

This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: The Design and Implementation of U.S. Climate Policy

Volume Author/Editor: Don Fullerton and Catherine Wolfram, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-36914-0; 978-0-226-26914-6

Volume URL: <http://www.nber.org/books/full10-1>

Conference Date: May 13-14, 2010

Publication Date: September 2012

Chapter Title: Front matter, table of contents, acknowledgments

Chapter Author(s): Don Fullerton, Catherine Wolfram

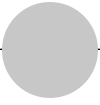
Chapter URL: <http://www.nber.org/chapters/c13353>

Chapter pages in book: (p. i - xii)

The Design and Implementation of US Climate Policy



**A National Bureau of
Economic Research
Conference Report**



The Design and Implementation of US Climate Policy

Edited by

Don Fullerton and Catherine Wolfram

The University of Chicago Press

Chicago and London

DON FULLERTON is the Gutzsell Professor in the Department of Finance at the University of Illinois at Urbana-Champaign, where he is also a faculty associate at both the Institute of Government and Public Affairs and the Center for Business and Public Policy. He is a research associate and director of the Program on Environmental and Energy Economics at the National Bureau of Economic Research. CATHERINE WOLFRAM is associate professor of business administration at the Haas School of Business, University of California, Berkeley, where she codirects the Energy Institute at Haas. She is a research associate of the National Bureau of Economic Research.

The University of Chicago Press, Chicago 60637
The University of Chicago Press, Ltd., London
© 2012 by the National Bureau of Economic Research
All rights reserved. Published 2012.
Printed in the United States of America

21 20 19 18 17 16 15 14 13 12 1 2 3 4 5

ISBN-13: 978-0-226-26914-6 (cloth)

ISBN-13: 978-0-226-92198-3 (e-book)

ISBN-10: 0-226-26914-0 (cloth)

ISBN-10: 0-226-92198-0 (e-book)

Library of Congress Cataloging-in-Publication Data

The design and implementation of US climate policy / edited by
Don Fullerton and Catherine Wolfram.

pages ; cm.—(National Bureau of Economic Research
conference report) “This book contains the proceedings of an NBER
conference held in Washington, DC, on May 13–14, 2010”—Page 3.

Includes bibliographical references and index.

ISBN-13: 978-0-226-26914-6 (cloth : alkaline paper)

ISBN-10: 0-226-26914-0 (cloth : alkaline paper)

ISBN-13: 978-0-226-92198-3 (e-book)

ISBN-10: 0-226-92198-0 (e-book) 1. Climatic changes—
Government policy—United States—Congresses. 2. Global
warming—Government policy—United States—Congresses.
3. Climatic changes—Government policy—Economic aspects—
United States—Congresses. 4. Global warming—Government
policy—Economic aspects—United States—Congresses.

I. Fullerton, Don. II. Wolfram, Catherine D. III. Series: National
Bureau of Economic Research conference report.

QC903.2.U6D47 2012

363.738/745610973—dc23

2011050604

© This paper meets the requirements of ANSI/NISO Z39.48-1992
(Permanence of Paper).

National Bureau of Economic Research

Officers

Kathleen B. Cooper, *chairman*
Martin B. Zimmerman, *vice-chairman*
James M. Poterba, *president and chief executive officer*
Robert Mednick, *treasurer*

Kelly Horak, *controller and assistant corporate secretary*
Alterra Milone, *corporate secretary*
Gerardine Johnson, *assistant corporate secretary*

Directors at Large

Peter C. Aldrich	Mohamed El-Erian	Michael H. Moskow
Elizabeth E. Bailey	Linda Ewing	Alicia H. Munnell
John H. Biggs	Jacob A. Frenkel	Robert T. Parry
John S. Clarkeson	Judith M. Gueron	James M. Poterba
Don R. Conlan	Robert S. Hamada	John S. Reed
Kathleen B. Cooper	Peter Blair Henry	Marina v. N. Whitman
Charles H. Dallara	Karen N. Horn	Martin B. Zimmerman
George C. Eads	John Lipsky	
Jessica P. Einhorn	Laurence H. Meyer	

Directors by University Appointment

George Akerlof, <i>California, Berkeley</i>	Bruce Hansen, <i>Wisconsin–Madison</i>
Jagdish Bhagwati, <i>Columbia</i>	Marjorie B. McElroy, <i>Duke</i>
Timothy Bresnahan, <i>Stanford</i>	Joel Mokyr, <i>Northwestern</i>
Alan V. Deardorff, <i>Michigan</i>	Andrew Postlewaite, <i>Pennsylvania</i>
Ray C. Fair, <i>Yale</i>	Uwe E. Reinhardt, <i>Princeton</i>
Franklin Fisher, <i>Massachusetts Institute of Technology</i>	Craig Swan, <i>Minnesota</i>
John P. Gould, <i>Chicago</i>	David B. Yoffie, <i>Harvard</i>
Mark Grinblatt, <i>California, Los Angeles</i>	

Directors by Appointment of Other Organizations

Bart van Ark, <i>The Conference Board</i>	William W. Lewis, <i>Committee for Economic Development</i>
Christopher Carroll, <i>American Statistical Association</i>	Robert Mednick, <i>American Institute of Certified Public Accountants</i>
Jean-Paul Chavas, <i>Agricultural and Applied Economics Association</i>	Alan L. Olmstead, <i>Economic History Association</i>
Martin Gruber, <i>American Finance Association</i>	John J. Siegfried, <i>American Economic Association</i>
Ellen L. Hughes-Cromwick, <i>National Association for Business Economics</i>	Gregor W. Smith, <i>Canadian Economics Association</i>
Thea Lee, <i>American Federation of Labor and Congress of Industrial Organizations</i>	

Directors Emeriti

Andrew Brimmer	Saul H. Hymans	Rudolph A. Oswald
Glen G. Cain	Lawrence R. Klein	Peter G. Peterson
Carl F. Christ	Paul W. McCracken	Nathan Rosenberg
George Hatsopoulos		

Relation of the Directors to the Work and Publications of the National Bureau of Economic Research

1. The object of the NBER is to ascertain and present to the economics profession, and to the public more generally, important economic facts and their interpretation in a scientific manner without policy recommendations. The Board of Directors is charged with the responsibility of ensuring that the work of the NBER is carried on in strict conformity with this object.

2. The President shall establish an internal review process to ensure that book manuscripts proposed for publication DO NOT contain policy recommendations. This shall apply both to the proceedings of conferences and to manuscripts by a single author or by one or more co-authors but shall not apply to authors of comments at NBER conferences who are not NBER affiliates.

3. No book manuscript reporting research shall be published by the NBER until the President has sent to each member of the Board a notice that a manuscript is recommended for publication and that in the President's opinion it is suitable for publication in accordance with the above principles of the NBER. Such notification will include a table of contents and an abstract or summary of the manuscript's content, a list of contributors if applicable, and a response form for use by Directors who desire a copy of the manuscript for review. Each manuscript shall contain a summary drawing attention to the nature and treatment of the problem studied and the main conclusions reached.

4. No volume shall be published until forty-five days have elapsed from the above notification of intention to publish it. During this period a copy shall be sent to any Director requesting it, and if any Director objects to publication on the grounds that the manuscript contains policy recommendations, the objection will be presented to the author(s) or editor(s). In case of dispute, all members of the Board shall be notified, and the President shall appoint an ad hoc committee of the Board to decide the matter; thirty days additional shall be granted for this purpose.

5. The President shall present annually to the Board a report describing the internal manuscript review process, any objections made by Directors before publication or by anyone after publication, any disputes about such matters, and how they were handled.

6. Publications of the NBER issued for informational purposes concerning the work of the Bureau, or issued to inform the public of the activities at the Bureau, including but not limited to the NBER Digest and Reporter, shall be consistent with the object stated in paragraph 1. They shall contain a specific disclaimer noting that they have not passed through the review procedures required in this resolution. The Executive Committee of the Board is charged with the review of all such publications from time to time.

7. NBER working papers and manuscripts distributed on the Bureau's web site are not deemed to be publications for the purpose of this resolution, but they shall be consistent with the object stated in paragraph 1. Working papers shall contain a specific disclaimer noting that they have not passed through the review procedures required in this resolution. The NBER's web site shall contain a similar disclaimer. The President shall establish an internal review process to ensure that the working papers and the web site do not contain policy recommendations, and shall report annually to the Board on this process and any concerns raised in connection with it.

8. Unless otherwise determined by the Board or exempted by the terms of paragraphs 6 and 7, a copy of this resolution shall be printed in each NBER publication as described in paragraph 2 above.

Contents

Acknowledgments	xi
Introduction and Summary	1
Don Fullerton and Catherine Wolfram	

I. CLIMATE POLICY IN THE BROADER CONTEXT

1. Distributional Impacts in a Comprehensive Climate Policy Package	21
Gilbert E. Metcalf, Aparna Mathur, and Kevin A. Hassett	
<i>Comment:</i> Hilary Sigman	
2. Climate Policy and Labor Markets	37
Olivier Deschênes	
<i>Comment:</i> Matthew E. Kahn	
3. Limiting Emissions and Trade: Some Basic Ideas	53
Kala Krishna	
<i>Comment:</i> Meredith Fowlie	
4. Regulatory Choice with Pollution and Innovation	65
Charles D. Kolstad	
<i>Comment:</i> V. Kerry Smith	

- 5. Spillovers from Climate Policy to Other Pollutants** 79
Stephen P. Holland
Comment: Charles D. Kolstad
- 6. Markets for Anthropogenic Carbon within the Larger Carbon Cycle** 93
Severin Borenstein
Comment: Wolfram Schlenker

II. INTERACTIONS WITH OTHER POLICIES

- 7. Interactions between State and Federal Climate Change Policies** 109
Lawrence H. Goulder and Robert N. Stavins
Comment: Arik Levinson
- 8. Belts and Suspenders: Interactions among Climate Policy Regulations** 127
Arik Levinson
Comment: Gilbert E. Metcalf
- 9. Climate Policy and Voluntary Initiatives: An Evaluation of the Connecticut Clean Energy Communities Program** 145
Matthew J. Kotchen
Comment: Lucas W. Davis
- 10. Updating the Allocation of Greenhouse Gas Emissions Permits in a Federal Cap-and-Trade Program** 157
Meredith Fowlie
Comment: Lawrence H. Goulder

III. DESIGN FEATURES OF CLIMATE POLICY

- 11. Upstream versus Downstream Implementation of Climate Policy** 179
Erin T. Mansur
Comment: Roberton C. Williams III
- 12. The Economics of Carbon Offsets** 197
James B. Bushnell
Comment: Kala Krishna
- 13. Monitoring and Enforcement of Climate Policy** 213
Hilary Sigman
Comment: Severin Borenstein

14. How Can Policy Encourage Economically Sensible Climate Adaptation?	229
V. Kerry Smith	
<i>Comment:</i> Erin T. Mansur	
15. Setting the Initial Time-Profile of Climate Policy: The Economics of Environmental Policy Phase-Ins	245
Roberton C. Williams III	
<i>Comment:</i> Stephen P. Holland	

IV. SECTOR-SPECIFIC ISSUES

16. Urban Policy Effects on Carbon Mitigation	259
Matthew E. Kahn	
<i>Comment:</i> Christopher R. Knittel	
17. Is Agricultural Production Becoming More or Less Sensitive to Extreme Heat? Evidence from US Corn and Soybean Yields	271
Michael J. Roberts and Wolfram Schlenker	
<i>Comment:</i> James B. Bushnell	
18. Carbon Prices and Automobile Greenhouse Gas Emissions: The Extensive and Intensive Margins	287
Christopher R. Knittel and Ryan Sandler	
<i>Comment:</i> Matthew J. Kotchen	
19. Evaluating the Slow Adoption of Energy Efficient Investments: Are Renters Less Likely to Have Energy Efficient Appliances?	301
Lucas W. Davis	
<i>Comment:</i> Olivier Deschênes	
Contributors	319
Author Index	323
Subject Index	327

Acknowledgments

This book contains the proceedings of an NBER conference held in Washington, DC, on May 13–14, 2010. Recent political developments in Washington might make adoption of comprehensive climate policy unlikely in the near term, but economics research must take a longer view. The conference was held in Washington, DC, because we hope that the various topics covered in this book will be useful to economists and policymakers contemplating future climate policy, whether that may include direct approaches such as a cap-and-trade system or indirect policies such as tax credits, clean energy subsidies, or renewable fuel standards.

We are very grateful for the generous financial support of the Smith Richardson Foundation, for intellectual encouragement from Jim Poterba, and for terrific organizational support from the wonderful people within NBER, including efficient conference organizing by Carl Beck and Rob Shannon, effective production of the book by Helena Fitz-Patrick, and timely budget assistance from Denis Healy, Alterra Milone, and Alison Oaxaca. We received excellent substantive suggestions from two anonymous reviewers. We also benefited from panel presentations at the conference by three Washington practitioners, including Joseph Aldy, Nathaniel Keohane, and Al McGartland. Several policymakers generously provided written comments and extended conversations that helped us refine the set of topics the book covered. These include Terry Dinan, Doug Elmendorf, Jud Jaffe, Jeff Liebman, and Billy Pizer. We also want to express our extreme gratitude to the chapter authors. They not only undertook new research on challenging topics and wrote the chapters, but each author also served as a discussant for one of the other presentations. This interchange was interesting and helpful enough that we decided to publish each discussant's comments along with the corresponding chapter in the book.

