseg.com); Lavinson, Melissa (melissa.lavinson@pge-corp.com); Matty, Bob (robert.matty@exeloncorp.com); Donohue, William J. (william.donohue@exeloncorp.com); Trojecki, Amy M. (amy.trojecki@exeloncorp.com); Ludecke, Kristen; Strickland, Mark F. (Mark.Strickland@pseg.com); Butts, Rayburn (ray_butts@fpl.com); Boyce, Cari (Cari.boyce@pgnmail.com); Loomis, Ann W (ann.w.loomis@dom.com); jxb@nei.org; Shannon.Banaga@pseg.com; Foster, Christopher
Cc: Bulleit, Kristy (kbulleit@hunton.com); Carrie Jenks; Simone, Hannah (hss@nei.org); Skaff Ph. D., William (wgs@nei.org); Obenshain, Karen; Bartholomot, Henri; Hunt, Meg; Ball, Sarah; Holdsworth, Eric
Subject: 316(b) Update
Importance: High

I hope you are enjoying some quality down time with your families during the Congressional recess and holiday season, both of which would be a little more enjoyable if we had some solid intelligence on where things stand with the NODA and our key issues. The balance of this note provides a few snippets for your consideration, as well as an initial draft of a new outreach piece developed with Congressional audiences in mind.

All of you likely are aware that last month's CEO meetings went well; our principals were on message and had done their homework, and Joe was like a fact-generating machine. Our subsequent game plan was to wait for the NODA to be issued—presumably within a couple of weeks of our meetings—and then to comment on same, to determine what additional analytical tasks might be appropriate, to pursue staff-level meetings with key agency staff, and to set up another round of CEO-level meetings. However, the NODA has been held up in part because of OMB objections and the recess/holiday schedule isn't helping matters. Importantly, several of us have heard in the past few days from our Administration colleagues that it's unclear to them whether industry wants the NODA to come out. I'm not sure about the basis for that comment as it is contrary to specific conversations that occurred during the CEO meetings and in more recent conversations with key agency and WH staff. It would be useful to compare notes on this point. For its part, EEI is seeking expeditious issuance

of the NODA within the parameters requested by the CEOs, i.e., a *de facto* supplemental proposal that focuses on eliciting input on key substantive issues, but that is devoid of any outcome-determinative language that may have existed in the EPA draft. Finally, it's our understanding that there is an internal EPA meeting today to discuss the 316(b) issue, so hopefully we will get some clarification thereafter.

Separately, attached for your consideration is a draft document for Congressional audiences that perhaps also could be used in other forums. It is intended to be a very simple, clean messaging document that nonetheless is consistent with our core tenets.

Thanks for everyone's continued efforts on this important issue. I suggest sharing new information within the group as it becomes available.

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:38:11 PM
Subject: Fw: 361B Contingent Evaluation
One-pager.pdf

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Friday, September 28, 2012 8:25 AM
Subject: FW: 361B Contingent Evaluation

FYI

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:37:17 PM
Subject: Fw: EEI

----- Forwarded Message -----
From: Michael Goo Ex. 6 - Personal Privacy
To: Michael Bradley <mbradley@mjbradley.com>
Sent: Wednesday, April 4, 2012 8:41 AM
Subject: Re: EEI

Thanks

Sent from my iPhone

On Apr 3, 2012, at 8:36 PM, Michael Bradley <mbradley@mjbradley.com> wrote:

Michael,

I learned late today that EEI will be attempting to set up a meeting with you to go through the list of 316(B) revisions they are looking for. I believe you're going to receive an email from Amy Trojecki from Exelon requesting the meeting. I want to be clear that the EEI reps do not represent the CEG perspective on 316(B).

Since speaking with you this afternoon we have discussed the current delay with CEQ staff and your suspicion of EEI sending a message of hold back until all the key issues are resolved has been confirmed. I will be speaking with Lew Hay again tomorrow morning to discuss how best to get this back on track. I will be suggesting that we ask Tom Kuhn to call OMB to voice support for finalizing the NODA. I will let you know how this effort works out.

MJB

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:36:57 PM
Subject: Fw: EEI

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Tuesday, April 3, 2012 8:36 PM
Subject: EEI

Michael,

I learned late today that EEI will be attempting to set up a meeting with you to go through the list of 316(B) revisions they are looking for. I believe you're going to receive an email from Amy Trojecki from Exelon requesting the meeting. I want to be clear that the EEI reps do not represent the CEG perspective on 316(B).

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MJB

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:34:28 PM
Subject: Fw: Highly Confidential

----- Forwarded Message -----
From: michael Goo Ex. 6 - Personal Privacy
To: "mbradley@mjbradley.com" <mbradley@mjbradley.com>
Sent: Wednesday, December 14, 2011 9:18 AM
Subject: Re: Highly Confidential

So apparently there is one more meeting with Cass this morning at 10 am with EEI and Cass. Not sure if letter actually went.
From: Michael Bradley <mbradley@mjbradley.net>
To: Ex. 6 - Michael Goo
Sent: Tuesday, December 13, 2011 4:49 PM
Subject: FW: Highly Confidential

Below is the central message of the EEI letter calling for the Section 112 President to issue an Executive Order for additional time. Please do not circulate or indicate where this info came from.

"As members of EEI, we support the consensus view of our membership that the President should issue an Executive Order under section 112 of the Clean Air Act to provide additional time, as necessary, for power plants to achieve compliance with the utility MACT rule. This Executive Order should be issued at the time the MACT is finalized so that planning, evaluation and implementation for plants likely to need additional time can be undertaken expeditiously on a forward-looking basis.

"Congress recognized that the availability of technology and national security interests are legitimate and justifiable reasons to extend a MACT deadline. Clean Air Act section 112(i)(4) allows the President to grant an "exemption" (i.e., an extension of time) to the utility MACT deadlines for up to two years based on a finding that '(1) the technology to implement such standard is not available, and (2) it is in the national security interest of the United States to do so.'

"We represent the seven companies that were charged by EEI's Executive Committee with leading industry MACT discussions with both the Administration and the Environmental Protection Agency."

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:33:52 PM
Subject: Fw: Highly Confidential

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.net>
To: Ex. 6 - Michael Goo
Sent: Tuesday, December 13, 2011 4:49 PM
Subject: FW: Highly Confidential

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"We represent the seven companies that were charged by EEI's Executive Committee with leading industry MACT discussions with both the Administration and the Environmental Protection Agency."

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:31:52 PM
Subject: Fw: NERC Report and EEI tactics

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.com>
To: Ex. 6 - Michael Goo
Sent: Tuesday, November 22, 2011 5:33 PM
Subject: NERC Report and EEI tactics

Michael,

The NERC Board approved the NERC Reliability Report today with revisions that show 316B causing the vast majority of the retirements and that the air regulations have a minor impact. It is scheduled to be released next Tuesday in advance of the FERC workshop. If you would like a copy of the report let me know. CEG will be issuing a press statement to point out that the weaknesses in the analysis as well as to spin the results as somewhat favorable. I will send you the press statement tomorrow.

As you are aware EEI is pushing very hard for the categorical 1 year extension as well as for the 2 year Presidential extension. EEI will be convening a CEO call early next week to agree on a strategy to convince the Administration to accept their proposed revisions which will entail making calls to Lisa and possibly a request for another EEI CEO meeting with Lisa. It would be useful if we could touch base tomorrow to discuss how best to manage these dynamics. We have a number of efforts planned for next week and it would be good to get your input.

I plan to be in the office until noon tomorrow and then can be reached on my cell.

Michael

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Fri 5/10/2013 9:24:53 PM
Subject: Fw: Getting in touch email

----- Forwarded Message -----
From: Michael Bradley <mbradley@mjbradley.net>
To: michael Goo Ex. 6 - Personal Privacy
Sent: Thursday, September 15, 2011 4:56 PM
Subject: Re: Getting in touch email

Michael

As follow up to our conversations, below is additional detail on the CSAPR and GHG NSPS

CSAPR

As discussed, we have been having a series of conversations with EPA about many of the CEG companies' concerns on the final state budgets under the Cross-State Air Pollution Rule (CSAPR). While the companies want to remain supportive of the final CSAPR, the state budgets for NY, NJ, and FL were significantly reduced in the final rule. These changes are making supporting the implementation of the rule as currently written very difficult. While we understand EPA is willing to make technical adjustments to state budgets based on new technical information, we are concerned that despite efforts to provide EPA with additional information, EPA is not inclined to adjust those state budgets until after October 7th – the deadline for when petitions for reconsideration and petitions to the DC Circuit are due.
Since the rule's release about 10 weeks ago, we have been working to explain the concerns we have with certain state budgets and highlight the technical errors that result from using the IPM model and not taking into account the transmission system constraints that are unique to certain areas in the U.S. Following Eric Svenson's outreach to Gina McCarthy regarding PSEG's concerns, we have had several discussions with Joe Goffman and Sam Napolitano on the NJ state budget. Compared to the proposed budget, New Jersey's final annual NOx budget was reduced by 39 percent, the ozone season NOx budget was reduced by 36 percent, and New Jersey's SO2 budget was reduced by 51 percent. With fewer allowances available to the state, several of PSEG's generating units are projected to be short allowances beginning in 2012, despite having advanced pollution control equipment installed and operating. Additionally, since PSEG's generating fleet is generally well controlled, there are limited opportunities for further emissions reductions between now and 2012.

A similar situation exists for NY. Compared to 2010 emissions, NY state looks to be significantly short of the 2012 state budgets even with the assurance provisions. We understand the NYDEC has been engaged with EPA to provide information to highlight the fact that there are many units in NY that must operate due to transmission constraints but for which the model predicted the units assumes a zero heat input. Both National Grid and Consolidated Edison of NY have also had calls with Sam and Joe to express similar concerns with the model and state budget, and had provided similar information about these must run units during the comment

period. Without adjustments to the state budget, there are concerns that units needed for reliability purposes would not be able to operate.

NextEra has also met with Joe and Sam several times regarding the Florida state budget, and there we are also seeing that the IPM model fails to recognize that some units will need to run for reliability purposes due to natural gas constraints. The inability of the model to make these adjustments significantly impacts the state allowance budget.

These concerns described above are creating a very difficult dynamic within the Clean Energy Group and for these individual companies to remain supportive of EPA's regulations. There is a concern that these issues are not getting the attention needed to ensure the appropriate technical fixes are made prior to the Oct 7th deadline. Additionally, the approaches in the final rule appear to penalize the early investments many of the CEG companies made in anticipation of regulations, which creates additional difficulties for these early actors.

I expect Ralph Izzo will likely reach out to Lisa Jackson on these concerns, and it would be helpful to explore whether EPA can make the appropriate technical adjustments related to transmission constraints for certain state budgets prior to the Oct 7th deadline.

GHG NSPS

With respect to GHG NSPS, we understand that Lisa Jackson has already signaled a delay for the release of the GHG NSPS proposal for the electric sector. It would be helpful to discuss what timing is being considered. To the extent possible, it may make sense to release the proposal after mid-November in order to try to mitigate the backlash on the other EPA air regulations. It would also be good to find some time in the next few weeks to discuss with you the issues CEG has been evaluating for existing units under 111(d).

Please do not hesitate to call with any questions.
Michael

To: Goo, Michael[Goo.Michael@epa.gov]
From: michael Goo
Sent: Thur 5/9/2013 8:55:53 PM
Subject: Fw: EPA air chief dodges questions on GHG rule for existing power plants
image001.jpg

----- Forwarded Message -----
From: "Hawkins, Dave" <dhawkins@nrdc.org>
To: Michael Goo; Ex. 6 - Personal Privacy
Sent: Wednesday, March 28, 2012 6:02 PM
Subject: FW: EPA air chief dodges questions on GHG rule for existing power plants
This is not a good situation. Somebody needs to convince the WH that muzzling what the admin says about existing sources will just be made into an issue itself by Barton and others. Why not say, "the law does require us and the states to develop programs for existing sources and when we start that work it will be done with the full consideration of costs, technologies, energy impacts, and benefits that the law specifies any such standards must be based on."

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CLIMATE: EPA air chief dodges questions on GHG rule for existing power plants (Wednesday, March 28, 2012)

Nick Juliano, E&E reporter

U.S. EPA's top air official engaged in some tricky rhetorical gymnastics on Capitol Hill today as she tried to ease concerns that the agency would follow up on its just-announced rule to limit greenhouse gas emissions from new coal plants with a similar measure targeting existing facilities. However, she refused to say such a measure would not come up if President Obama wins a second term.

After yesterday's proposal of rules that would effectively bar the construction of new coal-fired power plants unless those facilities capture and sequester their carbon dioxide emissions, EPA Administrator Lisa Jackson stressed that the agency has "no plans" for an existing source rule. Gina McCarthy, the agency's assistant administrator for air and radiation, echoed that line during a House subcommittee hearing today, although she left open the possibility that those plans would materialize at some point.

"So I can say that for the rest of the Obama administration, [Administrator] Lisa Jackson and the EPA are not going to issue a regulation for existing power plants, on greenhouse gases?" asked Rep. Joe Barton (R-Texas).

But McCarthy would not go that far.

"Right now we are focused solely on what we have already proposed, which is getting comment on new source standards, which is the premise for moving forward," she said. "We are looking forward to those comments, and we want to make sure we get the new source performance standard right, that we protect existing facilities at this point, to make sure that if we propose for existing in the future, that would be a standard that would be established in a separate rulemaking."

Barton said that response reminded him of President Clinton's infamous quibbling with the definition of the word "is."

Later in the hearing, McCarthy defended EPA's proposed new-source rule as an unavoidable consequence of the 2007 Supreme Court decision in *Massachusetts v. EPA* that established CO2 and other heat-trapping gases were "pollutants" as defined by the Clean Air Act.

"The reason for regulating greenhouse gases from power plants is because greenhouse gases pose

a danger to the public health and welfare, and they are a regulated pollutant, and as a regulated pollutant under the Clean Air Act, we must move forward with new source performance standards. That's why we did the rule," she said.

McCarthy would not answer when asked after the hearing whether that same obligation to regulate greenhouse gases applied to existing sources, and an EPA spokeswoman did not respond to requests for comment this afternoon.

Nonetheless, the law is clear that EPA will eventually have to promulgate a rule to apply to existing coal-fired power plants and other large sources of emissions, although the agency has broad discretion over how strict any requirements should be for existing facilities, said Patrick Parenteau, a professor at Vermont Law School.

"I know EPA is, for obvious reasons, playing pretty coy until after the election," he said. But "I would say they have a duty to do something as a result of *Mass.*; they don't have the luxury of doing nothing."

The new-source rule proposed yesterday emerged from the terms of a 2010 settlement agreement with environmental groups, under which the agency also agreed to craft greenhouse gas emissions rules for existing power plants and petroleum refineries. While the agency has strenuously avoided providing details on the development of those rules, environmental groups are confident they will be proposed eventually (*E&E Daily*, March 28).

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This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

AT&T 5:22 PM 16%

Messages (8) +1 (917) 376... Edit

Call FaceTime Add Contact

Text Message

Jun 6, 2012, 6:06 PM

Hi Michael, it's Nat. Can you give me a quick call if you are available now? Thanks.

Text Message Send

COMPARISION OF QUANTIFIED BENEFITS AND COSTS FROM §316(b) PROPOSED RULE AND EPA SURVEY

	Screens on MOST plants	Screens on ALL plants	Screens & CCC on ALL plants
Conventional Cost Benefit from Proposed Rule:			
Annualized Costs (2011$ million)	$389	**$466**	$4,934
Annualized Benefits	$15.9	**$16.3**	$97.0
Benefits to Costs Ratio	24 to 1 *Negative*	**29 to 1** ***Negative***	51 to 1 *Negative*
Mail Survey from NODA:			
Annualized Costs (2011$ million)	$389	**$466**	$4,934
Implied Benefits from the Survey (2011$ million)	$2,228	**$2,275**	$7,449
Benefits to Costs Ratio	5.7 to 1 *Positive*	**4.9 to 1** ***Positive***	1.5 to 1 *Positive*
Comparison of Benefits from Proposed Rule and Survey:			
Factor of Increase	140 times	**140 times**	77 times
Percentage Increase	14,000%	**14,000%**	7,700%

BACKGROUND

- In April 2011, as the result of a discretionary settlement with the environmental group Riverkeepers, EPA issued a proposed rule under Section 316(b) of the Clean Water Act, which requires cooling water intake structures to reflect the best technology available ("BTA") to minimize adverse environmental impacts. ("Proposed Rule" or "316(b) Rule")
- In the Proposed Rule, EPA assumes that reductions in impingement (organisms impinged against screens on intake structures) and entrainment (organisms carried through the cooling water system) will "minimize adverse environmental impact." However, the administrative record does not contain any evidence that cooling water intake structures actually impair fish populations or communities.
- EPA proposed that advanced traveling screens were BTA for impingement, and proposed that state permitting directors determine BTA for entrainment on a site-specific basis considering costs and benefits. EPA sought comment on whether all existing facilities should be forced to have cooling towers--a massive cost and reliability concern.
- EPA calculated the $466 million annual costs of the preferred option outweigh $16.3 million annual benefits by a ratio of 29 to 1, with a total cost of more than $30 billion. EPA based its benefits on assumed market impacts on the commercial and recreational fishing industries.

- EPA noted that its analysis was not complete because it did not fully monetize "non-use" benefits. "Non-use" benefits are purely subjective values that individuals place on protecting the existence of a resource that they never intend to directly use or interact with in some way.
- EPA conducted a nationwide public opinion survey asking individuals how much they are hypothetically willing to pay to avoid harm to fish. At the 11th hour, EPA now proposes in a recent Notice of Data Availability ("NODA") to entirely replace its conventional benefits analysis with the survey results.
- The annual benefits from the mail survey are now $2.3 billion for the proposed option, or almost 140 times or 14,000% greater than EPA's conventional analysis. Further, this opens the door to CLAIMED ANNUAL BENEFITS OF $7.5 BILLION JUSTIFYING HUNDREDS OF BILLIONS OF DOLLARS OF COSTS ON ENERGY CUSTOMERS.

IMMEDIATE REGULATORY THREAT POSED BY CONTINGENT VALUATION OF NON-USE BENEFITS

- The survey results provide benefit "overhang" to justify extremely expensive controls, e.g. cooling towers, either in the rule or based on state-by-state determinations.
- Where EPA appeared to give with the one hand by allowing site-specific entrainment decisions by the states, it is taking away with the other because states may be required to use surveys to justify their decisions. This is shaping up as NSR on steroids.
- The exaggerated benefit valuations would provide a basis for challenges by environmental groups to permits that did not require closed cycle cooling, and open the door to a whole new area of tort litigation.
- Due to the prohibitive expense to install towers (up to $1 billion per tower in some cases) many plants will opt to close and system reliability will be put in jeopardy.
- Use of the survey violates the Information Quality Act.
- Use of the survey will also result in litigation challenging the underlying basis of the rule as a result of the lack of record support for the survey's factual assertions regarding the environmental benefits of the rule.

BROADER REGULATORY THREATS POSED BY ALLOWING VALUATION OF NON-USE BENEFITS IN REGULATION

- Non-use valuation has never been used to justify costs of a major rulemaking. Allowing non-use benefits methodologies in this rule would set a dangerous precedent.
- There are a number of pending and prospective critical water quality issues where the application of seriously flawed non-use benefit methodologies could impose enormous unjustified costs, e.g., the steam effluent limitation guidelines, waters of the U.S. jurisdiction, and water consumption policies.
- This also could be used to justify a dramatic shift in air, natural resource, and energy regulations and policies.
- GIVEN THE WILDLY INFLATED RESULTS OF SURVEYS, ANY AGENCY COULD JUSTIFY ANY REGULATION FOR ANY REASON AT ANY COST.

To: Goo, Michael[Goo.Michael@epa.gov]
Cc: Barron, Alex[Barron.Alex@epa.gov]
From: Marshall Schepis, Laura A.
Sent: Sat 10/26/2013 4:09:12 PM
Subject: Re: Social Cost of Carbon panel

Hi Michael -

Doing great on this perfect fall weekend and hope you and the girls are enjoying it too.

We will look forward to working with you at DOE!

And thanks much for connecting me with Alex.

Take care and see you soon,

Laura

On Oct 26, 2013, at 12:04 PM, "Goo, Michael" <Goo.Michael@epa.gov> wrote:

Hey Laura. How are you? I'm actually transitioning to DOE and its no longer appropriate for me but I've asked Alex Barron to help find an appropriate speaker. Thanks.

From: Marshall Schepis, Laura A. <Laura.MarshallSchepis@nreca.coop>
Sent: Friday, October 25, 2013 4:54:10 PM
To: Goo, Michael
Subject: FW: Social Cost of Carbon panel

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Best,

Laura

From: Marshall Schepis, Laura A.
Sent: Tuesday, October 22, 2013 4:24 PM

To: Michael Goo
Subject: Social Cost of Carbon panel

Hi Michael –

Hope you are enjoying the week.

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So far, co-panelists are:

Karl Hausker, World Resources Institute

Susan Dudley, Director of GW Regulatory Studies Center

Hope you can be on the panel or suggest someone else from EPA.

Thanks again!

Laura

From: Michael Goo [mailto: Ex. 6 - Personal Privacy
Sent: Saturday, October 12, 2013 12:29 PM
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On Oct 11, 2013, at 5:06 PM, Debbie Reed Ex. 6 - Personal Privacy wrote:

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M ichael Goo remarks- Smart Growth Awards ceremony

- Thank you, John. It's great to be here today.

- This is my second opportunity to participate in this Smart Growth Awards event and all of us are delighted to have you here at the EPA to celebrate *your success* in creating great places and sustainable communities.

- As John said, my name is Michael Goo, and I'm the Associate Administrator in the Office of Policy, the office that houses the Smart Growth program

- I'm also John's boss, so he has to say nice things about me, so thank you John for that nice introduction!

- As head of the Office of Policy, my job is pretty broad.

- In addition to overseeing the smart growth office, the Office of Policy also helps run EPA's regulatory process, staffs the Deputy Administrator, and performs most of EPA's environmental economics analyses.

- Those of us who are fortunate enough to work for the EPA are proud of the incredibly important work we do to help protect the environment and human health for all Americans.

    - It is an honor to get up everyday to come to work here.

- But sometimes in a bureaucracy we can get so bogged down in detail that it can be hard to see how our efforts relate to the communities they are designed to protect, or to the everyday concerns of people around the country.

- The projects, policies and plans we honor here today are an inspiration to us here at EPA. The reaffirm our belief that concern for the environment and sound community design starts at the community, neighborhood and project

level.

- We at EPA can help, but this work starts with you and it is your determination and innovation that we honor here today.

- Last year I got to meet all of our winners from around the country

- I was impressed with their unique and innovative projects – some of them happening in places you wouldn't necessarily think of as champions of smart growth development—such as rural Howard, South Dakota, or the small town of Normal, Illinois.

- This year's selection of winners and honorable mention recipients is equally diverse, and equally impressive.

- Smart Growth development can happen anywhere—in any kind of community – urban, suburban, rural.

- And more and more, it IS happening everywhere across this country, in communities large and small and in between.

- Obviously, we believe each of the projects you're about to learn about is great in its own right.

- In different ways, each has had to break old habits, depart from old development patterns, and find ways to give themselves and their neighbors more choices – choices in housing, choices in transportation, choices in lifestyles:

    - Building bicycle lanes and sidewalks for pedestrians where there was only space for cars before;

    - Creating community gardens for residents to grow their own food right in their own neighborhoods;

- Enhancing streetscapes so community residents have an attractive place to gather, or to participate in festivals or events that tie them to back to where they live.

- All of this requires listening to the community and our recipients today are obviously all good listeners.

- Our 2012 National Award for Smart Growth Achievement winners and honorable mention recipients are great examples of how the principles of smart growth development work on the ground.

- By giving people the choices they work, these communities are creating great, livable places. I join John and others here at EPA in congratulating them all.

- Thank you.