# Introduction

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Welcome to the second volume of *Environmental and Energy Policy and the Economy* (*EEPE*). The six papers published in this issue were first presented and discussed in May 2020 via an online conference hosted by the National Bureau of Economic Research (NBER) that included participants from academia, government, and nongovernmental organizations. Although the annual conference was originally scheduled to take place at the National Press Club in Washington, DC, the novel coronavirus forced us to convert the conference to an online format. Participants missed out on the opportunity for face-to-face interaction, but we made up for it with a larger than expected number of participants. The agenda also featured a presentation by Ted Halstead, chairman and CEO of the Climate Leadership Council, on "A Climate Solution Where All Sides Can Win."

The broad aim of the *EEPE* initiative is to spur policy-relevant research and professional interactions in the areas of environmental and energy economics and policy. This is inspired by growing concerns about environmental and energy issues and by the significant economic consequences of policy making in this area. At the time of this writing, much of the world is focused on the immediate challenges of responding to and managing the spread of COVID-19. But alongside these concerns, and sometimes closely connected, remain issues of environmental and energy policy. The papers included in the volume contribute original research to many of the important topics.

In the first paper, Robert Pindyck provides a systematic overview of what we know and don't know about climate change. When it comes to formulating policy, he discusses the importance of forecasting economic growth, emissions intensity per unit of output, atmospheric dissipation of emissions, climate temperature sensitivity, economic impacts of temperature change, abatement costs, and discounting. Given the uncertainties

*Environmental and Energy Policy and the Economy*, volume 2, 2021.
 https://doi.org/10.1086/711304

at each stage, he considers how the potential for learning might affect climate policy responses and argues that the insurance value of mitigating climate change is likely to be significant.

Shaikh Eskander, Sam Fankhauser, and Joana Setzer offer insights from the most comprehensive data set on climate change legislation and litigation across all countries of the world over the past 30 years. The trends are important because of the way that any one country, including the United States, inevitably looks to others as a way of calibrating its own climate policies. They find that climate legislation peaked worldwide between 2009 and 2014, well before the Paris Agreement; climate change legislation is less of a partisan issue than commonly assumed; legislative activity decreases in times of economic difficulty; and the courts in most countries other than the United States tend to rule in favor of greater climate protections.

The growing financial risks to coal-reliant communities is the topic addressed in the paper by Adele Morris, Noah Kaufman, and Siddhi Doshi. In communities where coal production constitutes a large share of the local economy, government revenues are at increasing risk due to shifts in the energy sector and the prospects for climate policies, both of which are not favorable to coal. The paper provides a clear example of how greater attention to the distribution consequences of environmental and energy policy is important. Not only are distributional concerns important on their own, but they also play a critical role in the political economy that defines the space of feasible policies. Morris and coauthors shine a light on how expected trends in the coal industry will have significant implications on the local public finances of coal-reliant communities, and policy makers would be well advised to begin thinking through policy responses.

Joseph Aldy, Matthew Kotchen, Mary Evans, Meredith Fowlie, Arik Levinson, and Karen Palmer consider the treatment of cobenefits in benefit-cost analyses of federal clean air regulations. Cobenefits are benefits that arise when compliance with a regulation leads to benefits that are not directly tied to a regulation's intended target. The topic has become increasingly important with recent actions by the US Environmental Protection Agency (EPA) to change the way it treats cobenefits in regulatory impact analyses. Aldy and coauthors assemble and make available a comprehensive data set on the benefits and costs of all economically significant Clean Air Act rules issued by the EPA over the period 1997–2019. The data set allows an examination of the role cobenefits have played over time and complements the paper's theoretical analysis, which demonstrates how cobenefits are simply a semantic category of benefits that are standard to include in benefit-cost analyses.

Tatyana Deryugina, Nolan Miller, David Molitor, and Julian Reif provide a detailed analysis of the geographic and socioeconomic heterogeneity in the benefits of reducing particulate matter air pollution. Their paper takes advantage of comprehensive data on Medicare recipients across the United States to develop a vulnerability index to air pollution. Although the estimates are useful for understanding the heterogeneous impacts of policies that affect pollution, the results point to a further implication for the design of air quality regulations. Because they find that vulnerability is negatively correlated with the average pollution level within a region, policies that base air quality regulations on current pollution levels alone may fail to target regions with the most to gain by reducing exposure.

In the last paper, Oliver Browne, Ludovica Gazze, and Michael Greenstone use detailed data on residential water consumption to answer an important question: Do conservation policies work? During a period of drought in California from 2011 to 2017, they consider a series of conservation policies that were implemented in the city of Fresno. After disentangling the effects of the different policies, they estimate price elasticities of the demand for water based on price schedule changes, the effect of allowing a reduced number of watering days, and the impact of public announcements calling for greater water conservation. The first two are found to have significant effects, whereas the public announcements did not. The paper also provides a discussion of the challenges that arise when seeking to estimate the impact of interventions over a period when multiple policies are changing.

Finally, we are grateful to all of the authors for their time and effort in helping to make the second year of *EEPE* a success. We are grateful to Jim Poterba, president and CEO of the NBER, for continuing to support the initiative, and to the NBER's conference staff, especially Rob Shannon, for making the organization a pleasure, including the transition to an online conference. Helena Fitz-Patrick's help with the publication is also invaluable and greatly appreciated. Lastly, we would like to thank Evan Michelson and the Alfred P. Sloan Foundation for the financial support that has made the *EEPE* initiative possible.

## Endnote

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