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The Supreme Court Decision in West Virginia v. EPA: A Setback in a Time of Tremendous Opportunity

A Special Statement of the American Meteorological Society

The AMS is deeply concerned by the United States' inadequate response to climate change and the dangers it poses to the nation and all life. This inadequacy is illustrated most recently—but by no means only—through the Supreme Court decision *West Virginia v. EPA*.

Climate change is a highly solvable problem and the available solutions offer tremendous opportunity for societal advancement and climate protection. We applaud the many people throughout the country who are working constructively to tackle climate change, including many government officials, politicians, members of the public, scientists, and members of the business community.

All people should know that:

1. Climate change is extraordinarily dangerous to humanity and all life

- Climate is a basic life-support system for people and all life.
- Global climate changes occurring now are larger and faster than any humanity is known to have endured since our societal transition to agriculture.
- The physical characteristics of the planet, biological systems and the resources they provide, and social institutions we have created all depend heavily on climate, are central to human well-being, and are sensitive to climate change.

2. People are changing climate

- Multiple independent lines of scientific evidence confirm that people bear responsibility.
- The warming effect of our greenhouse gas emissions is demonstrated through laboratory experiments, evidence from past changes in climate on Earth, and the role of greenhouse gasses on other planets.
- The patterns of climate change occurring now match the characteristics we expect from our greenhouse gasses and not the other potential drivers of change: the sun, volcanoes, aerosols, changes in land-use, or natural variability.

3. The scientific conclusions summarized here result from decades of intensive research and examination

- The scientific evidence has been assessed comprehensively by independent scientific institutions and independent experts that consider all evidence.
- Accuracy is central to credibility for scientific institutions such as the U.S. National Academy of Sciences, the American Meteorological Society, and American Association for the Advancement of Science, all of which have assessed climate science.
- No broadly contradictory assessments from credible scientific organizations exist.

4. Solutions are available and highly promising—a serious reason for optimism.

- Greenhouse gas emissions are an economically harmful market failure. Those who emit pollution to the atmosphere shift the costs of climate damage onto everyone, including future generations. Making emitters pay for all the costs of their use of our atmosphere would help correct this failure and thereby improve economic well-being.
- Regulatory approaches can speed the adoption of best practices, require broadly beneficial technologies, promote public interest, and enhance equity and fairness.
- As a result, reducing greenhouse gas emissions can increase climate security, national security, the well-being of biological systems, and economic vitality.
- Existing and emerging technologies such as roof-top solar, electric vehicles, and electric heat pumps can reduce greenhouse gas emissions, improve air quality in our homes and cities, and often provide superior products or services.
- Building our resilience to climate impacts (adaptation) makes communities stronger and better able to deal with both existing vulnerabilities and emerging threats.

People are changing climate and it poses serious risks to humanity. There are a wide range of response options that are well understood, many of which would be broadly beneficial. We will need to work together to harness human ingenuity to address climate change. Therein lies an even greater opportunity for humanity. If we can address our climate problem, we will have a new template for the wide range of challenges and opportunities facing us at this point in the 21st century.