

Subcommittee on Environment and Climate Change
Hearing on
“We’ll Always Have Paris:
Filling the Leadership Void Caused by Federal Inaction on Climate Change”
February 28, 2019

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The Honorable John Shimkus (R-IL)

1. A number of legal scholars have argued that U.S. participation in the Paris Agreement may authorize EPA to pursue a broad range of greenhouse gas regulations under section 115 of the Clean Air Act (CAA). According to a forthcoming Columbia University [report](#) entitled *Legal Pathways to Deep Decarbonization in the United States*, these regulations could address industrial carbon emissions, agriculture, and even an economy-wide cap and trade system.

- a. Do you believe the President’s formal “acceptance” of the Paris Agreement provides legal justification for regulation under CAA Section 115?

RESPONSE:

With respect, this question lies beyond my expertise.

- b. Does the Energy Innovation Reform Project support use of CAA Section 115, under the Paris Agreement, as a means to address greenhouse gas emissions?

RESPONSE:

EIRP takes no position on this question, as it is beyond the scope of our mission and expertise.

- c. If formal “acceptance” of the Paris Agreement does not provide legal justification for CAA section 115, do you believe Senate “ratification” of the Paris Agreement would constitute legal justification for regulation under this section of the Clean Air Act?

RESPONSE:

I take no position on the question as presented, as it lies beyond my expertise, but I would reiterate a point made in my testimony, that one of the advantages of a

treaty ratification process is that the Administration must submit implementing legislation to the Senate along with the proposed treaty for ratification. This means that the Senate knows what actions must be taken to meet the treaty's obligations, and there would therefore be no need to speculate about the potential application of current Clean Air Act authority; the implementing legislation would presumably establish whatever authority is needed to meet the treaty's obligations.

2. You outline defects in how the Obama Administration approached Climate policy in your testimony. From your understanding the Administration was seeking to implement policies that would transform how we make and deliver power, which would impact our transportation systems, impact our industry.

- a. These involve highly consequential domestic policy decisions, would you agree?

RESPONSE:

Yes.

- b. Would you agree that examining these policies requires close attention to the costs, effectiveness, economic effects, including with regards to our competitive posture with the rest of the world?

RESPONSE:

Yes.

3. Now take these highly consequential domestic policy decisions and apply them across the world.

- a. Can we reasonably expect other developed nations and developing nations to implement expensive policy decisions that restrict energy access or drive up costs?

RESPONSE:

No, we cannot.

- b. How important to solving this climate risk problem is broad based technological development, that the United States can export?

RESPONSE:

Technology development is the heart of the climate challenge, and should be the primary focus of U.S. climate policy, not an afterthought. Federal climate policies should seek to increase our “decarbonization ability”—that is, accelerate innovation in clean energy-related technologies that would permit decarbonization to occur at very low cost while maintaining significant fuel diversity. This is crucial to a cost-effective transformation of the U.S. power sector, and indispensable to any aspiration to achieve deep emissions reductions on a global scale.

Fortunately, the United States is well positioned to be a global leader in this effort. While many other nations have significant energy research and development capabilities, the United States has a unique combination of R&D abilities with private and governmental investment and other institutional capacities, a generally stable and favorable domestic legal and regulatory environment (with the notable exception of greenhouse gas emissions, where many firms desire greater predictability in federal policy requirements), a large and educated work force, and a large internal market. Few nations can match America’s ability to lead in technological development, and U.S. success in developing attractive exportable technologies could contribute importantly to global emissions reduction efforts.

4. Given that the expected emissions growth from developing Asian countries alone would offset a complete decarbonization of the U.S. economy by mid-century, help the United States can provide to these Asian nations would appear to do more for global carbon dioxide reductions than anything we do domestically.
 - a. How do we incentivize the private development of technologies that can be deployed affordably in these developing nations?

RESPONSE:

This is a complex question that cannot easily be answered in this format, but briefly: The federal government could adopt policies that would accelerate research and development of these technologies—an innovation “push”—as well as policies that would spur their commercialization, “pulling” these emerging technologies from the R&D phase into demonstration and initial market penetration. Combining technology “push” and “pull” policies is especially effective at fostering private sector investment and commercialization, as we see in the history of shale gas development.

Technology innovation programs should be tailored to the specific needs of individual technologies, rather than adopting a one-size-fits-all federal program of incentives for all emerging technologies. To foster investment in advanced nuclear reactors, for example, it would be helpful to enhance the Nuclear

Regulatory Commission's ability to complete its licensing process quickly, transparently, and cost-effectively. Resolving the status of the proposed nuclear waste repository at Yucca Mountain would also improve the environment for investment in this sector. Encouraging investment in carbon capture, utilization, and sequestration requires an entirely suite of policies, while offshore wind development faces its own set of obstacles.

Broadly speaking, policymakers should consider targeted federal financial support for research, development, demonstration, and early commercialization of these technologies, coupled with regulatory reforms and other measures to foster the growth of markets for these technologies.

- b. What would be the role of the United States to lead on this technological development, so that China and other nations purchase our technology?

RESPONSE:

U.S. innovation in energy, including in low and zero-emissions energy technology, will be important in maintaining America's international leadership, generating domestic economic growth, and addressing the global problem of climate change. Indeed, developing affordable, reliable, and safe, low and zero-emissions technologies is the only way that the United States and other countries will be able to eliminate energy-related greenhouse gas emissions. Selling U.S. technologies to public or private entities in other countries, will require: 1) commercially attractive technologies that deliver value proportionate to costs, 2) bilateral or multilateral trade agreements that facilitate trade in energy technologies while securing intellectual property rights, and 3) governments or firms with adequate resources to purchase these products, whether using existing capital reserves, commercial financing, bilateral foreign assistance, or international aid.

With respect to China in particular, the overall state of U.S.-China bilateral relations seems likely to be an important factor that could contribute to—or undermine—American companies' ability to sell energy technologies abroad. Should U.S.-China competition escalate, selling U.S. technology could become more difficult. Developing innovative technologies that are demonstrably superior to Chinese products (and those of other foreign firms) is among the most important steps that the United States can take. That said, China may take steps to protect its domestic electricity generation market and markets for other low and zero-emissions energy technologies, such as in transportation. Meeting global emissions reduction targets without a cooperative U.S.-China relationship would require China to develop and deploy necessary energy technologies at scale either domestically or with the assistance of other foreign partners.

- c. There are Intellectual Property and other challenges to our relationships with China and other nations. Would addressing treatment of IP be another area that can offer up paths to increased emissions reductions?

RESPONSE:

As stated in the previous response, securing adequate protection of intellectual property will be a central factor in the success or failure of efforts to deploy low and zero-emissions energy technologies globally. Firms will likely be less willing to sell these technologies into markets that lack appropriate protections.

- d. If we cannot reach a solution to protect U.S. IP and other commercial interests, what does that mean for U.S. leadership in technology?

RESPONSE:

Failure in securing needed protections for intellectual property will constrain technology sales and deployment in those markets. If U.S. firms can find enough market opportunities elsewhere, they may nevertheless succeed in establishing global technological leadership. However, if foreign manufacturers steal or otherwise misappropriate U.S. technologies, perhaps with assistance from foreign governments or through their pressure on U.S. firms, this could substantially undermine the ability of American innovators to compete in international markets.

5. How should national security, energy and economic security, and other geopolitical and common defense interests factor into U.S. national decisions relating to climate change policy?

RESPONSE:

Climate change is likely to make severe weather events, droughts, and other extreme conditions more frequent (and more severe) in the coming decades. It is likely that these conditions will contribute—to some degree—to national or regional instability, especially in countries with poor governance and/or limited resources that constrain national governments' abilities to respond to these circumstances. Whether, and how much, this will be seen as affecting U.S. national security interests depends on a number of factors, ranging from the pace and severity of climate change and the vulnerability of less-stable nations to it, to the question of how Americans define our national interests and whether (or to what extent) that definition includes U.S. responsibility for security, stability and prosperity in other countries. The answers to that question of strategic perceptions may change over time, and may vary depending on whether the countries in question are American allies or partners, or are located in areas of strategic significance that affect broader U.S. security and foreign policy objectives. The United States and most of our allies in Europe and East Asia are more likely to have sufficiently effective governance

and necessary financial resources to adapt to climate change—though this may be expensive and could affect their ability to concentrate on other domestic and international priorities. Other nations are not as well-positioned to adapt to a changing climate.

Energy and economic security, as well as broader U.S. economic competitiveness, should be significant considerations in setting climate change policy. Energy innovation can contribute substantially to all three of these objectives. Sustained economic growth will be essential in providing the public and private resources needed to mitigate climate change, to adapt to (and build resiliency to manage) the effects of climate change, and to continue to advance other domestic and international goals at the same time. These factors assume even greater importance when viewed from a geopolitical perspective and in the context of intensifying political, economic and military competition between the United States and China. Only an innovative and prosperous America will be able to maintain domestic unity, prevail in global economic competition with China, and sustain defense spending necessary to advance and defend U.S. national security interests.

As a practical matter, it is also necessary for policymakers and the American public to recognize and accept that changes in the global climate system have already acquired considerable momentum due to previous greenhouse gas emissions. There is tremendous inertia in the global climate system, as well as global energy systems. Temperature changes from historic emissions are still occurring, and will occur for decades to come. Global emissions are unlikely to drop significantly in the near future, and even when they do, the atmospheric concentration of greenhouse gases will not decline, it will stabilize—any warming to that point will be locked in and future warming may continue for some time. From a national security policy perspective, this means that actions to reduce emissions today may limit the effects of climate change decades from now—not over the next year, five years, or decade. This is not an argument for inaction on mitigation; rather, it is a reason to see climate policy as urgent on its own terms but limited in its near-term value as an instrument of national security policy.