

Understanding Consumer Demand for Green Power

Prepared for the National Wind Coordinating Committee

by

Edward A. Holt
Ryan H. Wiser

1999

This document was produced by the National
Conference of State Legislatures in cooperation
with the National Wind Coordinating Committee



The National Conference of State Legislatures serves the legislators and staffs of the nation's 50 states, its commonwealths and territories. NCSL is a bipartisan organization with three objectives:

- To improve the quality and effectiveness of state legislatures,
- To foster interstate communication and cooperation,
- To insure states a strong, cohesive voice in the federal system.

The Conference operates from offices in Denver, Colorado, and Washington, D.C.



Printed on recycled paper

©1999 by the National Conference of State Legislatures. All rights reserved.
ISBN 1-58024-039-9

CONTENTS

- List of Figures and Tables iii
- About the National Wind Coordinating Committee iv
- About the Authors v
- Introduction 1
- Consumer Interest in Green Power 2
 - Summary of Market Research 2
 - Understanding the Market Response 6
- Profiling the Green Power Consumer 8
 - Residential Consumers 8
 - Non-Residential Consumers 10
- Consumer Perceptions of Wind 12
- The Role of Education and Information 14
 - Education 14
 - Uniform Information Disclosure 15
 - Green Power Rating, Certification and Endorsements 16
- Market Strategies 17
 - Resource Preferences 17
 - Market Segmentation 18
 - Market Evolution 19
- Conclusions 21
- Notes 23
- References 27

List of Figures and Tables

- Figure
 - 1. Residential Customer Participation in Wind Power Programs 3
 - 2. Average Residential Premiums for Wind Power Programs 4
 - 3. The Diffusion of Innovation 6
 - 4. Consumer Preferences and Perceptions of Environmental Impact 12
- Table
 - 1. Market Segments and Characteristics Identified in EPRI Study 9

ABOUT THE NATIONAL WIND COORDINATING COMMITTEE

A U.S. consensus-based collaborative that was formed in 1994, the National Wind Coordinating Committee (NWCC) identifies issues that affect the use of wind power, establishes dialogue among key stakeholders, and catalyzes appropriate activities to support the development of an environmentally, economically and politically sustainable commercial market for wind power. NWCC members include representatives from electric utilities and support organizations, state legislatures, state utility commissions, consumer advocacy offices, wind equipment suppliers and developers, green power marketers, environmental organizations, and state and federal agencies.

RESOLVE, a nonprofit environmental dispute resolution organization, provides a full range of facilitation services to create opportunities for NWCC members and other wind stakeholders to build long-term relationships and to develop a number of landmark products that result from significant negotiation and reflect the consensus of the committee. More than 2,500 individuals from diverse sectors and wind resource areas across the country have participated in the NWCC's collaborative efforts.

NWCC members include representatives from these sectors:

- Electric Utilities and Support Organizations
- Environmental Organizations
- Power Marketers
- Agriculture and Economic Development Organizations
- State and Federal Agencies
- Wind Industry
- State Utility Regulators
- State Legislatures
- Consumer Advocate Offices

NWCC members include representatives from:

American Wind Energy Association	Land & Water Fund of the Rockies	Planergy
California Energy Commission	Minnesota Attorney General's Office	South Dakota Public Utilities Commission
Central and South West Services	National Association of Regulatory Utility Commissioners	Sustainable Resources Center
City of Lake Benton, Minn., Economic Development Department	National Association of State Energy Officials	Texas General Land Office
Ed Holt & Associates	National Conference of State Legislatures	Texas State Energy Conservation Office
Edison Electric Institute	Nebraska Public Power District	Union of Concerned Scientists
Electric Power Research Institute	NEG Micon USA Inc.	U.S. Department of Energy, Wind Program
Enron Wind Corporation / Zond Systems	North Dakota Division of Community Services Energy Program	Utility Wind Interest Group
Environmental & Energy Study Institute	Northern States Power Company	Vermont Department of Public Service
FPL Energy Inc.	Ohio Consumer Counsel	Western Resources
Green Mountain.com	Oregon Public Utilities Commission	Worldwatch Institute
Hawkeye Power Partners	PacifiCorp	Wyoming Business Council, Energy Office
Inter-Tribal Council on Utility Policy	Pennsylvania Public Utilities Commission	Wyoming Public Service Commission
Iowa Department of Natural Resources		
Iowa State Legislature		
Kansas State Legislature		

ABOUT THE AUTHORS

Edward A. Holt is president of Ed Holt & Associates Inc., an energy consulting firm specializing in green power marketing and renewable energy policy. Before founding his own firm in 1996, he was a principal with the Regulatory Assistance Project, where he provided research and workshops for utility regulatory commissions on environmental policy issues and electricity restructuring. Before that, Mr. Holt worked for Seattle City Light for 12 years in various capacities, including manager of energy conservation program development and planning, and manager of commercial and industrial energy management programs. He also has worked overseas as an advisor on demand-side management to an electric utility in Australia. Mr. Holt writes the *Green Power Newsletter* and is the author of *Green Pricing Resource Guide*, a manual for those planning or implementing a green pricing program. He holds a B.A. degree from the University of New Hampshire and a master's degree in urban planning from the University of Washington.

Ryan H. Wiser is a principal research associate at Lawrence Berkeley National Laboratory (LBNL). He specializes in research and strategic analysis of green power marketing opportunities, renewable energy policies and markets, and electricity restructuring. Before coming to LBNL in 1995, Mr. Wiser was employed with Hansen, McOuat and Hamrin Inc., a San Francisco based electric industry consulting firm. Mr. Wiser also has held positions at the Bechtel Corporation, where he helped develop business plans and market assessments for a renewable energy company, and with the AES Corporation, an independent power producer. Mr. Wiser holds a B.S. in civil engineering from Stanford University, where he graduated with honors and distinction. He holds an M.S. in energy and resources from the University of California at Berkeley. Mr. Wiser has published a number of research reports and journal articles on renewable energy markets and policy, including articles in *The Electricity Journal*, *Energy Policy*, *Public Utilities Fortnightly*, *Corporate Environmental Policy*, *Utilities Policy*, and *Renewable and Sustainable Energy Reviews*.

