

## Keynote Address: A Brief History of U.S. Climate Policy and a Call to Action

Vicki Arroyo

Follow this and additional works at: <https://digitalcommons.law.umaryland.edu/mjil>

---

### Recommended Citation

Vicki Arroyo, *Keynote Address: A Brief History of U.S. Climate Policy and a Call to Action*, 34 Md. J. Int'l L. 1 (2019).

Available at: <https://digitalcommons.law.umaryland.edu/mjil/vol34/iss1/3>

This Symposium: Keynote Address is brought to you for free and open access by the Academic Journals at DigitalCommons@UM Carey Law. It has been accepted for inclusion in Maryland Journal of International Law by an authorized editor of DigitalCommons@UM Carey Law. For more information, please contact [smccarty@law.umaryland.edu](mailto:smccarty@law.umaryland.edu).

# Maryland Journal of International Law Symposium Keynote Address: A Brief History of U.S. Climate Policy and a Call to Action

VICKI ARROYO<sup>†</sup>

---

---

Thank you for inviting me for what has been a stimulating day with so many great speakers.

Today's symposium provides a timely opportunity to consider where we are in addressing climate change—and where we need to be in order to be on a sustainable path for people and our planet. This conference takes place in a crucial window—between the negotiation of the Paris Agreement in 2015 and the year 2021, when additional commitments to raise ambition must come into effect to avoid the worst consequences of climate change.

This pivotal moment is why, earlier this month, leaders from states, cities, and businesses across the United States and around the world came together in San Francisco for the Global Climate Action Summit led by Governor Jerry Brown of California and Executive Secretary Patricia Espinosa of the United Nations Framework Convention on Climate Change.<sup>1</sup> The notion behind the Summit was to underscore the need to elevate ambition to peak and then bend

---

© 2019 Vicki Arroyo.

<sup>†</sup> Executive Director, Georgetown Climate Center; Professor from Practice and Assistant Dean for Centers and Institutes, Georgetown University Law Center (Email: [vaa@georgetown.edu](mailto:vaa@georgetown.edu)). The author is grateful to Katherine McCormick for research assistance. This article reflects the keynote remarks offered by Professor Arroyo at the Maryland Journal of International Law Symposium.

1. *About the Summit*, GLOB. CLIMATE ACTION SUMMIT, <https://www.globalclimateactionsummit.org/about-the-summit/> (last visited Mar. 15, 2019).

down the carbon emissions curve by 2020 to meet the goal of keeping warming to “well below 2 degrees Celsius”—ideally 1.5 degrees Celsius—as we are already seeing significant and severe changes.<sup>2</sup>

But the window of time for action is closing. During the course of my own career, we have witnessed a shift from projecting future changes to observing serious impacts at a staggering rate of change—faster than what was previously thought.

The basic physics of climate change is straightforward, so much so that Arrhenius’ 1896 calculation that a doubling of carbon dioxide levels would trigger a rise in temperature of about 5-6 degrees Celsius is eerily on target for what scientists are now predicting, and what we are observing today.<sup>3</sup> We now know that Exxon and Shell scientists predicted what has since come to pass in memos dating back to the early 1980s—even as the fossil fuel industry poured tens of millions of dollars into an orchestrated misinformation campaign questioning climate science and attacking leading scientists.<sup>4</sup>

For certain shocks in life (9-11, the Challenger disaster), we each can likely remember just where we were when we learned the terrible news. On that list for me is also the moment thirty years ago when I first became aware of the world-changing effects humans are bringing to our planet and our lives. My own climate change education began after graduate school and the first of two stints at U.S. Environmental Protection Agency Headquarters, where I worked on conventional air pollution, when I went home to Louisiana to work on environmental policy in Governor Buddy Roemer’s Administration. Sent to Washington, D.C. in 1989 to represent the state on a National Governors Association task force on climate change headed by Governor Madeline Kunin (D-VT) and Governor James Thomson (R-IL), I remember absorbing information on the science and projected impacts for the first time.

In those days, there were not Republican or Democratic versions of science. And in fact, my own governor shifted parties while in office, though he was still a Democrat while I served as his

---

2. *Call to Global Climate Action*, GLOB. CLIMATE ACTION SUMMIT (Sept. 14, 2018), <https://www.globalclimateactionsummit.org/call-to-action/>.

3. Ian Sample, *The Father of Climate Change*, THE GUARDIAN (June 30, 2005) <https://www.theguardian.com/environment/2005/jun/30/climatechange.climatechangeenvironment2>.

4. Suzanne Goldenberg, *Exxon Knew of Climate Change in 1981, Email Says—But It Funded Deniers for 27 More Years*, THE GUARDIAN (July 8, 2015) <https://www.theguardian.com/environment/2015/jul/08/exxon-climate-change-1981-climate-denier-funding>.

environmental policy advisor and at Louisiana's Department of Environmental Quality. Nor was there a partisan reaction to the scientific facts, though I do recall the representative from another petroleum producing state, Alaska, pulling me aside to say: "Do you see what this means for the oil and gas companies in our states?" I remember pointing out that I was more focused on what rising seas and intense storms would mean for the land and the people of our states (Louisiana and Alaska): "We're the canaries in the coal mine" according to the projections, I told her, noting the irony.

Three decades later those terrible predictions have sadly become our reality. Alaska and Louisiana are the first states that must resettle their people—Inuit villagers threatened by sea-level rise and the loss of protective sea ice in Alaska,<sup>5</sup> and Louisiana's Isle de Jean Charles tribe<sup>6</sup> following the devastation of Hurricane Katrina, where my own family lost homes, and Hurricane Rita just three weeks later (devastating the rest of south Louisiana) and also given the existential threat of sea-level rise and land subsidence.

Also thirty years ago, during the 1988 Presidential campaign, George H.W. Bush, a Republican running for President from an oil state (TX) promised: "Those who think we are powerless to do anything about the greenhouse effect forget about the 'White House effect'; as President, I intend to do something about it," he said.<sup>7</sup> Promising to convene an international conference on the environment, Bush said: "We will talk about global warming, and we will act." Imagine!

President George H.W. Bush and his EPA Administrator Bill Reilly did engage in a global approach to action, culminating in 1992 with the Rio Earth Summit and the United Nations Framework Convention on Climate Change (UNFCCC)—probably the high-water mark for international climate cooperation until Paris in 2015. Though fossil fuel-friendly forces weighed in with the U.S. delegation to make sure it was nonbinding, the UNFCCC was ratified unanimously. During the Clinton/Gore era, we saw the U.S.

---

5. Christopher Mele & Daniel Victor, *Reeling from Effects of Climate Change, Alaskan Village Votes to Relocate*, N.Y. TIMES (Aug. 19, 2016), <https://www.nytimes.com/2016/08/20/us/shishmaref-alaska-elocate-vote-climate-change.html>.

6. Lauren Zanolli, *Louisiana's Vanishing Island: The Climate 'Refugees' Resettling for \$52 Million*, THE GUARDIAN (Mar. 15, 2016), <https://www.theguardian.com/environment/2016/mar/15/louisiana-isle-de-jean-charles-island-sea-level-resettlement>.

7. Curtis Moore, *Is Bush Another 'Killer Trees' President?*, L.A. TIMES (June 7, 1989), [http://articles.latimes.com/1989-06-07/local/me-1546\\_1\\_greenhouse-pollutants-air-pollution-reagan-record](http://articles.latimes.com/1989-06-07/local/me-1546_1_greenhouse-pollutants-air-pollution-reagan-record).

government and companies define the approach and flexible mechanisms of the Kyoto Protocol, building on the successes of the acid rain trading program embraced by Republicans and Democrats alike.

However, when it comes to environmental protection, our greatest successes often fan the flames of determined opposition. By the late 1990's, with industry-funded opposition to climate action in high gear, the Byrd-Hagel Resolution's unanimous passage of 95-0 in July 1997 made it clear that tackling climate change would not be so easy.<sup>8</sup> The two main prongs of the Byrd-Hagel resolution were: 1) not treating developing countries differently and 2) imposing no economic hardship on signatories.<sup>9</sup> Those goals might sound harmless and even admirable—but they were carefully calculated to make it next to impossible for the United States to endorse real international action.<sup>10</sup> The Clinton Administration did nothing to oppose Byrd-Hagel, despite Gore's early interest in climate change and his authorship as a U.S. Senator of the book "The Earth in the Balance."<sup>11</sup> Vice President Gore went to Kyoto at the end of the negotiations to sign the Protocol—knowing he could not get it ratified, and the Administration never made any meaningful attempt to do so. As the second Clinton term wrapped up, we hoped that as President, Gore would make climate action a priority. But despite his winning the popular vote, the election was caught up in "hanging chad" debates playing out during the international climate negotiations in The Hague.<sup>12</sup> That was another "Where were you when....?" moment for many of us at the climate talks staying up at all hours from jet lag and waiting to see who would become our new President.

---

8. Byrd-Hagel Resolution, S. Res. 98, 105th Cong. (1997) (enacted).

9. *See id.*

10. "Despite the Senate's advice, in December 1997, the administration agreed to a Kyoto Protocol that mandated GHG reductions for industrialized countries, but none for developing countries effectively defying the Byrd-Hagel resolution that it had not opposed 5 months earlier." Henry Lee et al., *US Domestic Climate Change Policy*, 1 CLIMATE POL'Y 381, 387 (2001).

11. Jean Chemnick, *How Clinton and Blair Talked About Global Warming*, SCI. AM. (Jan. 11, 2016), <https://www.scientificamerican.com/article/how-clinton-and-blair-talked-about-global-warming/>. *See generally* AL GORE, *EARTH IN THE BALANCE: ECOLOGY AND THE HUMAN SPIRIT* (2006).

12. Carter M. Yang, *The Presidency Hinges on Tiny Bits of Paper*, ABC NEWS (Nov. 12, 2000), <https://cseweb.ucsd.edu/~goguen/courses/275f00/abc-chads.html>.

The outcome of the 2000 election was a surreal moment no matter where you were in the world, but there is no doubt that it clearly determined how seriously the issue would be engaged in for decades to come. Given what we know now about Al Gore's commitment to addressing the climate crisis and the George W. Bush administration's abandonment of his campaign pledge to reduce carbon dioxide from power plants (a battle that is still playing out) and his nearly immediate backing away from the Kyoto bargaining table, we can only imagine what might have happened in an alternate universe in which the election had gone the other way. Bush's election did not lead to climate leadership in a "Nixon going to China" moment like one of my more optimistic colleagues predicted upon the results of the Supreme Court case that decided the winner. On the other hand, that election gained us an ally in Sen. John McCain (R-AZ), who of course, passed away recently.

You might recall that Sen. McCain ran against George W. Bush in the Republican primary and on the campaign trail he was followed by "Captain Climate"—a young man in tights and a cape attending his campaign events and repeatedly asking: "What's your plan?"<sup>13</sup> McCain promised to look into it, and he launched into hearings with his science committee and continued to press the Bush Administration for action. He sponsored the first climate action bills with Lieberman as his Democratic co-sponsor.<sup>14</sup> I was fortunate to have had the opportunity to work with him and his staff from the earliest days of crafting their legislative outline while at the Pew Center on Climate Change.<sup>15</sup> Compared to what we see today on cosponsors and votes, those early iterations of comprehensive climate legislation garnered impressive support in Congress.<sup>16</sup> In October of 2003, the McCain-Lieberman Climate Stewardship Act, aiming to cap industrial greenhouse gas emissions and establish a trading system for emissions credits, got forty-three votes in the Senate.<sup>17</sup>

---

13. John Carey, *McCain: The New 'Captain Climate'?*, BLOOMBERG (May 13, 2008), <https://www.bloomberg.com/news/articles/2008-05-12/mccain-the-new-captain-climate-businessweek-business-news-stock-market-and-financial-advice>.

14. *Id.*

15. See Marianne Lavelle, *John McCain's Climate Legacy*, INSIDE CLIMATE NEWS (Aug. 26, 2018), <https://insideclimatenews.org/news/26082018/john-mccain-climate-change-leadership-senate-cap-trade-bipartisan-lieberman-republican-campaign>.

16. See *id.* ("Although McCain-Lieberman failed . . . the vote sent a ripple of hope through the community of climate activists. . . . [M]embers of both parties who voted in opposition said they accepted climate science and pledged to work for a climate bill they could support.")

17. *Id.*

Many of us worked on those bills, and later versions of cap and trade bills, built on those blueprints. In the process, we helped build an unprecedented coalition of leaders from businesses, think tanks, and NGOs called the U.S. Climate Action Partnership or “USCAP.”

In 2009, for the first time, comprehensive climate legislation passed the U.S. House of Representatives, but the American Clean Energy and Security Act (also known as “Waxman-Markey” for its sponsors) was never brought to the Senate floor for a vote.<sup>18</sup> After the failure of comprehensive climate legislation in 2010, the issue became even more partisan, and today it is difficult to even talk about climate change on Capitol Hill—much less enact a policy. We are only now fully grasping what we were up against in terms of the misinformation campaign. Citizens United and the Tea Party movement made it even more difficult to address this issue on a bipartisan basis, since moderate Republicans were being “primaried” by increasingly right-wing, anti-government opponents.

The inaction by President George W. Bush and Vice President Cheney during the early 2000s (which helped block proposed legislation sponsored by Senators McCain and Lieberman) did have one important effect. It prompted critical bipartisan state leadership that continues to this day. With actions ranging from lawsuits trying to force federal action to state leadership on clean energy and climate, Republican governors such as Pataki (NY),<sup>19</sup> Romney (MA) (before he ran for President),<sup>20</sup> and Schwarzenegger (CA)<sup>21</sup>, as well as courageous legislators like California’s Fran Pavley (D), launched impressive policies that remain with us today. Their actions resulted

---

18. Amanda Reilly & Kevin Bogardus, *7 Years Later, Failed Waxman-Markey Bill Still Makes Waves*, E&E NEWS (June 27, 2016), <https://www.eenews.net/stories/1060039422>; American Clean Energy and Security Act, H.R. 2454, 111th Cong. (2009).

19. Amanda Little, *Interview: Republican Candidate George Pataki Says It’s Time to Talk About Climate Change*, GRIST (Sept. 25, 2015), <https://grist.org/climate-energy/interview-republican-candidate-george-pataki-says-its-time-to-talk-about-climate-change/>.

20. Catalina Camia, *Mitt Romney: Climate Change is Real, and Humans Contribute*, USA TODAY (Jan. 22, 2015), <https://www.usatoday.com/story/news/politics/onpolitics/2015/01/22/mitt-romney-climate-change/81555810/>.

21. Chris Megerian, *Arnold Schwarzenegger Talks Bipartisanship and Climate Change*, L.A. TIMES (July 18, 2017), <https://www.latimes.com/politics/la-pol-ca-schwarzenegger-republican-climate-change-20170718-htmstory.html>.

in California's clean car standards,<sup>22</sup> its comprehensive climate program, AB-32,<sup>23</sup> as well as the Regional Greenhouse Gas Initiative in the Northeast,<sup>24</sup> among others.

In addition, states, cities, and land trusts sued EPA and polluting companies to force action at the federal level in *Massachusetts v. EPA*<sup>25</sup> and *American Electric Power Company v. Connecticut*<sup>26</sup>—using existing Clean Air Act authority and attempting to hold utilities accountable for reducing emissions under common law nuisance theories. *Massachusetts v. EPA*<sup>27</sup> crucially affirmed EPA's authority to regulate greenhouse gas emissions under the Clean Air Act.<sup>28</sup> That authority has also been supported in subsequent cases, and the courts closed the door to federal common law challenges, pointing to that authority which was activated by EPA's endangerment finding.<sup>29</sup>

That Clean Air Act authority became the foundation for the regulations promulgated by the Obama Administration for motor vehicles and utilities—the two major emitting sectors (transportation and electricity).<sup>30</sup> These federal regulations are now what the Trump Administration is actively working to roll back, in part citing the lack of California's authority to set standards that other states could follow in the greenhouse gas reduction context.<sup>31</sup> Similar questions were litigated during the George W. Bush era when the Environmental Protection Agency refused to make an endangerment finding or to

---

22. Vehicular Emissions: Greenhouse Gases, 2002 Cal. Stat. Ch. 200 (A.B. 1493).

23. California Global Warming Solutions Act of 2006, 2006 Cal. Stat. Ch. 249 (S.B. 32).

24. *State Statutes & Regulations*, THE REG'L GREENHOUSE GAS INITIATIVE, <https://www.rggi.org/program-overview-and-design/state-regulations> (last visited Mar. 15, 2019).

25. See *Massachusetts v. E.P.A.*, 549 U.S. 497 (2007).

26. See *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410 (2011).

27. 549 U.S. at 510.

28. *Massachusetts*, 549 U.S. at 528–32 (“Because greenhouse gases fit well within the Clean Air Act’s capacious definition of ‘air pollutant,’ we hold that EPA has the statutory authority to regulate the emission of such gases from new motor vehicles.”).

29. See, e.g., *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 410 (2011) (holding that “The Clean Air Act and the EPA action the Act authorizes displace any federal common-law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants”); *Util. Air Regulatory Grp. v. E.P.A.*, 573 U.S. 302, 302 (2014) (holding that the term “air pollutant” includes greenhouse gases, and that requiring best available control technology is permissible.).

30. See Federal Motor Vehicle Safety Standards, 49 C.F.R. § 571 (2011); Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60).

31. See David Shepardson & Valerie Volcovici, *Trump Administration Ends California Talks on Auto Emissions: White House*, REUTERS (Feb. 21, 2019), <https://www.reuters.com/article/us-autos-emissions-california/trump-administration-ends-california-talks-on-auto-emissions-white-house-idUSKCN1QA2CD>.



issue California a required Clean Air Act waiver to move forward with vehicle standards. California and the states that follow the California Standards (Section 177 states) won in two federal appellate courts,<sup>32</sup> and *Massachusetts v. EPA*<sup>33</sup> remains the law of the land.

That is not stopping the Trump Administration from using the same arguments to attack the California motor vehicle standards now.<sup>34</sup> The administration is raising some of the same failed arguments that lost in court in the George Bush EPA's revisions of the Clean Air Act's new source review program in their very limited interpretation of EPA authority in the Clean Power Plan replacement, the "Affordable Clean Energy" rule or "ACE."<sup>35</sup>

Our Georgetown Climate Center is working with a bipartisan group of leading states, as we have in the past, to facilitate comments around these issues.<sup>36</sup> State attorneys general and others are also pushing back hard. I predict the leading states will prevail. But we have already lost time that we cannot afford to lose.

Which brings us to Paris. Do you remember where you were when the good news came out that a deal had been struck? I know that some of us were lucky enough to be there and to celebrate that achievement. I admit, champagne was involved. After a history of setbacks both domestically in the United States and (related of course) at the international level, the world's coming together in Paris was a wonderful and necessary achievement. For the first time, we had created a truly global regime with ambitious goals of averting the worst consequences of climate change by limiting planetary warming to 1.5 degrees Celsius. Still, we knew that the nationally determined

---

32. See *Green Mountain Chrysler Plymouth Dodge v. Crombie*, 508 F. Supp. 2d 295 (D. Vt. 2007); *Cent. Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151 (E.D. Cal. 2007), as corrected (Mar. 26, 2008).

33. 549 U.S. 497.

34. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, 83 Fed. Reg. 42,986 (proposed Aug. 24, 2018) (to be codified at 40 C.F.R. pts. 85 & 86).

35. Bob Egelko, *Trump Attack on California's Emissions Standards Faces Legal Battle*, S.F. CHRON. (Aug. 2, 2018), <https://www.sfchronicle.com/news/article/Trump-attack-of-Ca-s-emission-standards-faces-13128243.php>. See also Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, 83 Fed. Reg. 44,746 (proposed Aug. 31, 2018) (to be codified at 40 C.F.R. pts. 51, 52 & 60).

36. Letter from State Environmental Leaders to Andrew Wheeler, Acting Administrator, E.P.A. (Oct. 31, 2018), [https://www.georgetownclimate.org/files/2018-10-31\\_State\\_Environment\\_Leaders\\_Comment\\_Letter\\_CPP\\_Replacement.pdf](https://www.georgetownclimate.org/files/2018-10-31_State_Environment_Leaders_Comment_Letter_CPP_Replacement.pdf).

contributions were both a stretch goal (David Victor has pointed out that some were “magical thinking”) and yet, still not sufficient.<sup>37</sup> But they were grounded in what was possible and put the world on a course to decarbonize.

Even as we celebrated during and after Paris, we always knew that the real work was still to come, and that taking stock and raising ambition would be critical to bringing the promise of Paris to fruition.

With the change in U.S. Administrations—the 2016 election being another “Where were you when...” moment (one I will not dwell on today)—the future of Paris is a very real concern. After all, the United States remains responsible for the largest historical contribution to greenhouse gas pollution and is on the hook for about 20% of global reductions by 2030, so there is legitimate concern about what may be possible especially given the significant impacts we are already experiencing.<sup>38</sup> Recent analysis by the organization America’s Pledge shows that with current policies we are on target for a 17% reduction, rather than the goal of 26-28% reduction from 2005 levels by 2025.<sup>39</sup>

There is good news though in the form of shifts in technology. For example, shifts from coal to gas and to more affordable renewables, and the increasing availability of electric vehicles. That is already evident in the direction of the markets—in part because of shifts in technology, natural gas finds, and the lower costs of renewables edging out coal plants. Global clean energy investments soared in 2017 to more than \$335.5 billion.<sup>40</sup>

In the United States, federal and state laws and policies—including regulation and incentives—have played an important role. We should not minimize the role of policy in the necessary transition. For example, there have been new standards released to reduce mercury emissions and other pollutants—another rule Trump’s

---

37. *The Paris Agreement*, U.N. CLIMATE CHANGE, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> (last visited Mar. 16, 2019).

38. Office of the Press Secretary, *FACT SHEET: U.S. Reports its 2025 Emissions Target to the UNFCCC*, THE WHITE HOUSE: PRESIDENT BARACK OBAMA (Mar. 31, 2015), <https://obamawhitehouse.archives.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc>.

39. AMERICA’S PLEDGE INITIATIVE ON CLIMATE, *FULLFILLING AMERICA’S PLEDGE: HOW STATES, CITIES, AND BUSINESSES ARE LEADING THE UNITED STATES TO A LOW-CARBON FUTURE* 9 (2018).

40. Jake Schmidt, *Surging Global Clean Energy Investments in 2017*, NAT. RESOURCES DEF. COUNCIL (Jan. 18, 2018), <https://www.nrdc.org/experts/jake-schmidt/surging-global-clean-energy-investments-2017>.

Environmental Protection Agency is trying to roll back, even against the wishes of the utilities' trade association, the Edison Electric Institute (because they realize that ship has sailed).<sup>41</sup> In terms of federal incentives for wind and solar, tax credits have helped expand the market and make these renewable energy sources more cost-competitive now. Since 2010, the cost of wind power generation has decreased by 23% while the price of solar power generation has fallen by over 70%.<sup>42</sup> That has made renewable energy competitive with, and in many cases even cheaper than, energy derived from fossil fuels.<sup>43</sup> For decades, states have had Renewable Portfolio Standards (RPS), carbon caps, emissions trading programs and more.<sup>44</sup> In fact, twenty-nine states have RPSs, from Texas to California to right here in Maryland.<sup>45</sup> For example, Maryland's RPS is 25% by 2020.<sup>46</sup> Its greenhouse gas reduction target is 40% below 2006 levels by 2030.<sup>47</sup> Many states have met and exceeded their initial targets and have set more ambitious targets, which they are meeting as well.

Working with states and cities is at the heart of what our Georgetown Climate Center was set up to do a decade ago and what we work on every day—assisting state and local governments with reducing emissions that cause climate change and helping to prepare for and adapt to its consequences. State and local leadership has been exhibited for years and often survives changes in administrations. It is not a substitute for national and international action, but rather is an essential component that is important in its own right given different responsibilities and authorities and given the nature of climate change. Each of these nested layers of government has important roles to play.

---

41. Coral Davenport, *Trump Administration Prepares a Major Weakening of Mercury Emissions Rules*, N.Y. TIMES (Sept. 30, 2018), <https://www.nytimes.com/2018/09/30/climate/epa-trump-mercury-rule.html>.

42. Dominic Dudley, *Renewable Energy Will Be Consistently Cheaper Than Fossil Fuels by 2020, Report Claims*, FORBES (Jan. 13, 2018), <https://www.forbes.com/sites/dominicdudley/2018/01/13/renewable-energy-cost-effective-fossil-fuels-2020/#3e3e9b314ff2>.

43. *Id.*

44. Vicki Arroyo, *The Global Climate Action Summit: Increasing Ambition During Turbulent Times*, 19 CLIMATE POL'Y 1087, 1089 (2018), <https://doi.org/10.1080/14693062.2018.1516957>.

45. *State Renewable Portfolio Standards and Goals*, NAT'L CONFERENCE OF STATE LEGISLATURES (Feb. 1, 2019), <http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx>.

46. Greenhouse Gas Emissions Reduction Act – Reauthorization, 2016 Md. Laws Ch. 11 (S.B. 323).

47. *Id.*

For example, local governments often have authority over zoning and land use, planning, building codes, transit, parking restrictions (going from minimum spaces to maximums). They also provide electric vehicle charging stations, install renewables, and manage stormwater.

State governments play vital roles in transportation planning, electric power regulation, efficiency standards, incentives for electric vehicles, weatherization programs, renewable portfolio standards, incentives, etc. Regional collaborations across local and state jurisdictions can offer staying power across states and administrations. For example, the Regional Greenhouse Gas Initiative (RGGI) has expanded to cover nine states and has reviewed and tightened its cap three times.<sup>48</sup> RGGI took lessons from acid rain program and EU-ETS and informed the design of California's cap-and-trade system, offering insights regarding the use of allowance proceeds, including through auctioning and reinvestment.<sup>49</sup> New Jersey and Virginia are in conversations about joining RGGI.<sup>50</sup> More recently, the Transportation and Climate Initiative we facilitate—a regional collaboration from the District of Columbia to Maine to reduce emissions—has expanded to include Virginia.<sup>51</sup>

For years, we have seen how essential leadership in RGGI and California has been. Due to these and other programs, we are learning by doing. We are demonstrating proof of concept, good use of investment proceeds, and co-benefits of reducing conventional air pollution, efficiency, job creation. These programs demonstrate and lift up bipartisan leadership.

These leading states, cities, and so many others weighed in before, during, and especially *after* President Trump's announcement of his planned withdrawal from the Paris Agreement. The

---

48. RGGI, INC., <https://www.rggi.org/> (last visited Mar. 18, 2019).

49. *Elements of RGGI*, RGGI, INC., <https://www.rggi.org/program-overview-and-design/elements> (last visited Mar. 18, 2019).

50. See COMMONWEALTH OF VA. JOINT LEGISLATIVE AUDIT & REVIEW COMM'N, FISCAL IMPACT REVIEW: EXECUTIVE DIRECTIVE 11 (2017); *Greenhouse Gases*, VA. DEP'T OF ENVTL. QUALITY, <https://www.deq.virginia.gov/Programs/Air/GreenhouseGasPlan.aspx> (last visited Mar. 18, 2019) ("What's New as of November 2017 ... The Georgetown Climate Center has provided Excel files with more detailed information on the runs presented in the October 20 webinar. The information provided in these spreadsheets is what ICF provides the RGGI states for their analysis of potential program designs and RGGI, Inc., posts on its website.").

51. *TCI Welcomes the Commonwealth of Virginia*, TRANSP. & CLIMATE INITIATIVE (Sept. 12, 2018), <https://www.transportationandclimate.org/tci-welcomes-commonwealth-virginia>.

willingness of so many to move forward without federal U.S. leadership—across the world—is evidenced by new coalitions such as “We Are Still In” and the “U.S. Climate Alliance,” along with similar commitments by mayors around the world, businesses, and more.<sup>52</sup>

If a *federal* program does not take shape from the top down, over time organizations like ours and other conveners will help support and enable the evolution of a *national* program from the bottom up, linking arms—and potentially even programs—to cover more of the United States.

It is critical to protect state authorities to go beyond federal standards. No matter what happens in Washington, D.C., though, eventually we do need and *will have* a federal program. States have interests to protect in their own right and should not be preempted in any kind of “grand bargain” on a climate policy that can be rolled back at the federal level. We learned change can happen overnight—which literally happened when the mention of climate change vanished off the White House website on inauguration day last year.<sup>53</sup> If states are precluded from leading, we would lose precious expertise and capacity at the state level, just as we are seeing now with attrition from Environmental Protection Agency, Department of Interior, and other agencies where scientists and regulators are limited in their ability to conduct their work without interference and to have it supported by their supervisors.<sup>54</sup>

Of course, as important as the work of state and local governments can be, there are limits to what subnational actors can do. They do not have the authority to negotiate treaties, for example. However, states and cities are essential partners and players to implementing something as sweeping as the energy transformation

---

52. Arroyo, *supra* note 44, at 1088.

53. Coral Davenport, *With Trump in Charge, Climate Change References Purged from Website*, N.Y. TIMES (Jan. 20, 2017), <https://www.nytimes.com/2017/01/20/us/politics/trump-white-house-website.html>.

54. Lisa Friedman, Marina Affo & Derek Kravitz, *E.P.A. Officials, Disheartened by Agency's Direction, Are Leaving in Droves*, N.Y. TIMES (Dec. 21, 2017), <https://www.nytimes.com/2017/12/22/climate/epa-buyouts-pruitt.html>; Alexander Nazaryan, *How the EPA's Scott Pruitt Became the Most Dangerous Member of Trump's Cabinet*, NEWSWEEK (Feb. 7, 2018), <https://www.newsweek.com/2018/02/16/scott-pruitt-most-dangerous-member-trump-cabinet-801035.html>; Michael Wald, *Turnover Up As More Workers Quit the Federal Government*, FEDSMITH (Mar. 22, 2018), <https://www.fedsmith.com/2018/03/22/turnover-workers-quit-federal-government/>.

required of greenhouse gas reduction policy. Especially now in this era of wholesale federal rollbacks, subnational partners are increasingly working together to fill the void.

Under terms of Paris Agreement, the United States cannot pull out until November 4, 2020—one day after the next presidential election.<sup>55</sup> Professor Harold Koh of Yale and formerly of the U.S. State Department has quipped that Trump’s announcement on Paris has “no more legal effect than a tweet.”<sup>56</sup> Yet, we have all seen the havoc a tweet can bring.

Professors Koh, David Hunter, and others who you have heard from today have spoken and written about how these activities might be treated in the international context. They have noted that these stakeholders can litigate and implement emission reductions designed to keep U.S. emissions within striking distance of the promised U.S. Nationally Determined Contribution. Professor Sharmila Murphy builds on this work in an upcoming article in *Virginia Environmental Law Review* referring to state and city leaders at this critical moment as “norm sustainers.” In the international context during these turbulent times, sustaining norms is critical. Beyond sustaining norms, state leaders I have the pleasure to work with every day are pathbreakers and example setters.

U.S. governors and other senior state officials have been engaging even in the international negotiations for decades. They have shared their stories at the climate negotiations, from the first Conference of the Parties (“COP”)/Meeting of the Parties (“MOP”) in Montreal where the George W. Bush Administration’s State Department trotted out states to demonstrate U.S. action on climate change (though their Administration was not supportive of climate action and was altering documents to play up scientific uncertainties), to Copenhagen, Cancun, Lima, Paris, and Bonn, where U.S. states played increasingly important roles.

Over the last decade, our Center and partners helped organize events to hold up subnational leadership and secure credentials for governors and senior state officials for these COPs—through our own observer status at Georgetown, and through the State Department under President Obama—then through the United Nations for Bonn

---

55. Tim Marcin, *Trump’s Paris Agreement Decision that Takes Effect One Day After the 2020 Election*, NEWSWEEK (June 1, 2017), <https://www.newsweek.com/trumps-paris-agreement-decision-takes-effect-one-day-after-2020-election-619326>.

56. Harold Hongju Koh, *The Trump Administration and International Law*, 56 WASHBURN L. J. 413, 436 (2017).

where we had the largest delegation of state officials and programmed several events in all three venues—including the new U.S. Climate Action Center that served as an alternative hub for leading U.S. activities.

We had senior officials from eleven states (bipartisan) attend the talks in Bonn, including four U.S. Governors, and the subnational presence at the Center and beyond was a source of inspiration for negotiators from around the world—and happily noted upon by German Chancellor Angela Merkel in her welcoming remarks.<sup>57</sup>

Even as someone who has focused on domestic leadership and particularly state leadership for a decade, I find the leadership we have seen after the Paris Agreement withdrawal announcement inspiring. For example, upon Trump’s announcement in June 2017 of the U.S.’s intent to withdraw from the agreement, Governors Jay Inslee of Washington, Andrew Cuomo of New York, and Jerry Brown of California formed the United States Climate Alliance (USCA), declaring an intent to honor the U.S. Paris Agreement commitments, and quickly expanded that coalition.<sup>58</sup> Seventeen U.S. governors are now members in this Alliance—a bipartisan coalition of states and provinces that represent more than \$9 trillion of the U.S.’s \$18.6 trillion GDP.<sup>59</sup> If the members of the USCA were a country, they would be the third largest economy in the world.<sup>60</sup>

On the West Coast, California extended its cap and trade program. Cap and Trade Bill AB 398 was signed July 17, 2017—extending the cap and trade program to 2030.<sup>61</sup> This program—the only one of its kind in the country and the second largest in the world—is the centerpiece of the state’s efforts to reduce carbon

---

57. *U.S. State Leadership at COP23*, GEORGETOWN CLIMATE CTR. (Nov. 17, 2017), <http://www.georgetownclimate.org/articles/u-s-state-leadership-at-cop23.html>.

58. *Alliance Principles*, U.S. CLIMATE ALLIANCE, <https://www.usclimatealliance.org/alliance-principles> (last visited Mar. 18, 2019).

59. Press Release, *U.S. Climate Alliance, Seventeen Governors in U.S. Climate Alliance Mark One-Year Anniversary with New Wave of Climate Actions*, U.S. CLIMATE ALLIANCE (June 1, 2018), <https://www.usclimatealliance.org/publications/oneyearanniversary>.

60. *Id.*

61. Georgina Gustin, *California Lawmakers Extend Cap-and-Trade to 2030, with Republican Support*, INSIDE CLIMATE NEWS (July 18, 2017), <https://insideclimateneews.org/news/17072017/california-cap-trade-bill-extended-2030-jerry-brown-victory>.

emissions.<sup>62</sup> California's Governor Brown also signed into law the Clean Energy Bill SB 100 on September 10, 2018 (at GCAS)—pledging that the state would become 100% renewable by 2045.<sup>63</sup>

On the East Coast, the RGGI bipartisan coalition of nine Northeastern and Mid-Atlantic states reviewed its programs and pledged to cut pollution by at least another 30% by 2030 relative to 2020 levels.<sup>64</sup> This brings reductions to a total of 65% since the program began in 2009, with RGGI now expanding as states like Virginia set up their own carbon caps and work to link with RGGI, while New Jersey works to rejoin.<sup>65</sup>

On May 18, 2018, Governor Malloy of Connecticut signed two bills.<sup>66</sup> One would set a reductions target for greenhouse gas emissions of 45% below 2001 levels by 2030.<sup>67</sup> It also mandates that future coastal projects, whether undertaken by state agencies or funded through federal or state loans, take a projected sea level rise of two feet by 2050 into account.<sup>68</sup> The other new law, named the Comprehensive Energy Strategy, requires that 40% of the state's power come from renewable sources by 2030, while also creating a new flat rate for solar power.<sup>69</sup> Similarly, on June 4, 2018, Governor Ige of Hawaii signed House Bill 2182 to make Hawaii carbon neutral by 2045 (also same year it expects to generate 100% of its electricity from renewable energy).<sup>70</sup>

---

62. *Id.*

63. California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases, 2018 Cal. Stat. Ch. 312 (S.B. 100).

64. Press Release, *RGGI, Inc., RGGI States Announce Proposed Program Changes: Additional 30% Emissions Cap Decline by 2030*, RGGI INC. (Aug. 23, 2017), [https://www.rggi.org/sites/default/files/Uploads/Program-Review/8-23-2017/Announcement\\_Proposed\\_Program\\_Changes.pdf](https://www.rggi.org/sites/default/files/Uploads/Program-Review/8-23-2017/Announcement_Proposed_Program_Changes.pdf).

65. *Id.*

66. Bill Cummings, *Malloy Signs Clean Energy and Climate Bills*, CT POST (June 20, 2018), <https://www.ctpost.com/news/article/Malloy-signs-clean-energy-and-climate-bills-13010842.php>.

67. *Id.*

68. *Id.*; Environmental Protection – Plans and Specifications, 2018 Conn. Legis. Serv. P.A. 18-82 (S.B. 7) (West).

69. CONN. DEP'T OF ENERGY & ENVTL. PROTECTION, COMPREHENSIVE ENERGY STRATEGY: CT GENERAL STATUTES SECTION 16A-3D, at 29 (2018). This plan was finalized in February 2018. Robert Walton, *Connecticut Wants to Boost Renewables Goal to 40% by 2030*, UTILITY DIVE (Feb. 9, 2018), <https://www.utilitydive.com/news/connecticut-wants-to-boost-renewables-goal-to-40-by-2030/516778/>.

70. Samie Gebers, *Hawaii Sets Ambitious Goal: Carbon Neutral by 2045*, HAW. NEWS NOW (June 4, 2018), <http://www.hawaiinewsnow.com/story/38346913/hawaii-sets-ambitious-goal-carbon-neutral-by-2045/>; Relating to Environmental Protection, 2018 Haw. Sess. Laws 015 (H.B. 2182).



This year, there were also huge commitments on energy storage in California and in New York.<sup>71</sup> In New York, a new plan, NY Roadmap, released at the end of June “supports Democratic Gov. Andrew Cuomo’s energy storage target of 1,500 MW by 2025.”<sup>72</sup> At this month’s Global Climate Action Summit, huge financial commitments of \$4 billion from philanthropies were made, and New York City Mayor DeBlasio announced another \$4 billion of pension fund assets would be invested in climate change solutions like renewable energy.<sup>73</sup> California has an energy storage target of 1,300 MW by 2020 that it is expected to exceed.<sup>74</sup>

There were also commitments made to phase out hydrofluorocarbons (HFCs) and work together on methane.<sup>75</sup> Several states, including New York, Maryland, and Connecticut, announced plans in September at the Summit to “phase out super-polluting HFCs and replace them with climate-friendlier coolants” in new refrigerators, air conditioners, and other products.<sup>76</sup>

Incentives and infrastructure around electric and other Zero Emission Vehicles (ZEV) are an area where state collaboration holds particular promise. To get transformative change, we need to decarbonize our electric sector—and shift more of our transportation to electric and other low-carbon sources. As a relatively new electric vehicle (EV) owner—I drove here today in my Chevy Bolt—I can attest to the attractiveness of driving an EV beyond feeling better

---

71. Peter Maloney, *New York’s Energy Storage Target Could End Up at 3 GW by 2030*, UTILITY DIVE (July 10, 2018), <https://www.utilitydive.com/news/new-yorks-energy-storage-target-could-end-up-at-3-gw-by-2030/526895/>; *In the Matter of Energy Storage Deployment Program*, 18-00516, NEW YORK STATE DEPARTMENT OF PUBLIC SERVICE (2018).

72. *Id.*

73. *Mayor and Comptroller Announce Pension Fund Goal to Invest \$4 Billion in Climate Change Solutions By 2021*, N.Y.C. (Sept. 13, 2018), <https://www1.nyc.gov/office-of-the-mayor/news/469-18/mayor-comptroller-pension-fund-goal-invest-4-billion-climate-change-solutions>.

74. *California Expected to Exceed 2020 Goals for Energy Storage*, CAL. ENERGY COMM’N (Aug. 29, 2018), <http://calenergycommission.blogspot.com/2018/08/california-expected-to-exceed-2020.html>; Energy Storage Systems, 2010 Cal. Stat. Ch. 469 (A.B. 2514).

75. Phil McKenna, *3 States Announce Plans to Phase out Climate Super-Pollutants Used in Cooling*, INSIDE CLIMATE NEWS (Sept. 13, 2018), <https://insideclimatenews.org/news/10092018/new-york-ban-hfcs-potent-greenhouse-gas-climate-pollutant-cooling-refrigeration>; Press Release, *Talanoa Statement & Joint Submission*, GLOBAL CLIMATE ACTION SUMMIT (Sept. 14, 2018), <https://www.globalclimateactions summit.org/talanoa-statement-joint-submission/>.

76. Courtney Lindwall, *Tracking Climate Commitments from the Global Climate Action Summit*, NRDC (Sept. 12, 2018), <https://www.nrdc.org/stories/tracking-climate-commitments-global-climate-action-summit>.

about carbon footprint. My experience shows the importance of policy though. It was not easy to find a Bolt in Virginia. I came to a ZEV state, Maryland, to buy one.

Whether they change our driving experience and choices or require more sweeping, systematic changes, transitions are difficult due to inertia and sunk costs. There are clear challenges given the lack of U.S. leadership in making climate policies a priority at international meetings and bilaterals. In fact, this Administration is dismantling the policies that promote action and removing some of the financing to help other countries meet their obligations. Showing less political will to tackle something this huge and difficult makes it harder to do something that was already very difficult.

So, what can we do?

We can claim the mantle of leadership and engage through commenting on federal policy rollbacks to create a record, through promoting and supporting state, local, and private sector leadership, through litigation, through marches for science and climate action, through making our own choices as consumers, and through prioritizing these issues that are not in the far-off future but which pose existential threats now, when we interact with elected and appointed officials.

We can call out false choices, such as the claim that we must choose between economic growth and environmental protection. Decades of experience proves that both are not only possible but actually support each other as we move to an economy with an expected \$1 trillion of investments in clean energy by the year 2030.<sup>77</sup>

We can engage in local and state planning processes. We had a great conversation in Largo, Maryland, with diverse stakeholders as part of the Transportation Climate Initiative. Maryland has an active climate commission, chaired by Secretary of Environment Ben Grumbles. We can attend meetings like these held by local government sustainability offices, forestry, and planning commissions and join other community conversations.

---

77. Silvio Marcacci & Gil Jenkins, *Top Renewable Energy Financiers Reveal Pathway to \$1 Trillion in US Investment*, FORBES (July 11, 2018), <https://www.forbes.com/sites/energyinnovation/2018/07/11/top-renewable-energy-financiers-reveal-pathway-to-1-trillion-in-u-s-investment/#35ef04c634b0>.

For students not from Maryland, consider engaging in these issues wherever home is. Working at the state and local level on a bipartisan basis on these and so many other issues has never been more important—please consider a career in these areas. Your community and the world need you.

Indeed, even when there is strong federal leadership on climate—and there *will* be again—it is up to all of us to play a role in climate change and in our democracy by rolling up our sleeves and being willing to take risks and try new things.

I hope you will engage, whether it be at the policy level—for example, by showing up for public hearings on federal policy rollbacks, attending state and local climate and energy planning forums—or at the personal level, through voting and maybe even raising your hand to serve on a commission or to run for office one day.

Whether students here are heading into jobs working on environment and sustainability issues directly or not—working in the public sector, for an NGO or for a company or firm—I hope you will each consider it part of *your* responsibility to incorporate what you are learning in your time here at the Carey School of Law into your life's work. Just as you make use of your training in ethics and professional responsibility, you can also apply consideration of environmental implications to your advice to clients. The future is really in your hands.

Thirty years ago, when I was in my 20's like many of you, I saw the projections of what carbon dioxide would do to our planet. I remember having a moment of despair, thinking that perhaps the world that was coming was not one I wanted to bring a child into. Now thirty years into a career working on these issues and with a twenty-two-year-old son who is also a first-year law student this year, I recognize both the time we have lost and the progress we have made.

The progress and innovations in our time—the internet, iPhones, electric vehicles, and changes in demographic trends and priorities—give me hope and should provide you with hope and inspiration too.

It is the members of your generation and my son's who will not only feel the effects of climate change but who also will have to put significant energy into solving it—and into preparing for its inevitable consequences. Those consequences have already taken a toll on my family—and I would wager—many others here in this

room given the increasing frequency of severe storms like Hurricane Isabel, Sandy, and Florence, events like flooding in Ellicott City and Smith Island sinking into the sea. It is a big challenge, but it also creates many opportunities for positive change in how we build and invest in our communities and the choices we have in how we live.

Along the way, each of you will have your own “Where were you when...?” moments ... Maybe today will be one of them. Thanks to the contributions each of you will make, I am hopeful there will come a day when we have achieved the transformation that will put the brakes on runaway climate change. That will truly be a day to remember. Thank you!