

Facilitating Wind Energy: Addressing Challenges around Visual Impacts, Noise, Credible Data, and Local Benefits through Creative Stakeholder Engagement

FINAL REPORT

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I. Facilitating Wind Energy: Addressing Challenges around Visual Impacts, Noise, Credible Data, and Local Benefits through Creative Stakeholder Engagement

Sponsored by the Consensus Building Institute, Raab Associates, Ltd., and the MIT-Harvard Public Disputes Program

Funded by the U.S. Department of Energy

Project Title: Building State Capacity to Advance Wind Energy Through the Best Practices of Collaboration Planning and Siting

Covering Period: December 1, 2009 – June 30, 2011

Date of Report: August 3, 2011

Recipient: Consensus Building Institute, Inc.

Award Number: DE-EE0000502

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DOE Project Team: DOE Project Officer: Dwight Bailey
DOE Project Monitor: Gretchen Fitzgerald
DOE Contracting Officer: Pamela Brodie

Project Objective: The goal of the Consensus Building Institute's project is to build the capacity of state officials to collaborate effectively with diverse stakeholders to advance wind development policy, facility siting, and energy transmission. CBI's objective is to develop and deliver a three day training program on improving wind policy development and siting processes for state regulators, policy-makers, and agency staff, as well as their federal and local government counterparts, private sector investors, utility companies, environmental advocacy organizations, issue-focused interests groups and citizen action groups.

Background: The importance of collaboration to advance wind development in the United States is not new to policy-makers and wind energy supporters. In its June 2008 report, 20% Wind Energy by 2030, the US Department of Energy highlights the "collaborative approach" that will be required to meet the 20% goal. Effective collaboration is not easy, however, as many wind energy stakeholders already report. Indeed, effective collaboration requires a commitment to best practices, tools, and principles.

The project team expects to create a model and set of tools for building the capacity of state officials to collaborate effectively with diverse stakeholders to advance wind development policy formation, wind facility siting, and transmission policy and siting. This model will be used to enhance the ability of state officials to advance wind development in their states. We will deliver the training once in Cambridge, MA in Spring 2011. We then expect that the training and associated materials, including a Wind Energy Workbook, website, and simulations, will be available for ongoing and widespread dissemination throughout the US.

Status: Completed

Patents: None

Publications / Presentations / Travel: None

Project Schedule and Milestones Award No. DE-EE0000502

Task Number	Title or Brief Task Description (EXAMPLES)	Task Completion Date				Progress Notes
		Original Planned	Revised Planned	Actual	Percent Complete	
1.0	<i>Convene a Project Advisory Board</i>	Jan-Mar 2010	June-July	June-July	100%	Complete
2.0	<i>Prepare Training Materials</i>	Feb-June 2010	Feb-Sept	Aug-Sept	100%	Complete
2.1	<i>Case Studies</i>	Feb-June 2010	Feb-Sept	Aug-Sept	100%	Complete
2.2	<i>Background Readings</i>	Feb-June 2010	Feb - Sept	Sept - Dec	100%	Complete
2.3	<i>Exercises</i>	Feb –Aug 2010	Sept-Nov	Sept - Dec	100%	Complete
3	<i>Prepare Training Website</i>	Aug 2010	Aug-Nov	Sept - Dec	100%	Complete
4	<i>Market the Training</i>	July-Aug 2010	Aug - Nov	Sept - Dec	100%	Complete
5	<i>Deliver the Training</i>	Dec 2010	March 2011	March 2011	100%	Complete
6	<i>Documentation, Assessment and Results Dissemination</i>	Jan 2011	April 2011	March 2011	100%	Complete
7	<i>Project Management and Reporting</i>	Jan 2011	April 2011	July 2011	100%	Complete

II. CBI DISCUSSION OF WORKSHOP

A. Marketing and Outreach

The CBI project team sought a balance of representatives from state and local government, developers, and community and environmental organizations. CBI initially intended to draw from a national audience, but after consultation with U.S. Department of Energy staff decided to narrow the outreach focus to New England and the mid-Atlantic for the pilot workshop. To reach intended audiences, CBI distributed workshop announcements through the following:

- Clean Energy States Alliance Listserv
- National Renewable Energy Lab staff contacts (through Larry Flowers)
- National Renewable Energy Lab, New England Wind Forum Listserv
- New England Electric Restructuring Roundtable Listserv (through Raab Associates)
- CBI's listserv
- CBI's list of state renewable energy leaders
- CBI's website

B. Participant Selection

CBI received approximately 260 electronic applications for the workshop, plus an additional 50 telephone inquiries. CBI's proposal to DOE limited workshop participation to 50 state, private sector, and NGO stakeholders. Given the high demand for the workshop and meeting space limitations, CBI decided to extend participation to 100 (total) participants.

CBI used the following criteria to evaluate applicants:

- Sector balance (NGO, government, private sector)
- Geographic balance
- Experience with wind siting or policy making

C. Workshop Design

To develop workshop content, CBI interviewed twelve leaders in the wind energy field to get information on the challenges and opportunities facing wind energy siting and policy-making in the U.S. and to solicit specific case studies. CBI drew from this background research and our own knowledge of renewable energy siting and collaborative problem solving to frame five key problems facing wind energy stakeholders:

- The Engagement Problem, Stakeholder and Community
- The Visual Impacts Problem
- The Noise Problem
- The Credible Facts Problem
- The Sharing Community Benefits Problem

With input from various wind energy stakeholders, including Department of Energy staff, MIT academics, wind developers, and wind energy experts, CBI developed a draft workshop curriculum centered around the five key problems. CBI also designed and tested skills building exercises – including both simple two-party and complex multi-party role-play simulations – based on the cases that we researched. The final curriculum included a pedagogical discussion

of the “problem” and strategies for addressing the problem, followed by a combination of case discussion and interactive skills building exercises.

D. Workshop Results

One hundred and four people, including presenters, participated in the workshop. The demographics of workshop participants included:

- 16 states represented (majority from the Northeast)
- Community Group/NGOs (30)
- Wind Developers (25)
- State Agency (20)
- Local Governments (16)
- Consultants (10)
- Federal Agency (4)

(Note that some participants represented more than one sector.) A complete list of participants is attached in Appendix D.

Participants were actively engaged throughout the workshop. Many participants asked thoughtful questions about how to apply collaborative skills to their own scenarios. Questions included:

- How do you engage part-time residents in stakeholder processes?
- How much of the general public should you engage and at what cost?
- When do you hire a facilitator and how do you pay for it?
- How do you frame wind energy siting discussion in a larger energy options context?
- How do you keep language around visual and noise impacts away from judgmental positions?
- How do you manage your own bias in public processes?
- Is there a standard collaborative process that will work for most contexts?
- How do you deal with strong vocal opposition?
- What are the elements of a good poll?
- Can state agencies serve as neutral conveners or facilitators?
- What do you do when there is a problem after siting?
- Are there different strategies for dealing with noise vs. visual impacts?
- How do you deal with discussions about health impacts related to noise?
- What is the profile of people who tend to complain about wind siting?
- Is there value in bringing in technical studies around noise, costs, etc to public processes?
When and how do you do this?
- How do you deal with risk adverse conveners who are afraid of an angry public?
- How do you overcome miscommunication?
- How do you engage utilities in the conversation?
- How do you bring stakeholders who are not engaged (neighboring communities) into the game, even if the developer doesn’t want them to play?
- How do you deal with opposing neighbors?

On day 3, workshop participants had the opportunity to participate in a strategy clinic to

brainstorm advice around their own particular wind siting challenges. Concurrent strategy clinics were facilitated by workshop leaders and included 8-20 workshop participants. The strategy clinic topics discussed included:

- Dealing with recalcitrant or difficult stakeholders
- Coordinating multi-jurisdictional collaboratives or consortiums
- Making the case for wind energy: the communication strategy
- Dealing with site specific challenges

Evaluation results (attached in Appendix E) indicated a high level of satisfaction with the workshop design, content, and presenters. 84% of respondents rated the overall training as “excellent” and the remaining 16% as “good.” Similarly, all respondents rated the trainers and overall content as either excellent or good. Many participants indicated that their favorite portion of the program was the interactive simulations and exercises, as they found these highly valuable for translating the lessons and concepts into practice.

Sample overall comments include:

- Overall I absolutely loved the conference and felt it will be a huge asset to my daily life and hope the ideas presented will spread like wildfire.
- Great workshop, thank you.
- When will you do it again?!
- I think the Workshop was very well planned and executed. The presentations were very informative.
- Excellent discussions clear distinction of issues and strategies for dealing with them. And very relevant exercises
- A great mix of practical based approach methods with a series of theory that was informed and relevant

E. Dissemination

We will continue to maintain the project website. We have posted a blog on lessons learned on our website and MIT Professor Larry Susskind’s website. We also intend to seek out partners and other regions where we might conduct the course.

F. Lessons Learned

The pilot workshop surfaced many lessons, which Lawrence Susskind and Patrick Field summarized in the attached blog (see Appendix F). The key lessons include:

What not to do:

- Don’t tout the national or global benefits of wind energy when people care about how decisions affect them locally. Greenhouse gas reductions and increased independence from foreign oil sound good in the abstract, but they don’t offset adverse local effects.
- Don’t surprise people and announce plans to build something without giving everyone in the area a chance to say whether and how a project should be built. It’s better to have several siting choices ready to go, rather than just one.
- Don’t build wind turbines too close to the nearest abutters. Adequate buffers make for good neighbors.

- Don't tell people that wind farms will be so quiet they won't hear anything. Human perception of noise is a complex and idiosyncratic phenomenon.
- Don't be afraid to talk about the ways in which the profits from a wind energy plant might be shared with the community. Joint ventures are easier to negotiate than hostile takeovers, and some of the public may see land development for energy as the latter.
- Don't presume that 100% of the people in an area will accept a proposed wind energy facility just because it meets all federal, state, and local guidelines. Some people don't like change of any kind, regardless of the benefits that might be created. Some might view themselves as particularly adversely affected (a vista disrupted, nighttime sleep disturbed, etc.).
- Don't assume the media will necessarily cover the "whole" story and present all viewpoints. A few angry, upset, media-savvy citizens on a mission can dominate the narrative and drown out a large majority of the silent public.

What to do:

- Do find a way to involve all the relevant stakeholders in discussions about when, where, and how to build and operate wind plants. Consider using a skilled, neutral facilitator without an agenda to manage these conversations.
- Do consider contingent agreements. For instance, consider an insurance policy to compensate those who live near a proposed facility for any measurable decline in property values caused by the wind development; it is possible to buy "property value insurance" to ensure that no one suffers any losses.
- Do realize that everyone reacts differently to noise and visual impacts. That doesn't mean they are wrong or crazy. It does mean they have different opinions, views, and experiences.
- Do engage in joint fact finding so that all sides have a chance to frame the questions that they want to have answered. Let them help select experts they trust to provide good technical advice. Avoid the "dueling experts syndrome" which will be great for well-paid consultants, but won't necessarily produce credible, trusted information.
- Do realize that hundreds of wind farms have been built across America (and in other parts of the world) and that past experience can be instructive, both in the positive and the negative. One small, failed development can affect the public's view across an entire region.
- Do realize that there are risks and benefits associated with any technology, and that the job of elected and appointed officials is to reduce risk and ensure that benefits are shared, not to gloss over the negative impacts and assert that there are no risks.
- Do encourage states to involve the public in formulating state wind policies. Battles over specific sites and projects do not add up to general policies about where, when, and how to encourage the construction of wind energy plants. Pre-approval of certain kinds of sites, set-back and noise requirements, aesthetic and environmental protection rules, community benefit agreements, and monitoring provisions can help to avoid the need to address each of these questions over and over again at every site.

III. Appendix A - Agenda

FACILITATING: WIND ENERGY SITING

Addressing Challenges around Visual Impacts, Noise, Credible Data, and Local Benefits through Creative Stakeholder Engagement

Ropes and Gray Room
Second Floor, Pound Hall, Harvard Law School
1563 Massachusetts Avenue
Cambridge, MA, 02138

Wednesday, March 23, 2011

Time	Description
12:00 pm	Registration Opens
1:00 pm	Welcome, Identification of the Key Problems, and Agenda Review <ul style="list-style-type: none">• <i>Lawrence Susskind</i>, Ford Professor of Urban and Environmental Planning at the Massachusetts Institute of Technology• <i>Jonathan Raab</i>, Raab Associates, Ltd.
1:15 pm	Introductions
1:45 pm	Panel and Exercise: Effective Stakeholder Engagement and Negotiation, A Better Approach <ul style="list-style-type: none">• <i>Lawrence Susskind</i>, Ford Professor of Urban and Environmental Planning at the Massachusetts Institute of Technology
3:30 pm	Break
3:45 pm	Panel and Discussion: The Engagement Problem, Stakeholder and Community <ul style="list-style-type: none">• <i>Kate Harvey</i>, Consensus Building Institute• <i>Neil Kiely</i>, First Wind• <i>Abby Arnold</i>, Kearns and West, NWCC and AWWI
4:45 pm	Wrap up and Discussion
5:00 pm	Adjourn for the Day

Thursday, March 24, 2011

Time	Description
9:00 am	Opening Reflections
9:15 am	Panel and Discussion: The Visual Impacts Problem <ul style="list-style-type: none">• <i>Jonathan Raab</i>, Raab Associates and MIT• <i>Jean Vissering</i>, Jean Vissering Landscape Architecture• <i>Tyler Studds</i>, Vineyard Power
10:45 am	Break
11:00 am	Panel and Discussion: The Noise Problem <ul style="list-style-type: none">• Jonathan Raab, Raab Associates and MIT• <i>Mark Bastasch</i>, CH2M HILL• <i>Suzanne Pude</i>, Island Institute
12:30 pm	Lunch (provided)
1:30 pm	Panel and Exercise: The Credible Facts Problem <ul style="list-style-type: none">• <i>Lawrence Susskind</i>, Ford Professor of Urban and Environmental Planning at the Massachusetts Institute of Technology• <i>Abby Arnold</i>, Kearns and West, NWCC and AWWI
3:30 pm	Break
3:45 pm	Panel and Discussion: The Sharing Benefits Locally Problem <ul style="list-style-type: none">• <i>Kate Harvey</i>, Consensus Building Institute• <i>Tobey Williamson</i>, Barton and Gingold
4:45 pm	Wrap up and Discussion
5:00 pm	Adjourn for the Day
5:00 -6:00 pm	Reception

Friday, March 25, 2011

Time	Description
9:00 am	Opening Reflections
9:15 am	Lecture and Exercise: Collaborative Wind Siting and Policymaking <ul style="list-style-type: none">• <i>Jonathan Raab</i>, Raab Associates and MIT
12:00 pm	Lunch (provided)
1:00 pm	Strategy Clinic with Participants' Cases
2:30 pm	Wrap Up and Evaluations
3:00 pm	Adjourn

III. Appendix B – Speaker Biographies

PROJECT PARTNERS

LAWRENCE SUSSKIND

Lawrence Susskind is Ford Professor of Urban and Environmental Planning at the Massachusetts Institute of Technology. He has served on the faculty for 35 years and currently directs the Graduate Program in Environmental Policy and Planning. He is also Vice-Chair for Instruction at the Program on Negotiation at Harvard Law School, which he helped found in 1982, and where he heads the MIT-Harvard Public Disputes Program, and teaches advanced negotiation courses. In 1993, Professor Susskind created the Consensus Building Institute.

Professor Susskind's most recent book, *Breaking Robert's Rules: The New Way to Run Your Meeting, Build Consensus and Get Results* (Oxford University Press, 2006), synthesizes what he has learned about consensus building techniques and strategies that work most effectively in the public arena. He is author of 15 other books including *Environmental Diplomacy* (Oxford, 1995), *Negotiating Environmental Agreements* (Island Press, 1999), *Dealing With An Angry Public* (Free Press, 1994), and the award-winning *Consensus Building Handbook* (Sage, 1999).

Professor Susskind has mediated more than 50 disputes, including land use conflicts, facility siting controversies, public policy disagreements, and confrontations over water. He has served as a court-appointed special master and helped facilitate negotiations on arrangements of global environmental treaties. He offers a range of executive training programs each year and has served as guest lecturer at more than two-dozen universities around the world.

In his role as an environmental mediator he has been part of a range of efforts in various parts of the world to facilitate multi-stakeholder dialogues on the introduction of new technologies. Professor Susskind can be reached at susskind@mit.edu or via his blog at <http://theconsensusbuildingapproach.blogspot.com>

JONATHAN RAAB

Dr. Jonathan Raab is President of Raab Associates, Ltd., an energy and environmental consulting and dispute resolution firm located in Boston.

Jonathan is a national leader in applying consensus-building processes to energy, environmental, and regulatory issues. He has designed, facilitated and/or mediated dozens of stakeholder processes on major issues including the Regional Greenhouse Gas Initiative (RGGI), Cape Wind, the Renewable Portfolio Standards in Massachusetts and Rhode Island, and the greenhouse gas plans in Rhode Island, Maine, and most-recently, the City of Boston. He authored a seminal book, *Using Consensus Building to Improve Utility Regulation* (ACEEE) and recently co-authored a paper with Larry Susskind on using collaborative processes to improve transmission and wind siting.

Prior to establishing Raab Associates, Jonathan was the Assistant Director of the Electric Power Division at the Massachusetts Department of Public Utilities. He has a Ph.D. from MIT in Energy and Environmental Policy and Resource Economics, and an M.S. and A.B. from Stanford. He has

taught the ***Energy Policy for a Sustainable Future*** course at MIT for the past five years, and run the New England Electric Restructuring Roundtable for 16 years.

PATRICK FIELD

Patrick Field is Managing Director at the Consensus Building Institute (CBI), Associate Director of the MIT-Harvard Public Disputes Program, and Senior Fellow at the University of Montana Public Policy Research Institute.

Mr. Field has helped thousands of stakeholders reach agreement on land use, development, and natural resource management issues across the United States and Canada. As one of the country's most experienced group facilitators, he has helped to design and manage dozens of large and diverse working groups, from those seeking collaborative action, to those who are already embroiled in high conflict. He has also trained and advised governments (federal, regional, state and local) as well as corporations, foundations, and Native American and First Nation groups.

His recent work includes assessing and facilitating a year-long process to re-engineer the member's process for PJM Interconnection, the largest wholesale regional electric transmission organization in the world, consolidating DOE fossil energy laboratories, the future of Vermont's electricity supply, improving the Northeast Energy Efficiency Partnership's collaborative skills, and the siting of wind energy facilities. Mr. Field has experience working with land use and development, design and construction, and LEED design. He has assisted a variety of indoor and small source air quality voluntary programs sponsored by the U.S. EPA. He was an energy efficiency planner for the Commonwealth of Massachusetts' planning and construction agency between 1989 and 1992.

Co-author of the award-winning book, *Dealing with an Angry Public*, Mr. Field is listed on the roster of conflict resolution professionals of the U.S. Institute for Environmental Conflict Resolution. He has authored or co-authored numerous articles and book chapters. He holds a Masters in Urban Planning from the Massachusetts Institute of Technology and a BA from Carleton College, summa cum laude. Born and raised on a ranch in rural western Colorado, he currently resides in Watertown, Massachusetts.

KATE HARVEY

Kate Harvey is a Senior Associate at the Consensus Building Institute, where she designs and facilitates meetings about environmental and public policy issues. Recent projects include designing and facilitating the founding meetings of the U.S. Offshore Wind Collaborative, designing and facilitating a collaborative sustainable development regional planning process in three Rhode Island communities, leading visioning sessions with national public housing leadership on the future of public housing, and co-facilitating citizen advisory groups seeking agreement on Superfund cleanup processes. Kate co-manages a coalition of agencies and organizations working to improve air quality in the Boston area through voluntary programs. She has also co-facilitated Aquaculture Dialogue and Global Forest and Trade Network agreement seeking sessions for the World Wildlife Fund.

Kate has co-authored and led multiple multiparty teaching simulations on natural resource

management and decision-making for federal and international agency leaders, community organizations, and research institutions in the U.S. and abroad. She has developed and delivered courses on negotiation and communication skills for conservationists, and participates in an ongoing series of courses on resolving land use disputes. Kate has a Masters of International Law and Diplomacy degree from the Fletcher School at Tufts University, where she studied International Environmental policy and Conflict Resolution, and a B.A. from Schiller International University, Madrid, Spain.

SENIOR ADVISOR

ABBY ARNOLD

Abby S. Arnold, a Vice President at Kearns & West, has been a practicing mediator and trainer in collaborative solutions for 20 years, specializing in energy resources and transmission, energy efficiency, environmental issues, natural resources, and other public policy issues.

Ms. Arnold mediates numerous collaborative endeavors, exploring issues and policies that support emerging energy technologies, energy efficiency, as well as water quality and quantity. She has facilitated policy dialogues, regulatory negotiations, and commercial private sector cases for a full variety of federal agencies and private parties on a range of topics: state and federal policy on distributed energy resources, transmission of electricity, new power plants, water quality, and other natural resource issues, including watershed protection, marine mammals, and commercial fisheries. She also has facilitated dialogues on public policy issues such as health risk, hazardous waste, marine and coastal resources, and toxic substances. Ms. Arnold's specific interest is the design of collaborations that successfully bring parties together, insert the best science into decision-making processes, and help parties be successful at achieving their goals.

Ms. Arnold has facilitated the National Wind Coordinating Committee for nearly 20 years, she is now Executive Director of the American Wind Wildlife Institute. Ms. Arnold is a certified mediator with the U.S. Institute for Environmental Conflict Resolution and has authored a number of articles on the application of dispute resolution in natural resource issues.

PRESENTERS

MARK BASTASCH

Mark Bastasch is a registered acoustical engineer with CH2M Hill. Mr. Bastasch's acoustical experience includes preliminary siting studies, regulatory development and assessments, ambient noise measurements, industrial measurements for model development and compliance purposes, mitigation analysis, and modeling of industrial and transportation noise. His wind turbine experience includes some of the first major wind developments including the Stateline project, which when built in 2001 was the largest in the world. He also serves on the organizing committee of the biannual International Wind Turbine Noise Conference, first held in Berlin, Germany, in 2005.

NEIL KIELY

Neil Kiely is Director, Development--New England for First Wind in Portland, Maine. He is responsible for leading internal and external teams on all aspects of development for individual wind energy projects from site selection to commencement of construction. A large part of his efforts involve engaging the host communities and adjacent communities to generate support for projects and working with local authorities considering wind related ordinances. Neil also is actively involved in First Wind's statewide and regional efforts to educate the public and other key stakeholders in regards to wind energy.

Neil is currently leading the development of the Bowers Mountain Wind Project, a 27-turbine project located in northern Maine. He recently won a rezoning petition for the project and has initiated the permit application process. Neil also has other projects in various stages of development.

Prior to joining First Wind, Neil practiced as an attorney with King and Spalding in Washington D.C. and served as General Counsel to a large marketing firm in Portland, Maine. In addition, he has successfully founded and operated his own companies in the areas of real estate development and commercial financing.

SUZANNE PUDE

Suzanne Pude joined the Island Institute in June 2009 as Community Wind Director. She provides support to islands considering wind power through community outreach, data analysis and research. Suzanne also helps to direct the Institute's wind power policy work.

Suzanne's experience with island community wind power began in February 2008 when she worked with the Monhegan Plantation Power District (MPPD) to produce a preliminary feasibility study for a wind-diesel hybrid system. Her understanding of Maine islands has also been shaped by her time spent interning for the Monhegan Island Sustainable Community Association (MISCA) during the summer of 2008. Suzanne has a passion for projects that connect community and economic development to environmental sustainability.

Prior to working at the Institute, Suzanne served as Outreach and Development Coordinator at EARTHWORKS, an environmental advocacy and community support organization based in Washington, DC. She holds an M.A. in Urban and Environmental Policy and Planning from Tufts University where she was awarded a graduate student research award for her thesis that focused on community wind power development on New England islands. She has a B.A. in political science and international development studies from McGill University.

TYLER STUDDS

Tyler was awarded a Martha's Vineyard Vision Fellowship in 2009 to research and implement collaborative planning to support the development of community owned wind power on Martha's Vineyard. He recently designed and coordinated a collaborative site selection process to identify appropriate locations for a community-owned offshore wind farm for members of Vineyard Power Cooperative. The process applies a combination of consensus building, spatial planning, and web-based decision tools to identify sites that are economically viable and publicly acceptable.

Tyler is a former co-owner of Great Rock Wind Power, a small wind turbine installation and consulting company and worked also as a biologist for the U.S. Fish and Wildlife service at Monomoy National Wildlife Refuge. He received a degree in biology and environmental studies from Kenyon College and is currently studying GIS through Penn State.

JEAN VISSERING

Jean Vissering is owner and principal of Jean Vissering Landscape Architecture, a consulting firm specializing in visual impact assessment, visual resource planning, and landscape planning and design. She is author of a number of publications addressing the aesthetic impacts of wind energy projects, including *A Visual Impact Assessment Process for Wind Energy Projects* for the Clean Energy States Alliance (2011) and *Wind Energy and Vermont's Scenic Landscapes* for the Vermont Public Service Board (2002). She co-authored of a report for the National Research Council titled *Environmental Impacts of Wind-Energy Projects (2007)*. In 2002 she helped facilitate discussions sponsored by the Vermont Public Service Department involving representatives from Vermont's stakeholder groups. She has reviewed numerous wind energy projects throughout the U.S., primarily in the northeast, and has assisted towns, regional planning commissions, and non-profit organizations in ensuring a fair and comprehensive review process.

TOBEY WILLIAMSON

Tobey Williamson specializes in community and media outreach, conflict resolution, meeting facilitation, and strategic planning and decision-making. While working with groups to improve communication either internally or with a set of external stakeholders, he is especially skilled at building trust between people who disagree about a particular issue or set of issues. He does this through active listening, creative problem solving, and by gently encouraging people to take a broader view of their situations.

When facilitating large public meetings, he relies on process to ensure an orderly meeting that accomplishes its pre-defined goals while maintaining the flexibility to respond to unforeseen circumstances. Mr. Williamson is equally comfortable working on projects that require strategic thinking and energetic follow through, contributing insightful ideas and reliable support to help his clients meet their objectives.

He has worked with private enterprise, municipal governments, non-profit organizations, state agencies, and the federal government on projects in fields as diverse as renewable energy, transportation improvement, land conservation, telecommunications, business planning, agriculture and the fine arts. Tobey Williamson received a Masters of Regional Planning and training in mediation and facilitation from the University of Massachusetts, Amherst in 2001.

III. Appendix C – Simulations and Exercises

West Wind in Pine Hills

General Instructions

West Wind, a U.S. wind energy company, is proposing a new wind development project in the rural community of Pine Hills. Renewable energy production has become an increasingly important goal for the state's governor, who gave her support to West Wind's current project. Unfortunately, things have not been easy for Pine Hills. Ten years ago, a large biomass project in a neighboring community left hard feelings with many local officials and residents. They felt that the biomass company ignored their concerns and tried to take advantage of a community that was desperate for economic activity. Even after 10 years, Pine Hill town officials and residents are wary of private sector-led energy projects in their community.

When this project was initially proposed, many local residents opposed it. One concern was that although the proposed wind development site is on privately held land, access to the site would require that access roads be constructed on adjacent municipal land. Another concern was that even though there are no other private properties directly abutting the site, the windmills will be visible from several locations in Pine Hills. Some residents were also concerned about noise and impacts on wildlife.

In an effort to improve its relations with Pine Hills local officials and residents, West Wind has revised the project design, taking into account local concerns. Specifically, it has agreed to:

- Re-route the proposed access roads onto their own site to avoid disrupting neighbors with truck noise and traffic, at considerable cost to the company (over \$200,000);
- Establish a monitoring and advisory panel that includes Pine Hills residents, to ensure efficient and safe operations, monitor wildlife, and minimize local impact.

Only two issues remain to be negotiated:

1. The **number of wind turbines** that will be constructed;
2. The **amount of annual community benefit payments**, including PILOT (payments in lieu of taxes) payments, that West Wind will contribute to the community for its own use.

Today, A. Marks of Pine Hills will be meeting with P. Garcia of West Wind to work out the last two issues. Marks is known to be running for mayor next year, when the current mayor retires. Garcia is a new project manager at West Wind, and is rumored to be ambitious and eager to prove him/herself. Marks and Garcia have not been involved in earlier negotiations between Pine Hills and West Wind. They have never met face-to-face, although they have spoken on the phone a few times.

The project and upcoming negotiations have drawn media interest in Pine Hills. According to a recent newspaper article, although West Wind project documents propose 10 2 MW turbines on the site (20 MWs total), the company actually plans to push for up to 20 turbines, and the Mayor plans to ask for \$1 million in annual community benefits. Although the article did not name sources for any of these claims, it raised tensions around the project. This will be a short but important negotiation for both sides.

West Wind in Pine Hills
Confidential Instructions: A. Marks, Pine Hills, Special Assistant to the Mayor

You have been appointed by the current Mayor to negotiate with West Wind on behalf of the town of Pine Hills. As you are planning to run for Mayor next year, this is a critical opportunity to demonstrate your leadership skills and ability to effectively represent the multi-faceted concerns of the community. You certainly do not want to be in the position of advocating for an agreement with West Wind that is ultimately unpopular with the community.

Although the Governor has endorsed the West Wind project, community support is still tenuous, at best. Many residents – your potential constituents – are suspicious of West Wind and dislike the idea of having turbines disrupting the quiet and natural beauty of Pine Hills. You’ve heard residents complain again and again that the more turbines West Wind constructs, the more people will have to live with the disturbance of ugly and noisy turbines. Each additional turbine, the argument often goes, raises decibel levels even further and creates an even greater disturbance. Many residents argue that Pine Hills’ landscape should be left in its natural form to the extent possible, for everyone to enjoy.

The community is particularly upset by the rumor that West Wind wants to build 20 turbines. Many residents have told you that anything above 10 turbines would be too many, while others want to see the project scrapped altogether. Only a small, less vocal group of residents seems to be okay with building more than 10 turbines. Accordingly, you believe that 10 turbines is the maximum that could be politically acceptable.

On the other hand, even opponents of the wind development recognize that declining town revenues is one of the most critical issues facing the community, and that this is an important opportunity to bring needed benefits to the town. In particular, local schools have suffered cutbacks in recent years, and you think most community members would see value in using the funds to improve education in Pine Hills. There are a variety of other local services that could also benefit from additional funds.

You and the mayor agree that \$100,000 in annual payments would be the minimum needed to really impact local schools or otherwise be felt in the community.

You feel confident that if West Wind agreed to a generous community benefits package, residents would accept a limited number of turbines in Pine Hills. Therefore,

- **Your first priority is to secure as much in annual community benefits payments as possible.** This will spread the economic benefits from the West Wind project across the town, and will mean direct financial benefits for the town budget, broader support for the

project as a whole, and improved stature for you in the community. You cannot accept less than \$100,000 if you are to agree to any turbines at all.

- **Your second priority is to lower the number of turbines that West Wind sites.** While you have some flexibility here, many residents feel that each additional turbine creates a great disturbance, particularly in terms of noise. You want to make a politically smart agreement, so under no circumstances could you accept more than 10 turbines.

Based on some initial research on what other communities have received from other companies, you think Pine Hills could get up to \$500,000 in annual community benefits payments for up to 10 turbines (you don't know where the local newspaper heard that you were seeking \$1 million in annual payments, although this would certainly be nice!). Based on this estimation, you and the Mayor have designed a point system to evaluate potential options:

For each additional \$50,000 in annual community benefits payments, give yourself 5 points. For each additional turbine above 1, subtract 3 points. You don't need to do the math for each option – the below chart does that for you.

You and the Mayor estimate that, in light of both the tenuous support for the project within the community and the need for community benefits, your alternative to reaching agreement is worth 4 points. **Therefore, you may not accept an agreement worth fewer than 4 points.** This represents the least that you think you can take back to the community, without destroying your reputation as a leader and while still bringing some benefit to the community.

Still, you should try to secure as many points as possible, to bring the best possible agreement back to your (hopefully) future constituents.

Do not share your confidential instructions with P. Garcia.

Community Annual Compensation									
Turbines	\$100K	\$150K	\$200K	\$250K	\$300K	\$350K	\$400K	450K	500K
1	5	10	15	20	25	30	35	40	45
2	2	7	12	17	22	27	32	37	42
3	-1	4	9	14	19	24	29	34	39
4	-4	1	6	11	16	21	26	31	36
5	-7	-2	3	8	13	18	23	28	33
6	-10	-5	0	5	10	15	20	25	30
7	-13	-8	-3	2	7	12	17	22	27
8	-16	-11	-6	-1	4	9	14	19	24
9	-19	-14	-9	-4	1	6	11	16	21
10	-22	-17	-12	-7	-2	3	8	13	18

Note: the shaded area represents deals that are unacceptable!

West Wind in Pine Hills
Confidential Instructions: P. Garcia, West Wind

You are the newly appointed project manager for West Wind's new wind development project in Pine Hills. This is your first major assignment as project manager and you are eager to prove yourself. Your boss has made it clear that you need to make an agreement that ensures this project will be profitable.

The issue of annual community benefits payments is challenging. Communities use these payments to bolster local budgets as they see fit, so they can be key for building good will within the host community. On the other hand, these payments reduce profits. Moreover, committing to a payment amount now, before you know for sure what profits the wind development will turn from year to year, is risky and reduces West Wind's flexibility.

You and your boss are particularly worried about the report that Pine Hills' Mayor plans to request \$1 million in annual payments – there is absolutely no way West Wind could commit to that much, especially in light of the other concessions the company has already made on the access roads and advisory panel. According to your boss, \$400,000 is the maximum West Wind could agree to pay annually without incurring an unreasonable risk of taking a loss. This is also the most West Wind has ever paid to communities for wind developments of this scale, and you are concerned that offering more than \$400,000 could set a precedent that would affect other similar projects.

On the other hand, the real source of profitability over time is the turbines themselves. Simply put, the more turbines you construct, the more energy you can generate and the more profitable the project will be in the long run. You don't know where the local newspaper heard that West Wind was looking to construct 20 turbines; the company's project documents clearly state that West Wind has proposed building 10 turbines (although closer to 12 turbines would be even better!). A development of around 10 turbines is in line with the size of other wind developments in the region, and would generate enough energy for the project to be well worthwhile.

West Wind would need to at least 2 turbines for this project to make any sense financial at all, although with so few turbines you couldn't afford community benefits payments. You feel confident, however, that if Pine Hills agrees to a reasonable number of turbines, West Wind can provide some amount of annual community benefits payments. Therefore,

- **Your first priority is to maximize the number of turbines on the site.** This will allow you greater long-term profit security, and will reduce the risk you incur if you offer community benefits payments. West Wind needs to construct at least 2 turbines; if possible you'd like to get closer to 12 turbines.

- **Your second priority is to minimize the amount of annual community benefits payments.** This will help you maintain your long-term flexibility and offer you an opportunity to control costs. Under no circumstances could you provide more than \$400,000 in community benefits payments.

To make sure you accept a reasonable deal, you and your boss have designed a point system to evaluate potential options:

For each additional turbine above 1, give yourself 5 points. For each additional \$50,000 in annual community benefits payments, subtract 3 points. You don't need to do the math for each option – the below chart does that for you.

You and your boss estimate that, in light of both the time and money already invested in this project and the need to ensure it will be profitable, your alternative to agreement is worth 4 points. **Therefore, you may not accept an agreement worth fewer than 4 points.** This represents the minimum required to ensure the profitability and sustainability of this project. Still, you should try to secure as many points as possible, to bring the best possible agreement back to your boss and demonstrate your competency as project manager.

Do not share your confidential instructions with A. Marks.

Community Annual Compensation									
Turbines	\$0	\$50K	\$100K	\$150K	\$200K	\$250K	\$300K	\$350K	\$400K
1	0	-3	-6	-9	-12	-15	-18	-21	-24
2	5	2	-1	-4	-7	-10	-13	-16	-19
3	10	7	4	1	-2	-5	-8	-11	-14
4	15	12	9	6	3	0	-3	-6	-9
5	20	17	14	11	8	5	2	-1	-4
6	25	22	19	16	13	10	7	4	1
7	30	27	24	21	18	15	12	9	6
8	35	32	29	26	23	20	17	14	11
9	40	37	34	31	28	25	22	19	16
10	45	42	39	36	33	30	27	24	21
11	50	47	44	41	38	35	32	29	26
12	55	52	49	46	43	40	37	34	31

Note: the shaded area represents deals that are unacceptable!

This simulation was written by Kate Harvey and Elizabeth Fierman of the Consensus Building Institute, Inc. and Dr. Jonathan Raab of Raab Associates, Ltd. It is based on "Parking Spaces for Super Computer," written by Lawrence Susskind for the Program on Negotiation at Harvard Law School, copyright 1988, 1995 by the President and Fellows of Harvard College. © 2011 Consensus Building Institute, Inc., Raab Associates, Ltd., and the President and Fellows of Harvard College.

Getting Agreement on the Environmental Impacts of Proposed Wind Energy Facilities: *A Discussion Scenario*

The Wind Energy Company (WEC) proposes to build six turbines on a forested ridge owned by a local land trust in a small town in Western Massachusetts. This will be the first project of its kind in the vicinity, and the first Massachusetts-based project undertaken by this particular company. The Local Land Trust has been offered \$500,000, to be paid over three decades, if it will lease the land to WEC. The Trust intends to use this money to purchase newly available development rights and parcels surrounding the town that will protect a substantial amount of sensitive land area. The company, by the way, has already built several similarly-sized projects in upstate New York.

As soon as word spread about the proposed facility, a group of residents formed to oppose the project – Save Our Ridge (SOR). The leader of the group lives less than a half mile from the proposed site and is quite fearful that the noise created by the turbines will disturb the unusually tranquil setting to which she retired a decade ago, returning the community of her birth. Some of the other 20 or so members are opposed to the project because they are convinced it will degrade the majestic views of a prominent ridge that the whole community shares. Still others, active members of the Audubon Society, are quite worried about the impact that the turbines will have on birds and bats. A last group is concerned that the construction of temporary or permanent access roads to the turbines will cause erosion on the steep hillsides (and even encourage private home construction on the side of the mountain which has to date has not been possible).

The Local Land Trust has lobbied hard for the project and has pressed the local Board of Selectmen to endorse WEC's proposal. Several other town boards have been thus far been silent – the Conservation Commission, the Planning Board, the Local Economic Development Committee and the Public Works Director. The Massachusetts Environment and Energy Agency has been a staunch advocate of wind energy, offering subsidies when and as it can to projects that pass environmental muster. The state Representative from the area has been quoted several times in the paper, enthusiastically supporting the project, arguing that it is essential that every city and town in the Commonwealth do what it can to mitigate the effects of climate change by promoting "green energy."

Unsure which direction to go, the Board of Selectmen decided to appoint a committee to examine the pros and cons of the proposed facility. It made a special effort to ask relevant stakeholders to nominate members. The President of the Local Land Trust readily agreed to serve as did the head of SOR. The chairs of the Conservation Commission, Planning Board and Local Economic Development Committee were added along with the Public Works Director. Finally, the headmaster of a local private school, a trained biologist, was also convinced to serve as chair. These seven people have been meeting about once every two weeks for the past three months, focusing on the Environmental Impact Review (EIR) that the State requires WEC to prepare before it can get a permit. WEC has hired an environmental engineering firm to prepare the EIR. The staff person in charge has already made two presentations to the group

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explaining the “scoping” step in the impact assessment process (during which key issues needing attention must be identified).

Last week’s discussion about the possible impact of wind turbines on bats brought everything to a standstill. Most people in the group were unsure how to respond when the SOR representative demanded that WEC implement a study to determine the scope of the bat population in the area and the likely post-construction impact that the turbines might have on that population. There have long been rumors of caves in the side of the mountain, with vast numbers of bats, although many people insist that is just folklore. The environmental engineer indicated that a serious effort to determine bat activity before construction, using acoustic detectors could take 18 months to do properly, and cost more than \$150,000, but it might also allow them to predict post-construction bat fatalities.

The head of SOR gave an impassioned speech, based on materials she has secured from the national Bat and Wind Energy Cooperative (BWEC). She highlighted the positive role that bats play both as primary predators of night-flying insects, including major agricultural pests, and as important pollinators and seed dispersers. She offered published materials to show that bat kills have been high at some wind energy facilities (N.B. They seem to be attracted by the turbines!), especially in the eastern United States, though she did admit that it is unclear why some bat species seem susceptible to collisions with the turbines and changes in atmospheric pressure created by the turbine blades. All told, she said, such fatalities, even if small in number, raise concerns about the cumulative impacts on the bat populations at a time when many species are declining rapidly (nationally and globally) because of what is known as “white nose syndrome.” “More than one million bats died in New England last year alone,” she reported.

The chair of the committee explained that it might be hard to make a scientifically valid forecast of the impacts of the turbines on the bat population. He explained that his was “because the combination of nocturnal habits, ability to fly, small size, and variation in resource dependence (i.e., species vary in roost, water, and food resource dependence), have made it hard to establish even a rudimentary understanding of how bats interface with their environment.”

The “bat problem” has stymied the group. The cost and delay involved in doing the pre-construction study might kill the project. And, even after a study has been completed, what will they actually know? The head of the Land Trust had his own proposal. He argued that if the threat to the bat population posed by the turbines turns out to be substantial, they could just shut down the facility at certain times of the year, at night (“that’s when they go out, right?”). Minor operational restrictions were fine with him because he had heard that here was solid evidence to indicate that “tweaks” in the operating schedule would not have a serious impact on the financial viability of wind project. The WEC representative wasn’t so sure.

The Committee is stuck. It doesn’t know how to proceed. Based on what you have learned so far at the Wind Facility Siting course, what would your best advice be to the Advisory Committee (and the Board of Selectmen) on how to organize a joint fact finding element of the

Committee's work

The Windy State Policy Game

Introduction—Note from the Governor

Five years ago, our large state put in place an aggressive renewable portfolio standard (RPS), which requires that 20% of the electricity used in the state come from new renewable energy sources within 20 years of enactment. To date, we are not on track to meet that target.

Wind is our best bet for meeting our RPS requirements. Other options are less viable; landfill gas sites are largely tapped out in the region, electricity from woody biomass is stalled over questions of sustainability and carbon accounting, and the cost of photovoltaics (solar energy) is still relatively high. By contrast, studies by the U.S. Department of Energy show that we have enough wind resources within our borders and off our shores to meet, and likely exceed, our RPS requirements. Yet our wind resources remain largely untapped.

So what is getting in the way of utilizing our wind resources? Large-scale wind development appears to be bottlenecked for two main reasons. First, it still takes a very long time to site and permit wind farms and the transmission needed to deliver wind energy to our population centers (deciding who should pay for transmission is another important obstacle). Second, I hear that developers are still having trouble getting their projects financed.

Underlying these two problems are various issues, including squabbles between state and local officials about siting jurisdiction; concerns about noise and visual impacts on our landscape; and fears that wind farms will adversely impact our flora and fauna. There are also questions about cost – some argue that wind-generated electricity, especially from off-shore wind farms, will cost the state too much; others argue that we may need to approve additional financial and other incentives to complement our RPS requirements if we really want to harness in-state wind.

Given these challenges, I'm announcing today the formation of a high-level commission to develop a detailed set of policy recommendations to supplement our RPS and ensure the success of large-scale wind developments (e.g. 20 megawatts and above). I have appointed the following individuals and group representatives to this Commission:

1. Lieutenant Governor (Commission Chair)
2. Association of Rural Counties and Towns
3. Wind Developer Coalition
4. Environmental NGO Coalition (a very broad coalition of environmental organizations)
5. Large Commercial and Industrial Consumers Group

The Commission's recommendations should address the following topics:

1. Siting of wind farms and transmission lines

2. Financial incentives
3. Transmission cost allocation policy

To help kick-start the Commission's work, my cabinet has put together a list of potential options to address each of these topics, for the Commission to consider. [These options are attached in the Appendix.]

I expect the Commission to reach a consensus wherever possible.

Game Instructions

You will now have 30 minutes of preparation time, during which you will be meeting with others playing the same role as you. Then you will have 90 minutes to work with your fellow Commissioners to develop a set of recommendations on the three issues.

The group that you are representing has developed detailed and confidential instructions for you. You are instructed to advocate for the preferences and priorities laid out in these instructions.

Windy State Policy Game Appendix: Wind Policy Options

I. Siting Wind Farms and Transmission Lines

Note: these options are not mutually exclusive.

*a) **State Siting Preemption for Wind Farms and Transmission Lines*** - Under this policy, if a local siting process takes more than 6 months, the state would be empowered to preempt local jurisdiction and issue a permit, unless the developer and local government agree to extend the deadline.

*b) **Model Local Wind Ordinances*** – Under this policy, the state would develop model local wind ordinances that cities, towns, and counties could use as policy templates. The model ordinances would establish clear requirements and thresholds, such as regulations regarding noise levels and setbacks, as well as a clear step-by-step local permitting process. They could be adapted according to local needs, and could be adopted as binding local ordinances.

*c) **Statewide Wind Overlay Zones***—Under this policy, the state would engage in a yearlong process with stakeholders to develop a set of zones to guide where wind can be sited. Red zones would indicate areas that are off-limits for wind; green zones would indicate areas that are acceptable for wind and eligible for expedited permitting; and yellow zones would indicate areas that are possible wind sites, but would require two years of additional environmental impact studies before permits could be issued. Overlay zones would be developed for both terrestrial and offshore wind. Environmental impacts would be carefully considered in designating red, green and yellow zones.

*d) **Study of Public-Owned Land Sites***— Under this policy, the state would spearhead a study of publicly owned lands (federal, state, and local). The study would be used to establish a portfolio of sites that are pre-approved for wind development.

II. Additional Financial Incentives

*a) **No Additional Incentives (status quo)***— This option would provide no additional incentives on top of the RPS. The RPS itself requires utilities and other suppliers to purchase renewable energy resources or renewable energy credits, at the going rates.

*b) **Financial Kicker***— This option would add a fixed amount of cents per kilowatt-hour generated to the market price of wind energy for a fixed period of time. It would therefore provide an additional financial incentive for developers to construct wind farms.

*c) **Long-Term Contracting***—This option would require utilities to enter into long-term contracts (e.g. 10-20 years) for purchasing wind output, to help stabilize wind energy prices and facilitate

the financing of new wind farms. Utilities would be required to solicit proposals from wind energy developers, and then sign long-term contracts for selected projects.

III. Transmission Cost Allocation

Note: all of the transmission lines that would connect our windy areas to our population centers would fall within our state boundaries. Therefore, we have the legal authority to approve any of the following transmission cost allocation alternatives without seeking federal approval.

a) First User Pays (status quo) – Under the existing policy, the first wind developer in a previously unserved location is required to pay the entire cost of new transmission lines, as well as other associated costs.

b) Merchant Transmission/Open Season—Under this policy, independent merchant transmission owners would be allowed to develop transmission projects to connect windy areas to population centers. The transmission owner would put out an RFP to potentially interested wind developers who would share in the cost of the new transmission.

c) Socialized Transmission Cost— Under this policy, the state would pay for the entire cost of connecting windy areas to population centers, and then “socialize” these costs by distributing them among all utility ratepayers in the state.

The Windy State Policy Game

Confidential Instructions from the Governor to the Lt. Governor

We are facing a very tough election next year, and our failure to remove the perceived bottlenecks for wind development in our state could be viewed as a failure of leadership – potentially jeopardizing our reelection. I have high hopes that this Commission will successfully develop consensus recommendations. Although we do have definite preferences on some of the issues as specified below, your primary marching order is to help broker a deal that the other four commission members can live with, wherever possible.

Siting

My first preference is **Option A: State Preemption**, as this will give us the ability to issue permits if local governments unnecessarily delay siting decisions. I imagine local governments will oppose this idea, however. I'm not wed to the 6 months - if a somewhat longer time horizon gets others on board, that's fine with me.

Option C: State Overlay Zones also has appeal, since it could avoid wrangling over sites that are not likely to ever get permitted, while funneling development into more acceptable areas. We would also be willing to spearhead **Option D: Public Lands Study**, as this would show leadership by example, even though we expect the vast majority of wind development to occur on private lands. We could also support **Option B: Model Local Wind Ordinances**, but I would be concerned if they were used as a barrier to wind development by putting up unreasonable roadblocks, such as requiring multi-year environmental studies for all sites or overly stringent setback requirements or noise thresholds.

In summary, I think that State Preemption might have the greatest impact. The Overlay Zones and Public Lands Study seem like good ideas in their own right, and we could support Model Local Wind Ordinances if they weren't overly restrictive. Remember that these options are not mutually exclusive—we could support all of them together under the right conditions.

Financial Incentives

I've just heard too much complaining from developers to believe that the status quo **Option A: No Additional Incentives** is going to cut it. My first choice is **Option C: Long-Term Contracting** with utilities, as this should give wind developers the certainty that they need to finance their projects. I also like that requiring a competitive solicitation will set a market price, and hopefully help to keep prices in check. I can support any time period in the 10-20 year timeframe.

Option B: Financial Kicker makes me much more nervous than requiring long-term contracting, as it could more easily be labeled as raising utility rates or worse. That said, if others agree to it,

I could probably support some type of financial kicker as long as it is relatively small and time-constrained (i.e. doesn't end up being a big political target on my back).

Transmission Cost Allocation

My first preference is **Option B: Merchant Transmission/Open Season**, as, again, using market mechanisms to set prices and allocate costs makes sharing costs more politically palatable. I worry that **Option A: First User Pays** will simply result in not getting the necessary transmission built, since it lays all the transmission costs on the first developer into a windy area. **Option C: Socialized Transmission Costs** is my second choice, and has been used successfully in states like Texas, but I fear that it might cause complaints from citizens and businesses who aren't direct beneficiaries of the new wind developments. This approach might be more palatable if wind developers using the transmission lines paid back at least some of the money over time.

I know I can count on you to represent the State's interests, and to broker a deal that will unleash wind development in our state and also assist us in our bid for reelection.

A summary of our preferences on each issue is below:

Issue/Options	Preferences (1 = First Choice)
1) Siting	
A) State Preemption	1
B) Local Ordinances	4
C) Overlay Zones	2
D) Public Lands Study	3
2) Financial Incentives	
A) Status Quo	3
B) Financial Kicker	2
C) Long-Term Contracts	1
3) Transmission Cost Allocation	
A) First User Pays	3
B) Merchant Transmission/Open Season	1
C) Socialized to All State Ratepayers	2

The Windy State Policy Game

Confidential Instructions to Association of Rural Counties and Towns Representative

While we are open to wind development in our rural counties and towns as a form of economic development, we are very protective of our local rights to determine where and under what conditions wind is sited in our communities. Our Association has had several meetings to discuss the various options laid out by the Governor's cabinet, and we have put together the following marching orders to help guide you during the Commission's deliberations.

Siting

We can't stand **Option A: State Preemption**. We don't want the State hovering over our shoulders, or preempting our local land use planning authority. So you are free to make clear that we cannot live with this option. The only way that we could even consider this is if we get virtually everything else we want in these negotiations, and if preemption didn't kick in for a much longer timeframe (e.g. 3 years).

Our first choice is **Option B: Model Local Wind Ordinances**. We think it's reasonable and would be helpful to have model ordinances that our counties and towns could readily adapt and adopt, and that clearly protect local rights while providing more clarity to potential developers. That said, we need to make sure that we take the lead on this effort and develop ordinances that adequately protect our citizens and businesses — this can't be a Trojan Horse for wind developers to essentially sneak by our high local standards.

Our second choice is **Option D: Study of Publicly Owned Lands**, as long as the state foots the bill for the study. We would also need to have major input on any federal/state lands that are located in our rural counties and towns, as well as final say over any lands owned by local governments. We really don't like **Option C: Statewide Overlay Zones**, because we fear that this is a backdoor way to essentially get state preemption over local sites. Perhaps if we were deeply involved in developing the overlays and assured that lands would neither be pre-approved nor put off limits without our blessing, we might be willing to discuss this.

Financial Incentives

This issue is nowhere near as important to us as the siting issues. Nonetheless, our first choice would be **Option A: Status Quo**, as it's not clear to us why, with an RPS already in place that requires an increasing amount of new renewables every year, we need to be providing wind developers with additional financial incentives. One concern that we have with financial incentives is that if wind is developed based on those incentives, and the incentives are removed some day, we could be stuck with abandoned wind farms in our jurisdictions.

That said, we are interested in wind development as a way of boosting our local economies, and if others believe additional financial incentives are absolutely necessary we are open to discussing this. (After all, it will likely be the ratepayers in our state's urban areas who will be the main recipients of the wind energy and associated rate impacts.) If the Committee goes down this road, we could probably live with either **Option B: Financial Kicker** or **Option C: Long Term Contracting**, although we have a slight preference for Option C because it sounds more stable and less expensive.

Transmission Cost Allocation

We expect wind developers to handsomely compensate local landowners for siting wind on their properties, to contribute to the local tax base, and to provide other financial benefits to local governments. So, we don't want the transmission cost allocation policy to make wind development prohibitively expensive. For these reasons, our first choice is **Option C: Socialized Transmission Costs**, as this would leave wind developers in the best financial position to provide landowners and local governments with compensation.

Along these same lines, **Option B: Merchant Transmission/Open Season** would be our second choice, since the transmission costs would at least likely be shared by multiple wind developers. Our last choice is **Option A: First User Pays**, as this would leave the developers with far less money to offer local compensation.

Remember, we don't want to be viewed as obstructionists, since many of our landowners and local government coffers stand to gain financially from wind development, but we certainly don't want to be viewed as pushovers either. We must remain in control of our destinies.

A summary of our preferences on each issue is below:

Issue/Options	Preferences (1 = First Choice)
1) Siting	
A) State Preemption	Not Really Acceptable
B) Local Ordinances	1
C) Overlay Zones	3
D) Public Lands Study	2
2) Financial Incentives	
A) Status Quo	1
B) Financial Kicker	3
C) Long-Term Contracts	2
3) Transmission Cost Allocation	
A) First User Pays	3

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B) Merchant Transmission/Open Season	2
C) Socialized to All State Ratepayers	1

The Windy State Policy Game

Confidential Instructions to Wind Developer Coalition Representative

Although the members of our coalition often compete with each other for good wind sites and for contracts with utilities and other power suppliers, we are all in favor of reducing the bottlenecks around siting, financing, and transmission that are in our collective way for successful in-state wind development. So, we have come together to attempt to speak with one voice on the Governor's Commission. We have spent quite a bit of time discussing and negotiating among our member wind companies to develop our positions on the options put forward by the Governor's Cabinet. Please read our instructions to you carefully and follow your marching orders closely.

Siting

Our clear first choice on siting is **Option A: State Preemption**. We are tired of being stuck in the purgatory of local siting proceedings, where the rules of the game and timelines for decision-making seem to be constantly shifting. Allowing the state to step in after 6 months to grant us a permit if local governments don't act would certainly light a fire under local jurisdictions to process our requests expeditiously. You should push hard for this option.

We could also get excited about **Option C: Statewide Overlay Zones**, as this could provide us with much greater certainty regarding which areas of the state are open for development, and which are closed for business. If this option goes forward, however, we need to make sure that we have a seat at the table. We also need to ensure that the criteria used to place certain areas off-limits are not dictated by the fringe environmentalists or citizens who seem to oppose wind farms anywhere and at any time.

We could also support **Option D: Public Lands Study**, since this probably couldn't hurt and the possibility of pre-approving a significant amount of developable sites on public lands could be beneficial. Still, let's not take our eye off the big enchilada, given that the majority of windy sites in this state are located on private land – hence why Option A is so important to us. If Option D goes forward, we would want to be directly involved, to make sure this isn't used as a tool for putting lots of land permanently off-limits. We must also argue that the public lands study should include the potential offshore sites in public waters.

Option B: Model Local Wind Ordinances gives us the greatest pause. We fear it will be used to put up too many hurdles in terms of overly restrictive setback and noise requirements, onerous environmental study requirements, and unreasonably long review timeframes. On the other hand, having more uniform permitting requirements and timeframes across the state certainly has merit. If we can get agreement up front that the goal will be to develop "reasonable" requirements and timeframes, and that we will be considered a full partner in developing the models, we may be able to support this too.

Financial Incentives

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Option A: Status Quo just won't cut it. Given the relatively low price of natural gas and the suppressed prices of Renewable Energy Credits, it's just not sufficiently profitable for us to consider building wind in this state. Without greater financial certainty, we can't get our projects financed. We would like to have both **Option B: Financial Kicker** and **Option C: Long Term Contracts** put in place. Together, they would likely ensure the profitability and financeability of our prospective wind developments.

If forced to choose between B and C, we would probably prefer Option B: Financial Kicker over the Long Term Contracting requirement, as long as we can get a reasonable cents/kwh incentive over a sufficiently long timeframe (for example, 5 cents/kwh over 20 years). We prefer this because a long-term contract based on a competitively bid RFP has both the uncertainty that our project won't be picked as well as competitive pressures to reduce our prices. However, if we aren't going to get good terms on the Financial Kicker, long-term contracting would certainly be an improvement over the status quo — and the longer the time frame the better, with 20 years being ideal.

Transmission Cost Allocation

This is another big issue for us. The status quo **Option A: First User Pays** perpetuates the chicken and the egg conundrum we currently face, where the first wind developer into a new area has to shoulder the entire incremental transmission costs. This can be prohibitively expensive, and doesn't seem fair if future wind developers later get access to that transmission at much lower cost (i.e. the cost to interconnect to the now existing lines).

Our clear first choice is **Option C: Socialized to All Ratepayers**. In this state, where the population centers tend to be far from the windy areas and transmission costs can be expensive, socializing the transmission costs to all ratepayers in the state will make our wind farms more cost competitive with other energy sources, and likely make our investments more profitable. If we can't get our first choice, then **Option B: Merchant Transmission/Open Season** could work. This option would at least create a vehicle to spread the costs over multiple potential wind developers.

Another alternative we could put on the table, as a variation of Option C, would be to socialize the cost of new transmission to all ratepayers initially, but to have developers pay back some of those costs as the transmission lines come in-service. We should only introduce this if we can't get fully socialized transmission costs. Even then, we should look for a cost-share, if possible.

Good luck in the negotiations. Hang tough - our businesses depend on it.

A summary of our positions on the various issues is below:

Issue/Options	Preferences (1 = First Choice)
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1) Siting	
A) State Preemption	1
B) Local Ordinances	4
C) Overlay Zones	2
D) Public Lands Study	3
2) Financial Incentives	
A) Status Quo	3
B) Financial Kicker	1
C) Long-Term Contracts	2
3) Transmission Cost Allocation	
A) First User Pays	3
B) Merchant Transmission/Open Season	2
C) Socialized to All State Ratepayers	1

The Windy State Policy Game

Confidential Instructions to Environmental Coalition Representative

Our members run the gamut from environmental organizations that feel strongly that wind is an essential ingredient for combating global climate change and should be enthusiastically supported, to environmental groups that worry that wind farms can undermine the visual beauty of our state and adversely impact our flora and fauna. Although this is a broad coalition of environmental groups, we have only been given one seat on the Governor's Commission – so we must make the best of it. Representatives of our member organizations have met numerous times over the last few weeks to develop unified positions on all the options put forward by the Governor's Cabinet. It wasn't easy, but we eventually reached internal consensus among all the environmental organizations on the following priorities and positions. Please read these instructions carefully, and follow them closely.

Siting

Our clear first choice is **Option C: Statewide Wind Overlay Zones**. This option will allow us as a state reach agreement on what areas are off-limits or in-bounds for wind development, and to hopefully avoid the acrimonious bickering that currently comes with each new wind proposal. The zones could protect both sensitive and valuable environmental habitats, as well as important viewsheds, from wind development. We are aware that both the state of Maine and the U.S. military in California have used similar processes successfully. Of course, our members would want to be actively involved in developing these overlay zones.

We would also be very supportive of **Option D: Public Lands Study**, as this would likely just be a mini-version of the Overlay Zones for the whole state, and would help put valuable environmental assets on public lands and waters off-limits, while identifying sites that are good for development. We could probably also support **Option B: Model Local Ordinances**. We believe that if done correctly, this option could facilitate wind development by having a clear and transparent process that is more uniform from jurisdiction to jurisdiction, while also including clear environmental assessment, protection, and mitigation guidelines.

On **Option A: State Siting Preemption**, our coalition is frankly split. Our organizations that are the most supportive of aggressive wind development think this is a great idea, since it would speed up permitting and avoid projects getting tied up in local red tape. However, some of our organizations worry that in the state's enthusiasm for wind development, preemption could run roughshod over important environmental considerations, such as preserving significant viewsheds. We agreed that we would not push for this option, but that we could probably support it if the Overlay Zones and Public Lands Study were agreed to and implemented first, as this would set aside the most sensitive environmental lands.

Financial Incentives

Although we have wide ranging opinions on this issue, with some members willing to support substantial additional incentives and others not wanting to provide any additional incentives at all, we ultimately agreed on the following prioritization. Our first choice is **Option C: Long Term Contracts**, as this would seem to provide wind developers with the assurances they need to finance their projects, without undue subsidization. Our second choice is **Option B: Financial kicker**, as long as the incentives seem reasonable and the timeframe isn't excessive (e.g. 2-4 cents/kwh for 15 years or less would be acceptable to our coalition). Although, as stated, some of our members are okay with **Option A: Status Quo** (no additional financial incentives), we agreed that this is our last choice of the three offered.

Transmission Cost Allocation

We also had a lot of debate on this issue within our Coalition, with those most supportive of wind wanting to socialize transmission costs among all ratepayers, and those most nervous about unfettered wind development wanting the first developer to cover all the costs. We ultimately agreed that our first choice is **Option B: Merchant Transmission/Open Season**, as a middle path, since it would spread costs more broadly among wind developers.

Our second choice would be **Option C: Socialized Cost**, but with an important caveat: we could live with ratepayers essentially fronting the money for transmission, but we think that over time wind developers who use the new transmission lines should be required to pay ratepayers back. We're somewhat flexible on how that's accomplished, but would want agreement on that principle among all the Commission members. **Option A: First User Pays** is our last choice, since we're convinced that this will likely make it prohibitively expensive to develop wind and it doesn't seem fair that the first developer into a windy region should shoulder all the transmission costs.

Keep in mind that as a broad-based coalition with substantial diversity of opinion across our member organizations, our positions are delicately balanced and don't have much wiggle room beyond what's described above. Good luck!

A summary of our preferences on each issue is below:

Issue/Options	Preferences (1 = First Choice)
1) Siting	
A) State Preemption	Coalition Split
B) Local Ordinances	3
C) Overlay Zones	1
D) Public Lands Study	2
2) Financial Incentives	

A) Status Quo	3
B) Financial Kicker	2
C) Long-Term Contracts	1
3) Transmission Cost Allocation	
A) First User Pays	3
B) Merchant Transmission/Open Season	1
C) Socialized to All State Ratepayers	2

The Windy State Policy Game

Confidential Instructions to Large Consumer Coalition Representative

We are a coalition of large commercial and industrial energy customers located across the state. Our primary concern is to keep our utility rates as low as possible. While we originally opposed the state's Renewable Portfolio Standard (since renewable resources, even wind, still cost more than existing fossil fuel based electricity), it's now the law and we must live with it. However, we are interested in making sure that the RPS is implemented in the most cost-effective way possible. We have spent many hours discussing the various options put forward by the Governor's Cabinet, and have come to agreement about our positions. Please read your marching orders carefully and follow them closely.

Siting

As active members in our local communities and Chambers of Commerce, we are philosophically not very supportive of **Option A: State Preemption**, and hence this is our last siting-related choice. Conversely, our first choice is **Option B: Model Local Ordinances**, which could maintain local control while putting in place clearer and more consistent permitting processes and procedures across the state.

Our second choice is **Option C: Statewide Wind Overlay Zones**. We feel that overlay zones that put some lands off limits while pre-approving others for development seem like a reasonable and fair way to proceed. We could also support **Option D: Public Lands Study**, as this seems to us to be the same thing as Option B, but focused on public lands and waters rather than private lands. If wind is going to be our least expensive way to meet RPS requirements, we don't want to make it unnecessarily expensive by setting up onerous and costly review and approval processes.

Financial Incentives

Utilities and other energy suppliers already pay a premium for wind and other renewable resources, above-and-beyond the cost of existing fossil fuel generated electricity, to comply with RPS requirements. So, we don't think ratepayers should have to pay any additional premium for wind. Therefore, our clear first choice is **Option A: Status Quo** (no additional financial incentives). If developers can't make a go of wind farms without additional financial incentives and the RPS requirements aren't met, that's fine with us — maybe the RPS targets should then be ramped down.

That said, we do understand that wind developers may need long-term contracts with utilities and other energy suppliers to get financing, so we could potentially support **Option C: Long-Term Contracting**; however, we would need some protections. First, we'd need to be assured that any long-term contract was not sole-sourced, but subject to a competitive bidding process.

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Second, since the price is still likely to be above market, we think “long-term” should be defined as 10-15 years, rather than the 20-30 years we’ve heard some are advocating for. Lastly, we’d still prefer to see some cap on the price and price escalation, but as long as there’s a robust competitive bid and time period that’s not too long, we could probably back off of requiring a “cap”.

Our clear last choice is **Option B: Financial Kicker**, since we think paying a flat kicker for a long period of time to any wind developer that walks in the door is way too risky. If, however, it was a very small amount (e.g. 1-2 cents/kwh) over a very short time period (e.g. 5 years or less), we might entertain it as part of an overall package in which we were getting what we wanted on other issues.

Transmission Cost Allocation

We find **Option C: Socialized Transmission Cost** to be totally unacceptable. By socializing the cost to all ratepayers we are hiding the true cost of developing wind in our state and making it look artificially cheap. Also, as large users we don’t want to foot the bill for transmission lines without any guarantees that wind farms will actually be developed on the other end.

Our first choice here is **Option A: First User Pays** for transmission. This option puts the transmission cost squarely where it should be: on the wind developer. **Option B: Merchant Transmission/Open Season**, we don’t fully understand. However, if the point of this approach is to spread the transmission costs over a wider range of potential wind developers, and customers aren’t left footing the transmission bill if wind developments don’t materialize, we could probably support it.

We’ve also heard rumors that some stakeholders may propose a modified version of Option C: Socialized Transmission Cost, whereby ratepayers front the money for the transmission lines and wind developers pay them back over time. We would only be able to entertain something like that if we can be guaranteed that virtually all of the costs would be paid back by the wind developers - with interest! Still, if no wind developers actually show up we’re left holding the bag for the entire cost of the “transmission-to-nowhere.”

This information should help you navigate the Commission negotiations. Remember, the bottom line for our commercial and industrial customers is to minimize rate impacts.

A summary of our preferences on each issue is below:

Issue/Options	Preferences (1 = First Choice)
1) Siting	

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A) State Preemption	4
B) Local Ordinances	1
C) Overlay Zones	2
D) Public Lands Study	3
2) Financial Incentives	
A) Status Quo	1
B) Financial Kicker	3
C) Long-Term Contracts	2
3) Transmission Cost Allocation	
A) First User Pays	1
B) Merchant Transmission/Open Season	2
C) Socialized to All State Ratepayers	Unacceptable without changes

III. Appendix D – Participant List

Megan Amsler Self-Reliance Falmouth, MA	Joan Bell City Of Melrose Melrose, MA	Tim Conboy Acciona Energy Queensbury, NY
Liz Argo Cape and Islands Wind Information and Cape and Vineyard Electric Cooperative Orleans, MA	Glen Berkowitz Beaufort Windpower LLC Boston, MA	Elizabeth Coughlin Town of Tyngsborough Tyngsborough, MA
Maria Arsenova IFC Washington, DC	Angie Bezik Principle Advantage Virginia Beach, VA	Henrietta Davis City of Cambridge Cambridge, MA
Eva Balasova MIT Massachusetts Institute of Technology Cambridge, MA	Michelle Bissonnette HDR Minneapolis, MN	Nicholas Doss Public Utilities Commission of Ohio - Ohio Power Siting Board Columbus, OH
Kate Barba Dept of Commerce - Nat'l Oceanic and Atmospheric Administration Silver Spring, MD	Anna Blumkin Executive Office of Energy and Environmental Affairs Boston, MA	Margaret Downey Cape Light Compact/Cape & Vineyard Electric Cooperative Barnstable, MA
Stephen Barrett Harris Miller Miller & Hanson, Inc. / Minuteman Wind Burlington, MA	Christie Bradway Northeast Utilities Berlin, CT	Evan Dube MA Clean Energy Center Boston, MA
Daniel Bartkus Woods Of Westminster Golf Course Westminster, MA	Jeff Broadhead Washington County Regional Planning Council Wakefield, RI	Ozlem Durmus Cornell University Ithaca, NY
John Beling Vermont Department of Public Service Montpelier, VT	Andy Brydges MA Clean Energy Center Boston, MA	Michael Easton Volkswind USA Lexington, MA
	Todd Christy Chilmark Planning Board Chilmark, MA	Jeanne Elias State of Vermont Department of Public Service Montpelier, VT
	Sandy Cohen Peninsula Power Blue Hill, ME	

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N.H. Public Utilities
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Concord, NH

Julie Falkner
Defenders of Wildlife
Washington, DC

Iram Farooq
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Cambridge, MA

Richard Fisher
Mass Wind LLC
Beverly, MA

Rose Forbes
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Christine Forster
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Emergent
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Kevin Gould
Conover and Company
Communications
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Danni Goulet
Rhode Island Coastal
Resources Management
Council

Wakefield, RI

Joseph J. Graham
BlueSkyWind, LLC
White Plains, NY

Drew Grande
Sierra Club
Boston, MA

Bob Halpin
MA Smart Grid Innovators
Collaborative
Concord, MA

Pam Harty
Hingham Energy Action
Committee
Hingham, MA

Barbara Hill
Clean Power Now
Hyannis, MA

Samantha Horn Olsen
Maine Land Use
Regulation Commission
Augusta, ME

Kellen Ingalls
Northeast Wind
Waterbury Center, VT

Tudor Ingersoll
New Generation Wind LLC
Buzzards Bay, MA

Daniel Ingold
Powersmith Farm, Inc
Guilford, VT

Sue Jones
Maine Wind Working
Group
Freeport, ME

Patrick Kealy
FloDesign Wind Turbine
Waltham, MA

Chris Kearns
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Beverly, MA

Richard Kleiman
Early Bird Power
Milton, MA

Andrew Kostrzewa
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Cranston, RI

Adam Lachman
Island Energy Task Force
Vinalhaven, ME

Cara Lee
The Nature Conservancy
Sag Harbor, NY

James Liedell
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Yarmouth Port, MA

Karina Lutz
People's Power & Light
Providence, RI

Mark Lyons
Iberdrola Renewables
Deep River, CT

Paul Makris
Ameresco
Framingham, MA

Eugenia Marks
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Smithfield, RI

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Conservation Sciences
Manomet, MA

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III. Appendix E – Evaluations Summary

**Facilitating Wind Energy Siting Workshop
March 23-25, 2011
Summary of Evaluation Forms**

1) How would you evaluate the overall training (scale of 1-8)?

<i>Ranking</i>	<i>Number of Responses</i>
Excellent (8)	18
Excellent (7)	24
Good (6)	8
Good (5)	0
Satisfactory (4)	0
Satisfactory (3)	0
Unsatisfactory (2)	0
Unsatisfactory (1)	0

2) How would you evaluate the trainers?

Excellent	Good	Satisfactory	Unsatisfactory
47	8		

Comments:

- ⤴ I think the Workshop was very well planned and executed. The presentations were very informative.
- ⤴ Larry Susskind was eloquent and engaging as usual. The experienced professionals (facilitators and other experts of interest) were also very good.
- ⤴ Knowledgeable, listened well, well organized
- ⤴ Larry Susskind was a resource beyond assigning a value to. Thanks!
- ⤴ Larry Susskind made the event. Great comments and very insightful.
- ⤴ Very well designed, coordinated, and presented
- ⤴ Well prepped, Knowledgeable, informative, helpful
- ⤴ Great group of attendees to learn from
- ⤴ I would like to thank Mr. Raab for a great training program!
- ⤴ Susskind and Raab were great. Great Gerry Seinfeld impersonation by Raab
- ⤴ Very engaged, very helpful
- ⤴ Very good – real life examples were most helpful
- ⤴ Very engaging kept people involved
- ⤴ Excellent discussions clear distinction of issues and strategies for dealing with them. And very relevant exercises
- ⤴ There is a good content, perhaps include some short exercises to learn more about cases

- ⤴ Good variety of topics and speakers
- ⤴ Larry Susskind was truly outstanding – Jonathan Raab was also excellent but sometimes did not stand closely enough to the mike, so all words could not be heard. Most other speakers were good.
- ⤴ Experienced, generic/agnostic with the topic on one hand yet familiarity with chosen topic
- ⤴ Good mix of background in presentations
- ⤴ I especially appreciated Dr. Susskind's wisdom
- ⤴ CBI Excellent – Non-CBI Hit or Miss
- ⤴ All outstanding and well prepared. Maybe some could have done better making the connection between their experience and the “big idea” put out by Larry and Jonathan
- ⤴ Top drawer – personable, clear, humble
- ⤴ A great mix of practical based approach methods with a series of theory that was informed and relevant
- ⤴ I did not get to attend day two but got a lot out of even just day one and three
- ⤴ The training was well balances as it looked at both key issues that different stakeholders face in the wind development process as well as how to negotiate consensus around those issues
- ⤴ Sound very experienced
- ⤴ Very valuable discussions, especially given the broad range of attendees (more of an overall comment)
- ⤴ Professor Susskind and Jonathan Raab are excellent. Although, practical application matters, theoretical underlying framework is good to have. Appreciated Q&A sessions

3) How would you evaluate the overall content?

Excellent	Good	Satisfactory	Unsatisfactory
36	17		

Comments:

- ⤴ I have already put lessons learned into practice. Thanks!
- ⤴ I would have benefitted from even more time in mock negotiations.
- ⤴ Great mix of participant interactive activity and presentations. Nice mix of issues, strategies/nuances in stakeholder engagement. Participant mix/affiliation was spot on appropriate.
- ⤴ Function of time, just not enough of it
- ⤴ I didn't get the sense that the group knows everything a developer does to get projects built; perhaps adding a wind 101 session that explains wind, transmission, local permitting, ENU permits, Power marketing, financing, etc. would help people understand that the local issue is only one part of the process
- ⤴ Effective mix of theory and practice
- ⤴ Was there too much emphasis on “them” - on opposition rather than generating clarity and shared understanding.
- ⤴ I think the program should include training information for technical mediation and FERC mediation resources to tie in the pre-class literature
- ⤴ It was a good program. It would help giving some basic background on noise or view to

- better understand the problem. Relationship dB with Hz or limits to visibility and zoning
- ✧ Excellent adaptation of the process to wind
- ✧ More time for a deeper dive into acoustics would have been helpful. I think there is the least amount of technical understanding in this area. And more could have been done to bring local decision makers up that technical learning curve.
- ✧ The closing exercise made realize I need to know more background on both financing arrangements and transmission arrangements. This could be another course, another day, or package of reading materials
- ✧ Interesting group of attendees
- ✧ Every moment of the meeting was worthwhile, and much of the provided specific information and approaches that I can (and will) put to use in my renewable energy activities
- ✧ Great cross-section of people and topics selected
- ✧ Good focus on key issues
- ✧ Could have included a case study from the citizens perspective
- ✧ One subject that was missing was some discussion or introduction to flicker as an impact. The background discussion on “what is noise” moved a little to quickly and could have given much better insight into sound vs. intensity
- ✧ Wish we'd confronted impossibly resistant participants (NIMBY)
- ✧ Thorough and relevant
- ✧ More focus on the particular application of concepts would be nice
- ✧ Some essential problems with process workability in real world – a little too dismissive of those obstacles/ facets
- ✧ I work in developing countries context, so didn't know US policy/context that well. Sometimes had a hard time following

4) How would you evaluate the training material?

Excellent	Good	Satisfactory	Unsatisfactory
29	14	5	

Comments:

- ✧ Haven't reviewed all of the. What was build into the training was useful.
- ✧ I like the build up, from theory to execution.
- ✧ The combination of Powerpoint slides and a paper-based information made it easy to follow along...and re-review at home.
- ✧ Case studies were great.
- ✧ Very relevant games and made you think.
- ✧ Participant exercises were well written and calibrated to elicit reasonable results for a group while pointing to just how difficult it COULD be in a real situation.
- ✧ Well designed simulations and games
- ✧ Some presentations were missing from the materials
- ✧ Good information to take with us as a reference too
- ✧ Some articles not in binder
- ✧ Simulations are a fine tool and both help advanced skills and render the session participants accountable

- ⤴ Hand-outs too small – quality hard to read. Website useful
- ⤴ More “personality focused” advice about negotiations
- ⤴ Some of the copies were difficult to read and if the pictures had color they would have been of some use.
- ⤴ A few presentations not available until later, scenarios were good
- ⤴ It's quite dense with many issues and there is not enough time to thoroughly discuss the issue.
- ⤴ Well-developed exercises that illustrated the relevant issues. Dollar figures used in some examples were a bit skewed. For instance community benefit payments in first exercise would be more realistic at an order of magnitude smaller 0-50k rather than 0 – 500k
- ⤴ It would help to give more time to read the role the night before so we could prepare better for discussions
- ⤴ It was very helpful to provide the power point summaries of the talks and I look forward to getting a copy of Abby Arnold's summary, which was not provided. I understand it will be on website for the course. (How long will you keep the website up?)
- ⤴ Graphics reproduction of most power point images should retain full-color or be planned with more care so as to be designed to survive great reduction and conversion to black and white
- ⤴ Some pre-training reading may have been helpful for some
- ⤴ I liked the role playing situations
- ⤴ Some better than others
- ⤴ Binder missing portions – black & white copies not of quality it should be
- ⤴ Some of the PPT reproductions did not copy very well – a few in particular were very informative and might have been worth printing full size.
- ⤴ ALL
- ⤴ Very effective exercises. Simulated real life situations and allowed people to better understand how to handle opposing position
- ⤴ Binder missing a few handouts
- ⤴ Not enough time to read for us slow readers
- ⤴ Nicely done case studies. But I wish the last case was not about policy, but rather negotiating initial stakeholder meeting around environmental visual assessment

5) What portion of the program did you like most and why?

- ⤴ The interactive session with the other attendees. Excellent!
- ⤴ The exercises because we actually put the concepts into practice.
- ⤴ Loved the visual impact segment, the Vinal Haven example and the large policy example (Abby Arnold) also enjoyed the Larry segments.
- ⤴ The exercises (mock negotiations) were terrific.
- ⤴ The role-playing because it was interactive.
- ⤴ Simulations! Good to implement what we learned and then debrief
- ⤴ The credible facts problem
- ⤴ Larry's presentation, Friday role playing – great for different learning styles
- ⤴ Mutual gains lecture – very well presented + JFF activity – great thought exercise
- ⤴ Windy State policy game. It was interesting to see the group dynamics
- ⤴ Breakout groups. The exercises helped me understand the importance of evaluating

others' interests.

- ⤴ Both presentations and participant/group exercises. I did not stay for the strategy/clinic activity as I am not directly involved in siting projects
- ⤴ Role playing game – helped see all sides understand how important it is to have everyone at the table
- ⤴ Half day negotiation
- ⤴ Group exercises – mutual gains
- ⤴ Interaction with participants and speakers
- ⤴ Simulations and day 1 lectures
- ⤴ Larry. Game Experience. Also landscape architect
- ⤴ The role-playing simulations were very helpful and also very enjoyable to put what we learned into practice.
- ⤴ Mr. Susskind creative response to question from opponents
- ⤴ Susskind and Raabs' presentations
- ⤴ Exercises and cape wind visual simulation poll
- ⤴ Discussions about the theory behind the examples
- ⤴ Case studies – good pace, well organized overall
- ⤴ The presentation then exercise format
- ⤴ Table and group discussions – problem solving
- ⤴ Exercise and discussions
- ⤴ The exercise at the end
- ⤴ Larry's talks and Friday's case discussion
- ⤴ Both the interactive exercises and talks by Larry and Jonathan about the process and their experience were very valuable.
- ⤴ Scenario with stakeholders and playing with different roles about siting wind energy projects
- ⤴ I liked it all
- ⤴ Larry Susskind intro and general input
- ⤴ Question and answer section was informative
- ⤴ Interacting with a variety of professionals involved in the wind industry
- ⤴ Role/Situation exercises
- ⤴ Stakeholder engagement discussions
- ⤴ Presentations by Larry Susskind
- ⤴ Case studies/discussions
- ⤴ The noise problem (panel and discussion)
- ⤴ The credible facts problem
- ⤴ Liked academics, the concepts behind trying to reach consensus as well in the interaction of such a broad cross-section of interests
- ⤴ Larry Susskind
- ⤴ Panel discussions particularly Q&A
- ⤴ I thought the negotiation exercises were great and presentations were all good.
- ⤴ Exercises and follow up clinic – allowed for meaningful interaction of participants using methods discussed
- ⤴ Five person exercise on day three – ability to find common interests as opposed to one on one negotiation
- ⤴ I enjoyed applying the tools we learned in the interactive workshops

- ⤴ The games
- ⤴ I liked the mix of content delivery and exercises – good cross section of participants
- ⤴ Room and table format was good – analysis of collaborative process is very useful to structure implementation and priorities for optimization of project delivery – diversity of participants was excellent
- ⤴ The negotiation session was very useful because we had the Rotterdam (part of) group with us
- ⤴ Collaborative exercises helped to flesh out the discussions and ideas
- ⤴ Exercises -
- ⤴ Effective stakeholder engagement and negotiation – great theoretical introduction
- ⤴ Visual/noise ppt useful discussion of key issues practical exercises – all of them
- ⤴ Exercises for two and five party negotiations

6) What portion of the program did you like least and why?

- ⤴ The last segment on Thursday dragged and the segments we did exercises where each table the reported back ended up being too much
- ⤴ Parking
- ⤴ While I learned a bunch, it was interesting that noise and visual impacts were selected as key technical issues. Enabling self-selection to a range of issues/presentations where issues are pre-identified by participants might have resulted in more intensive exchange/sharing. But this is minor.
- ⤴ Visual/sound were boring and kind of basic (also seen half of it already)
- ⤴ Sharing the benefits locally problem: didn't seem as applicable
- ⤴ Group discussions that didn't stay on topic
- ⤴ 3 days long is too long to be out of the office for me. I understand if condensed version for both sides (proponents + opponents) would have been ore efficient, or one of the “lessons learned” + “What works approaches.” I don't mean to simplify all of this but because both sides were present in the room, of few of us hesitated to ask the questions we wanted to ask.
- ⤴ Lunch time too slow
- ⤴ Would like to ensure all case studies are from success stories – unlike the first wind presentation
- ⤴ I can't think of one
- ⤴ The noise discussion would have been more helpful if we had gone through the basics more slowly
- ⤴ Seeming dismissal of NIMBY influence on process
- ⤴ Some presentations were long and should focus rather than providing too much comments
- ⤴ Portions that were repeated from the Maromet conference, because I'd heard them before. With is not to say that they weren't useful
- ⤴ There were no problems with the program
- ⤴ I liked it all
- ⤴ All were beneficial
- ⤴ All of it was good
- ⤴ Presentations by wind developers not balanced with the citizen's perspective and no

opportunity to rebut or ground truth of what was said

- ✧ None really
- ✧ N/A
- ✧ There was no component that I didn't find useful
- ✧ Some of PPT were boring (Visual impact of the Vinyard)
- ✧ The report-out portion was a bit too prolonged
- ✧ Parking
- ✧ Q&A too short and dismissive
- ✧ Sharing benefits evenly – wanted to hear more in depth examples. eg. Formulas for channeling benefits/legislated company established, short term vs. long term benefits, packages community funds – how may work, what is the role of the companies vis-à-vis others, etc.

7) How could we improve the training?

- ✧ It was very good. The noise expert was a bit too technical for me to follow but had a lot to offer. The case studies generally were good to hear and have some back and forth about
- ✧ Two simulations, so we can implement lessons learned from the first try
- ✧ More actual examples that didn't work and how they could have been handled better
- ✧ Would be interesting to hear how participants' thinking was changed by the experience.
- ✧ More environmental groups with different perspectives
- ✧ More mention of failed projects and why
- ✧ Adding one or two more sample negotiations.
- ✧ Can't improve! It was excellent.
- ✧ Might not need all tables to report each time
- ✧ One more day
- ✧ More games
- ✧ For 100 plus people, have a few break out rooms, have folks self-select to hear expert presentations or pre-selected topics and smaller group discussion - may result in more impact/exchange. Facilitated by Raab, CBI folks.
- ✧ Maybe some one on one with Larry and John
- ✧ More collaboration
- ✧ Provide examples of processes that did not work and why – and then what might have made a difference
- ✧ Some more discussion of dealing with challenging people
- ✧ Providing more basic reading material eg. The examples of Fox Island and other that can give background data for those out of the state not familiar with the problem
- ✧ You need social media, need outlets at each table so people can sue their computers, encourage computer usage and introduce every one of the trainers and attendees electronically
- ✧ I thought the acoustics of this room were very poor. Would try to find a better location. Also, some deeper dives into technical information – acoustics operational mitigation, optics
- ✧ Some more focus on siting of distributed generation wind projects that are single sited town or private projects that are 100kw, 275kw, 750kw and 1.5-65 MW projects
- ✧ Another day on financing, and transmission issues

- ✧ By finding more time for small groups (not to exceed 10-15 persons) to interact with your professional conflict resolution staff
- ✧ By instituting a powerful continuing contact process for your “alums”
- ✧ No suggestions was very well done
- ✧ Maybe provide more success stories and how that related to the processes involved as well as recommendations from the experienced trainers on what they would do to further our wind effort – a panel discussion in front of all of us at the early session
- ✧ Send a stronger message to wind developers of the importance of actually doing stakeholder process
- ✧ More material in advance
- ✧ More hands on, small group engagement with trainers
- ✧ There could be more clarity around some of the tools such as Joint Fact Finding
- ✧ More practical examples of how to implement
- ✧ I thought it was well-paced, good content and demonstration of facilitation tools.
- ✧ Presentation slides simpler – larger – for quick comprehension (all material displayed was not covered anyway) more cartoons
- ✧ Structure interaction between participants more to facilitate breadth and depth of info exchange, networking
- ✧ Send materials ahead of time
- ✧ Bring in more international experiences, send some background materials on the context to those who are not familiar with it

8) Was there anything in the visual aids, exercise materials, binder, or agenda organization that could be improved?

- ✧ Some of the power point presentations (especially regarding process theory) were duplicative of the presentation – not enhancing it, less of one or the other would have been preferable to me.
- ✧ Larger type on name tags
- ✧ The joint fact finding PPT was not in our notebook but would have been really helpful to have as it was pretty detailed presentation
- ✧ Materials were great.
- ✧ PPT were in color but copies were black and white – hard to read graphs etc where color really mattered.
- ✧ Some presenters’ material was not included, but that was minor.
- ✧ Some printed graphics were unclear
- ✧ Quality
- ✧ Yes, clear pictures of the proposed turbines in color
- ✧ Agenda was well organized, binder was helpful but incomplete
- ✧ Make sure to check numbers used – dollar figures for benefits packages can inflate expectations if too high.
- ✧ The agenda is fine. I think more background on exercise material would help
- ✧ Everything was good
- ✧ I would have liked more time for the windy state exercise and would have liked to have the confidential instructions in advance
- ✧ Some of the view-graph slides were not in the original binder
- ✧ Email addresses of everyone send participant list in advance

- ✧ Quality of binder copies
- ✧ Just the quality of some of the PPT slides in binder
- ✧ We'd like the other characters instructions to be available to learn about the big picture
- ✧ An ability to keep this discussion ongoing post conference
- ✧ Incorporating some of the technology that we could use in our negotiations (i.e. iPhone apps, etc). Would have been helpful.
- ✧ Color slides of visual implementation would be nice
- ✧ Materials were fine – the space felt a bit cramped for the size of the group, timing on agenda was good.
- ✧ Would like to have heard recording of noise at Fox Islands – residents who object to help Fox Island noise: unclear validation of complaint. Thank you for the binder.
- ✧ Consolidation of e-documents to keep items on minimum
- ✧ Pages. Wed. agenda was on page 2

9) How did you hear about this raining?

Email	25
Sent by supervisor	1
Jonathan Raab	4
Planning director list serve	1
Local Energy Commission	1
Colleague	9
Renewable Energy.com	1
Peoples Power and Light	1
Kate and Pat	1
Pat Fliermann (TRC)	1
Website – CBI	2
New England Wind Forum email	1

Recommend advertising in industry trade magazines

10) Other Comments?

- ✧ Thank you! It was a treat and stimulating to participate in this learning experience – the food was fabulous
- ✧ Fabulous workshop. Congrats! (Great food appreciated also)
- ✧ Very helpful
- ✧ Thanks!
- ✧ Thanks this was a great opportunity
- ✧ Thank you – what's next
- ✧ Overall I absolutely loved the conference and felt it will be a huge asset to my daily life and hope the ideas presented will spread like wildfire.
- ✧ I hope the information that you have shared with us will become available to the public
- ✧ Great workshop thank you

- ⤴ This was a great opportunity and was only possible for me because there was no registration fee. Thanks!
- ⤴ Proved contact info of attendees
- ⤴ This was a very good workshop given this number of people. I would like to see this message/subject/materials spread to a broader audience.
- ⤴ Pleasure to be involved. Look forward to further interaction/collaboration in the future
- ⤴ It was a great experience to hear cases and to hear comments from other participants
- ⤴ A section on how social media and electronic communication could be used in reaching consensus
- ⤴ It was a great three day event
- ⤴ Experience among participants varied dramatically and posed some interesting conversations but was also a challenge
- ⤴ Follow up. Are any of these wind developers actually going to do stakeholder processes?
- ⤴ When will you do it again?!
- ⤴ Would like to do more of these and do more case based using cases from participants
- ⤴ Thank you for hosting this
- ⤴ Good job, I got a lot out of the workshop. Thanks you.
- ⤴ Would like workshop at more advanced level. Would like less focus on collaborative method, more focus on siting issues, eg. Mid-scale vs. mega scale and site conditions; effectiveness of net metering relocations in enabling mid scale development. And application of method impact of public competitive bid laws on formation of public/private partnership utilizing private capital primarily
- ⤴ Strategy needed for \$ pollution of stakeholder process – strategies need for evening playing field with other forms of energy eg. Why is it so much easier to install a cell tower – strategies needed for better inclusion of disadvantaged groups

III. Appendix F – Blog Posting by Lawrence Susskind and Patrick Field, “Facilitating Wind Energy Siting: A List of ‘Do’s and Don’ts’”

Facilitating Wind Energy Siting: A List of "Do's and Don'ts"

The Consensus Building Institute (CBI) and Raab Associates, Ltd., with support from the U.S. Department of Energy, brought together more than 100 wind developers, state regulators, environmentalists, local officials, and technical experts to share ideas about how to site wind energy facilities.

The *Facilitating Wind Energy Siting* workshop, held at Harvard Law School, Cambridge, Massachusetts in March 2011, enabled advocates, opponents, and experts to engage in three days of constructive discussion about the "right way" and the "wrong way" to go about siting wind energy facilities. Recognizing that it can even be extremely difficult to win approval to build even a single wind turbine in an unpopulated area, the workshop surfaced a practical list of "do's and don'ts":

Here's what not to do:

- Don't tout the national or global benefits of wind energy when people care about how decisions affect them locally. Greenhouse gas reductions and increased independence from foreign oil sound good in the abstract, but they don't offset adverse local effects.
- Don't surprise people and announce plans to build something without giving everyone in the area a chance to say whether and how a project should be built. It's better to have several siting choices ready to go, rather than just one.
- Don't build wind turbines too close to the nearest abutters. Adequate buffers make for good neighbors.
- Don't tell people that wind farms will be so quiet they won't hear anything. Human perception of noise is a complex and idiosyncratic phenomenon.
- Don't be afraid to talk about the ways in which the profits from a wind energy plant might be shared with the community. Joint ventures are easier to negotiate than hostile takeovers, and some of the public may see land development for energy as the latter.
- Don't presume that 100% of the people in an area will accept a proposed wind energy facility just because it meets all federal, state, and local guidelines. Some people don't like change of any kind, regardless of the benefits that might be created. Some might view themselves as particularly adversely affected (a vista disrupted, nighttime sleep disturbed, etc.).
- Don't assume the media will necessarily cover the "whole" story and present all viewpoints. A few angry, upset, media-savvy citizens on a mission can dominate the narrative and drown out a large majority of the silent public.

Here are some things to do:

- Do find a way to involve all the relevant stakeholders in discussions about when, where, and how to build and operate wind plants. Consider using a skilled, neutral facilitator without an agenda to manage these conversations.

- Do consider contingent agreements, for instance, consider an insurance policy to compensate those who live near a proposed facility for any measurable decline in property values caused by the wind development. It is possible to buy "property value insurance" to ensure that no one suffers any losses.
- Do realize that everyone reacts differently to noise and visual impacts. That doesn't mean they are wrong or crazy. It does mean they have different opinions, views, and experiences.
- Do engage in joint fact finding so that all sides have a chance to frame the questions that they want to have answered. Let them help select experts they trust to provide good technical advice. Avoid the "dueling experts syndrome" which will be great for well-paid consultants, but won't necessarily produce credible, trusted information.
- Do realize that hundreds of wind farms have been built across America (and in other parts of the world) and that past experience can be instructive, both in the positive and the negative. One small, failed development can affect the public's view across an entire region.
- Do realize that there are risks and benefits associated with any technology, and that the job of elected and appointed officials is to reduce risk and ensure that benefits are shared, not to gloss over the negative impacts and assert that there are no risks.
- Do encourage states to involve the public in formulating state wind policies. Battles over specific sites and projects do not add up to general policies about where, when, and how to encourage the construction of wind energy plants. Pre-approval of certain kinds of sites, set-back and noise requirements, aesthetic and environmental protection rules, community benefit agreements, and monitoring provisions can help to avoid the need to address each of these questions over and over again at every site.

In our view, the traditional "town meeting" or "hearings" approach to energy facility siting rarely leads to informed agreement. Stakeholders learn little at raucous public meetings other than who is mad, to what degree, and at whom. Local media are often not willing or able to interpret and disseminate critical background information that would allow people to make informed decisions.

To encourage reasoned debate and non-partisan information sharing, communities – citizens, town officials, elected officials, agencies – need to engage in carefully managed problem solving. Professionally facilitated stakeholder engagement, involving professional intermediaries chosen by the stakeholder, ensures an even playing field where such informal problem solving is possible. Robust public engagement should take advantage of all the communication tools of the modern age (the web, Facebook, Twitter, YouTube etc.).

We feel that the ["Facility Siting Credo"](#) summarizes the best way to ensure a fair, efficient, and wise outcome in wind energy siting." The Credo, prepared by the MIT-Harvard Public Disputes Program, has been carefully tested in hundreds of siting disputes.

Wind siting is certainly hard to do — but it's no harder to do right, than it is to do it wrong.