

**ORAL ARGUMENT NOT YET SCHEDULED**

No. 22-1031

(and Consolidated Cases 22-1032, 22-1033, 22-1034, 22-1035, 22-1036, 22-1038)

**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**STATE OF TEXAS, *et al.*,*Petitioners,*

v.

ENVIRONMENTAL PROTECTION AGENCY and MICHAEL S. REGAN, in  
his Official Capacity, as Administrator of the Environmental Protection Agency,  
*Respondents.***On Petition for Review of Final Agency Action of the  
Environmental Protection Agency  
86 Fed. Reg. 74,434 (Dec. 30, 2021)****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*)  
Martin Lockman  
Andrea Nishi  
Amy E. Turner  
Sabin Center for Climate Change Law  
Columbia Law School  
435 W. 116<sup>th</sup> St.  
New York, NY 10027  
(212) 854-2372  
michael.burger@law.columbia.edu

DATED: March 2, 2023

*Counsel for Amici Curiae**Additional counsel are listed on the following pages.*

Clarence E. Anthony  
CEO and Executive Director  
National League of Cities  
660 North Capitol St. NW  
Suite 450  
Washington, D.C. 20001  
202-626-3000

Tom Cochran  
CEO and Executive Director  
The U.S. Conference of Mayors  
1620 I St. NW  
Washington, D.C. 20006  
202-293-7330

**CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES**

Except for those listed in the Identities and Interests section below, all parties, intervenors, and *amici* appearing in this case are listed on Page (i) of Respondent EPA's answering brief. (Doc. No. 1987499).

References to the rulings under review and related cases appear on Page (ii) of Respondent EPA's answering brief.

**STATEMENT REGARDING SEPARATE BRIEFING,  
AUTHORSHIP, AND MONETARY CONTRIBUTIONS**

*Amici* National League of Cities and U.S. Conference of Mayors file this separate *amicus* brief in compliance with the word limits set forth in the Court's Order of September 22, 2022 (Doc. No. 1965622). *See* Fed. R. App. P. 29(a)(5), 32(a)(7)(B)(i). A single joint brief is not practicable in this case because the other *amicus* briefs do not address the unique perspective of governments that are responsible for local responses to climate change. *See* D.C. Circuit Rule 29(d).

Under Federal Rule of Appellate Procedure 29(a)(4)(E), *amici* state that no party's counsel authored this brief in whole or in part, and no party or party's counsel contributed money intended to fund the preparation or submission of this brief. No person—other than the *amici curiae* or their counsel—contributed money intended to fund the preparation or submission of this brief.

## **CORPORATE DISCLOSURES**

The undersigned counsel for *amici* certifies that no corporation among *amici* has ever issued stock, and that none has a parent company whose ownership interest is 10 percent or greater.

## TABLE OF CONTENTS

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES .....	iii
STATEMENT REGARDING SEPARATE BRIEFING, AUTHORSHIP, AND MONETARY CONTRIBUTIONS.....	iv
CORPORATE DISCLOSURES .....	v
TABLE OF CONTENTS.....	vi
TABLE OF AUTHORITIES .....	vii
GLOSSARY.....	xii
IDENTITIES AND INTERESTS OF AMICI CURIAE .....	xiii
ARGUMENT .....	1
I. The Municipal Context.....	1
A. Cities are grappling with climate change.....	1
B. Local mitigation and adaptation efforts .....	7
1. Cities are taking action to reduce greenhouse gas emissions and minimize the impact of climate change on their residents.....	7
2. Cities are also investing in renewable electricity generation and grid stability.....	10
C. Cities are overburdened by criteria pollutants emitted by vehicles.....	13
D. Artificially limiting EPA’s regulatory authority would frustrate cities’ efforts to address climate change and urban air pollution.....	16
II. EPA’s promulgation of fleetwide tailpipe emissions standards was not arbitrary and capricious because it furthers the CAA’s explicit purpose of reducing municipal air pollution.....	18
III. Petitioners propose a radical expansion of the major questions doctrine that ignores the reality of shared governance in a federal system.....	23
CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT, TYPEFACE REQUIREMENTS, AND TYPE-STYLE REQUIREMENTS.....	29
CERTIFICATE OF SERVICE .....	30

## TABLE OF AUTHORITIES

### Cases

<i>MCI Telecomm. Corp. v. American Telephone &amp; Telegraph Co.</i> , 512 U.S. 218 (1994).....	24
<i>Util. Air Regul. Grp. v. EPA</i> , 573 U.S. 302, 324 (2014).....	23
<i>West Virginia v. EPA</i> , 142 S. Ct. 2587 (2022).....	23, 24

### Statutes

42 U.S.C. § 7416.....	22
42 U.S.C. § 7431.....	22
42 U.S.C. § 7521(a).....	19, 20, 22
42 U.S.C. § 7543(a).....	21
42 U.S.C. § 7554.....	20
City of Salt Lake City, Code Ch. 21A.44.040.B (2019).....	15
City of Sedona, Code § 15.45.020 (2018).....	15
Clean Air Act of 1963, Pub. L. No. 88-206, §§ 6(a)-(b) (1963).....	19
Pub. L. No. 117–169 (2022).....	12
Pub. L. No. 117–58 (2021).....	12

### Regulations

50 Fed. Reg. 10,606-01 (Mar. 15, 1985).....	20
85 Fed. Reg. 24,174 (Apr. 30, 2020).....	19
86 Fed. Reg. 74,434 (Dec. 30, 2021).....	1, 15, 22, 26

### Other Authorities

86 Fed. Reg. 43,726 (Aug. 10, 2021).....	19
Alexandria Williams, <i>Roads Buckling in Intense Oklahoma Heat</i> , KOCO News, <a href="https://bit.ly/3W7x9d2">https://bit.ly/3W7x9d2</a> (last updated June 18, 2022).....	4
American Lung Association, <i>State of the Air 2022</i> , <a href="https://bit.ly/3XqCY6t">https://bit.ly/3XqCY6t</a> ....	13, 14
Amir Vera, <i>It's So Hot, Roads Are Buckling, They're Putting Foil on a Bridge and Roofs Are Melting Around the World</i> , CNN, <a href="https://cnn.it/3IJyt2M">https://cnn.it/3IJyt2M</a> (last updated July 22, 2022).....	4
<i>Anchorage, AK Climate Action Plan</i> (2019), <a href="https://bit.ly/3dUDCEQ">https://bit.ly/3dUDCEQ</a> .....	8

Atlantic Council, <i>Extreme Heat: The Economic and Social Consequences for the United States</i> (2021), <a href="https://bit.ly/40sklBD">https://bit.ly/40sklBD</a> .....	6
Bay Area Air Quality Management District, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0283">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0283</a> .....	21
Brian K. Sullivan et al., <i>Drought Is the U.S. West’s Next Big Climate Disaster</i> , Bloomberg Green (March 20, 2021), <a href="https://bloom.bg/3fh40t3">https://bloom.bg/3fh40t3</a> .....	6
Byron Gudiel, Sierra Club, <i>Saying Farewell to Ready for 100</i> (April 11, 2022), <a href="https://bit.ly/2HodGmC">https://bit.ly/2HodGmC</a> .....	10
Caleb Robinson et al., <i>Modeling Migration Patterns in the USA Under Sea Level Rise</i> , PLoS ONE (Jan. 22, 2020), <a href="https://bit.ly/3zO659n">https://bit.ly/3zO659n</a> .....	3
CDC, <i>Asthma in Children</i> , <a href="https://bit.ly/2oCvQWA">https://bit.ly/2oCvQWA</a> (last visited Feb. 14, 2023)...	14
CDP, <i>2022 - Cities Adaptation Actions</i> , <a href="https://bit.ly/3GyFFfD">https://bit.ly/3GyFFfD</a> (last visited Feb. 14, 2023) .....	7
Chicago Metropolitan Agency for Planning, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0219">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0219</a> .....	21, 22
City of Albuquerque, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0535">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0535</a> .....	21
City of Austin, <i>Austin Climate Equity Plan (2020-21)</i> , <a href="https://bit.ly/3XsfFt3">https://bit.ly/3XsfFt3</a> .....	9
City of Charleston, <i>Flooding &amp; Sea Level Rise Strategy</i> (2019), <a href="https://bit.ly/2Xz5gwh">https://bit.ly/2Xz5gwh</a> .....	9
City of Cincinnati, <i>2018 Green Cincinnati Plan</i> (2018), <a href="https://bit.ly/3H0jgJk">https://bit.ly/3H0jgJk</a> .....	8
City of Columbia, Resolution No. R-2017- 058 (2017) .....	10
City of Columbus, <i>Electric Vehicle Charging Infrastructure</i> , <a href="https://bit.ly/3IOagZc">https://bit.ly/3IOagZc</a> (last visited Feb. 14, 2023).....	15
City of Columbus, <i>The Columbus Green Community Plan Green Memo III</i> (2015), <a href="https://bit.ly/3QDUGl2">https://bit.ly/3QDUGl2</a> .....	9
City of Fayetteville, <i>Energy Action Plan</i> (2018), <a href="https://bit.ly/2Jg8XWO">https://bit.ly/2Jg8XWO</a> .....	15
City of Fayetteville, Resolution No. 45-17 (2018) .....	10
City of Helena, A Resolution Establishing a Goal of 100% Clean, Renewable Electricity for the Helena Community by 2030 (2020) .....	10
City of Indianapolis, Special Resolution No. 10 (2017) <a href="https://bit.ly/3vZCf0l">https://bit.ly/3vZCf0l</a> .....	9
City of Louisville, <i>Emissions Reduction Plan</i> (2020), <a href="https://bit.ly/3X8TZCq">https://bit.ly/3X8TZCq</a> .....	9

City of Norman, Resolution No. R-1718-120 (2018).....	10
City of Philadelphia, <i>Philadelphia’s Municipal Clean Fleet Plan</i> (2021), <a href="https://bit.ly/3QAFDs8">https://bit.ly/3QAFDs8</a> .....	14
City of Phoenix, A Roadmap to Prepare for 280,000 Electric Vehicles in Phoenix by 2030, at 22 (2022), <a href="https://bit.ly/3EJ51al">https://bit.ly/3EJ51al</a> .....	11
City of San Antonio Metropolitan Health District, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 23, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0236">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0236</a> .....	21
City of St. Louis, Resolution No. 124 (2017) .....	10
Climate Mayors Electric Vehicle Purchasing Collaborative, <a href="https://driveevfleets.org">https://driveevfleets.org</a> (last visited Feb. 14, 2023) .....	14
District of Columbia Department of Energy and Environment, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 29, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0240">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0240</a> .....	10
Drew Shindell et al., <i>The Effects of Heat Exposure on Human Mortality Throughout the United States</i> , <i>Geohealth</i> , Apr. 2020 .....	6
Elena Grigorieva & Artem Lukyanets, Combined Effect of Hot Weather and Outdoor Air Pollution on Respiratory Health: Literature Review, <i>Atmosphere</i> (2021) .....	4
EPA, <i>Climate Change and Social Vulnerability in the United States</i> (2021), <a href="https://bit.ly/3l8yV0R">https://bit.ly/3l8yV0R</a> .....	7
EPA, <i>Criteria Air Pollutants</i> , <a href="https://bit.ly/3E9mA30">https://bit.ly/3E9mA30</a> (last visited Feb. 14, 2023)	13
EPA, <i>Health and Environmental Effects of Particulate Matter</i> (last updated Aug.30, 2022), <a href="https://bit.ly/37Y1iFR">https://bit.ly/37Y1iFR</a> .....	14
Francisco J. Doblas-Reyes et al., IPCC, Ch. 10: <i>Linking Global to Regional Climate Change</i> , in <i>Climate Change 2021: The Physical Science Basis</i> .....	3
Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II (2018), <a href="https://bit.ly/3mdsnvB">https://bit.ly/3mdsnvB</a> .....	2, 3, 4, 14
International Panel on Climate Change, <i>Climate Change 2022: Mitigation of Climate Change</i> (2022), <a href="https://bit.ly/3XL6m7V">https://bit.ly/3XL6m7V</a> .....	14, 16
<i>Local Government Renewables Action Tracker</i> , American Cities Climate Challenge Renewables Accelerator, <a href="https://bit.ly/3H22TMH">https://bit.ly/3H22TMH</a> (last visited Feb. 14, 2023) .....	11

Marshall Burke et al., <i>The Changing Risk and Burden of Wildfire in the United States</i> , Procs. of the Nat'l Acad. of Scis. of the U.S., Jan. 12, 2021, <a href="https://bit.ly/3F4s1yD">https://bit.ly/3F4s1yD</a> .....	5
Media Release, City of Fayetteville, First Arkansas-based Solar Plus Storage System Connects to Grid (Sept. 3, 2019), <a href="https://bit.ly/3ZuuNrH">https://bit.ly/3ZuuNrH</a> .....	12
Metropolitan Washington Air Quality Committee et al., Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards 2 (Sept. 27, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0208">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0208</a> ....	17, 21
Michael Goldberg, <i>Low Water Disrupts Industry Along Lower Mississippi River in Vicksburg</i> (Oct. 17, 2022), <a href="https://bit.ly/3CJxprP">https://bit.ly/3CJxprP</a> .....	6
Michon Scott, <i>Climate &amp; Skiing</i> , NOAA (Nov. 19, 2018), <a href="https://bit.ly/3qlVQGd">https://bit.ly/3qlVQGd</a> .	5
National Academies of Sciences, <i>Attribution of Extreme Weather Events in the Context of Climate Change</i> (2016), <a href="https://bit.ly/1S2JHgf">bit.ly/1S2JHgf</a> .....	3
National Centers for Environmental Information, <i>November 2022 Drought Report</i> (Dec. 13, 2022), <a href="https://bit.ly/3DXAtkZ">https://bit.ly/3DXAtkZ</a> .....	6
NOAA National Centers for Environmental Information, <i>The High Cost of Drought</i> (Jan. 23, 2020), <a href="https://bit.ly/3keqz7y">https://bit.ly/3keqz7y</a> .....	6
NOAA National Ocean Service, <i>2022 Sea Level Rise Technical Report</i> , <a href="https://bit.ly/3HF4czX">https://bit.ly/3HF4czX</a> .....	7
NOAA Office for Coastal Management, <i>Hurricane Costs</i> , <a href="https://bit.ly/32hGLfw">https://bit.ly/32hGLfw</a> (last visited Feb. 14, 2023).....	2
Office of Atmospheric Programs, EPA, <i>Climate Change in the United States: Benefits of Global Action</i> (2015), <a href="https://bit.ly/2xc5uCO">https://bit.ly/2xc5uCO</a> .....	4, 7
Oklahoma City, <i>AdaptOKC: Adapting for a Healthy Future</i> (2020), <a href="https://bit.ly/3IGqyTR">https://bit.ly/3IGqyTR</a> .....	16
Our Cities, <i>Global Covenant of Mayors for Climate and Energy</i> , <a href="https://bit.ly/3GO5d6K">https://bit.ly/3GO5d6K</a> (last visited Feb. 14, 2023) .....	8
Peter Krouse, <i>How Cleveland Will Expand Air Monitoring in Poor Neighborhoods Disproportionately Burdened by Pollution</i> (Dec. 05, 2022), <a href="https://bit.ly/3GWFECv">https://bit.ly/3GWFECv</a> .....	15
Press Release, Houston Mayor's Office of Resilience and Sustainability, Mayor Turner Launches the Resilient Houston Strategy and Signs Historic Executive Order to Prepare the City for Future Disasters (Feb. 12, 2020), <a href="https://bit.ly/3c3Wgrs">https://bit.ly/3c3Wgrs</a> .....	8
<i>Request for Information (RFI): Cuyahoga County Utility &amp; Microgrids</i> , County of Cuyahoga, Ohio (2022), <a href="https://bit.ly/3X8so4e">https://bit.ly/3X8so4e</a> .....	12

Rob Nikolewski, <i>California Town’s EV School Buses Return Electricity to the Grid</i> , San Diego Union-Tribune (July 28, 2022), <a href="https://bit.ly/3izRIkJ">https://bit.ly/3izRIkJ</a> .....	12
Salt Lake City, Resolution No. 22 (2016) .....	10
Salt Lake Cnty. Health Dep’t, <i>Climate Adaptation Plan for Public Health</i> (2017), <a href="https://bit.ly/3sa9bTe">https://bit.ly/3sa9bTe</a> .....	4
Samuel A. Markolf et al., Brookings, <i>Pledges and Progress</i> (2020), <a href="https://brook.gs/3XtNytI">https://brook.gs/3XtNytI</a> .....	9
San Joaquin Valley Air Pollution Control District, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 30, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0566">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0566</a> .....	17
Shelley He et al., <i>How Does Restructuring of Electricity Generation Affect Renewable Power?</i> , 43 Energy L.J. 125, 134–36 (2022) .....	24
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) .....	5
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> , 13 Earth Sys. Dynamics 1689 (2022), <a href="https://bit.ly/3xmTVDZ">https://bit.ly/3xmTVDZ</a> .....	3
<i>South Carolina Hazard Mitigation Plan</i> (2018), <a href="https://bit.ly/3FeI8tu">https://bit.ly/3FeI8tu</a> .....	9
<i>State Adaptation Progress Tracker</i> , Georgetown Climate Center, <a href="https://bit.ly/3IYeQBG">https://bit.ly/3IYeQBG</a> (last visited Feb. 14, 2023) .....	8
State of California et al., Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <a href="https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0245">https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0245</a> .....	20, 21
Tony Briscoe, <i>Local Air Regulators Say It’s Impossible to Meet Smog Standards Without Federal Help</i> (Dec. 05, 2022), <a href="https://lat.ms/3keWtR6">https://lat.ms/3keWtR6</a> .....	17
Town of Abita Springs, Resolution (2017) .....	10
<i>What Are Renewable Portfolio Standards?</i> , U.S. Energy Information Admin. (last updated Nov. 30, 2022), <a href="https://bit.ly/3IphItc">https://bit.ly/3IphItc</a> .....	13
Yale Climate Connections, <i>2021 Pacific Northwest Heat Wave ‘Virtually Impossible’ Without Global Warming, Scientists Find</i> (Nov. 2, 2021), <a href="https://bit.ly/3IV0hz5">https://bit.ly/3IV0hz5</a> .....	3
Zhang J et al., <i>Ozone Pollution: A Major Health Hazard Worldwide</i> , Front. Immunol. (2019) .....	14

## GLOSSARY

CAA	Clean Air Act
EPA	United States Environmental Protection Agency
EV	Electric Vehicle
GHG	Greenhouse gas
HUD	United States Department of Housing and Urban Development
NLC	National League of Cities
SAFE Rule	Safer Affordable Fuel-Efficient Vehicles Rule
Standards	Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards

## **IDENTITIES AND INTERESTS OF AMICI CURIAE**

The National League of Cities (NLC), founded in 1924, is the oldest and largest organization representing U.S. municipal governments. NLC works to strengthen local leadership, influence federal policy, and drive innovative solutions. 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 sustainability and resilience program 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 with populations of 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.

## ARGUMENT

Amici’s local government members are the first responders to climate change, and have taken great strides to mitigate climate change and adapt to its hyperlocal impacts. They are also working to reduce the significant public health and equity risks posed by transportation pollution, which is largely concentrated in U.S. cities. In both of these contexts, municipalities rely on stringent federal regulation of tailpipe emissions to support local planning and governance. Overturning EPA’s “Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards”<sup>1</sup> (herein referred to as the “Standards”) would hamstring those efforts.

For the reasons set forth in this brief, Amici ask the Court to reject Petitioners’ petition and uphold the Standards.

### **I. The Municipal Context**

#### **A. Cities are grappling with climate change.**

Over 80 percent of Americans live in urban areas—and even more work in cities—meaning local elected officials are responsible for understanding the risks to, and planning for the wellbeing of, the vast 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

---

<sup>1</sup> 86 Fed. Reg. 74,434 (Dec. 30, 2021).

climate impacts, such as increased heat-related deaths and dirtier air, in addition to the damaged and disappearing coastlines, longer droughts and other strains on water quantity and quality, increased wildfire risk, and increasingly frequent and severe storms and flooding faced by communities across the country. Climate change can also exacerbate cities' existing challenges, including social inequality, aging and deteriorating infrastructure, and stressed ecosystems.<sup>2</sup>

Coastal communities from Louisiana to Maine to Alaska are already responding to the devastating effects of sea level rise. In cities like Charleston, South Carolina and Galveston, Texas, flooding is routine and is only expected to increase in frequency and depth as seas rise and land subsides. On top of the grinding, expensive nuisance of flooding looms the enormous threat of destructive storm surges like those that accompanied Hurricanes Ian, Ida, Maria, Katrina, Harvey, and Sandy. These and similar events caused billions of dollars of damage to municipalities in the Gulf Coast region and along the eastern seaboard.<sup>3</sup> Moreover, even non-coastal cities will feel the effects of sea level rise as a

---

<sup>2</sup> 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"].

<sup>3</sup> NOAA Office for Coastal Management, *Hurricane Costs*, <https://bit.ly/32hGLfw> (last visited Feb. 14, 2023).

projected thirteen million coastal residents in the U.S. may be displaced to non-coastal areas by 2100.<sup>4</sup>

Local governments and their residents are similarly injured by heat waves, which climate change has made more frequent, hotter, and longer.<sup>5</sup> Heat waves are the deadliest type of extreme weather, and because urban “heat islands” warm faster and stay hotter than suburban and rural areas, city dwellers—particularly those living in low-income communities and communities of color—are at heightened risk.<sup>6</sup> For example, a 2021 heat wave caused temperatures in Portland, Oregon to exceed 110 degrees Fahrenheit,<sup>7</sup> and resulted in hundreds of deaths across the Pacific Northwest and British Columbia—an event that “would be virtually impossible without human-caused climate change.”<sup>8</sup> In Salt Lake City,

---

<sup>4</sup> See Caleb Robinson et al., *Modeling Migration Patterns in the USA Under Sea Level Rise*, PLoS ONE (Jan. 22, 2020), <https://bit.ly/3zO659n>.

<sup>5</sup> See National Academies of Sciences, *Attribution of Extreme Weather Events in the Context of Climate Change* (2016), [bit.ly/1S2JHgf](https://bit.ly/1S2JHgf) (concluding that attribution of particular heat waves to climate change is scientifically well-supported).

<sup>6</sup> 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.

<sup>7</sup> Yale Climate Connections, *2021 Pacific Northwest Heat Wave ‘Virtually Impossible’ Without Global Warming, Scientists Find* (Nov. 2, 2021), <https://bit.ly/3IV0hz5>.

<sup>8</sup> Sjouke Y. Philip et al., *Rapid Attribution Analysis of the Extraordinary Heatwave on the Pacific Coast of the US and Canada June 2021*, 13 *Earth Sys. Dynamics* 1689 (2022), <https://bit.ly/3xmTVDZ>.

Utah and elsewhere, higher temperatures exacerbate air pollution that already threatens public health.<sup>9</sup> According to EPA estimates, 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.<sup>10</sup>

Rising temperatures also do costly damage to infrastructure and local economies.<sup>11</sup> Heat waves in 2022 caused pipes and water mains to burst in Fort Worth, Texas<sup>12</sup> and roads to buckle in Oklahoma City, Oklahoma.<sup>13</sup> Each year, heat waves “increase stresses on electric power, increasing the risk of cascading failures within the electric power network.”<sup>14</sup> As the snow-to-rain ratio of

---

<sup>9</sup> Salt Lake Cnty. Health Dep’t, *Climate Adaptation Plan for Public Health* 6, 32 (2017), <https://bit.ly/3sa9bTe>; see also Elena Grigorieva & Artem Lukyanets, Combined Effect of Hot Weather and Outdoor Air Pollution on Respiratory Health: Literature Review, *Atmosphere* (2021).

<sup>10</sup> Office of Atmospheric Programs, EPA, *Climate Change in the United States: Benefits of Global Action* 8 (2015), <https://bit.ly/2xc5uC0>.

<sup>11</sup> Maxwell et al., *supra* note 2.

<sup>12</sup> Amir Vera, *It’s So Hot, Roads Are Buckling, They’re Putting Foil on a Bridge and Roofs Are Melting Around the World*, CNN, <https://cnn.it/3IJyt2M> (last updated July 22, 2022).

<sup>13</sup> Alexandria Williams, *Roads Buckling in Intense Oklahoma Heat*, KOCO News, <https://bit.ly/3W7x9d2> (last updated June 18, 2022).

<sup>14</sup> Leah Nichols et al., Ch. 17: *Sector Interactions, Multiple Stressors, and Complex Systems*, in 4th National Climate Assessment at 638, 652.

precipitation shifts away from snow, ski towns across the west face snowpack shortages that threaten local industry.<sup>15</sup>

Climate change is also increasing the frequency and severity of wildfires, which have significant impacts on air quality and public health nationwide.<sup>16</sup> Over the past four decades, the burned area from wildfires in the United States has nearly quadrupled, with climate change responsible for roughly half of this increase.<sup>17</sup> And while the fires themselves are primarily concentrated in western states, municipalities across the country are feeling their effects.<sup>18</sup> Communities in Utah, Kentucky, Pennsylvania, and West Virginia have all experienced heightened exposure to wildfire smoke that prevailing winds carry across the country.<sup>19</sup>

Municipalities nationwide are also suffering from severe droughts that are made worse and more frequent by climate change. As of November 2022, more

---

<sup>15</sup> Michon Scott, *Climate & Skiing*, NOAA (Nov. 19, 2018), <https://bit.ly/3q1VQGd>.

<sup>16</sup> 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 (2018); Marshall Burke et al., *The Changing Risk and Burden of Wildfire in the United States*, *Procs. of the Nat'l Acad. of Scis. of the U.S.*, Jan. 12, 2021, <https://bit.ly/3F4s1yD>.

<sup>17</sup> Marshall Burke et al., *supra* note 16, at 1, 5.

<sup>18</sup> Marshall Burke et al., *supra* note 16, at 3.

<sup>19</sup> Alison Saldanha et al., *Dangerous Air: As California Burns, America Breathes Toxic Smoke*, KCRW (Sept. 28, 2021, last visited Jan. 13, 2023), <https://kcrw.co/3ISH4Oh>.

than a third of the contiguous United States was in a state of moderate to extreme drought.<sup>20</sup> Intensifying drought conditions in western states cause billions of dollars of economic loss each year<sup>21</sup> and threaten the livelihoods of ranchers in Staples, Texas and farmers in Ventura, California, along with millions of others living with the specter of tighter water-use restrictions.<sup>22</sup> The threat of intensifying drought conditions is not isolated to the West: last year, the Mississippi River reached its lowest water level in a decade, disrupting shipping lanes, transportation, and recreation in Vicksburg, Mississippi as drought conditions spread across several states in the river basin.<sup>23</sup>

In light of these mounting impacts, the costs of climate change for cities are already great and will become enormous. By 2050, unmitigated climate change is expected to cause annual labor productivity losses of up to \$500 billion,<sup>24</sup> as well

---

<sup>20</sup> National Centers for Environmental Information, *November 2022 Drought Report* (Dec. 13, 2022), <https://bit.ly/3DXAtkZ>.

<sup>21</sup> NOAA National Centers for Environmental Information, *The High Cost of Drought* (Jan. 23, 2020), <https://bit.ly/3keqz7y>.

<sup>22</sup> 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>.

<sup>23</sup> NOAA National Centers for Environmental Information, November 2022 Drought Report, *supra* note 20; Michael Goldberg, *Low Water Disrupts Industry Along Lower Mississippi River in Vicksburg* (Oct. 17, 2022), <https://bit.ly/3CJxprP>.

<sup>24</sup> Atlantic Council, *Extreme Heat: The Economic and Social Consequences for the United States* 3–4 (2021), <https://bit.ly/40sklBD>.

as 110,000 premature heat-related deaths<sup>25</sup> and hundreds of billions of dollars in damage to infrastructure and water supply systems each year.<sup>26</sup> Without protective measures, sea levels are expected to rise up to seven feet by 2100,<sup>27</sup> inundating more than \$479 billion in coastal property.<sup>28</sup> Educated by their experiences and anticipating the still more dramatic climate change impacts looming in the foreseeable future, Amici write in opposition to Petitioners' efforts to artificially constrain EPA's authority to regulate vehicle emissions.

## **B. Local mitigation and adaptation efforts**

### ***1. Cities are taking action to reduce greenhouse gas emissions and minimize the impact of climate change on their residents.***

Cities are not only on the front lines of climate impacts, but are also at the forefront of climate change adaptation and mitigation efforts nationwide. In 2022 alone, U.S. cities reported 847 separate climate adaptation actions.<sup>29</sup> Despite the significant costs of this planning and implementation, the costs of failing to adapt

---

<sup>25</sup> Drew Shindell et al., *The Effects of Heat Exposure on Human Mortality Throughout the United States*, Geohealth, Apr. 2020.

<sup>26</sup> Office of Atmospheric Programs, *Climate Change*, supra note 10, at 78.

<sup>27</sup> NOAA National Ocean Service, *2022 Sea Level Rise Technical Report*, <https://bit.ly/3HF4czX>.

<sup>28</sup> EPA, *Climate Change and Social Vulnerability in the United States* 57 (2021), <https://bit.ly/3l8yV0R>.

<sup>29</sup> CDP, *2022 - Cities Adaptation Actions*, <https://bit.ly/3GyFFfD> (last visited Feb. 14, 2023) (data filtered for U.S. cities).

would be much higher. In Anchorage, Alaska’s Climate Action Plan, the city recognizes 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 of the century.”<sup>30</sup> 2020 saw the release of Resilient Houston, a framework to mitigate flooding risks and improve climate readiness in Texas.<sup>31</sup> These are just two of the many American cities that have taken up the call to protect their residents from climate change’s most severe impacts.<sup>32</sup>

In many states—including Mississippi, Oklahoma, and Utah—municipalities have been the only level of government to develop strategies to adapt to climate change.<sup>33</sup> In the absence of state-level planning, Cincinnati, Ohio has begun to improve its resilience and expand its housing stock in anticipation of migration from other states due to climate impacts.<sup>34</sup> In other states, like South Carolina, city-

---

<sup>30</sup> *Anchorage, AK Climate Action Plan* (2019), <https://bit.ly/3dUDCEQ>.

<sup>31</sup> Press Release, Houston Mayor’s Office of Resilience and Sustainability, 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>.

<sup>32</sup> *See Our Cities, Global Covenant of Mayors for Climate and Energy*, <https://bit.ly/3GO5d6K> (last visited Feb. 14, 2023).

<sup>33</sup> *See State Adaptation Progress Tracker*, Georgetown Climate Center, <https://bit.ly/3IYeQBG> (last visited Feb. 14, 2023).

<sup>34</sup> City of Cincinnati, *2018 Green Cincinnati Plan* (2018), <https://bit.ly/3H0jgJk>.

level planning preceded and set the groundwork for state-level planning:

Charleston has experienced six inches of sea level rise in the last twenty years, and has developed comprehensive infrastructure, land use, and community outreach responses to prepare for even greater increases.<sup>35</sup> Three years after Charleston published its first strategic plan, the state followed suit in publishing a Hazard Mitigation Plan addressing the risks sea-level rise poses to its coastal areas.<sup>36</sup>

Given the significant impacts and costs they face as a result of climate change, local governments around the U.S. are also working to reduce their own contributions to global greenhouse gas pollution, with many making specific and ambitious reduction commitments. Austin, Texas and Louisville, Kentucky have committed to “net zero GHG emissions communitywide” by 2040,<sup>37</sup> and Columbus, Ohio<sup>38</sup> and Indianapolis, Indiana<sup>39</sup> to carbon neutrality by 2050. These

---

<sup>35</sup> City of Charleston, *Flooding & Sea Level Rise Strategy* (2019), <https://bit.ly/2Xz5gwh>.

<sup>36</sup> *South Carolina Hazard Mitigation Plan* (2018), <https://bit.ly/3FeI8tu>.

<sup>37</sup> City of Louisville, *Emissions Reduction Plan* (2020), <https://bit.ly/3X8TZCq>; City of Austin, *Austin Climate Equity Plan (2020-21)*, <https://bit.ly/3XsfFt3>.

<sup>38</sup> City of Columbus, *The Columbus Green Community Plan Green Memo III* (2015), <https://bit.ly/3QDUGl2>.

<sup>39</sup> City of Indianapolis, Special Resolution No. 10 (2017), <https://bit.ly/3vZCf0l>.

commitments are just several of the hundreds of greenhouse gas emission reduction goals set by local governments around the U.S.<sup>40</sup>

To meet these goals, more than 180 local governments have committed to 100% clean energy,<sup>41</sup> and many more have set ambitious renewable energy goals that fall short of a complete transition.<sup>42</sup> But cities cannot achieve these ambitious goals on their own. They rely on federal regulations like the Standards to support their own ambitious and necessary climate plans.<sup>43</sup>

## ***2. Cities are also investing in renewable electricity generation and grid stability.***

Alongside their adaptation and mitigation efforts, cities are working to increase renewable electricity generation and bolster grid stability. Local

---

<sup>40</sup> Samuel A. Markolf et al., Brookings, *Pledges and Progress* 1 (2020), <https://brook.gs/3XtNytI>.

<sup>41</sup> In this context, “clean” energy refers to renewable energy and energy efficiency measures.

<sup>42</sup> Byron Gudiel, Sierra Club, *Saying Farewell to Ready for 100* (April 11, 2022), <https://bit.ly/2HodGmC>; *see also* City of St. Louis, Resolution No. 124 (2017); City of Fayetteville, Resolution No. 45-17 (2018); Town of Abita Springs, Resolution (2017); City of Columbia, Resolution No. R-2017- 058 (2017); City of Helena, A Resolution Establishing a Goal of 100% Clean, Renewable Electricity for the Helena Community by 2030 (2020); City of Norman, Resolution No. R-1718-120 (2018); Salt Lake City, Resolution No. 22 (2016).

<sup>43</sup> District of Columbia Department of Energy and Environment, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards 2 (Sept. 29, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0240>.

governments have been active over the last decade in bringing new renewable energy resources online. In 2022 alone, local governments in the U.S. entered into more than 70 contracts to procure renewable energy, for a total of more than 13,000 megawatts. Since 2015 more than 1,300 similar deals have been signed, securing more than 20,000 megawatts of renewable energy for U.S. cities.<sup>44</sup> 2022 transactions include power purchase agreements entered into by Saline County, Arkansas; Kendallville, Indiana; New Orleans, Louisiana; Lauderdale County, Mississippi; Kansas City, Missouri; Cincinnati and Findlay, Ohio; Dallas, El Paso, and San Antonio, Texas; Logan, Morgan, Springville, St. George, and Washington, Utah; and the Alabama Municipal Electric Authority.<sup>45</sup> These major contracts allowed renewable energy projects that would not have otherwise had financing to come online, increasing national availability of renewable electricity.

In addition to bringing more renewable electricity online, cities are actively working to address grid reliability concerns through consultation with utilities, microgrid development, and other projects. Local governments are working closely with utilities to understand and prepare for the impacts of increased EV

---

<sup>44</sup> *Local Government Renewables Action Tracker*, American Cities Climate Challenge Renewables Accelerator, <https://bit.ly/3H22TMH> (last visited Feb. 14, 2023).

<sup>45</sup> *Id.*

proliferation on the grid.<sup>46</sup> At the same time, many localities, including Cuyahoga County, Ohio, are moving ahead with plans for microgrids, which are local electricity networks that can be cleaved off from the broader electric system during grid disruptions to bolster the reliability of power access within the microgrid.<sup>47</sup> Battery storage is also critical for grid reliability, and cities like Fayetteville, Arkansas are increasingly undertaking projects with significant battery components,<sup>48</sup> paving the way for additional storage capacity in the future. Local governments are experimenting with other ways to make the electric grid more reliable, like vehicle-to-grid programs that allow vehicle batteries to feed energy back to the grid when supply is low.<sup>49</sup>

Of course, local governments cannot future-proof the electric grid on their own, instead working in partnership across levels of government on this broader project. Federal laws like the Inflation Reduction Act<sup>50</sup> and Infrastructure Investment and Jobs Act<sup>51</sup> provide significant funding for electricity infrastructure.

---

<sup>46</sup> See, e.g., City of Phoenix, A Roadmap to Prepare for 280,000 Electric Vehicles in Phoenix by 2030, at 22 (2022), <https://bit.ly/3EJ51al>.

<sup>47</sup> *Request for Information (RFI): Cuyahoga County Utility & Microgrids*, County of Cuyahoga, Ohio (2022), <https://bit.ly/3X8so4e>.

<sup>48</sup> Media Release, City of Fayetteville, First Arkansas-based Solar Plus Storage System Connects to Grid (Sept. 3, 2019), <https://bit.ly/3ZuuNrH>.

<sup>49</sup> Rob Nikolewski, *California Town's EV School Buses Return Electricity to the Grid*, San Diego Union-Tribune (July 28, 2022), <https://bit.ly/3izRIkJ>.

<sup>50</sup> Pub. L. No. 117–169 (2022).

<sup>51</sup> Pub. L. No. 117–58 (2021).

Many states, including Arizona, Texas, Missouri, and Ohio, are scaling up renewable energy generation through tools like renewable portfolio standards, which require some percentage of electricity generated or consumed in-state to come from renewable sources.<sup>52</sup>

In these ways, local governments play a vital role, alongside the federal government, in increasing overall electricity supply to support vehicle electrification and bolster grid reliability. More than that, cities are actively preparing for the changes to the electricity supply and composition that will be needed to support the market's enthusiasm for electric vehicles. The Standards follow, rather than force, municipal action on grid stabilization.

### **C. Cities are overburdened by criteria pollutants emitted by vehicles.**

In addition to mitigating and adapting to climate change, cities also have a significant public health interest in abating vehicular air pollution. More than 40% of Americans live in counties with unhealthy air quality,<sup>53</sup> and motor vehicle emissions within cities are a significant source of criteria pollutants such as particulate matter and precursors to ozone.

---

<sup>52</sup> *What Are Renewable Portfolio Standards?*, U.S. Energy Information Admin. (last updated Nov. 30, 2022), <https://bit.ly/3IphItc>.

<sup>53</sup> See EPA, *Criteria Air Pollutants*, <https://bit.ly/3E9mA30> (last visited Feb. 14, 2023); American Lung Association, *State of the Air 2022*, at 11, <https://bit.ly/3XqCY6t> [hereinafter "State of the Air"].

Increasing air pollution from motor vehicles poses a major threat to public health in urban areas. Ozone damages healthy lungs and is associated with increased mortality due to respiratory and cardiovascular disease.<sup>54</sup> Particulate matter can lead to heart attacks, irregular heartbeat, decreased lung function, respiratory symptoms, and premature mortality.<sup>55</sup> Both pollutants aggravate asthma, which is the leading chronic illness among children, afflicting approximately 6 million children nationwide.<sup>56</sup> Climate change only exacerbates local air pollution and amplifies its health impacts.<sup>57</sup>

For these reasons, as well as the need to reduce greenhouse gas emissions discussed in Sections I.A and B, local governments have a significant interest in controlling motor vehicle pollution and its negative health effects. The Standards support these local goals. In order to support electrification of the transportation sector,<sup>58</sup> cities around the country have steadily been electrifying their municipal

---

<sup>54</sup> Zhang J et al., *Ozone Pollution: A Major Health Hazard Worldwide*, *Front. Immunol.* (2019).

<sup>55</sup> EPA, *Health and Environmental Effects of Particulate Matter* (last updated Aug. 30, 2022), <https://bit.ly/37Y1iFR>.

<sup>56</sup> CDC, *Asthma in Children*, <https://bit.ly/2oCvQWA> (last visited Feb. 14, 2023).

<sup>57</sup> P.D. Dolwick et al., Ch. 13: *Air Quality*, in 4th National Climate Assessment; State of the Air, *supra* note 53, at 17.

<sup>58</sup> International Panel on Climate Change, *Climate Change 2022: Mitigation of Climate Change* 1052 (2022), <https://bit.ly/3XL6m7V>.

vehicle fleets<sup>59</sup> and modifying building and zoning codes to develop vehicle charging capacity.<sup>60</sup> Fayetteville, Arkansas has prioritized the transportation sector in its energy goals by promoting electric vehicles, public transit, and non-vehicle transportation.<sup>61</sup> Columbus, Ohio has committed to installing more than 900 electric vehicle charging ports across the city to encourage and support electric vehicle adoption.<sup>62</sup>

In addition, local governments have emerged as leaders in developing strategies that aim to redress the disproportionate and harmful health impacts of air pollution experienced by many environmental justice communities. As EPA recognized in promulgating the Standards, people of color and low-income populations are at increased risk of exposure to air pollution from major roadways.<sup>63</sup> To begin addressing this inequity, Cleveland, Ohio is expanding its network of air quality monitors in disadvantaged areas of the city, where childhood

---

<sup>59</sup> See, e.g., City of Philadelphia, *Philadelphia's Municipal Clean Fleet Plan* (2021), <https://bit.ly/3QAFDs8>; Climate Mayors Electric Vehicle Purchasing Collaborative, <https://driveevfleets.org> (last visited Feb. 14, 2023).

<sup>60</sup> See, e.g., City of Sedona, Code § 15.45.020 (2018); City of Salt Lake City, Code Ch. 21A.44.040.B (2019).

<sup>61</sup> City of Fayetteville, *Energy Action Plan* 8, 44, 46 (2018), <https://bit.ly/2Jg8XWO>.

<sup>62</sup> City of Columbus, *Electric Vehicle Charging Infrastructure*, <https://bit.ly/3IOagZc> (last visited Feb. 14, 2023).

<sup>63</sup> 86 Fed. Reg. 74,434, 74,445 (Dec. 30, 2021).

asthma rates are nearly three times the national average.<sup>64</sup> Oklahoma City's AdaptOKC plan highlights the increased risks of traffic-related pollutants for populations living or going to school near roadways as a major motivation behind its plans to reduce greenhouse gas emissions and other pollutants.<sup>65</sup> By significantly reducing vehicle emissions, the Standards buttress local governments' efforts to address climate change and air pollution in an equitable way that is responsive to the needs of environmental justice communities. Local governments cannot do this on their own.

**D. Artificially limiting EPA's regulatory authority would frustrate cities' efforts to address climate change and urban air pollution.**

Cities are making significant strides in mitigating and adapting to climate change, but they are likely to fail if the federal government's authority to significantly reduce greenhouse gas emissions is artificially limited by Petitioners' unsupportable interpretation of the Clean Air Act or the authority it delegates to EPA.<sup>66</sup> Vehicle emissions account for a significant portion of greenhouse gases in

---

<sup>64</sup> Peter Krouse, *How Cleveland Will Expand Air Monitoring in Poor Neighborhoods Disproportionately Burdened by Pollution* (Dec. 05, 2022), <https://bit.ly/3GWFECv>.

<sup>65</sup> Oklahoma City, *AdaptOKC: Adapting for a Healthy Future* (2020), <https://bit.ly/3IGqyTR>.

<sup>66</sup> International Panel on Climate Change, *Climate Change 2022: Mitigation of Climate Change* 865 (2022), <https://bit.ly/3XL6m7V> ("Achieving transformational

cities, and many cities' climate goals cannot be achieved without deep cuts in emissions from the federally regulated transportation sector. The regulation of tailpipe emissions is an essential tool in the federal government's toolbox for regulating greenhouse gasses, supporting local initiatives to deliver climate solutions, and reducing local governments' adaptation costs.

Likewise, cities will struggle to address the public health threat of air pollution or meet federal air quality standards without strong federal regulation of vehicle emissions.<sup>67</sup> As several cities and states noted in their comments on the proposed rule, both vehicles and their emissions frequently travel across jurisdictional lines, making it more difficult for state and local governments to effectively regulate this source of pollution within their own borders.<sup>68</sup> Failure to

---

changes in cities for climate change mitigation and adaptation will require engaging multiple scales of governance.”).

<sup>67</sup> Tony Briscoe, *Local Air Regulators Say It's Impossible to Meet Smog Standards Without Federal Help* (Dec. 05, 2022), <https://lat.ms/3keWtR6>.

<sup>68</sup> See, e.g., Metropolitan Washington Air Quality Committee et al., Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards 2 (Sept. 27, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0208> [hereinafter Washington Letter] (citing pollution “in part caused by emissions transported into the region, making this not only a regional issue but a national one”); San Joaquin Valley Air Pollution Control District, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 30, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0566> (noting that after decades of stringent regulation at the state and local level, over 85% of certain harmful pollutants in the Valley were traceable to mobile sources, and

curtail air pollution from vehicles at the federal level will disproportionately impact people of color and low-income individuals who are more likely to live, work, and go to school near major roadways. Municipal policies to reduce emissions from the transportation sector, like those discussed in Section I.C, depend on strong federal standards that will increase market penetration of low- and zero-emission vehicles.

**II. EPA’s promulgation of fleetwide tailpipe emissions standards was not arbitrary and capricious because it furthers the CAA’s explicit purpose of reducing municipal air pollution.**

EPA’s promulgation of the Standards was not arbitrary and capricious because the regulation of fleet tailpipe emissions, rather than third-party “lifecycle” emissions, is consistent with EPA’s historical practices, closely tied to the CAA’s core goal of reducing harmful concentrations of motor vehicle pollution, and based on EPA’s careful consideration of the administrative record. Despite acknowledging that EPA’s analysis of the Standards properly accounted for lifecycle GHG emissions from mining and power generation related to EV operations,<sup>69</sup> Petitioners argue that the Standards are arbitrary and capricious because EPA choose not to

---

arguing that “federal action to accelerate mobile source emissions reductions[] [is] critical to the Valley’s attainment of federal ambient air quality standards”).

<sup>69</sup> Brief of Private Petitioners at 63–64.

“set[] compliance standards”<sup>70</sup> under Section 7521(a)<sup>71</sup> for these emissions. This argument, however, overlooks EPA’s stated reasoning for applying tailpipe emissions standards to EVs, the historic rationale for tailpipe emissions regulations under Section 7521(a), and the way that this rationale was applied in the administrative record.

In arguing that EPA has not justified the use of “tailpipe-only values,” Petitioners refuse to acknowledge EPA’s established reasoning for this policy.<sup>72</sup> EPA’s historical practice of regulating tailpipe, rather than lifecycle, emissions under Section 7521(a) was developed to address the unique regulatory challenge of concentrated mobile emissions in urban environments. Congress first authorized EPA to develop initiatives to oversee “the discharge of pollutants from automotive

---

<sup>70</sup> *Id.* at 62–64.

<sup>71</sup> 42 U.S.C. § 7521(a).

<sup>72</sup> The Standards amend EPA’s 2020 emissions standards, in which EPA applied the 0 grams/mile emissions factor to EVs after concluding that lifecycle emissions were adequately accounted for by other EPA regulations. *See* The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, 85 Fed. Reg. 24,174, 25,208 (Apr. 30, 2020). In doing so, EPA found this policy to be “consistent with [EPA’s] historical practice of basing compliance with vehicle emissions standards on tailpipe emissions.” *Id.* at 25,208. EPA’s calculations in updating the 2021 standards continued to apply the established emissions factor for electric vehicles. *See* 86 Fed. Reg. 43,726, 43,771 n.116 (Aug. 10, 2021). As argued in Respondent EPA’s brief, a challenge to this emissions factor cannot be properly raised in this case. *See Resp. EPA’s Brief* at 34–38.

exhausts” in 1963,<sup>73</sup> noting the rapid expansion of urban populations and the resulting pollution risk from “the increasing use of motor vehicles.”<sup>74</sup> This focus on the unique characteristics of mobile emissions has shaped EPA’s regulations under Section 7521(a) for the last 60 years. In a 1985 rulemaking, for example, EPA established a new regulatory category for “urban buses” because they are used primarily in cities and “make a significant and disproportionate contribution to overall urban particulate loading.”<sup>75</sup> Congress endorsed EPA’s decision in the 1990 CAA amendments, which enshrined lower tailpipe emissions thresholds for urban buses.<sup>76</sup> While Private Petitioners now argue that EPA irrationally distinguishes “tailpipe” emissions from “lifecycle” emissions, Congress’s quick action makes clear that, for the purposes of Section 7521(a), emissions are not created equal—mobile sources require carefully tailored regulation to mitigate concentrated urban emissions.

This regulatory focus is justified because tailpipe emissions pose unique harms to urban communities that municipalities struggle to abate on their own. As previously discussed, tailpipe emissions present a number of serious public health

---

<sup>73</sup> Clean Air Act of 1963, Pub. L. No. 88-206, §§ 6(a)-(b) (1963).

<sup>74</sup> *Id.* at §§ 1(a)(1), (a)(2).

<sup>75</sup> 50 Fed. Reg. 10,606-01, 10,635–36 (Mar. 15, 1985) (noting that EPA is “especially concerned with urban bus particulate emissions”).

<sup>76</sup> *See* 42 U.S.C. § 7554.

challenges to municipalities, which were highlighted in several municipal comments on the proposed rule.<sup>77</sup> These public health risks disproportionately fall on poor and vulnerable communities in urban settings, particularly “communities with higher percentages of Black, Asian American, and Latinx residents,” in part because “major roadways[] are often located in those communities.”<sup>78</sup> While municipalities are able to mitigate harms from upstream emissions through tools

---

<sup>77</sup> See State of California et al., Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0245> [hereinafter California Letter]. The California Letter noted that exposure to tailpipe pollutants, including “fine particulate matter” and ozone, “result[s] in mortality risk, cardiovascular harms and adverse respiratory effects,” and that exposure to other tailpipe pollutants, like benzene and other “outdoor air toxics,” substantially contribute to cancer risk. *Id.* at 11, 13; see also Chicago Metropolitan Agency for Planning, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0219> [hereinafter Chicago Letter]; City of San Antonio Metropolitan Health District, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 23, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0236>; City of Albuquerque, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0535>; Bay Area Air Quality Management District, Comment Letter on Proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Sept. 27, 2021), <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0208-0283>; Washington Letter, *supra* note 68.

<sup>78</sup> California Letter, *supra* note 77, at 13.

including land use authority,<sup>79</sup> municipalities have little power to address tailpipe pollution on their own because Section 209(a) of the CAA largely preempts states and their political subdivisions from enacting their own tailpipe emissions controls.<sup>80</sup> For this reason, one municipal comment to the Standards emphasized the “urgent need for a national strategy to reduce emissions,” citing an increase in higher-polluting vehicles in the regional fleet composition.<sup>81</sup>

These justifications for regulating tailpipe emissions are visible throughout the administrative record. First, EPA acknowledged that “comments from many states and local governments” requested that the rulemaking “address public health, climate change, and social equity in a robust manner.”<sup>82</sup> The agency then noted that under Section 7521(a), emissions reductions “and resulting public health and welfare benefits” are “the appropriate, central consideration.”<sup>83</sup> To that end,

---

<sup>79</sup> Linda A. Malone, *State and Local Initiatives in Land Use and Environmental Regulation*, in 1 *Env'tl. Reg. of Land Use* § 1:2 (2022).

<sup>80</sup> 42 U.S.C. § 7543(a). In contrast, municipalities, sometimes in cooperation with their states, have significant authority to protect their residents from stationary emissions sources. The CAA expressly preserves state and municipal power to more stringently regulate stationary emissions sources, *see* 42 U.S.C. § 7416, and the CAA amendments of 1990 explicitly protect the “existing authority of counties and cities to plan or control land use.” 42 U.S.C. § 7431. As a result, “[l]ocal governments have aggressively become involved in regulation to equalize the burdens from environmental risks.” Malone, *supra* note 79.

<sup>81</sup> Chicago Letter, *supra* note 77, at 1-2.

<sup>82</sup> 86 Fed. Reg. 74,434, 74,436 (Dec. 30, 2021).

<sup>83</sup> *Id.* at 74,437.

EPA carefully considered the public health impact that reduced tailpipe emissions would have, concluding that the Standards would reduce the exposure of roadside communities to dangerous particulate matter<sup>84</sup> and provide up to \$12 billion in public health benefits to American communities.<sup>85</sup> Throughout the rulemaking, EPA explicitly considered the problem of concentrated tailpipe emissions, evaluated municipal comments on the subject, and determined that there were significant public health benefits from enhancing tailpipe regulations.

**III. Petitioners propose a radical expansion of the major questions doctrine that ignores the reality of shared governance in a federal system.**

As extensively discussed in Section I.B.2 and I.C, local governments across the country are working closely with utilities to assess and expand grid capacity, increase renewable energy supplies, and bolster reliability as the market demands electrification. At the same time, even cities with robust local air pollution policies must rely on and plan around federal regulation like the Standards to achieve their pollution control goals. Ignoring these efforts, Petitioners argue that this Court should apply an unprecedented version of the major questions doctrine which would treat these state and local responses to changing circumstances as evidence

---

<sup>84</sup> *Id.* at 74,453.

<sup>85</sup> *Id.* at Table 46.

of impermissible regulatory overreach. This radical expansion of the doctrine would undermine local efforts to plan for the future.

Under *West Virginia v. EPA*, the major questions doctrine may apply when a court determines that an agency action is “unheralded” and represents a “transformative” change to the agency’s authority.<sup>86</sup> A court may find that an agency action is “unheralded” when it is unprecedented or unlike previous exercises of authority by the agency.<sup>87</sup> Likewise, a court may determine that an agency action is “transformative” if it brings about a “fundamental revision of the statute, changing it from one sort of scheme of regulation’ into an entirely different kind.”<sup>88</sup> In such circumstances, a court may determine that the agency must identify “clear congressional authorization” to undertake the regulation at issue.<sup>89</sup>

Petitioners’ version of the major questions doctrine goes far beyond the scope articulated by the Supreme Court and would threaten the bulk of federal regulation, inhibiting municipalities’ ability to rely on and respond to the countless regulatory programs that drive local policy. The American electrical grid is shaped

---

<sup>86</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2610 (2022) (quoting *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302 (2014)).

<sup>87</sup> *Id.* at 2612.

<sup>88</sup> *Id.* at 2596 (quoting *MCI Telecomm. Corp. v. American Telephone & Telegraph Co.*, 512 U.S. 218, 231 (1994)).

<sup>89</sup> *Id.* at 2614.

by regulation at the federal, state, and local level, which must constantly adapt to changing technologies and market consumption patterns.<sup>90</sup> Petitioners argue that EPA’s incremental increase to its existing tailpipe emissions thresholds is impermissible because, even though the Standards make no attempt to dictate grid management or energy generation, heightened tailpipe standards may increase the number of electric vehicles, which might then (absent the extensive federal, state, and local policy and planning described throughout this brief) “significantly diminish electrical grid reliability.”<sup>91</sup> This tortuously stretched reading of the major questions doctrine would effectively prohibit any regulation that could have any secondary effects beyond its intended scope. Such effects, of course, are ordinary, and often necessary, features of regulation. Petitioners’ arguments that the challenged rule infringes on state power are similarly unmoored from reality because federal regulations nearly always overlap with and influence important areas of state and local policy. This is, quite simply, a fundamental feature of America’s federal system: national rules have local effects. If virtually any regulatory effort may be undone by a court based on its secondary effects, local governments will be unable to build policy around federal programs.

---

<sup>90</sup> See Shelley He et al., *How Does Restructuring of Electricity Generation Affect Renewable Power?*, 43 Energy L.J. 125, 134–36 (2022).

<sup>91</sup> Brief of State Petitioners at 14–24.

## Conclusion

American cities face growing physical damage, economic costs, and public health risks from motor vehicle emissions in the form of climate change and urban air pollution. While federal preemption prevents local governments from regulating these emissions, Congress has authorized and directed EPA to do so. To date, EPA has fulfilled this statutory duty, in part by setting thresholds for tailpipe emissions under Section 7521(a) of the Clean Air Act. The Standards that Petitioners challenge represent only the latest incremental adjustment to these thresholds.

For decades, municipalities across the country have relied on these regulations to support local public health and pollution control measures. As the impacts of climate change intensify, it is more important than ever that local governments be able to rely on EPA's regulation of tailpipe emissions to complement and support their efforts to mitigate GHG emissions and prepare for climate change-driven disasters. More broadly, local elected officials count on strong federal regulations to effectively govern at the local level. Petitioners argue that their chaotic, unbounded, and unpredictable doctrine would protect the power of state and local governments to regulate. Local elected officials disagree.

For the foregoing reasons, and for the other reasons set forth in this brief, Amici ask this Court to reject Petitioner's appeal, and to uphold EPA's Revised

2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions  
Standards.

Dated: March 2, 2023

Respectfully Submitted,

/s/ Michael Burger

Michael Burger (*counsel of record*)

Martin Lockman

Andrea Nishi

Amy Turner

Sabin Center for Climate Change Law

Columbia Law School

435 W. 116th St.

New York, NY 10027

(212) 854-2372

michael.burger@law.columbia.edu

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT,  
TYPEFACE REQUIREMENTS, AND TYPE-STYLE REQUIREMENTS**

1. This document complies with the word limit set forth in the Court's Order of September 22, 2022 (Doc. No. 1965622) because, excluding the parts of the document exempted by Fed. R. App. P. 32(f), this document contains 6,166 words. *See* Fed. R. App. P. 29(a)(5), 32(a)(7)(B)(i).
2. This document complies with the typeface requirements of Fed. R. App. P. 32(a)(5)(A) and the type-style requirements of Fed. R. App. P. 32(a)(6) because this document has been prepared in a proportionally spaced typeface using Microsoft Word 2016 in size 14 font using the Times New Roman typeface.

/s/ Michael Burger

MICHAEL BURGER

Attorney For Amici The National League of  
Cities and The U.S. Conference of Mayors

March 2, 2023

**CERTIFICATE OF SERVICE**

I hereby certify that on March 2, 2023, I caused the foregoing to be electronically filed with the Clerk for the United States Court of Appeals for the District of Columbia using the Court's CM/ECF system. I further certify that service will be accomplished by the Court's CM/ECF system for all participants in this case who are registered CM/ECF users.

/s/ Michael Burger

MICHAEL BURGER

Attorney For Amici The National League of  
Cities and The U.S. Conference of Mayors

March 2, 2023