TESTIMONY OF CARLA FRISCH
PRINCIPAL, ROCKY MOUNTAIN INSTITUTE

U.S. HOUSE OF REPRESENTATIVES
ENERGY AND COMMERCE COMMITTEE
ENVIRONMENT AND CLIMATE CHANGE SUBCOMMITTEE

Hearing entitled "We'll Always Have Paris: Filling the Leadership Void Caused by Federal Inaction on Climate Change"

February 28, 2019

Thank you Chairman Tonko, Ranking Member Shimkus, and Members of the Subcommittee for inviting me to testify and for your leadership in focusing on climate change. I am a Principal at Rocky Mountain Institute, a non-profit dedicated to transforming global energy use to create a clean, prosperous, and secure low-carbon future. I am also a co-author of the recent 4th National Climate Assessment. In the February 6th hearing you heard about the need for urgent action to mitigate climate change, and I would echo these findings. Cities, states, and businesses across the United States are aware of that urgency and have been taking action.

Cities, states, businesses, and others have been working on climate and the environment for decades. But over the past two years, they have scaled up their efforts and connected in a more formal way. In part, this stems back to the announcement of the intent to leave the Paris Agreement.[1] The announcement left many of our international partners and many Americans with a sense of anxiety and with questions: Is the United States still working to address climate change? And, are those efforts meaningful? The first answer came in the form of a diverse coalition launched the day after the announcement: We Are Still In. Within 72 hours, the coalition had over 1,200 members. We Are Still In is now made up of more than 3,600 states, cities, counties, tribes, businesses, investors, universities, faith-based organizations, hospital networks, and cultural institutions. Their leaders have committed to reduce their emissions, not only because it is good for the climate but because it advances the interests of their citizens, customers, and shareholders.[2] The diversity of actors who have come together around climate change is striking. This is not about politics; it is about the financial bottom line and the health of communities from Columbia, South Carolina to Pittsburgh, Pennsylvania.

Are these commitments meaningful? America's Pledge, an effort led by former Mayor Michael Bloomberg and former Governor Jerry Brown set out to find the answer.[3] Rocky Mountain Institute helped prepare Fulfilling America's Pledge, a report which details a first-of-its-kind, bottom-up quantification of real economy activities to reduce emissions.[4] The analysis found

[1] https://www.whitehouse.gov/briefings-statements/statement-president-trump-paris-climate-accord/
[2] https://www.wearestillin.com/
[3] https://www.americaspledgeonclimate.com/
[4] https://www.americaspledgeonclimate.com/fulfilling-americas-pledge/

that full implementation of commitments already made by states, cities, and businesses would drive U.S. emissions roughly two-thirds of the way to the original U.S. target. Broader engagement and leadership by states, cities, and businesses aimed at decarbonizing our power supply, electrifying buildings, industry, and transportation, improving efficiency, constraining non-CO_2 emissions such as methane and hydrofluorocarbons, and bolstering our carbon sinks has the potential to put us within striking distance of the Paris pledge. This requires rapidly scaling ambitious climate action strategies that deliver high impact in the near term. Luckily, these newly formed coalitions of states, cities, and businesses are working to deliver on this potential and have made progress even since the report was published.

For example, cities, states, and businesses are working to reduce greenhouse gas emissions from electricity production by phasing out coal generation and accelerating deployment of renewable energy. In the last three weeks alone, 5 GW of coal retirements have been announced. More than 100 companies, including many Fortune 500 companies, have committed to 100% renewable energy, and they are following through on those commitments.[5] Importantly this shift toward renewables is based on economics. Cities, states, and businesses are making these investments to take advantage of technology innovation and the resulting lower costs of solar and wind, which continue to fall.

That clean electricity is powering electric transportation. Late last year, we passed the one million electric vehicles sold mark in the United States, and sales have grown since then.[6] Recent analysis shows that city, county, and state commitments put one third of U.S. public buses on a path to be emissions free, which would improve air quality for residents while reducing operating costs for transit authorities.[7] Seneca, South Carolina already has an all-electric bus fleet. This shift to electric is in part driven by lower battery costs, which continue to fall.

That clean electricity is also powering homes and businesses. Using electricity to heat and cool space, heat water, and cook is more efficient than burning natural gas on site, improves indoor air quality, and reduces greenhouse gas emissions. [8,9,10] Acknowledging this potential, New York State established a requirement that utilities achieve a portion of their required energy efficiency savings through deployment of electric heat pumps. [11] Building electrification, including heat pumps, is a key opportunity, especially given recent science findings that methane leaks from the gas system are larger than we previously thought.[12]

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[5] http://there100.org/re100
[6] https://www.anl.gov/es/light-duty-electric-drive-vehicles-monthly-sales-updates
[7] https://www.apta.com/resources/reportsandpublications/Documents/APTA-Transit-Leading-Clean-Technology.pdf
[8] https://www.epri.com/#/pages/product/3002013582/?lang=en-US
[9] http://eta-publications.lbl.gov/sites/default/files/final_pollutant_exposures_from_natural_gas_cooking_burners_a_simulation-based_assessment_for_southern_california.pdf
[10] https://rmi.org/insight/the-economics-of-electrifying-buildings/
[11] http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={B330F932-3BB9-46FA-9223-0E8A408C1928}
[12] https://www.edf.org/climate/methane-studies

If we continue to focus and scale these two priorities: (1) rapidly cleaning up electricity production and (2) using that clean electricity in our homes, businesses, and transportation systems, we could address up to 70% of U.S. greenhouse gas emissions.[13,14] Beneficial electrification can be a simple and cost-effective approach to reducing pollution and providing other benefits to consumers. The nation's rural electric cooperatives are working together to facilitate beneficial electrification.[15]

And the key for unlocking much of this progress is pairing technology with policy. Analysis shows that this pairing of innovation with policy, known as "technology push" paired with "policy pull" has an outsized effect, think 1 + 1 = 3.[16,17] Government or corporate policy can take many forms, as long as it stipulates a clear priority with required follow-through.

States that have moved forward with this combination find climate actions are benefiting their economies and strengthening their communities. Through the bipartisan U.S. Climate Alliance coalition, 21 governors have come together to lead on climate change.[18] Those include the recently elected governors of Illinois, New Mexico, Michigan, and Wisconsin. And in their recent inauguration speeches, at least seven new bipartisan governors addressed climate and energy issues.

States with commitments to climate have reduced their greenhouse gas emissions faster than the rest of the country while growing their economies.[19] U.S. Climate Alliance states are working together to develop product efficiency standards that could save the country millions of dollars. They are working to increase access to affordable, community-based solar and to help new governors take action to protect their people from extreme weather events. Their climate policies have attracted billions in investments and helped support more than 1.6 million clean energy and energy efficiency jobs.

Like states, businesses are helping each other address climate change through the We Mean Business Coalition.[20] Universities are helping each other.[21] Faith-based groups are helping each other. They know reducing emissions is a multi-faceted problem that requires working together. Many of these activities were highlighted at the Global Climate Action Summit in September 2018. More than 100 countries attended, in part to find out what U.S. cities, states,

[13] https://www.epri.com/#/pages/product/3002013582/?lang=en-US
[14] https://www.nrel.gov/docs/fy17osti/68214.pdf
[15] http://www.beneficialelectrification.com/
[16] https://www.energy.gov/sites/prod/files/2017/01/f34/Energy%20CO2%20Emissions%20Impacts%20of%20Clean%20Energy%20Technology%20Innovation%20and%20Policy.pdf
[17] https://www.energy.gov/policy/initiatives/quadrennial-energy-review-qer
[18] https://www.usclimatealliance.org/
[19] https://www.usclimatealliance.org/
[20] https://www.wemeanbusinesscoalition.org/
[21] https://secondnature.org/

and businesses are doing to address climate change.[22] Other countries have started climate coalitions modeled after U.S. coalitions, for example, the Japan Climate Initiative.[23]

Together these coalitions and others are making formidable progress to reduce pollution. They are demonstrating in real time how to deliver cost-effective climate action from the ground up.

Despite this tremendous progress, we do need faster action. The IPCC Special Report on Global Warming of 1.5°C emphasizes the need to accelerate and, approximately, cut our emissions in half by 2030.[24] U.S. emissions are on downward trend, but avoiding the worst impacts of climate change requires action at a pace and scale that we have rarely achieved before. Addressing climate change requires action from all levels of government and active participation from civil society. Critically, we need ambitious federal leadership – to invest in and scale the clean energy technologies that will allow us to rapidly decarbonize, to accurately price the societal cost of greenhouse gas pollution, and to lead international efforts to address this challenge. While it is not possible to solve the climate crisis without state, city, and business action, it is equally impossible to solve it without strong and sustained federal policies.

The good news is we do not have to start from scratch at the federal level. Federal reengagement can build on the great momentum and hard work states, cities, and businesses have underway. Only by combining subnational and federal ambition can we ensure that America's pledge on climate continues to set the standard for international leadership.

[22] https://www.globalclimateactionsummit.org/
[23] https://japanclimate.org/english/
[24] https://www.ipcc.ch/sr15/