Senate Committee on Environment and Public Works

"Road to Paris: Examining the President's International Climate Agenda and Implications for Domestic Environmental Policy"

A Statement by

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Good afternoon Chairman Inhofe, Ranking Member Boxer, and members of the Committee. Thank you for the opportunity to testify today on the *President's International Climate Agenda and Implications for Domestic Environmental Policy*. My name is Sarah Ladislaw and I direct the Energy and National Security Program at the Center for Strategic and International Studies (CSIS). CSIS is a bipartisan, nonprofit organization headquartered in Washington, D.C. The CSIS Energy and National Security Program provides strategic insights and forward-thinking policy guidance that balances economic, environmental, and security priorities against market and geopolitical uncertainties. My remarks and testimony represent my views and not the views of my colleagues or CSIS as an institution.

My testimony focuses on the Obama administration's actions to address climate change in the context of the ongoing international climate negotiations and global climate action. In addition to describing the administration's Climate Action Plan and its recently announced Intended Nationally Determined Contributions (INDC), I will make three key points:

1) Actions being taken or pledged by the United States are in line with the actions of other major economies, though exact comparability is difficult to assess;
2) Establishing stretch goals is a key part of the international negotiation process and a key element of U.S. leadership in that process;
3) Given everything we know about the long-term international climate goals and the climate negotiation process underway more action on the part of the United States and other countries will be necessary.

Background

For over twenty years, the international community has sought an effective approach to prevent and prepare for the most serious impacts of a changing global climate. Over the last two decades scientific understanding of climate change has improved, low carbon and energy efficiency technologies have progressed, the impacts of a changing climate have become more evident, and activities designed to reduce emissions have proliferated—yet there is still no comprehensive global approach to reducing greenhouse gas emissions.

The Obama administration came to office in 2009 with a goal to re-establish the United States as leader in the fight against global climate change. Climate leadership under the Obama administration has two primary goals: (1) lead by example through domestic action and (2) create a durable international framework for climate action that is able to mobilize actions in the areas of mitigation (emissions reduction), adaptation, financing, technology advancement, and transparency and verification. These two goals are interdependent, both because no single country acting alone can effectively deal with the challenges of global climate change and because the global community will not mobilize and coordinate the mitigation action necessary to limit warming without leadership from major economies.

Before 2009, the international negotiations held under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) were fundamentally a top-down process where negotiators sought to divide the overall amount of global emissions reduction needed to reach stabilization among the world's largest economies, and countries in turn would craft

policies to meet those targets. Over the last six years, the entire process has evolved to represent a more bottom-up dynamic, where a larger number of countries submit pledges that are in line with their domestic policies and all the pledges are added up to see how close the international community is to reaching the levels thought to be commensurate with keeping global average temperature rise to 2 degrees Celsius. The idea being negotiated currently is that these pledges would be reviewed and strengthened periodically to increase emissions reduction and adaptation activity. U.S. domestic policies are important to the success of this process.

Overview of the Climate Action Plan and Intended Nationally Determined Contribution

In many ways, climate change policy under the Obama administration has exemplified the spirit of the bottom-up process. In 2009, the Obama administration pledged to reduce greenhouse gas emissions 17 percent below 2005 levels by 2020. Its original intent was to deliver these reductions, as well as future year reductions, through the adoption of an economy-wide cap and trade program. When the cap and trade program failed to achieve congressional approval, the administration pursued other measures. In June 2013, the Obama administration released its Climate Action Plan (CAP), a comprehensive plan to cut the carbon emissions, prepare the United States for the impacts of climate change, and lead international efforts to combat global climate change. The CAP consists entirely of actions that can be taken using existing statutory authorities.

Under the CAP, the administration has set out 2020-2030 relevant goals to[1]:

(1) Reduce Emissions

- Establish carbon pollution standards for both new and existing electric power plants;
- Provide loan guarantees for advanced fossil energy and efficiency projects;
- Permit renewables projects on federal land, federally assisted housing, and deploy renewables on military installations;
- Help commercial, industrial, and multi-family buildings become more energy efficient;
- Establish more robust efficiency standards for appliances and federal buildings;
- Develop fuel economy standards for heavy-duty vehicles; and
- Reduce pollution of highly-potent greenhouse gases known as hydrofluorocarbons and methane.

(2) Prepare for the Impacts of Climate Change

- Support local climate-resilient investment;
- Update flood-risk reduction standards for all federally funded projects;
- Create sustainable and resilient hospitals;
- Help communities prepare for drought and expand restoration efforts to make areas less vulnerable to catastrophic fire; and

[1] White House Fact Sheet on President Obama's Climate Action Plan, June 25, 2013.

- Provides climate preparedness tools and information needed by state, local, and private-sector leaders through a centralized "toolkit" and a new Climate Data Initiative.

(3) Lead International Efforts to Address Global Climate Change

- Expand major new and existing international initiatives, including bilateral initiatives with China, India, and other major emitting countries;
- Lead global sector public financing towards cleaner energy by calling for the end of U.S. government support for public financing of new coal-fired powers plants overseas, except for the most efficient coal technology available in the world's poorest countries, or facilities deploying carbon capture and sequestration technologies; and
- Strengthen global resilience to climate change by expanding government and local community planning and response capacities.

The Climate Action Plan not only supports the administration's 2009 pledge to reduce greenhouse gas emissions 17 percent below 2005 levels by 2020 but it also lays the groundwork for its recent pledge to reduce emissions 26-28 percent below 2005 levels by 2025. This 2025 target is the basis of the U.S. pledge to the upcoming UNFCCC climate negotiations in Paris this December. Achieving the 2025 target will require further emission reductions of 9-11 percent beyond the 2020 target compared to the 2005 baseline.[2]Emissions reductions in the U.S. electricity sector are the most significant portion of the CAP, contributing emissions reductions on the order of 10 percent below 2005 levels by 2025.[3] In June 2014, the Environmental Protection Agency released its draft Clean Power Plan (CPP) to reduce emissions from existing power generation units. The CPP contribution is buttressed by other policies already included in the CAP and the INDC including heavy and light-duty vehicle emissions standards, building and appliance efficiency standards, regulation of HFCs and methane, among others (see text box on U.S. INDC).

These emission reductions represent the core, but certainly not the entirety of U.S. contributions to global efforts to combat climate change. The CAP makes clear that U.S. policy to deal with climate change encompasses both mitigation and adaptation activities that are promoted both domestically and internationally. Moreover, expectations that the United States will deliver or catalyze significant amounts of public and private sector financing is another important aspect of the ongoing negotiations, as is adaptation.

[2] U.S. Intended Nationally Determined Contribution, UNFCCC website, accessed July 6, 2015.
[3] U.S. Energy Information Administration. "Analysis of the Impacts of the Clean Power Plan" May 22, 2015.

Excerpt from U.S. INDC submitted March 31, 2015

Domestic laws, regulations, and measures relevant to implementation:

Several U.S. laws, as well as existing and proposed regulations thereunder, are relevant to the implementation of the U.S. target, including the Clean Air Act (42 U.S.C. §7401 et seq.), the Energy Policy Act (42 U.S.C. §13201 et seq.), and the Energy Independence and Security Act (42 U.S.C. § 17001 et seq.).

Since 2009, the United States has completed the following regulatory actions:
• Under the Clean Air Act, the United States Department of Transportation and the United States Environmental Protection Agency adopted fuel economy standards for light-duty vehicles for model years 2012-2025 and for heavy-duty vehicles for model years 2014-2018.
• Under the Energy Policy Act and the Energy Independence and Security Act, the United States Department of Energy has finalized multiple measures addressing buildings sector emissions including energy conservation standards for 29 categories of appliances and equipment as well as a building code determination for commercial buildings.
• Under the Clean Air Act, the United States Environmental Protection Agency has approved the use of specific alternatives to high-GWP HFCs in certain applications through the Significant New Alternatives Policy program.

At this time:
• Under the Clean Air Act, the United States Environmental Protection Agency is moving to finalize by summer 2015 regulations to cut carbon pollution from new and existing power plants.
• Under the Clean Air Act, the United States Department of Transportation and the United States Environmental Protection Agency are moving to promulgate post-2018 fuel economy standards for heavy-duty vehicles. • Under the Clean Air Act, the United States Environmental Protection Agency is developing standards to address methane emissions from landfills and the oil and gas sector.
• Under the Clean Air Act, the United States Environmental Protection Agency is moving to reduce the use and emissions of high-GWP HFCs through the Significant New Alternatives Policy program.
• Under the Energy Policy Act and the Energy Independence and Security Act, the United States Department of Energy is continuing to reduce buildings sector emissions including by promulgating energy conservation standards for a broad range of appliances and equipment, as well as a building code determination for residential buildings.

In addition, since 2008 the United States has reduced greenhouse gas emissions from Federal Government operations by 17 percent and, under Executive Order 13693 issued on March 25th 2015, has set a new target to reduce these emissions 40 percent below 2005 levels by 2025.

Source: http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx

Assessing the U.S. Action in an International Context

As of July 6, 2015, 17 INDCs covering 45 countries and representing nearly 55 percent of global emissions were submitted.[4] On one hand, this an impressive level of participation – equal to the emissions coverage required to bring the Kyoto Protocol into force – especially considering that the formal negotiations are still nearly six months out. On the other hand, it is a lower participation rate than negotiators' goal of having all INDCs submitted by end of June 2015. Countries will have until October 2015 at the latest to submit their pledges and these submissions will then be evaluated by the UN to determine the overall emissions reduction to be expected post-2020.

Some people have criticized the Obama administration for proposing and implementing emissions reduction policies, arguing that other major emitting countries are not taking action. Aside from fundamental questions of fairness, they argue that this hurts U.S. economic

[4] Percent of global GHG emissions excluding land-use change and forestry. According to the INDCs listed on the UNFCCC website and calculations of emission coverage provided by http://cait.wri.org/indc/

competitiveness. Yet this criticism is not borne out by the facts. On the contrary, climate change related policies and regulations are spreading around the world at a pace unimaginable only a few years ago. According to the UN Intergovernmental Panel's Fifth Assessment Report, as of 2012, two-thirds of global greenhouse gas emissions are covered by some sort of national policy or strategy, compared to 45 percent in 2007.[5] In this regard, the United States is acting in line with and not contrary to the global trend with regard to mitigation activity.

Whether the actions taken by the United States are more or less stringent or ambitious than other countries' efforts is another matter, typically referred to in the negotiations as comparability. It is inherently difficult to assess comparability of emission reduction effort among different countries in the global community. Comparability of effort can be measured in a variety of ways because (1) countries start from different places in terms of overall emission levels, (2) countries have different economic structures, (3) countries have different capabilities, and (4) countries use different types of policies to address emissions for a variety of legitimate reasons. In practice, there is no agreed-upon metric for ambition and comparability. Investment, gross emission reductions, share of emission reductions are all plausible ways to measure effort, although they may produce disparate outcomes. Even if all of these differences could be accounted for on an "apples to apples" basis, the goal of exact comparability has been questioned in the context of the international negotiations. The principle of common but differentiated standards and respective capabilities is a central part of a global agreement. It reflects the notion that (1) countries that pursued an emissions intensive development pathway received an advantage relative to countries that now wish to develop while simultaneously constraining emissions and (2) many less developed countries lack the capability to reduce emissions and adapt to a changing climate. This means that assessing the comparability of a global climate agreement inherently takes account of political realities in addition to economic ones.

Take for example two of the major parties in the negotiations: China and the United States. The U.S. commitment to reduce emissions from 2005 levels is arguably more stringent than the Chinese goals to reduce emissions intensity because one represents an absolute cap on emissions while the other represents an intensity improvement—although the Chinese target is accompanied by a peaking of emissions by 2030. Both represent an increase in ambition from a business as usual future. The U.S. target implies a large reduction in emissions whereas the Chinese target requires peaking and an improvement of CO_2 emissions intensity 60-65 percent below 2005 levels by 2030. The U.S. target doubles the pace of emissions reduction in the United States from 1.2 percent per year on average between 2005-2020 to 2.3-2.8 percent per year on average between 2020 and 2025. By contrast the Chinese emission intensity reduction target implies an extension of the rate of emissions intensity improvement achieved by 2020 from 2020-2030.[6]

Some of the particular measures underpinning the targets differ in level of ambition. For example, the Chinese INDC target to produce 20 percent of its primary energy supply from non-fossil based energy resources by 2020 appears quite ambitious. This will require them to deploy 800-1,000 GW of non-fossil energy capacity, close to the entire electricity capacity of the United

[5] Intergovernmental Panel on Climate Change, Fifth Assessment Report, Summary for Policymakers. P. 27.
[6] ClearView Energy Partners LLC, "Top Down Leadership in a Bottom Up Climate," July 1, 2015.

States.[7] Compared to the U.S. goal to increase the share of renewable energy in the electricity sector (beyond hydropower) to 20 percent by 2030 –the Chinese non-fossil based energy standard is arguably more ambitious.[8]

The Value of Stretch Goals

Several analyses have suggested that the United States will be unable to meet its 2025 emissions reduction target under actions announced thus far or covered by executive action. While this point has been used to criticize the administration's goal, it is not clear that it is a deal breaker for the international negotiations and in fact may be a helpful signal in support of conveying U.S. leadership.

Countries want to see that other countries are working hard to meet their emissions reduction pledges – signaling ambition is important in the negotiations and entices participation from others as well as greater ambition from some. The idea that the United States and China are committed to emission control despite potentially having a hard time meeting their target (whether true or not) can be reassuring to those with whom they are negotiating. Moreover, that both countries even introduced some flexibility into their targets to make them more ambitious if they are able (early emissions peaking by China and the 28 percent emissions reduction target from the United States) is meant to send a signal to other countries that effort matters.

Other countries are likely to defend their actions as ambitious in light of their national circumstances but may signal the same sort of message about ambition by providing stretch goals for themselves – though some of more ambitious efforts from developing countries will be tied to climate financing. Thus far Russia, Mexico, and Morocco all tied additional effort to either broad participation from other countries or access to climate related financing. Many people speculate that the Indian and Brazilian INDCs will have a certain base level emission intensity target but offer more stringent targets conditional upon financing from the international community.

Stretch goals walk a fine line between inspiring greater ambition from others and ultimately being achievable. The process of setting and achieving or surpassing targets in a verifiable manner will be a critical component of the international climate regime going forward.

More Action is Necessary

Despite all the progress being made by a proliferation of emissions reduction policies and pledges from countries representing over 55 percent of the world energy related emissions, more action will be necessary to meet the international emissions reduction targets. According to the International Energy Agency (IEA) analysis of pledges put forth to date, current INDCs would be consistent with an average temperature increase of around 2.6 degrees Celsius by 2100 and 3.5 degrees Celsius after 2200. In straight emissions reduction terms, the IEA states that the anticipated pledges lead to exhaustion of the global carbon budget by 2040 – only eight months

[7] Fransen, Taryn et al. A Closer Look at China's New Climate Plan (INDC), World Resources Institute, July 2, 2015.
[8] U.S.-Brazil Joint Statement on Climate Change, White House website, June 30, 2015.

later than is projected in the absence of the INDCs.[9] Clearly, additional action will be required if the standing global target is to be achieved.

This begs the question: if the negotiations fail to yield emissions reduction pledges on the order of reaching the 2 degree target, how can they possibly be considered a success? As the IEA states in their report, the Paris outcome will be successful if it is viewed as a foundation upon which to build future action. According to the IEA, the new international negotiating process will be less about big deliverables and big agreements but instead about creating a "virtuous cycle of strengthening mitigation ambition over time."[10]

From a U.S. domestic standpoint, if the goals of Paris are achieved and the system of pledge and review succeeds, the United States will take additional domestic actions to reduce emissions further, presumably along the lines of achieving 83 percent emissions reduction below 2005 levels by 2050, the long-term target suggested as part of the 2010 UNFCCC Cancun Accords. This means the Climate Action Plan is a down payment on the emissions reductions policies and incentives that will eventually need to be put in place to drive future reductions.

Summary

The Obama administration has sought to take a leadership role in the realm of international climate action. The administration's agenda has been grounded in domestic action with an eye toward building a long-term, sustainable strategy for achieving deep emissions reductions and preparing the United States and other countries to cope with the impacts of a changing climate.

Considering U.S. domestic action in the international climate context it seems as though actions being taken or pledged by the United States are in line with the actions of other major economies, though exact comparability is difficult to assess. Further, establishing stretch goals is a key part of the international negotiation process and an element of U.S. leadership in that process. Moreover, given everything we know about the long-term international climate goals and the climate negotiation process underway, more action on the part of the United States and other countries will be necessary in the years to come. The key question for this Congress, the next administration and Congress, as well as partners at the state and local level, in industry and in civil society, is how to ensure that the policies being put in place today are the ones that serve the long-term interest of the country in light of this ongoing challenge.

[9] International Energy Agency. Energy and Climate Change, World Energy Outlook Special Report. June 2015. P 12.

[10] International Energy Agency. Energy and Climate Change, World Energy Outlook Special Report. June 2015. P 134.

Country	**% of global GHG Emissions Excluding Land-Use Change and Forestry (MtCO2e)** *(WRI CAIT)*	**Copenhagen Pledge** *(IEA and CAIT)*	**INDC Target** *(UNFCCC)*
EU-28	9.8%	20%/30% below 1990 levels by 2020	40% reduction
Switzerland	.11%	20%/30% below 1990 levels by 2020	50% reduction, a reduction of 35% between 2021and2030. By 2025, will reduce GHGs by 35%
Norway	.10%	30%/40% below 1990 levels by 2020	40% reduction in GHG
Mexico	1.6%	Up to 30% below with respect to business as usual by 2020	25% reduction of GHGs and SLCPs below BAU This is broken down as 22% reduction in GHG and 51% reduction of black carbon. CONDITIONAL: 40% reduction of GHGs and SLCPs, dependent on an agreement on international carbon price, carbon border adjustments, technical cooperation, financing and technology transfer.
US	13.91%	Relative to 2005 levels: 17% below by 2020, 42% below by 2030 and 83% below by 2050.	26-28% GHG emissions reduction
Russia	5.18%	15-25% below 1990 levels by 2020	Reduce anthropogenic GHG emissions by 25-30% below 1990 levels by 2030
China	24.49%	Emission intensity 40-45% below 2005 levels by 2020.	Peak CO2 emissions by 2030. 60-65% emissions intensity below 2005 levels by 2030.
Korea	1.54%	Reduce GHG 30% below	37% from the business-

		business-as-usual emissions by 2020.	as-usual level by 2030 across all economic sectors
Singapore	.12%	Reduce emissions to 7% to 11% below its business-as-usual (BAU) level by 2020.	Reduce emissions Intensity by 36% from 2005 levels by 2030, and stabilize its emissions with the aim of peaking around 2030.
Canada	1.59%	17% emission reduction by 2020 compared with 2005 levels.	Reduce its greenhouse gas emissions by 30% below 2005 levels by 2030.
Morocco	.159%	NA	Reduce its GHG emissions by 32% by 2030 compared to "business as usual" projected emissions. This commitment is contingent upon gaining access to new sources of finance and enhanced support.