

Nos. 20-1530, 20-1531, 20-1778 and 20-1780

IN THE
Supreme Court of the United States

WEST VIRGINIA, *et al.*,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

Respondents.

THE NORTH AMERICAN COAL CORPORATION,

Petitioner,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

Respondents.

(For Continuation of Caption See Inside Cover)

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF
APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

**BRIEF OF *AMICI CURIAE* THE NATIONAL LEAGUE
OF CITIES AND THE U.S. CONFERENCE OF
MAYORS IN SUPPORT OF RESPONDENTS**

MICHAEL BURGER
Counsel of Record
SABIN CENTER FOR CLIMATE
CHANGE LAW
435 West 116th Street
New York, NY 10027
(212) 854-2372
michael.burger@law.columbia.edu

Counsel for Amici Curiae

WESTMORELAND MINING HOLDINGS LLC,

Petitioner,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

Respondents.

NORTH DAKOTA,

Petitioner,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

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TABLE OF CONTENTS

	<i>Page</i>
TABLE OF CONTENTS.....	i
TABLE OF CITED AUTHORITIES	ii
INTEREST OF AMICI CURIAE.....	1
SUMMARY OF ARGUMENT.....	2
ARGUMENT.....	4
1. Cities Are Grappling with the Effects of Climate Change.....	4
2. Limiting EPA’s Regulatory Authority Would Frustrate Cities’ Efforts to Address and Adapt to Climate Change	13
A. Adaptation Efforts	14
B. Mitigation Efforts	20
3. The D.C. Circuit Correctly Held That This Case Does Not Implicate Either the Major Questions Doctrine or the Federalism Clear Statement Canon	26
CONCLUSION	32

TABLE OF CITED AUTHORITIES

	<i>Page</i>
CASES	
<i>Alden v. Maine</i> , 527 U.S. 706 (1999).....	31
<i>Am. Elec. Power Co. v. Connecticut</i> , 564 U.S. 410 (2011).....	3, 27
<i>Am. Lung Ass’n v. Env’t Prot. Agency</i> , 985 F.3d 914 (D.C. Cir. 2021).....	27, 29, 30, 31
<i>AT&T Corp. v. Iowa Utilities Board</i> , 525 U.S. 366 (1999).....	31
<i>Brown v. Williamson</i> , 529 U.S. 120 (2000).....	27
<i>Int’l Paper Co. v. Ouellette</i> , 479 U.S. 481 (1987).....	30
<i>Massachusetts v. E.P.A.</i> , 549 U.S. 497 (2007)	27
<i>Nat’l Fed’n of Indep. Bus. v. Dep’t of Lab., Occupational Safety & Health Admin., No. 21A244, 2022 WL 120952 (U.S. Jan. 13, 2022)</i>	28
<i>Utility Air Regulatory Group v. EPA</i> , 573 U.S. 302 (2014).....	28

Cited Authorities

	<i>Page</i>
<i>Vermont Agency of Nat. Res. v.</i> <i>U.S. ex rel. Stevens,</i> 529 U.S. 765 (2000).....	30
STATUTES AND OTHER AUTHORITIES	
5 U.S.C. § 706(2).....	28
42 U.S.C. § 7411(a)(1).....	28
42 U.S.C. § 7607(d)(1)(C).....	28
42 U.S.C. § 7607(d)(9)(A).....	28
80 Fed. Reg. 64662 (Oct. 23, 2015).....	25
2018 Green Works Orlando Community Action Plan (2018).....	20
<i>2020 - Cities Adaptation Actions, CDP</i>	14
<i>2021 Pacific Northwest Heat Wave ‘Virtually Impossible’ Without Global Warming, Scientists Find, Yale Climate Connections (Nov. 2, 2021)</i>	7
Alison Saldanha et al., <i>Dangerous Air: As California Burns, America Breathes Toxic Smoke, KCRW</i> (Sept. 28, 2021)	10

Cited Authorities

	<i>Page</i>
Alliance for a Sustainable Future, <i>Mayors Leading the Way on Climate</i> (2020)	13
<i>Anchorage, AK Climate Action Plan</i> (2019)	18
Boston Climate Preparedness Task Force, <i>Climate Ready Boston: Municipal Vulnerability to Climate Change</i> (2013)	15
Brian K. Sullivan et al., <i>Drought Is the U.S. West's Next Big Climate Disaster</i> , Bloomberg Green (March 20, 2021)	11
Caleb Robinson et al., <i>Modeling Migration Patterns in the USA Under Sea Level Rise</i> , PLoS ONE, Jan. 2020	5
Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662 (Oct. 23, 2015)	28
Casey Crownhart, <i>Cities Are Scrambling to Prevent Flooding</i> , MIT Tech. R. (July 20, 2021)	6
Charleston, South Carolina, <i>Sea Level Rise Strategy</i> (2015)	15
<i>Charlotte Strategic Energy Action Plan</i>	21

Cited Authorities

	<i>Page</i>
City and County of Denver, <i>Climate Adaptation Plan</i> (2014)	17
City of Asheville et al., <i>Planning for Climate Resilience: City of Asheville, North Carolina</i> (2018)	18
City of Atlanta, <i>Climate Action Plan</i> (2015).....	20
City of Atlanta, Ga. Ord. 17-O-1654 (2017).....	29
City of Austin, <i>Austin Climate Equity Plan</i> (2020-21)	21, 25
City of Baltimore, <i>Disaster Preparedness and Planning Project</i> (2013)	16
<i>City of Bloomington Climate Action Plan</i> (2021)	16
City of Boise, <i>Boise’s Climate Action Roadmap</i> (2021)	21
City of Charlotte, <i>Resolution File No. 15-9759</i> (June 25, 2018)	21
City of Chelan, Wash. Code § 17.63 (2018)	24
City of Columbia, South Carolina <i>Resolution No. R-2017-058</i> (June, 20 2017)	22

Cited Authorities

	<i>Page</i>
City of Columbus, the Columbus Green Community Plan Green Memo III (2015).....	21
City of Fayetteville, Arkansas Resolution No. 45-17 (Jan. 2018)	22
City of Fort Collins, Colo. Code § 5-30-E3401.5 (2019)	24
City of Helena, A Resolution Establishing a Goal of 100% Clean, Renewable Electricity for the Helena Community by 2030 (Feb. 24, 2020).....	22
City of Knoxville Resolution No. R-265-2019 (Aug. 13, 2019).....	21
City of Madison, CRANES Amended Resolution, Leg. File. No. 45569 (Mar. 2017)	22
City of New Orleans, <i>Climate Action for a Resilient New Orleans</i> (2017)	19
City of New York, N.Y. Intro. No. 2317 (2021)	23
City of Norfolk Virginia, <i>Coastal Resilience Strategy</i>	5, 16
City of Norman, Resolution No. R-1718-120 (May 2018).....	23

Cited Authorities

	<i>Page</i>
City of Phoenix, <i>Climate Action Plan: 2021 Edition</i> (2021)	19
City of Pittsburgh, <i>Climate Action Plan Version 3.0</i> (2017)	21
City of Providence, R.I. <i>Climate Justice Plan</i> (Fall 2019).....	25
City of Saint Paul, <i>Saint Paul Climate Action & Resilience Plan</i> (2019)	19
City of Salt Lake City, Utah, Code Ch. 21A.44.040.B (2019)	24
City of Santa Fe, Resolution No. 2019-47 (Sept. 11, 2019)	21
City of Seattle, Wash. Code § C401 (2015)	23
City of Sedona, Ariz. Code § 15.45.020 (2018)	24
City of Spokane, Wash. Ord. No. C35668 (Aug. 2018).....	23
City of St. Louis, Missouri Resolution No. 124 (Oct. 2017)	22
City of Tallahassee, Fla. Resolution No. 19-R-04 (Feb. 20, 2019).....	23

Cited Authorities

	<i>Page</i>
<i>Climate Mayors Submit Comments on Proposed Repeal of Clean Power Plan</i> , Climate Mayors (March 27, 2018).....	14
<i>Climate Change Adaptation</i> , Philadelphia Water Department, https://bit.ly/3tlcM1n (last visited Jan. 12, 2022).....	18
Daniel Politi, <i>Denver Records Worst Air Quality of Any Major City in World as Wildfires Burn</i> , Slate (Aug. 08, 2021)	10
David Reidmiller et al., <i>Ch. 1: Overview</i> , in 4th National Climate Assessment	12
Env't Prot. Agency, <i>Multi-Model Framework for Quantitative Sectoral Impacts Analysis: A Technical Report for the Fourth National Climate Assessment</i> (2017).....	12, 13
Francisco J. Doblas-Reyes et al., IPCC, <i>Ch. 10: Linking Global to Regional Climate Change</i> , in <i>Climate Change 2021: The Physical Science Basis</i>	7
<i>Heat Wave Melts Records Across East Coast</i> , NBC News (June 8, 2011)	8
<i>Hurricane Costs</i> , NOAA Office for Coastal Management.....	5

Cited Authorities

	<i>Page</i>
Jason Vogel et al., <i>Boulder County Climate Change Preparedness Plan</i> (2012).....	17
Jenessa Duncombe, <i>How the Ski Industry Stopped Worrying and Learned to Love Climate Activism</i> , <i>Eos</i> (Sept. 24, 2021).....	9
John Balbus et al., <i>Ch. 14: Human Health, in 4th National Climate Assessment</i>	7
John Balbus et al., <i>Human Health, in 4th National Climate Assessment</i>	7
Justin S. Mankin et al., <i>NOAA Drought Task Force Report on the 2020–2021 Southwestern U.S. Drought</i> (2021).....	12
Kai Zhang et al., <i>Impact of the 2011 Heat Wave on Mortality and Emergency Department Visits in Houston, Texas</i> , <i>Env't Health</i> , Jan. 2015.....	8
Karin Rogers et al., <i>Triangle Regional Resilience Assessment: Technical Report for the Triangle Regional Resilience Partnership</i> (2018).....	18
Katie Choe et al., <i>Climate Resilient Design Standards & Guidelines</i> (2018)	15

Cited Authorities

	<i>Page</i>
Keely Maxwell et al., <i>Ch. 11: Built Environment, Urban Systems, and Cities, in Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II (2018)</i>	4, 7
Kelly A. Burks-Copes et al., <i>Risk Quantification for Sustaining Coastal Military Installation Assets and Mission Capabilities (2014)</i>	5
Laurelyn Sandkamp et al., <i>Places at Risk: Minneapolis Climate Change Vulnerability Assessment (2016)</i>	19
Leah Nichols et al., <i>Ch. 17: Sector Interactions, Multiple Stressors, and Complex Systems, in 4th National Climate Assessment</i>	8
Manas Sharma et al., <i>The Age of the “Megafire,” Reuters Graphics (Feb. 1, 2021)</i>	9, 10
Mark Muro et al., <i>How the Geography of Climate Damage Could Make the Politics Less Polarizing</i> , Brookings (Jan. 29, 2019).	13
Marshall Burke et al., <i>The Changing Risk and Burden of Wildfire in the United States</i> , Proc. of the Nat’l Acad. of Scis. of the U.S., Jan. 12, 2021	9, 10, 11

Cited Authorities

	<i>Page</i>
Matt Gough, <i>California’s Cities Lead the Way to a Gas-Free Future</i> , Sierra Club (July 22, 2021).....	23
<i>Mayor’s Office of Climate Resiliency</i> , NYC	17
<i>Miami Forever Climate Ready</i> , Miami	17
Michon Scott, <i>Climate & Skiing</i> , Climate.gov.....	9
Mona Abdo et al., <i>Impact of Wildfire Smoke on Adverse Pregnancy Outcomes in Colorado, 2007 –2015</i> , Int’t J. of Env’t Rsch. and Pub. Health, Oct. 2019	11
National Academies of Sciences, <i>Attribution of Extreme Weather Events in the Context of Climate Change</i> (2016)	6
Office of Atmospheric Programs, Env’t Prot. Agency, EPA 430-R-15-001, <i>Climate Change in the United States: Benefits of Global Action</i> (2015)	7
‘One of the Densest Fogs.’ Pittsburgh, Trapped by Inversion, Begins to Clear, Pittsburgh Post-Gazette, Dec. 25, 2019	8
<i>Our Cities, Global Covenant of Mayors for Climate and Energy</i>	19

Cited Authorities

	<i>Page</i>
Patrick M. O’Connell & Tony Briscoe, <i>In 2019 — the 2nd Wettest Year Ever in the U.S. — Flooding Cost Illinois and the Midwest \$6.2 billion. Scientists Predict More Waterlogged Days Ahead</i> , Chicago Tribune, Jan. 16, 2020.	6
Philadelphia Mayor’s Office of Sustainability & ICF International, <i>Growing Stronger: Toward a Climate-Ready Philadelphia</i> (2015), https://bit.ly/3FmvM1K ; <i>Climate Change Adaptation</i> , Philadelphia Water Department	18
<i>Philadelphia’s Municipal Clean Fleet Plan</i> (Oct. 2021)	24
Press Release, Mayor Turner Launches the Resilient Houston Strategy and Signs Historic Executive Order to Prepare the City for Future Disasters (Feb. 12, 2020).	18
R J Delfino et al., <i>The Relationship of Respiratory and Cardiovascular Hospital Admissions to the Southern California Wildfires of 2003</i> , 66 Occupational & Env’t Med. 189 (2008)	11
Resilient Analytics, <i>The Impact of Climate Change: Projected Adaptation Costs for Boulder County, Colorado</i> (2018)	17
<i>Resilient People</i> , Eastern Shore Land Conservancy	16

Cited Authorities

	<i>Page</i>
Roshanka Ranasinghe et al., IPCC, <i>Ch. 12: Climate Change Information for Regional Impact and for Risk Assessment, in Climate Change 2021: The Physical Science Basis</i> (2021)	6
S. Rep. No. 88-638 (1963)	30
Salt Lake City, <i>Climate Adaptation Plan for Public Health</i>	8
Salt Lake City, Resolution No. 22 (July 12, 2016)	8, 23
Samuel A. Markolf, Ines M..L. Azevedo, Mark Muro, and David G. Victor, <i>Pledges and Progress</i> , Brookings (Oct. 2020).	22
Santa Fe Watershed Association, <i>Forest and Water Climate Adaptation: A Plan for the Santa Fe Watershed</i> (2014)	18
Sierra Club <i>Ready for 100</i> Campaign.	23
Simon F. B. Tett et al., <i>Anthropogenic Forcings and Associated Changes in Fire Risk in Western North America and Australia During 2015/16</i> , 99 Bull. of the Am. Meteorological Soc’y S60 (2018)	9
Sjouke Y. Philip et al., <i>Rapid Attribution Analysis of the Extraordinary Heatwave on the Pacific Coast of the US and Canada June 2021</i> (2021)	7

Cited Authorities

	<i>Page</i>
<i>South Carolina Hazard Mitigation Plan</i> (2018)	15
Southeast Florida Regional Compact, <i>Regional Impacts of Climate Change and Issues for Stormwater Management</i> (2015)	17
<i>State Adaptation Progress Tracker</i> , Georgetown Climate Center	15
<i>Story to Remember, 2014: August Flooding in Metro Detroit</i> , Crain's Detroit Business (Dec. 22, 2014)	6
Sup. Ct. R. 37.6	1
<i>The Overlooked Inland Flooding Consequences of Climate Change</i> , National Flood Services	5
Theresa Davis, <i>Late-Summer Heat Wave Breaks Records</i> , Albuquerque J., Aug. 26, 2019	8
Town of Abita Springs, Louisiana Resolution (Mar. 21, 2017)	22
<i>Understanding Our Changing Climate</i> , NOAA Fisheries	9
Vivian Ho, <i>West Coast Cities Face the World's Worst Air Quality as Wildfires Rage</i> , Guardian, Sept. 14, 2020	10

Cited Authorities

	<i>Page</i>
<i>Weather It Together: A Cultural Resource Hazard Mitigation Plan for the City of Annapolis (2018)</i>	<i>16</i>

INTEREST OF AMICI CURIAE¹

The National League of Cities (NLC), founded in 1924, is the oldest and largest organization representing U.S. municipal governments. Its mission is to strengthen and promote cities as centers of opportunity, leadership, and governance. In partnership with 49 state municipal leagues, NLC advocates for over 19,000 cities, towns, and villages, where more than 218 million Americans live. Its Sustainable Cities Institute provides NLC members with resources on climate mitigation and adaptation.

The U.S. Conference of Mayors, founded in 1932, is the official nonpartisan organization of the more than 1,400 U.S. cities that are home to 30,000 people or more. The Conference of Mayors established its Climate Protection Center to assist with implementation of the 2005 Mayors Climate Protection Agreement, which over 1,000 mayors have joined, each pledging to reduce their city's greenhouse gas emissions levels to below 1990 levels.

Amici regularly submit amicus briefs to the Court in support of the broad principles of federalism and the vitality of state and local authority in our federalist system. In this case, amici have a strong interest in the proper interpretation and implementation of the Clean Air Act's cooperative federalism structure and ensuring appropriate regulation of greenhouse gas emissions from

1. Pursuant to Supreme Court Rule 37.6, counsel for amici curiae states that no counsel for a party authored this brief in whole or in part, and no person or entity other than amici curiae or their counsel made a monetary contribution to this brief's preparation or submission. All parties have consented to the filing of this brief.

existing power plants. Local governments are climate change's first responders and have invested significant public funds to mitigate and adapt to the impacts of a changing climate. While the rules described in the briefing in this case are *not* in effect, the Environmental Protection Agency (EPA) *is* engaged in a new rulemaking. Given the urgency and costs of the climate crisis for our nation's cities, towns, suburbs, and rural regions, the Court should dismiss the petitions and allow EPA to fulfil its obligations under the Clean Air Act and Administrative Procedure Act by creating a new rule fit to meet this critical moment.

SUMMARY OF ARGUMENT

Cities across the country have responded to climate change's catastrophic impacts on their residents and their budgets through a host of actions that seek to reduce greenhouse gas emissions, protect against the shock of future impacts and increase resilience in their wake, or both. But greenhouse gas emissions do not respect state or municipal borders, and local governments must rely on federal regulation to supplement and support their own initiatives. Petitioners' proffered interpretations of Section 111(d) of the Clean Air Act would needlessly and wrongfully limit the tools that EPA, along with state and local governments, have available to address power plants' greenhouse gas emissions in an efficient, cost-effective manner.

Petitioners' challenge to EPA's regulatory authority cannot survive its numerous defects. For one, Petitioners have no Article III standing to bring their challenge, as the D.C. Circuit's decision will not bring any agency rule into effect and will not cause Petitioners any concrete injury. Petitioners' challenge is directed only at what EPA

might have done in the past or might theoretically do in the future, neither of which provides a basis for a justiciable case or controversy.

If this Court does nonetheless reach the substance of Petitioners' arguments concerning Section 111(d), the Court should find that those arguments lack merit. Petitioners base their interpretation of Section 111(d), among other things, on both the major questions doctrine and the federalism clear statement rule. Neither of those interpretive tools supports Petitioners' arguments.

The major questions doctrine does not apply because this Court has already determined EPA's authority and mandate to regulate major power plants' greenhouse gas emissions under the Clean Air Act; there is thus no major question left for EPA to decide. *See Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 426 (2011). Furthermore, the major questions doctrine does not affect EPA's definition of the best system of emission reduction because EPA based that definition on a technical, fact-specific analysis of congressionally-mandated factors, not on some unbounded policy preference.

The federalism clear statement rule likewise does not support Petitioners' interpretation. Section 111(d) invites state participation in the regulation of a fundamentally federal issue: interstate air pollution. This system of cooperative federalism runs directly contrary to the concerns about federal-state balance that Petitioners put forward. What's more, *Petitioners'* interpretation of Section 111(d) would in fact limit the tools that state and local governments have available in regulating power plants' greenhouse gas emissions, and would thus itself negatively impact state and local governance.

ARGUMENT

1. Cities Are Grappling with the Effects of Climate Change

Over 80 percent of Americans live in urban areas—and even more work in cities—meaning that amici’s members are responsible for understanding the risks to, and planning for the wellbeing of, the great majority of Americans. The concentration of people, activity, and infrastructure in cities makes them uniquely valuable economically, but cities are also affected by a concentration of adverse climate impacts, such as increased heat-related deaths, dirtier air, damaged and disappearing coastlines, longer droughts and other strains on water quantity and quality, increased wildfire risk, and increasingly frequent and severe storms. Climate change can also exacerbate cities’ existing challenges, including social inequality, aging and deteriorating infrastructure, and stressed ecosystems.²

Coastal communities from Florida and Louisiana to Maine and New Hampshire to California and Oregon are responding to the devastating effects of sea level rise, and the associated high costs of infrastructure corrosion and general disruption to daily life resulting from shrinking coastlines. In cities like Baltimore, Maryland and Miami, Florida, nuisance flooding is already routine and is only expected to increase in frequency and depth as seas rise and land subsides. On top of the grinding,

2. See Keely Maxwell et al., *Ch. 11: Built Environment, Urban Systems, and Cities*, in *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II 438, 439 (2018), <https://bit.ly/3mdsnvB> [hereinafter “4th National Climate Assessment”].

expensive nuisance of flooding looms the enormous threat of destructive storm surges like those that accompanied Hurricanes Ida, Maria, Isabel, Katrina, Rita, Harvey, Florence, Michael, and Sandy. These and similar events caused billions of dollars of damage to municipalities in the Gulf Coast region and up and down the eastern seaboard.³ In Norfolk, Virginia, for example, sea level rise and storm surge threaten low-lying neighborhoods and the communities that reside there;⁴ these climate impacts also threaten the Naval Station Norfolk—the largest naval station in the U.S.—which could be “completely submerge[d]” by “sea level rise coupled with significant storm surge.”⁵ Moreover, non-coastal cities that are not at direct risk from sea level rise will still feel its effects; experts project roughly thirteen million coastal residents in the U.S. may be displaced to non-coastal areas by 2100, placing increased demand on municipal infrastructure.⁶

Storms impacting inland and riverine areas are also increasingly fueled by climate change.⁷ In 2019, flooding

3. *Hurricane Costs*, NOAA Office for Coastal Management, <https://bit.ly/32hGLfw> (last visited Jan. 20, 2022).

4. City of Norfolk Virginia, *Coastal Resilience Strategy 3*, <https://bit.ly/3F58vSH> (last visited Dec. 10, 2021).

5. Kelly A. Burks-Copes et al., *Risk Quantification for Sustaining Coastal Military Installation Assets and Mission Capabilities* 9 (2014), <https://bit.ly/30t4ics>.

6. See Caleb Robinson et al., *Modeling Migration Patterns in the USA Under Sea Level Rise*, PLoS ONE, Jan. 2020, <https://bit.ly/3zO659n>.

7. *The Overlooked Inland Flooding Consequences of Climate Change*, National Flood Services, <https://bit.ly/3yJuf4g> (last visited Dec. 20, 2021).

caused \$6.2 billion in damage across the Midwest.⁸ In 2014, flooding due to extreme rainfall in Detroit, Michigan caused over \$1 billion in damages, and almost 10 billion gallons of sewage overflows.⁹ Despite the city’s spending hundreds of millions of dollars on stormwater system improvements, a June 2021 storm likewise overwhelmed Detroit’s stormwater systems, causing over 23,000 reports of damage.¹⁰ These are not isolated events: unless significant precautions are taken, increasing precipitation will overwhelm city transportation and storm water drainage systems across the country.¹¹

Heat waves made more frequent, hotter, and longer by climate change similarly injure the associations’ members and their residents.¹² Heat waves are the deadliest type of extreme weather, and because urban “heat islands” heat up

8. Patrick M. O’Connell & Tony Briscoe, *In 2019 — the 2nd Wettest Year Ever in the U.S. — Flooding Cost Illinois and the Midwest \$6.2 billion. Scientists Predict More Waterlogged Days Ahead*, Chicago Tribune, Jan. 16, 2020, <https://bit.ly/3FgRuFp>.

9. *Story to Remember, 2014: August Flooding in Metro Detroit*, Crain’s Detroit Business (Dec. 22, 2014), <https://bit.ly/3DZjVWH>.

10. See Casey Crownhart, *Cities Are Scrambling to Prevent Flooding*, MIT Tech. R. (July 20, 2021), <https://bit.ly/3ywGKAg>.

11. Roshanka Ranasinghe et al., IPCC, *Ch. 12: Climate Change Information for Regional Impact and for Risk Assessment*, in *Climate Change 2021: The Physical Science Basis 12-20* (2021), <https://bit.ly/3F6fk6F>.

12. See National Academies of Sciences, *Attribution of Extreme Weather Events in the Context of Climate Change* (2016), bit.ly/1S2JHgf (concluding that attribution of particular heat waves to climate change is scientifically well-supported).

faster and stay hotter than suburban and rural areas, city dwellers are disproportionately affected by heat waves.¹³ News of heat wave-related deaths and hospitalizations has become a tragic annual event;¹⁴ EPA estimates that failure to mitigate climate change will result in an additional 12,000 deaths per year from extreme temperature by 2100 in 49 major U.S. cities.¹⁵ As an example: a 2021 heatwave caused temperatures in Portland, Oregon to exceed 110 degrees Fahrenheit,¹⁶ and resulted in hundreds of deaths across the Pacific Northwest and British Columbia; researchers say that such an event “would be virtually impossible without human-caused climate change.”¹⁷ The impacts of heat waves have been acutely felt in Pittsburgh, Pennsylvania; Phoenix, Arizona; and Albuquerque, New Mexico, to name but a few affected cities—and temperatures are on track to keep rising.¹⁸

13. John Balbus et al., *Ch. 14: Human Health*, in 4th National Climate Assessment at 539, 544; Francisco J. Doblas-Reyes et al., IPCC, *Ch. 10: Linking Global to Regional Climate Change*, in *Climate Change 2021: The Physical Science Basis* 10-122.

14. John Balbus et al., *Human Health*, in 4th National Climate Assessment at 539, 544.

15. Office of Atmospheric Programs, Env’t Prot. Agency, EPA 430-R-15-001, *Climate Change in the United States: Benefits of Global Action* 8 (2015), <https://bit.ly/2xc5uC0>.

16. *2021 Pacific Northwest Heat Wave ‘Virtually Impossible’ Without Global Warming, Scientists Find*, Yale Climate Connections (Nov. 2, 2021), <https://bit.ly/3IV0hz5>.

17. Sjouke Y. Philip et al., *Rapid Attribution Analysis of the Extraordinary Heatwave on the Pacific Coast of the US and Canada June 2021* (2021), <https://bit.ly/30zLp7W>.

18. Maxwell, K., *supra* note 2 at 441 (projecting increases in the number of very hot days in Phoenix, Pittsburgh, and other

In Salt Lake City, Utah, higher temperatures exacerbate air pollution that already threatens public health,¹⁹ and Pittsburgh has seen an uptick in weather inversions like the one that grounded flights and spiked pollution levels for six days in December 2019.²⁰ Heat waves often do costly damage to infrastructure as well as to human health. The 2011 heat wave in Houston, Texas burst pipes and water mains,²¹ and in Minneapolis, Minnesota extreme heat has caused roads to buckle.²² Additionally, “[m]ore frequent and severe heat waves in many parts of the United States would increase stresses on electric power, increasing the risk of cascading failures within the electric power network that could propagate into other sectors.”²³

Even when temperatures do not reach such extreme levels, rising temperatures can impact local economies in numerous, often unexpected ways. As the snow-to-rain

cities); Theresa Davis, *Late-Summer Heat Wave Breaks Records*, Albuquerque J., Aug. 26, 2019, <https://bit.ly/32brXhZ>.

19. Salt Lake City, *Climate Adaptation Plan for Public Health* 6, 32 (2017), <https://bit.ly/3sa9bTe>.

20. ‘One of the Densest Fogs.’ *Pittsburgh, Trapped by Inversion, Begins to Clear*, Pittsburgh Post-Gazette, Dec. 25, 2019, <https://bit.ly/30yiHUX>.

21. Kai Zhang et al., *Impact of the 2011 Heat Wave on Mortality and Emergency Department Visits in Houston, Texas*, Env’t Health, Jan. 2015, bit.ly/1M8xozN.

22. *Heat Wave Melts Records Across East Coast*, NBC News (June 8, 2011), <https://bit.ly/33tQDTz>.

23. Leah Nichols et al., *Ch. 17: Sector Interactions, Multiple Stressors, and Complex Systems*, in 4th National Climate Assessment at 638, 652.

ratio of precipitation shifts toward rain and away from snow, ski towns across the west, including Park City, Utah, face snowpack shortages that threaten the local industry.²⁴ “Half of all Northeast ski resorts may go out of business by 2050, and climate modeling predicts that 90% of ski resorts in the West won’t be financially viable by 2085 if greenhouse gas emissions aren’t curtailed.”²⁵ Elsewhere in the United States, particularly in New England and the Mid-Atlantic, rising ocean temperatures are disrupting fish habitats, creating profound economic risks for coastal communities and seafood businesses.²⁶

Anthropogenic climate change is also increasing the frequency and severity of wildfires in the United States.²⁷ Over the past four decades, the burned area from wildfires in the United States has roughly quadrupled, with climate change responsible for roughly half of this increase.²⁸ The Western U.S. has been particularly

24. Michon Scott, *Climate & Skiing*, Climate.gov (Nov. 19, 2018, last updated Sept. 10, 2021), <https://bit.ly/3q1VQGd>.

25. Jenessa Duncombe, *How the Ski Industry Stopped Worrying and Learned to Love Climate Activism*, Eos (Sept. 24, 2021), <https://bit.ly/3nlt1rE>.

26. See *Understanding Our Changing Climate*, NOAA Fisheries, <https://bit.ly/329c6ks> (last visited Jan. 18, 2022).

27. Simon F. B. Tett et al., *Anthropogenic Forcings and Associated Changes in Fire Risk in Western North America and Australia During 2015/16*, 99 Bull. of the Am. Meteorological Soc’y S60, S60-S63 (2018); Marshall Burke et al., *The Changing Risk and Burden of Wildfire in the United States*, Proc. of the Nat’l Acad. of Scis. of the U.S., Jan. 12, 2021, <https://bit.ly/3F4s1yD>.

28. Marshall Burke et al., *supra* note 27. at 1, 5.

affected by recent, record-setting wildfires, with 10 million acres in the region consumed by wildfires in 2020 alone.²⁹ These fires have significant impacts on quality of life in western cities: in recent years, Denver, Colorado; Portland, Oregon; Seattle, Washington; and San Francisco and Los Angeles, California have all plummeted to the bottom of air quality rankings as a result of wildfires, with Portland and Denver having the worst air quality among all major global cities at specific points in time.³⁰ Increased wildfires also drive local costs associated with wildfire suppression, loss of life and property, and adaptive measures such as power shutoffs, which have substantial economic consequences for American cities.³¹ And while the fires themselves are concentrated in the Western U.S., municipalities nationwide are feeling their effects.³² Cities including Washington, D.C.; Philadelphia, Pennsylvania; Boston, Massachusetts; and Baltimore, Maryland have all experienced significant increases in exposure to wildfire smoke that prevailing winds carry across the country.³³ Wildfire smoke exposure can damage the heart, lungs,

29. Manas Sharma et al., *The Age of the “Megafire,”* Reuters Graphics (Feb. 1, 2021), <https://tmsnrt.rs/3yx2uvw>.

30. Vivian Ho, *West Coast Cities Face the World’s Worst Air Quality as Wildfires Rage*, Guardian, Sept. 14, 2020, <https://bit.ly/3raqIc0>; Daniel Politi, *Denver Records Worst Air Quality of Any Major City in World as Wildfires Burn*, Slate (Aug. 08, 2021), <https://bit.ly/3reQEDi>.

31. Marshall Burke et al., *supra* note 27 at 5.

32. Marshall Burke et al., *supra* note 27 at 3.

33. Alison Saldanha et al., *Dangerous Air: As California Burns, America Breathes Toxic Smoke*, KCRW (Sept. 28, 2021), <https://kerw.co/3ISH4Oh>.

and brain,³⁴ and exposure during pregnancy correlates with pre-term births, low birth weights, and negative maternal health outcomes.³⁵ As climate change continues to increase exposure to wildfire smoke in municipalities across the country, exposure to such smoke may lead to mortalities on the scale of the temperature-related mortalities described above.³⁶

Along with more severe and frequent wildfires, municipalities in the Western U.S. are suffering from severe droughts that are made worse and more frequent by climate change. Extreme drought conditions hinder the livelihoods of ranchers in Staples, Texas and farmers in Ventura, California, along with millions of others living under the threat of tighter water-use restrictions and more catastrophic wildfires caused by dry conditions.³⁷ As the National Oceanic and Atmospheric Administration recently stated in its analysis of the 2020–2021 Southwestern U.S. drought:

[t]he warm temperatures that helped to make this drought so intense and widespread will continue (and increase) until stringent climate

34. *Id.*; see also R J Delfino et al., *The Relationship of Respiratory and Cardiovascular Hospital Admissions to the Southern California Wildfires of 2003*, 66 *Occupational & Env't Med.* 189 (2008).

35. Mona Abdo et al., *Impact of Wildfire Smoke on Adverse Pregnancy Outcomes in Colorado, 2007 –2015*, *Int't J. of Env't Rsch. and Pub. Health*, Oct. 2019, <https://bit.ly/3q2c1ab>.

36. Marshall Burke et al., *supra* note 27 at 5.

37. See Brian K. Sullivan et al., *Drought Is the U.S. West's Next Big Climate Disaster*, *Bloomberg Green* (March 20, 2021), <https://bloom.bg/3fh40t3>.

mitigation is pursued and regional warming trends are reversed. . . . Human-caused increases in drought risk will continue to impose enormous costs upon the livelihoods and well-being of the ~60+ million people living in the six states of the U.S. Southwest, as well as the broader communities dependent on the goods and services they produce.³⁸

As an example of such costs, in 2015 alone, drought conditions caused roughly \$5 billion in damages across the Western U.S.³⁹

Considering the array of above-described impacts, cities' cost to recover from damage caused by climate change are already great and will become enormous. Without protective measures, annual hurricane damage to coastal development could rise from \$28 billion to \$39 billion by 2075; up to \$66 billion worth of current coastal property may be below sea level by 2050, with up to \$507 billion below sea level by 2100.⁴⁰ By 2100, every year, unmitigated climate change could cause 57,000 pollution-related deaths, at a cost of \$930 billion; lead to 1.2 billion lost labor hours, valued at \$110 billion; and result in hundreds of billions of dollars in infrastructure, water

38. Justin S. Mankin et al., *NOAA Drought Task Force Report on the 2020–2021 Southwestern U.S. Drought* 4 (2021), <https://bit.ly/3yz6Lyu>.

39. David Reidmiller et al., *Ch. 1: Overview*, in 4th National Climate Assessment at 33, 66.

40. Env't Prot. Agency, *Multi-Model Framework for Quantitative Sectoral Impacts Analysis: A Technical Report for the Fourth National Climate Assessment* (2017).

supply and other costs.⁴¹ What's more, climate researchers predict that of the ten metropolitan areas that will suffer the most climate-related costs as a share of their metro income, nine are located in Petitioner States.⁴²

The acute relevance of anthropogenic climate change to cities' responsibilities has focused amici's and their members' attention on the dangers of failing to mitigate climate change, as well as on the pressing need to adapt. Educated by their experiences and anticipating the still more dramatic climatic change impacts looming in the foreseeable future, amici write in opposition to Petitioners' efforts to artificially constrain EPA's authority to regulate greenhouse gases pursuant to Section 111(d) of the Clean Air Act.

2. Limiting EPA's Regulatory Authority Would Frustrate Cities' Efforts to Address and Adapt to Climate Change

Cities are not only on the front lines of climate impacts—they are also at the forefront of climate change adaptation and mitigation efforts nationwide. In fact, in 2019, 60% of U.S. cities launched or significantly expanded an initiative to address climate change, such as a green vehicle procurement program or renewable energy policy.⁴³ Yet, local governments have little ability to

41. EPA, *supra* note 15 at 78.

42. Mark Muro et al., *How the Geography of Climate Damage Could Make the Politics Less Polarizing*, Brookings (Jan. 29, 2019), <https://brook.gs/3scdzRx>.

43. Alliance for a Sustainable Future, *Mayors Leading the Way on Climate 2* (2020), <https://bit.ly/2T4tMpY>.

regulate the circumstances imposed on them by the wider world, and greenhouse gas emissions from sources beyond municipal borders will still impact people, infrastructure, and resources inside them. The need for broader efforts to reduce greenhouse gas emissions led 244 U.S. mayors representing over 52 million Americans to ask EPA not to repeal the Clean Power Plan, explaining “our local efforts to address climate change are highly sensitive to national policies like the Clean Power Plan, which shape markets, steer state action, and have large direct impacts on nationwide emissions.”⁴⁴ Section 111(d) of the Clean Air Act is an essential tool in the federal government’s toolbox for regulating greenhouse gases, supporting local initiatives to deliver climate solutions, and reducing the adaptation costs local governments will bear over the coming decades and centuries. Indeed, without stringent federal regulation local governments will bear ever higher costs in the years ahead.

A. Adaptation Efforts

Cities nationwide are taking action to protect their residents from climate change’s worst impacts: in 2020 alone, U.S. cities reported 859 separate climate adaptation actions.⁴⁵ The adaptation plans devised by local governments reflect earnest efforts to deal with the new climate norm, despite uncertainty as to whether they should prepare for the best-case emissions scenarios or the

44. *Climate Mayors Submit Comments on Proposed Repeal of Clean Power Plan*, Climate Mayors (March 27, 2018), <https://bit.ly/3a7V6ta>.

45. *2020 - Cities Adaptation Actions*, CDP, <https://bit.ly/3IVeBrm> (last visited Dec. 1, 2021) (data filtered for U.S. cities).

worst. Notably, in many states, municipalities have been the only level of government to develop strategies to adapt to climate change.⁴⁶ For example, cities in Mississippi, Ohio, Oklahoma, and Georgia have all engaged in climate adaptation planning despite a lack of state-level planning. In other states, such as South Carolina, city-level planning preceded and set the groundwork for state-level planning: in 2015, Charleston, South Carolina published a Sea Level Rise Strategy to recommend actions the city could take to improve its resilience to sea-level rise and recurrent flooding.⁴⁷ Three years later, the state followed suit in publishing a Hazard Mitigation Plan that sought to account for the risks sea-level rise posed to its coastal areas.⁴⁸

Such planning and implementation is happening in municipalities nationwide – the costs to cities are significant, but the costs of *not* adapting would be far higher. Boston, acutely aware of rising sea levels, has been investing in adaptation since forming a Climate Preparedness Task Force in 2013.⁴⁹ Also in 2013, Baltimore developed comprehensive responses—touching

46. See *State Adaptation Progress Tracker*, Georgetown Climate Center, <https://bit.ly/3IYeQBG> (last visited Dec. 1, 2021).

47. Charleston, South Carolina, *Sea Level Rise Strategy* (2015), <https://bit.ly/31XDgee>.

48. *South Carolina Hazard Mitigation Plan* (2018), <https://bit.ly/3FeI8tu>.

49. Boston Climate Preparedness Task Force, *Climate Ready Boston: Municipal Vulnerability to Climate Change* (2013), <https://bit.ly/32bNeIk>; Katie Choe et al., *Climate Resilient Design Standards & Guidelines* (2018), <https://bit.ly/3a69cLS>.

infrastructure, building codes, natural coastal barriers, and public services—to threats from rising seas, heat waves, and storms.⁵⁰ Elsewhere in Maryland, Annapolis developed a first-in-the-nation Cultural Resources Hazard Mitigation Plan in 2018 to mitigate climate impacts on important cultural and historic landmarks,⁵¹ and the Eastern Shore Climate Adaptation Partnership has brought together local governments from across the Eastern Shore to prepare for climate impacts.⁵² In Indiana, Bloomington’s Climate Action Plan seeks to assist the city’s heat-, flooding-, and storm-vulnerable populations in preparing for and mitigating climate change impacts.⁵³ Norfolk, Virginia has undertaken climate resilience and adaptation planning to protect its public buildings, shipyards, naval facilities, homes, and other private developments.⁵⁴ Similarly, Miami, West Palm Beach, Coral Gables, Cutler Bay, and others in the Southeast Florida Regional Climate Compact have worked to reshape facilities for managing stormwater, wastewater, and drinking water in anticipation of

50. City of Baltimore, *Disaster Preparedness and Planning Project* (2013), bit.ly/1T3S0e3.

51. See *Weather It Together: A Cultural Resource Hazard Mitigation Plan for the City of Annapolis* (2018), <https://bit.ly/3re60rG>; *Resilient People*, Eastern Shore Land Conservancy, <https://bit.ly/3fkQR2d> (last visited Jan. 12, 2022).

52. *Resilient People*, Eastern Shore Land Conservancy, <https://bit.ly/3fkQR2d> (last visited Jan. 21, 2021).

53. *City of Bloomington Climate Action Plan* (2021), <https://bit.ly/30CRpgc>.

54. City of Norfolk Virginia, *Coastal Resilience Strategy*, <https://bit.ly/3F58vSH> (last visited Dec. 10, 2021).

hydrology reshaped by higher sea levels; Miami has also developed the Miami Forever Climate Ready strategy for reducing the increasing flood, heat, and storm risks facing the city.⁵⁵ New York, New York has developed a wide array of adaptation resources and initiatives through the Mayor’s Office of Climate Resiliency.⁵⁶

Boulder County, Colorado has been integrating adaptation into its operations since adopting its 2012 Climate Change Preparedness Plan, and has conservatively estimated the cost of adaptation measures through 2050 to be \$96 million to \$157 million.⁵⁷ Denver, Colorado has likewise engaged in climate adaptation planning to protect its residents and economy from climate impacts, including potential damage to the region’s ski industry from reduced snowpack and earlier snowmelt.⁵⁸ Anchorage, Alaska recently published its Climate Action Plan, in which it recognized that “[i]n the absence of adaptation efforts, damage to public infrastructure caused by climate change could cost Alaska \$142 to \$181 million per year and a cumulative \$4.2 to \$5.5 billion by the end

55. See Southeast Florida Regional Compact, *Regional Impacts of Climate Change and Issues for Stormwater Management* (2015), bit.ly/1RvtCfR; *Miami Forever Climate Ready*, Miami, <https://bit.ly/3HYP1Al> (last visited Jan. 12, 2022).

56. *Mayor’s Office of Climate Resiliency*, NYC, <https://on.nyc.gov/3nHGxGf> (last visited Jan. 12, 2022).

57. Jason Vogel et al., *Boulder County Climate Change Preparedness Plan* (2012), <https://bit.ly/3q1Vbbv>; Resilient Analytics, *The Impact of Climate Change: Projected Adaptation Costs for Boulder County, Colorado* (2018), <https://bit.ly/2SZ1Tjb>.

58. City and County of Denver, *Climate Adaptation Plan 32* (2014), <https://bit.ly/3nmlclb>.

of the century.”⁵⁹ In 2014, Santa Fe, New Mexico created a climate adaptation plan for the Santa Fe watershed.⁶⁰ In April 2018, Asheville, North Carolina released a final assessment report on planning for climate resilience.⁶¹ Chapel Hill and Durham likewise participate in the Triangle Regional Resilience Partnership, which analyzes and builds resilience to climate threats.⁶² 2020 saw the release of Resilient Houston, a framework to mitigate flooding risks and improve climate readiness in Texas.⁶³ Philadelphia, Pennsylvania published *Growing Stronger: Toward a Climate Ready Philadelphia* in 2015 and is currently building climate resiliency through its Green City, Clean Waters plan.⁶⁴ Minneapolis, Minnesota has

59. *Anchorage, AK Climate Action Plan* (2019), <https://bit.ly/3dUDCEQ>.

60. Santa Fe Watershed Association, *Forest and Water Climate Adaptation: A Plan for the Santa Fe Watershed* (2014), <https://bit.ly/2TgqHSN>.

61. City of Asheville et al., *Planning for Climate Resilience: City of Asheville, North Carolina* (2018), <https://bit.ly/2VpRLS4>.

62. Karin Rogers et al., *Triangle Regional Resilience Assessment: Technical Report for the Triangle Regional Resilience Partnership* 15 (2018), <https://bit.ly/2UucItb>.

63. Press Release, Mayor Turner Launches the Resilient Houston Strategy and Signs Historic Executive Order to Prepare the City for Future Disasters (Feb. 12, 2020), <https://bit.ly/3c3Wgrs>.

64. Philadelphia Mayor’s Office of Sustainability & ICF International, *Growing Stronger: Toward a Climate-Ready Philadelphia* (2015), <https://bit.ly/3FmvM1K>; *Climate Change Adaptation*, Philadelphia Water Department, <https://bit.ly/3tlcM1n> (last visited Jan. 12, 2022).

produced a Climate Change Vulnerability Assessment,⁶⁵ and in 2019, Saint Paul adopted a Climate Action & Resilience Action Plan.⁶⁶ New Orleans, Louisiana has also integrated adaptation efforts into its climate action plan in order to prepare for sea level rise and more intense storms.⁶⁷ And in addition to recently updating its Climate Action Plan, Phoenix, Arizona plans to develop an Urban Heat Mitigation and Adaptation Plan along with a corresponding Action Plan to mitigate its residents' exposure to extreme heat.⁶⁸ These are just a small sample of the many American cities that have taken up to call to protect their residents from climate change's most severe impacts.⁶⁹

Cities are making significant strides in adapting to climate change, but the burdens of adaptation are likely to overwhelm cities without the federal government exercising its statutory authority to significantly reduce greenhouse gas emissions.

65. Laurelyn Sandkamp et al, *Places at Risk: Minneapolis Climate Change Vulnerability Assessment* (2016), <https://bit.ly/3s7H0t3>.

66. City of Saint Paul, *Saint Paul Climate Action & Resilience Plan 26–27* (2019), <https://bit.ly/2TnhRUG>.

67. City of New Orleans, *Climate Action for a Resilient New Orleans* (2017), <https://bit.ly/3tCkaFZ>.

68. City of Phoenix, *Climate Action Plan: 2021 Edition 162* (2021), <https://bit.ly/3p5dcqf>.

69. *See Our Cities, Global Covenant of Mayors for Climate and Energy*, <https://bit.ly/3GO5d6K> (last visited Dec. 10, 2021).

B. Mitigation Efforts

Although federal regulation is both mandated by statute and necessary to help ensure the health and welfare of cities and their residents, local governments around the U.S. are working to reduce their own contributions to global greenhouse gas pollution. Their mitigation strategies include committing to procurement and deployment of renewable energy resources, investing in energy efficiency, and electrifying buildings and modes of transportation. In addition, local governments are increasingly seeking to reduce greenhouse gas emissions in a way that is equitable and that reduces local pollutants in environmental justice areas.

Many local governments have made specific and ambitious greenhouse gas reduction commitments. For example, Iowa City, Iowa has resolved to reduce greenhouse gas emissions 26 to 28 percent by 2025 as compared to a 2005 baseline, and to reduce such emissions by 80 percent by the year 2050. Atlanta, Georgia has set a goal to reduce greenhouse gas emissions 40 percent by 2030 as compared to 2009 levels,⁷⁰ and Orlando, Florida's goal targets a 90 percent reduction in greenhouse gas emissions by 2040 as compared to 2007 levels.⁷¹ Pittsburgh, Pennsylvania's Climate Action Plan commits it to reduce greenhouse gas emissions by 20 percent as

70. City of Atlanta, Climate Action Plan (2015) at 5, <https://atlantaclimateactionplan.wordpress.com>.

71. 2018 Green Works Orlando Community Action Plan (2018) at 13, https://www.orlando.gov/files/sharedassets/public/departments/sustainability/2018_orlando_communityactionplan.pdf.

compared to a 2003 baseline by 2023, and 50 percent and 80 percent by 2030 and 2050, respectively.⁷² Austin, Texas has committed to “net-zero community-wide greenhouse gas emissions” by 2040,⁷³ and Columbus, Ohio⁷⁴ and Boise, Idaho⁷⁵ to carbon neutrality by 2050. Knoxville, Tennessee has adopted a goal to reduce community-wide greenhouse gas emissions 80 percent by 2050.⁷⁶ Santa Fe has resolved to make the city carbon neutral by 2040;⁷⁷ and Charlotte, North Carolina has set a goal of less than two tons of carbon dioxide equivalent per resident per year by 2050.⁷⁸ These commitments are just several of hundreds

72. City of Pittsburgh, Climate Action Plan Version 3.0 (2017) at 18, https://apps.pittsburghpa.gov/redtail/images/7101_Pittsburgh_Climate_Action_Plan_3.0.pdf.

73. City of Austin, Austin Climate Equity Plan (2020-21) at 102, https://www.austintexas.gov/sites/default/files/files/Sustainability/Climate%20Equity%20Plan/Climate%20Plan%20Full%20Document__FINAL.pdf.

74. City of Columbus, the Columbus Green Community Plan Green Memo III (2015), https://www.columbus.gov/uploadedFiles/Columbus/Programs/Get_Green/Survey/The%20Columbus%20Green%20Community%20Plan%20FINAL.pdf.

75. City of Boise, Boise’s Climate Action Roadmap (2021) at 1, <https://www.cityofboise.org/media/12984/boise-climate-roadmap.pdf>.

76. City of Knoxville Resolution No. R-265-2019 (Aug. 13, 2019).

77. City of Santa Fe, Resolution No. 2019-47 (Sept. 11, 2019).

78. City of Charlotte, Resolution File No. 15-9759 (June 25, 2018) and *Charlotte Strategic Energy Action Plan*, <https://charlottenc.gov/CityCouncil/Committees/Documents/Archive%20Doc/Archive%20Doc%20EF/SEAP%20-%20Executive%20Summary%20Full%20Doc%20FINAL.pdf>.

of greenhouse gas emission reduction goals set by local governments around the U.S.⁷⁹

To meet these commitments and many others like them, numerous cities have also committed to a 100 percent “clean” or renewable energy supply.⁸⁰ For example, St. Louis, Missouri committed to 100 percent clean energy by 2035,⁸¹ and Fayetteville, Arkansas has committed to the same by 2050.⁸² Other local governments to have made such a commitment include Abita Springs, Louisiana (by 2030);⁸³ Columbia, South Carolina (by 2036);⁸⁴ Helena, Montana (100 percent renewable electricity by 2030);⁸⁵ Madison, Wisconsin (by 2050);⁸⁶ Norman, Oklahoma (for

79. Samuel A. Markolf, Ines M.L. Azevedo, Mark Muro, and David G. Victor, *Pledges and Progress*, Brookings (Oct. 2020) at 1, https://www.brookings.edu/wp-content/uploads/2020/10/FP_20201022_ghg_pledges_v4.pdf.

80. In this context, “clean” energy refers to renewable energy and energy efficiency measures.

81. City of St. Louis, Missouri Resolution No. 124 (Oct. 2017).

82. City of Fayetteville, Arkansas Resolution No. 45-17 (Jan. 2018).

83. Town of Abita Springs, Louisiana Resolution (Mar. 21, 2017).

84. City of Columbia, South Carolina Resolution No. R-2017-058 (June, 20 2017).

85. City of Helena, A Resolution Establishing a Goal of 100% Clean, Renewable Electricity for the Helena Community by 2030 (Feb. 24, 2020).

86. City of Madison, CRANES Amended Resolution, Leg. File. No. 45569 (Mar. 2017).

electricity by 2035 and for all sectors by 2050);⁸⁷ Salt Lake City, Utah (by 2032);⁸⁸ Spokane, Washington (by 2030);⁸⁹ and Tallahassee, Florida (by 2050).⁹⁰ In all, more than 180 local governments have committed to 100 percent clean energy,⁹¹ a number that does not account for ambitious renewable energy goals that fall short of a 100 percent target.

In addition to procuring and committing to deploy renewable energy, cities' efforts to reduce operational and community-wide greenhouse gas emissions rely heavily on reducing emissions from most communities' two highest-emitting sectors: buildings and transportation. Both of these sectors must undergo near-total electrification in order to allow cities to achieve their greenhouse gas emissions reduction targets. More than 50 local governments in California have enacted building electrification requirements or their functional equivalents,⁹² as have New York City⁹³ and Seattle.⁹⁴

87. City of Norman, Resolution No. R-1718-120 (May 2018).

88. Salt Lake City, Resolution No. 22 (July 12, 2016).

89. City of Spokane, Wash. Ord. No. C35668 (Aug. 2018).

90. City of Tallahassee, Fla. Resolution No. 19-R-04 (Feb. 20, 2019).

91. Sierra Club *Ready for 100* Campaign, <https://www.sierraclub.org/ready-for-100>.

92. For full list, see Matt Gough, *California's Cities Lead the Way to a Gas-Free Future*, Sierra Club (July 22, 2021, last updated Dec. 13, 2021), <https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-gas-free-future>.

93. City of New York, N.Y. Intro. No. 2317 (2021).

94. City of Seattle, Wash. Code § C401 (2015).

Local governments have also invested in electric vehicle charging infrastructure, or enacted policies that require or incentivize private property owners to do so. For example, several local building codes now have EV charging or EV-readiness requirements, including in Atlanta;⁹⁵ Fort Collins, Colorado;⁹⁶ and Sedona, Arizona.⁹⁷ Other cities require or incentivize electric vehicle chargers through their zoning codes; Salt Lake City mandates one electric vehicle charging space for every 25 parking spaces in new multi-family buildings.⁹⁸ Others, like Chelan, Washington, have updated their zoning codes to simplify permitting and siting requirements for small charging stations.⁹⁹ Moreover, cities around the country have steadily been electrifying their municipal vehicle fleets.¹⁰⁰ While these electrification efforts are essential to reducing emissions from the buildings and transportation sectors, they rely on the federal government doing its part to ensure that sources of electricity also reduce their own greenhouse gas pollution.

95. City of Atlanta, Ga. Ord. 17-O-1654 (2017)

96. City of Fort Collins, Colo. Code § 5-30-E3401.5 (2019).

97. City of Sedona, Ariz. Code § 15.45.020 (2018).

98. City of Salt Lake City, Utah, Code Ch. 21A.44.040.B (2019).

99. City of Chelan, Wash. Code § 17.63 (2018).

100. See, e.g., *Philadelphia's Municipal Clean Fleet Plan* (Oct. 2021), <https://www.phila.gov/media/20211006130414/Philadelphia-Municipal-Clean-Fleet-Plan-202110.pdf>; Climate Mayors Electric Vehicle Purchasing Collaborative, <https://driveevfleets.org>.

Local governments have emerged as leaders in developing greenhouse gas emission reduction strategies that aim to redress the disproportionate and harmful health impacts of air pollution experienced by many environmental justice communities. For example, Providence, Rhode Island’s Climate Justice Plan identifies “frontline communities” located near highways, ports, and industrial areas with greater exposure to air pollution, plotting a path to reducing greenhouse gas emissions that would reduce health risks in these neighborhoods.¹⁰¹ Austin, Texas’s Climate Equity Plan identifies strategies for local air pollution reductions in all areas of the city.¹⁰² In promulgating the Clean Power Plan, EPA found that environmental justice communities are more vulnerable to climate change impacts, and also disproportionately located close to power plants that emit conventional pollutants, which pose even more immediate threats to local public health.¹⁰³ The Clean Power Plan sought to mitigate these impacts with the Clean Energy Incentive Program, and by requiring states to engage with vulnerable communities in developing their plans to limit power plant pollution.¹⁰⁴ In these ways, the Clean Power Plan buttressed local governments’ efforts to address

101. City of Providence, R.I. Climate Justice Plan (Fall 2019) at 16, <https://www.providenceri.gov/wp-content/uploads/2019/10/Climate-Justice-Plan-Report-FINAL-English.pdf>.

102. City of Austin, Texas Climate Equity Plan (2020-21), https://www.austintexas.gov/sites/default/files/files/Sustainability/Climate%20Equity%20Plan/Climate%20Plan%20Full%20Document__FINAL.pdf.

103. 80 Fed. Reg. 64662, 64670 (Oct. 23, 2015).

104. *Id.*

climate change in an equitable way responsive to the needs of environmental justice communities. It is critical that EPA be able to create similarly flexible programs in the new rule for existing power plants.

3. The D.C. Circuit Correctly Held That This Case Does Not Implicate Either the Major Questions Doctrine or the Federalism Clear Statement Canon

The D.C. Circuit has stayed vacatur of EPA’s repeal of the Clean Power Plan, and EPA is now in the process of developing and promulgating a new rule to regulate greenhouse gas emissions from existing power plants. *See* Fed. Gov’t Br. 16–17. There is no agency rule, no exercise of agency authority, and no agency statutory interpretation to which this Court can apply the major questions doctrine or the federalism clear statement canon or any other tool of statutory construction.¹⁰⁵ As Respondents argue, this absence nullifies Petitioners’ standing before this Court and moots any prior case or controversy, as Petitioners will suffer no cognizable injury from the D.C. Circuit’s vacatur of the ACE Rule. *See* Fed. Gov’t Br. 15–23; Non-Gov’t Orgs. & Trade Ass’ns Br. 23–32. Without a presently justiciable controversy, Petitioners request this Court to issue an advisory opinion based on speculation regarding EPA’s future rulemakings. *See* Fed. Gov’t Br. 18–21; Power Cos. Br. 20–21; Non-Gov’t Orgs. & Trade Ass’ns

105. Petitioner States’ brief makes this point crystal clear. In describing the effects of the Clean Power Plan, Petitioners refer twenty-three times to what the rule “would have” done. Petitioners never refer to what the rule “will” do. The Clean Power Plan, of course, “will” do nothing. And, as noted further below, the D.C. Circuit’s opinion does not commit or limit EPA’s exercise of interpretive discretion in any meaningful way.

Br. 23–32. The Constitution does not grant the judiciary power to issue advisory opinions; in any event, the ripeness doctrine precludes these speculative complaints. *See* Non-Gov’t Orgs. & Trade Ass’ns Br. 23–32.

Should the Court nonetheless undertake its review of the decision below, it should recognize that Petitioners’ proffered application of the major questions doctrine and the federalism clear statement rule would fundamentally undermine Section 111(d)’s cooperative federalism regime; as Respondents point out, Petitioners’ interpretive approach would limit EPA’s ability to work with states and cities to cost-effectively limit the greenhouse gas emissions from existing power plants that are causing the climate change harms experienced by localities nationwide. *See, e.g.*, Fed. Gov’t Br. 24–30, 51; New York Br. 28–33.

In contrast, Respondents correctly argue that the D.C. Circuit panel majority properly concluded that this case does not implicate the major questions doctrine. *Am. Lung Ass’n v. Env’t Prot. Agency*, 985 F.3d 914, 958–968 (D.C. Cir. 2021); *see, e.g.*, Fed. Gov’t Br. 44–50; New York Br. 38–45. Unlike cases such as *Brown v. Williamson*, 529 U.S. 120, 159 (2000), and *Utility Air Regulatory Group v. EPA*, 573 U.S. 302, 322 (2014), this Court has already clarified EPA’s statutory authority—and its mandate—to regulate both the subject matter and entities at issue: greenhouse gas emissions and major fossil fuel power plants. *See Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 426 (2011) (“Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from powerplants”); *see also Massachusetts v. E.P.A.*, 549 U.S. 497, 532–34 (2007) (“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”). The Clean Power Plan would not have regulated any sources other than major stationary sources already regulated under the Clean Air Act, and therefore would not have represented an expansion of agency authority; nor would it have constituted a detour outside of the agency’s “sphere of expertise.” *Nat’l Fed’n of Indep. Bus. v. Dep’t of Lab., Occupational Safety & Health Admin.*, No. 21A244, 2022 WL 120952, at *3 (U.S. Jan. 13, 2022).

The question, then, is whether the major questions doctrine precludes EPA from defining the best system of emission reduction (BSER) in the way that it did, namely, as including emission-control measures that go beyond the individual physical plant, either because that definition is impermissible, arbitrary and capricious, or otherwise contrary to law. 5 U.S.C. § 706(2), 42 U.S.C. § 7607(d)(1)(C), (d)(9)(A). Pursuant to Section 111(a)(1), Congress directed EPA to base its BSER determination on a technical accounting of several congressionally-specified factors: the cost of achieving emissions reduction, nonair quality health and environmental impacts, effects on energy requirements, whether the system of emissions reduction has been adequately demonstrated, and the extent of “emission reduction.” 42 U.S.C. § 7411(a)(1). Adhering to Congress’ directive, EPA assessed a number of approaches the agency found to be “adequately demonstrated,” including approaches that relied exclusively on measures that could be implemented solely at a stationary source, and determined they were not the “best,” due to a range of considerations. *See* Carbon Pollution Emission Guidelines for Existing Stationary

Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662, 64727–28, 64769 (Oct. 23, 2015) (“The narrow interpretation advocated by some commenters would permit consideration only of potential CO₂ reduction measures that are either more expensive than building blocks 2 and 3 . . . or measures capable of achieving far less reduction in CO₂ emissions”). This technical, fact-specific analysis is exactly what Congress determined EPA—not itself, nor the judiciary, nor the states, nor the regulated industry—was best positioned to conduct. As the D.C. Circuit explained, “The major questions doctrine is meant to discern, not override, such statutory judgments.” *Am. Lung Ass’n*, 985 F.3d at 964.

In addition, the D.C. Circuit panel majority properly concluded that this case does not implicate the federalism clear statement canon. *Am. Lung Ass’n*, 985 F.3d at 968–71. *See, e.g.*, Fed. Gov’t Br. 50–51; New York Br. 45–47. Indeed, the decision below poses no risk to state or local authority, autonomy, or sovereignty, or to the federal-state balance of powers.

First, the D.C. Circuit opinion does not commit EPA to any particular course of action, nor to any particular statutory interpretation, in its forthcoming Section 111(d) rule. *See, e.g.*, Fed Gov’t Br. 47–48; New York Br. 31. It is possible that EPA will determine that the “best system of emission reduction” consists of measures that may only be taken at an individual regulated source, just as Petitioners argue they should. Accordingly, there is, at this point, not even a theoretical risk to the purported federalism values Petitioners claim are at stake.

Second, the D.C. Circuit opinion properly concluded that the statutory design of Section 111(d) and the approach taken by EPA in creating the Clean Power Plan do not intrude upon federalism values. The federalism clear statement rule protects areas of traditional state responsibility from federal encroachment in the absence of clear statutory language. *See Vermont Agency of Nat. Res. v. U.S. ex rel. Stevens*, 529 U.S. 765, 787 (2000). But, as the D.C. Circuit rightly acknowledged, interstate air pollution is a matter of traditional federal concern. *Am. Lung Ass’n*, 985 F.3d at 968; *see Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 492 (1987) (“the control of interstate pollution is primarily a matter of federal law”). By its very nature, the regulation of interstate air pollutants (like greenhouse gases) benefits from a coordinated federal approach, and the Clean Air Act was enacted with this fact in mind. S. Rep. No. 88-638, at 3, 5 (1963) (“The nationwide character of the air pollution problem requires an adequate Federal program to lend assistance, support, and stimulus to State and community programs.”). Federal regulation in this area comes as no surprise to amici, representing municipal governments nationwide; in fact, local governments expect and rely upon it.

What’s more, Section 111(d) engages states in a cooperative federalism regime, making the federalism clear statement rule less applicable still. Section 111(d) provides states with the authority and discretion to establish standards of performance and develop state plans for their implementation, tailored to the states’ particular circumstances. *See Am. Lung Ass’n*, 985 F.3d at 962–963; Fed. Gov’t Br. 27–30; New York Br. 28–33. Such a regime is emblematic of a federalism that “treats the States in a manner consistent with their status as . . .

joint participants in the governance of the Nation.” *Alden v. Maine*, 527 U.S. 706, 748 (1999). And as Justice Scalia noted in *AT&T Corp. v. Iowa Utilities Board*, federalism concerns should not guide judicial interpretation when the statute at hand invites state participation in the cooperative administration of a federal regulatory regime, as is the case here. 525 U.S. 366, 378 n.6 (1999).

Moreover, the Clean Power Plan’s alternative compliance measures—which themselves demonstrate the authority and discretion left to the states—included numerous measures that would have benefited local governments, such as the Clean Energy Incentive Program. *See Am. Lung Ass’n*, 985 F.3d at 968 at 963 n.10; 80 Fed. Reg. 64662 at 64829 (“State participation in the [Clean Energy Incentive Program] program is optional; the EPA is establishing this program as an additional flexibility to facilitate achievement of the CO₂ emission reductions required by this final rule, regardless of the type of state plan a state chooses to implement.”). As Respondents note, the interpretation of Section 111(d) that actually limits States’ governance options is the one undergirding the Clean Power Plan Repeal and Affordable Clean Energy Rules, not the one put forward by the D.C. Circuit. *See, e.g.*, Fed. Gov’t Br. 24–25; New York Br. 28–33. States and local governments should not be prohibited from adopting outside-the-fenceline mechanisms that allow for efficient, cost-effective compliance with EPA’s emissions guidelines.

CONCLUSION

Neither the major questions doctrine nor the federalism clear statement rule weigh against the D.C. Circuit's interpretation of the Clean Air Act. Should the Court proceed in reviewing the decision below despite the absence of an extant agency rule or concrete injury to Petitioners, amici urge the Court to uphold the decision.

Respectfully submitted,

MICHAEL BURGER

Counsel of Record

SABIN CENTER FOR CLIMATE

CHANGE LAW

435 West 116th Street

New York, NY 10027

(212) 854-2372

michael.burger@law.columbia.edu

Counsel for Amici Curiae