



N A R U C  
National Association of Regulatory Utility Commissioners

September 30, 2002

Mr. Thomas J. Hall  
U.S. Department of Energy, EE-12  
1000 Independence Avenue, SW  
Washington, DC 20585

**Re: Financial Assistance Award No. DE-FG03-01SF22335**

Dear Mr. Hall:

This correspondence will serve as the quarterly status report for the above-referenced grant. The National Association of Regulatory Utility Commissioners (NARUC) continues to make excellent progress on the initiatives funded with this financial assistance award.

Please verify receipt of this report via e-mail or writing. Do not hesitate to contact me at 202-898-2217 if you have any questions. My email address is [aspahn@naruc.org](mailto:aspahn@naruc.org). We deeply appreciate the financial support of the U.S. Department of Energy.

Sincerely,

Andrew Spahn  
Director of Grants and Research  
NARUC

**FY 2002 Quarterly Report**  
**Reporting Period Ending September 30, 2002**  
**Grant No. DE-FG03-01SF22335**

**I. Introduction**

A consensus-based collaborative formed in 1994, the National Wind Coordinating Committee (NWCC) is comprised of representatives from utility, wind, environmental, consumer, regulatory, power marketer, agricultural, tribal, economic development, State and federal government sectors interested in encouraging the prudent acceleration of wind power deployment in the United States.

Five NARUC Commissioners and staff are currently participating in the collaborative. They include:

- Bob Anderson, Commissioner, Montana Public Service Commission
- Phyllis Reha, Commissioner, Minnesota Public Utilities Commission
- Pam Nelson, Commissioner, South Dakota Public Utilities Commission
- Steve Ellenbecker, Chairman, Wyoming Public Service Commission
- Annunciata Marino, Staff, Pennsylvania Public Utilities Commission

The funding for the above referenced grant requires NARUC to:

- Provide regulatory input into NWCC publications on critical issues associated with wind energy;
- Participate in NWCC Plenary Sessions, subcommittees and other forums and panels;
- Report regularly on the NWCC's work at NARUC Energy Resources and the Environment subcommittee; and
- Provide a report for regulators that includes a summary of NWCC activities and specific recommendations for future regulatory actions to enhance the development of wind resources.

The NARUC has been working within the context of the NWCC under the terms of two 1995 NARUC resolutions as referred to in Attachments A and B.

Consultant Ed Holt facilitates the activities and collaboration with NWCC and is critical in coordinating substantive regulatory input for NARUC's participation in the NWCC. He provides technical support to regulators who might otherwise not find the time to adequately prepare for NWCC participation.

The following subcommittees represent the primary issues that NWCC is addressing as a Committee:

- Avian Wind Interaction Subcommittee
- Distributed Generation Subcommittee
- Green Power Marketing Subcommittee
- Siting Subcommittee
- Transmission Subcommittee

- Credit Trading Subcommittee
- Economic Development Subcommittee

## II. Contractual Activities

NARUC Commissioners and Staff from key wind States participate in the NWCC and are assisted by a contractor, Ed Holt, a NWCC Steering Committee member. Ed Holt served as manager for commercial and industrial programs at Seattle City Light. Mr. Holt also served as principal with the Regulatory Assistance Project before becoming President of Ed Holt & Associates. Mr. Holt presents regular NWCC updates at the NARUC Energy Resource and Environment (ERE) Committee meetings, the NARUC ERE Subcommittee on Renewables and DG, conference calls and during the three NARUC national meetings.

Ed Holt is critical in coordinating substantive regulatory input for NARUC's participation in the NWCC. He provides technical support to regulators who might otherwise not find the time to adequately prepare for NWCC participation. He is also instrumental in NWCC program dissemination to State utility commissions. For Mr. Holt's latest NWCC quarterly report, please refer to Attachment C.

The NWCC website, [www.nationalwind.org](http://www.nationalwind.org), cumulates all of the Committee accomplishments, current work and wind information. The website and toll free telephone number, 888-764-WIND are available to assist the wind information needs of each NWCC constituency, including State utility commissions.

## III. Travel Support

Mr. Holt promotes the interest of the regulatory community, and raises regulatory concerns of wind energy. Representing the interests of both NARUC and NWCC, Mr. Holt attended the following meetings and workshops:

- Travel to Portland, Oregon, July 28- 31, 2002  
NARUC Summer Meetings, NWCC Report
- Travel to Washington, DC, September 25, 2002  
Offshore Wind Workshop
- Travel to Washington, DC September 26-27, 2002  
NWCC Business Meeting #29

#### IV. Recent Activities

##### **NWCC Business Meeting #29**

Washington, DC September 26- 27, 2002

The NWCC Business Meeting #29 covered the following topics and issues at the Washington, DC meeting:

##### **Discussion of NWCC Evaluation and Strategic Planning Process**

Preliminary input from meeting participants

##### **Identification of NWCC Long-term Strategic Goals and Short-term Focus Areas**

How should we modify our process to accomplish those goals?

##### **Brief Subcommittee Updates**

- Siting
- Avian
- Credit Trading

##### **Transmission: Discussion of FERC Standard Market Design**

- Discussion of FERC Standard Market Design
- Review of NWCC comments to FERC on Standard Market Design

##### **Offshore Wind**

Washington, DC, September 25, 2002

Ed Holt traveled to Washington, DC for the National Wind Coordinating Committee's meeting on Offshore Wind. The meeting was designed to:

- Exchange information about offshore wind development in the US and in Europe;
- Discuss issues and concerns about offshore wind development that need to be addressed; and
- Explore role the NWCC could play in addressing these issues, including organizing a workshop in the future.

The workshop included the following discussions:

##### **Offshore Wind Development**

###### ***Introduction: What is Offshore Wind Development?***

*Bruce Bailey, AWS Scientific*

*Karen Conover or Kevin Smith, Global Energy Concepts*

What are the economic drivers behind offshore wind development?

###### ***Background on the NWCC***

***Overview of the NWCC and Its Approach When Considering New Issues for the***

## ***Committee***

*Ed DeMeo, Renewable Energy Consulting Services*

### ***What is the European Experience with Offshore Wind Development?***

*Thor Dan Hannevig, Sure Engineering LTD*

*Hans Soerensen; SPOK ApS*

What lessons from the European experience are applicable to development in the United States?

### ***Regulatory and Permitting Considerations: Overview of State and Federal Agencies and the Regulations That Apply or Could Apply to Offshore Wind Development Projects in the United States***

*Walter Cruickshank, Mineral Management Service;*

*David Kaiser, NOAA- Office of Ocean and Coastal Resource Management;*

*Michael Ludwig, NOAA- National Marine Fisheries Service;*

*Christine Godfrey, Army Corp of Engineers;*

*Jay Wickersham, Massachusetts Environmental Policy Act Office;*

*Tom Skinner, Office of Coastal Zone Management*

### ***Issues Being Raised About Offshore Wind Development in the United States***

*Gordian Raacke, Community Advisory Project Long Island*

*Kristen Burke, Massachusetts Technology Collaborative*

What concerns/issues need to be addressed?

What Role Ought the NWCC Play in Addressing Issues Identified Throughout the Day?  
Abby Arnold, RESOLVE

## **NARUC ERE Subcommittee on Renewable and Distributed Resources**

July 29, 2002, Portland, Oregon

Ed Holt traveled to the NARUC Summer Meeting to present recent NWCC events and activities to the Committee on Energy, Resources and the Environment. Other highlights included:

- Integrating Wind Energy With Power System Operations - Kevin Porter, Exeter Associates
- Wind and Transmission Policy: FERC's CA-ISA Ruling on Intermittent Resources, and How Renewables Would Fare in FERC's Standard Market Design  
Jim Caldwell, American Wind Energy Association
- Marketing Wind Energy  
Angus Duncan, Bonneville Environmental Foundation  
Blair Swezey, National Renewable Energy Laboratory  
John Savage, Green Mountain Energy
- National Wind Coordinating Committee Updates

Ed Holt, Consultant to NARUC, Ed Holt, Ed Holt & Associates, Inc.

V. Planned Activities for Next Quarter

**Seventh National Green Power Marketing Conference**  
**September 30- October 2, 2002**

This conference is designed to evaluate the status of green power marketing in both competitive and regulated markets. The conference will explore strategies to increase the development of renewable energy resources through customer choice.

**Kansas Wind Energy 2002**  
**October 1-2, 2002 Lawrence, Kansas**

This workshop will provide the practical information utilities need to understand regional market opportunities in the near term and to realistically assess wind energy's potential contribution in the future. The workshop will focus on small solar and wind systems as well as large-scale wind development.

**Wind Energy Conference**  
**October 5, 2002 Hopland, CA**

This workshop includes site evaluation, characteristics of wind, various wind plants and governing techniques, wattage, wind speed ratings, and manufacturers. Attendees will also learn about storage systems, including net metering, line-ties, and batteries. Learn about controllers, inverters, wiring, ac versus dc power, high voltage versus low voltage systems, and towers. Hands-on portion of the workshop includes lowering, servicing and raising of the 3kW Whisper at the Real Goods Solar Living Center. The class is taught by Michael Hackleman, author of *At Home with Alternative Energy*, and *The New Electric Vehicles*.

**Avian Interactions with Wind Power Structures Workshop**  
**October 16- 17, 2002 Jackson Hole, Wyoming**

This conference will address the state of knowledge with respect to avian interactions with wind powered electric generation facilities and provide context for future research and development efforts. This workshop will provide an overview of wind development to date, a context for avian/wind interactions in electricity generation and an historical overview of avian/ wind power interaction. Furthermore, the workshop will describe what we know about avian/ wind interaction and what is still being investigated, describe the importance of proper siting, and address future research questions.

This Conference will be attended by public and private sector siting and planning managers, wind power biologists, environmental consultants, concerned NGOs, and Federal, State, and Local Energy and Wildlife agencies.

**Sandia National Laboratory New Mexico Wind Conference**  
**October 21, 2002 Albuquerque, New Mexico**

The New Mexico Wind Energy Conference will provide a forum for speakers representing the wind industry, utilities, state and federal governments, Indian tribes and pueblos, universities, national laboratories, and other parties interested in wind energy in New Mexico. Discussion will focus on the criteria necessary to develop successful wind projects in New Mexico, the legislative environment, and benefits and impacts for the development of the rural economy in New Mexico. U.S. Senator Jeff Bingaman will give the keynote speech on comprehensive federal energy legislation.

**Credit Trading Workshop**  
**November 7-8, 2002 Chicago, IL**

This Workshop will be attended by Representatives from Environmental Groups; Green Power Marketers; Local, State and Federal Agencies and Regulators; Utilities; and Wind Technology Firms to learn about Renewable Energy Credits (RECs) and Emission Reduction Credits (ERCs) and how they will fit into the market, how they will be regulated and their application to wind power development

This Workshop will give a basic overview of renewable energy credits and emission reduction Credits and how they are used in the energy market. Other topics to be covered include:

- Verification and Tracking Initiatives: How is the Market Organizing Itself?
- Examples of Different Trading Systems and Their Characteristics
- Linkages between RECs and ERCs and Unique Challenges
- Unique Challenges for Wind in Emission Markets

**NARUC 114th Annual Convention**  
**November 10-13, 2002 Chicago, Illinois**

The ERE Subcommittee on Renewable and Distributed Resources will hold a session to report on project activities during general meetings of the ERE Committee at the NARUC 114<sup>th</sup> Annual Convention in Chicago, IL.

**Ohio Wind Power Conference**  
**November 18-19, 2002 Dublin, Ohio**

The conference will feature wind energy experts as well as speakers from the U.S. Dept. of Energy and the National Renewable Energy Laboratory. A trade show exhibit hall will feature national and local wind power companies set up for the reception and duration of the conference. A dedication of a new small wind turbine at the nearby Glacier Ridge Metro Park and reception will kick off the event on Monday. Congresswoman Marcy Kaptur of Toledo is the Tuesday keynote speaker.

## **Attachment A**

### **Resolution Regarding Wind Energy Collaborative**

**WHEREAS**, Wind energy costs have fallen, reliability has improved, and the public supports renewable energy; wind energy may be competitive in some areas with conventional electricity generation, offers fuel price risk hedging protection, and can meet utility requirements in a more competitive electric generation market; and

**WHEREAS**, Wind technology and cost efficiencies are likely to continue to improve, with wind-energy winning utility bids for low cost bulk power in a more competitive electricity generation market; and

**WHEREAS**, The National Association of Regulatory Utility Commissioner (NARUC) has helped to establish the National Wind Coordinating Committee (NWCC) with the mission of realizing an environmentally, ecologically, economically, and politically self-sustaining commercial market for wind energy; and

**WHEREAS**, Organizations participating in the NWCC include NARUC; the National Conference of State Legislatures (NCSL); the National Association of State Energy Officers; the National Association of State Utility Consumer Advocates; the U.S. Department of Energy; the Edison Electric Institute; the Electric Power Research Institute; investor owned utility companies and public and municipal utility associations; the American Wind Energy Association, and wind companies; state siting officials; and environmental groups; and

**WHEREAS**, The NWCC is working on wind transmission issues, sustainable markets for wind energy, avian issues, setting, resource assessment, and coordination with State regulators and legislators to improve wind energy information and its dissemination; and

**WHEREAS**, Efforts by many States legislators, regulatory commissioners and staff have resulted in a broad menu of wind energy regulatory and legislative activities including encouragement for utilities to join the Utility Wind Interest Group, policies for renewables set asides and wind energy incentives; opening renewable energy regulatory dockets and investigation; analyzing wind energy as a supply resource in Integrated Resource Planning; dealing with renewables bidding and acquisition procedures; and addressing wind energy resources, setting, and transmission issues; and

**WHEREAS**, Working in the context of the NWCC, representatives of NARUC and of the NCSL have realized that they share a common agenda of analytic issues, public policy concerns, and needs for information on wind energy issues and intend to coordinate their efforts to address their common issues and needs; now, therefore, be it

**RESOLVED**, That the Executive Committee of the National Association of Regulatory Utility Commissioners (NARUC), convened at its 1995 Winter Meeting in Washington, D.C., will continue its participation in the NWCC; and be it further



**RESOLVED**, That commissions are encouraged to study wind energy technology and its potential within their jurisdictions; seek to understand the role of renewable energy including wind energy in an increasingly competitive electric utility industry; and monitor utility wind energy activities in the Nation and in their region and State.

Sponsored by the Committees on Electricity and Energy Conservation

Adopted March 1, 1995

Reported NARUC Bulletin No. 11-1995, page 5.

**Resolution Regarding Wind Energy Cooperative Project  
With the National Conference of State Legislatures**

**WHEREAS**, The National Association of Regulatory Utility Commissioners and the National Conference of State Legislatures (NCSL) share a common desire to stimulate interest among State utility commissions and State legislatures regarding wind energy; and

**WHEREAS**, Cooperation between the NARUC and the NCSL holds great promise for developing critical and current information on wind energy in a format that State decision makers will be able to use readily and efficiently; and

**WHEREAS**, The NARUC and the NCSL have defined a joint project to accomplish this task. The joint project will be directed by a joint steering committee of representatives of both organizations who are also members of the National Wind Coordinating Committee (NWCC); and

**WHEREAS**, Representatives of the NARUC and the NCSL have expressed their desire to proceed with this project in a letter executed by representatives of both organizations, a copy of which is attached to this Resolution; now, therefore, be it

**RESOLVED**, That the Executive Committee of the National Association of Regulatory Utility Commissioners, convened at its 1995 Winter Meeting in Washington, D.C., supports and encourages the cooperative project of the Association and the NCSL; and be it further

**RESOLVED**, That commissions should be encouraged to participate actively in the project to make it as useful as possible to State regulatory utility commissions and legislatures; and be it further

**RESOLVED**, That the Committee on Energy Conservation and other Committees of the NARUC be authorized to jointly propose with NCSL that the U.S. Department of Energy fund this effort with NCSL as the funding agent.

Sponsored by the Committee on Energy Conservation  
Adopted March 1, 1995  
Reported NARUC Bulletin No. 11-1995, page 6.

Facilitation of NARUC Involvement  
with National Wind Coordinating Committee

Final Progress Report

August 15, 2002

Submitted by

Edward A. Holt  
Ed Holt & Associates, Inc.  
28 Headland Road  
Harpwell, ME 04079

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## Introduction

In March 2002, Ed Holt & Associates, Inc. was contracted by the National Association of Regulatory Utility Commissioners (NARUC) to facilitate NARUC involvement with the National Wind Coordinating Committee (NWCC). This report is a summary of activities undertaken in support of that project, in relation to the grant's goals and objectives.

## Goals and Objectives

The grant's goals and objectives, as described in the Request for Proposals, are as follows:

- Assist regulators and key staff with participation in the NWCC by providing analytic and research support
- Coordinate communications among regulators involved in wind issues
- Coordinate and disseminate information to state utility regulators
- Communicate progress in the NWCC to the regulatory community
- Bring the concerns of regulators to the NWCC
- Report on NWCC activities for presentation at NARUC meetings
- Distribute written information developed by the NWCC to commissioners and key staff
- Prepare summary reports for regulators
- Facilitate opportunities for interaction between wind industry and state regulators

## Activities Accomplished

The following is a list of activities accomplished in support of the goals and objectives:

Attended NWCC business meeting #28 Coeur d'Alene, Idaho (May 21, 2002).

Participated in monthly NWCC steering committee conference calls.

Prepared two quarterly reports:

- April 15, 2002
- July 15, 2002

Drafted two resolutions for NARUC Energy Resources and Environment Committee.

Attended NARUC Summer Meetings, Portland, OR (July 28-31, 2002).

- Made presentation on NWCC activities to Renewables Subcommittee

Participated in bi-weekly conference calls of the NARUC Energy Resources and Environment Committee.

Participated in conference call discussion on quarterly NWCC/wind report.

Assisted individual NARUC members by responding to queries about wind energy issues.

E-mailed calendar of renewable energy conferences, workshops and meetings, in periodic updates, to members of the NARUC Energy Resources and Environment Committee.

Helped plan NWCC credit trading workshop planned for November 7-8, 2002.

### **Other related meetings**

Attended National Energy, Environment and Transportation Summit in New York City, May 15-17, 2002.

Attended Windpower 2002 (American Wind Energy Association Annual Conference) in Portland, OR (June 1-4, 2002).

Helped facilitate meeting between Center for Resource Solutions and NARUC commissioners and staff on the development of a handbook for regulators on tradable renewable energy certificates.

Participated in Western Governors' Association meeting on the development of a generation attributes tracking system for western states.

### **Planned Activities**

The following activities are planned through the remainder of the federal fiscal year ending September 30, 2002:

Participate in bi-weekly meetings of the NARUC Energy Resources and Environment Committee.

Update renewable energy calendar for commissioners and staff.

Participate in NWCC business meeting #29, Washington DC (September 26, 2002).

Participate in Seventh National Green Power Marketing Conference, Washington, DC (September 30-October 2, 2002).

## Summary

**Table 1. Summary of Activities by Goal/Objective**

<b>Goal/Objective</b>	<b>Activities</b>
Assist regulators and key staff with participation in the NWCC by providing analytic and research support	Telephone and email communications to Commissioners Bob Anderson and Phyllis Reha. Responded to staff inquiries about NWCC work.
Coordinate communications among regulators involved in wind issues	Organized conference call with ERE members to discuss quarterly report Organized panel on wind issues for Renewables Subcommittee
Coordinate and disseminate information to state utility regulators	Quarterly reports to ERE members. Periodic calendar updates on renewable energy events
Communicate progress in the NWCC to the regulatory community	Quarterly reports, formal presentation, personal communications
Bring the concerns of regulators to the NWCC	Attended NWCC business meetings. Participated in monthly NWCC steering committee calls Helped plan credit trading workshop
Report on NWCC activities for presentation at NARUC meetings	Presentation at NARUC Summer Meetings
Distribute written information developed by the NWCC to commissioners and key staff	No new reports since March 2002
Prepare summary reports for regulators	Two quarterly reports, final report
Facilitate opportunities for interaction between wind industry and state regulators	Arranged and facilitated Commissioner Phyllis Reha's addition to NWCC Helped plan credit trading workshop for regulators Arranged meeting with CRS for handbook on credit trading for regulators