NRG Energy, Inc.
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Sept. 13, 2019

Chairman Pallone
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Ranking Member Walden
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Energy and Commerce Committee Leadership:

We are pleased to respond to Chairman Pallone's request for information about the most effective approaches to decarbonize our economy. NRG Energy, Inc. is one of the nation's leading integrated power companies and also a leader in decarbonization in the electric sector.

1. **What are the key policy, regulatory, and market considerations that should inform the development of comprehensive climate legislation? Please provide specifics.**

   NRG advocates a price on carbon emissions that applies nationwide and to all sectors of the economy. Like many others, we believe that the most economically efficient policy to limit carbon emissions is to target them directly with a price that all actors in the wider economy can trade, invest, and plan around.

   Such a policy should replace redundant laws and regulations that take aim, less efficiently, at the same goal of reducing carbon dioxide. However, as we discuss below, there have been dozens if not hundreds of state and local enactments that take aim at climate change. We regard a carbon price at a federal level as unlikely by itself to supplant or repeal these enactments. Concomitant with a need for certainty on federal climate policy, there is a profound need to streamline these state and local laws to ensure they are obtaining the most cost-effective carbon reductions possible.

   In this regard, we propose a Forward Clean Energy Market, discussed more fully in answer to Question 2. Regardless of whether a price on carbon becomes law, Congress should streamline state and local efforts to decarbonize by providing for such a market's implementation. Congress should also act boldly to empower customers to buy clean energy, even in states that do not presently offer them a meaningful opportunity to do so.

2. **Please describe any innovative concepts for climate policy design, including both sector-specific and economywide measures, that you believe the Committee should consider.**

At present 29 states and countless cities have passed laws or adopted clean-energy standards for the power sector. Six of those states and 133 of those cities have announced their intention to completely erase carbon emissions from the power sector over the next two to three decades. The Sierra Club estimates that one in four people in America live in a community that has declared a 100% emissions-free goal.[1] Many individual companies, like NRG, have also established corporate goals to reduce their associated carbon emissions. (We discuss our goals in response to Question 4.) Now that those goals have been set, the question is how to ensure the tools are in place to achieve those goals quickly and affordably. We propose such a tool, and as part of our submission to the committee we are publishing the attached white paper prepared for us by the Brattle Group.[2]

Congress should provide for the establishment of a Forward Clean Energy Market ("FCEM"). An FCEM would allow individual states, cities, and businesses to scale and aggregate their demand for carbon-free electricity. Producers of clean energy, meanwhile, would sharpen their pencils and participate in a competitive auction process for the business of those customers. By matching the cumulative demand of many customers with a wider pool or producers, the result of such a market is decarbonization that occurs both more quickly and less expensively than it otherwise would.

The Forward Clean Energy Market builds on the successes both of the competitive markets for electricity and the foundational principles of commodity markets. At the same time, it would promote investment in new clean energy resources by providing a consistent, 7-year-duration fixed revenue stream to new projects. It should be regarded as a second-best policy to a national carbon price, and a policy that, regardless of a carbon price's implementation, streamlines the patchwork of state and local mandates that have sometimes lost focus on decarbonizing both quickly and affordably.

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[1] https://www.sierraclub.org/ready-for-100

[2] K. Spees, S. Newell, W. Graf, and E. Shorin, "How States, Cities, and Customers Can Harness Competitive Markets to Meet Ambitious Carbon Goals Through a Forward Market for Clean Energy Attributes," (September 2019). https://brattlefiles.blob.core.windows.net/files/17063_how_states_cities_and_customers_can_harness_competitive_markets_to_meet_ambitious_carbon_goals_-_through_a_forward_market_for_clean_energy_attributes.pdf

3. **If you work in, advise, or are familiar with sectors that are particularly challenging to decarbonize, have you identified any effective (and scalable) solutions that should be included in comprehensive climate legislation?**

   Decarbonizing the power sector requires large capital investments and a sufficient glidepath to achieve the most wide-reaching reductions. However, in our opinion, the electric power sector is not "particularly challenging to decarbonize." Indeed, the technological advances that have made possible the large-scale generation of electricity from renewable and other clean-energy sources can and should be leveraged for other sectors. This will only happen if Congress and other policymakers adopt inter-sectoral policies such as a national carbon price.

4. **If your organization has adopted carbon pollution reduction goals, how have those goals – or your plans to meet those goals – evolved over the last decade?**

   NRG has had carbon pollution reduction goals in place since 2010. However, in 2015, we became one of the first global companies, and the first integrated power company, to set science-based greenhouse-gas emissions reduction targets and have them validated and approved by the Science Based Targets Initiative ("SBTi"), a joint effort of CDP, the World Resources Institute, the World Wildlife Fund, and the U.N. Global Compact. Our targets are to reduce absolute greenhouse-gas emissions 50% by 2030 and 90% by 2050. As part of the 2018 Intergovernmental Panel on Climate Change ("IPCC") Special Report that suggests that companies set targets aligned with a 1.5-degree Celsius trajectory to limit negative climate change impacts, NRG is reviewing our SBT and intends to update our goals to align with the IPCC's aggressive decarbonization goal.[3]

5. **If applicable, what actions has your organization already taken, or do you plan to take, to reduce carbon pollution?**

   NRG is an integrated power company, and our operations entail both the large-scale generation of electricity and its retail sale to customers. In our sales to customers, we are offering an ever more diverse array of products to help consumers reduce the carbon emissions associated with their use of electricity. On the generation side of our business, we are working aggressively to reduce the carbon emissions of the fleet that we own and operate directly.

   The competitive retail sale of electricity is the other cornerstone of our business as an integrated power company. Across our brands, we offer customers the option of power supplies that are entirely carbon-free. Twenty years ago, Green Mountain Energy

[3] For more information, see our 2018 Sustainability Report. https://www.nrg.com/assets/documents/sustainability/2018-nrg-sustainability-report.pdf

(GME) started with a mission of offering 100% renewable energy plans. Today, as an NRG brand, they have expanded their offerings with options like Go Local Solar, which taps into solar power generation across Texas. GME's commitment to renewable energy accounts for 9.9 billion pounds of carbon-dioxide emissions avoided in 2018, which is equivalent to taking 1 million cars off the road for a year. The highly competitive Texas marketplace, in particular, allows us to sell carbon-free electricity plans to customers who are interested in them. Our largest Texas brand, Reliant, offers a 12-month, fixed-price, 100% solar plan. Additionally, Reliant offers a power plan that discounts energy charges at night, when electric vehicles are typically recharging, making it ideal for EV users.

For corporate buyers, we perceived a need for clean-energy product offerings that simplify what in many markets is a tortured process of negotiating power purchase agreements or bargaining with a monopoly utility. So we offer "Renewable Select," a straightforward product whose commercial form is no longer than 8 pages, allowing corporations a plan that is familiar and easy to execute, requiring no significant upfront investment on their part. It's a product that allows a buyer to purchase renewable energy from a facility you can point to. Our competitive position as a retail seller of electricity services is promoting these investments in clean energy. This year, NRG entered into solar power purchase agreements with third-party project developers and other counterparties, totaling approximately 1.3 GWs. NRG expects to continue evaluating and executing agreements such as these that support the needs of its retail platform.

As an integrated power company, NRG is also a large producer of power. Many of our assets emit carbon dioxide, but we are pulling on four levers to reduce the carbon emissions of our fleet and meet our science-based climate targets:

1. ***Retiring uneconomic units*.** By retiring those uneconomic units, total emissions from those units go to zero and contribute to our carbon goals.
2. ***Switching from coal to gas fuel***. By implementing this change, these plants will burn more than 50% cleaner. For example, in 2017, our Joliet, Illinois plant was converted to run on gas instead of coal. As a result, the carbon-emissions output of both plants was greatly reduced.
3. ***Running existing plants less often*.** By running plants less frequently, total emissions will decrease.
4. ***Carbon capture and sequestration (CCS)*** investment and exploration. Petra Nova is the world's largest post-combustion carbon capture facility, located at our WA Parish Generating Station southwest of Houston. Since late 2016, the project has combined carbon capture with enhanced oil recovery to increase domestic oil supply while decreasing the amount of carbon emissions released into the atmosphere. The Petra Nova project captures more than 90 percent of the carbon dioxide from a 240-megawatt equivalent slipstream of flue gas. The project can capture more than 5,000 tons of carbon dioxide per day. In 2018, our Petra Nova carbon capture system reached a milestone of 2 million tons of carbon emissions captured and sequestered underground.

6. What have been the challenges or barriers to making meaningful carbon pollution reductions, and how have you responded to those challenges or barriers?

Most states have adopted laws intended to decarbonize, in part or in full, the electric-power sector. The Forward Clean Energy Market we discuss in response to Question 2 is one way to remove barriers that will otherwise lead to climate solutions being siloed within particular state and local jurisdictions.

However, there are still many other places in the United States where an electricity customer is not legally permitted to purchase clean energy from a seller of the customer's choosing. This should end.

We are living in a "Ma Bell" world even when we need a technological revolution to accomplish our climate goals. The decision of whether to hold a set of customers captive to a local monopoly has long been seen to be a state prerogative. It is time to make an exception for a priority of such national importance as climate change. It is outrageous that customers who willingly would pay for clean energy to serve their homes and businesses are deprived of the ability to do so.

Congress should give customers a right to purchase a 100% clean energy product from a supplier of their choice. This would further spur the competitiveness of clean-energy offerings relative to alternatives. It would also allow clean-energy providers to compete against the cost of utilities' legacy generation. It would, in short, provide an avenue for more clean energy at a lower cost than exists today, where clean energy deployment too often remains dependent on the choices of individual supply monopolies.

Such a reform would leverage the regulatory experience of "unbundling" of the past two decades, where a single rate for the generation, transmission, and distribution has been separated into its constituent parts. Unbundling has already been accomplished for utilities subject to federal regulation through FERC's Order 888 and on a retail level in those states that have restructured their power sector. In this circumstance, we suggest a model of cooperative federalism, such as Congress has often relied upon in electricity policy.[4]

[4] Congress would enact by law a customer right to purchase a 100% clean energy product, and FERC would be authorized to establish by rule certain overarching principles for unbundling and cost allocation. State public utility commissions then would undertake the fact-driven work of "unbundling" rates for distribution service and default energy supply service for their local utilities. A customer opting to receive a 100% clean energy product would be permitted to substitute that charge for the default energy supply service.

7. **How can the Federal Government assist you in reducing carbon pollution?**

   NRG is eager to provide clean-energy products to customers. But many would-be customers are out of reach to us. Providing for the implementation of a Forward Clean Energy Market, as articulated in response to Question 2, and providing customers a right to choose a clean energy, as articulated in response to Question 6, would assist not only NRG but other companies that are striving to be leaders in the provision of clean-energy products.

8. **Are there any additional comments or feedback you would like to add?**

   Thank you for the thoughtful questions you have posed to the industry. We are happy to be a resource as the committee proceeds with its work, whether through briefings, testimony, and the provision of additional information about the proposals we have made in these comments.

Respectfully submitted,

Travis Kavulla
Vice President, Regulatory Affairs
NRG Energy, Inc.

Attachment:
K. Spees, S. Newell, W. Graf, and E. Shorin, "How States, Cities, and Customers Can Harness Competitive Markets to Meet Ambitious Carbon Goals Through a Forward Market for Clean Energy Attributes."

cc: Subcommittee on Environment and Climate Change Chairman Tonko
Subcommittee on Environment and Climate Change Ranking Member Shimkus
Subcommittee on Energy Chairman Rush
Subcommittee on Energy Ranking Member Upton