## Massachusetts Wind Working Group

www.ceere.org/rerl/mwwg.html

113-545-3914

## **August '06 Meeting Minutes**

Location: DOER Offices, Boston, MA

Date: 29 August 2006

## 1. Welcome

- a. David O'Connor, Commissioner of Massachusetts Division of Energy Resources, spoke about the new state energy plan and wind power's role in Massachusetts' energy future (see <a href="http://www.mass.gov/doer/">http://www.mass.gov/doer/</a>)
- b. Kate Smolski, GreenPeace, sponsor of our speaker's US tour, introduced Jens Larsen, who was the organizer of Middelgrunden, the cooperatively owned offshore wind power project in the city's harbor (for more on the tour, see <a href="https://www.greenpeace.org/usa/witnesstour">www.greenpeace.org/usa/witnesstour</a>)
- Feature: <u>Cooperative Development of Copenhagen's offshore wind project</u>
   By Jens Larsen of the Copenhagen Environment and Energy Office, and Energitjenesten København.
  - a. Technical Summary of Middelgrunden Offshore wind farm
    - i. 20 turbines @ 2 MW = 40 MW total, installed in year 2000
    - ii. Bonus 2 MW (now Siemens)
      - 1. Rotor diameter: 76 m
      - 2. Hub height: 64 m
    - iii. In the shoals of Copenhagen Harbor about 2 km from the city shores
    - iv. ~100 GWh/yr, or about 40,000 households
  - b. Joint Cooperative/Utility venture, very widely popular
    - i. The "Middelgrunden Wind Co-operative" owns half of the turbines. This Coop comprises ~8500 members, primarily local citizens, each investing relatively small amounts of money: ~95% of the members invested €500-3,000.
    - ii. The local municipal utility "Copenhagen Energy" owns the other half
  - c. Denmark has a history of both privately and cooperatively owned wind power, although policy has recently changed and there have been no new installations in recent years. The country makes about 20% of its electricity from wind power. A large majority of Danes want more wind turbines.
  - d. His presentation is posted on the MWWG website.
    - i. For more info, see also <a href="www.middelgrunden.dk/projektinfo/mg-pjece\_300dpi\_rgb.pdf">www.middelgrunden.dk/projektinfo/mg-pjece\_300dpi\_rgb.pdf</a>
- 3. Announcements & Updates
- 4. Next meeting
  - a. Proposed date: Wed. 8<sup>th</sup> November 2006, 3-5pm. Check the MWWG website to confirm.
  - b. Location: UMass Amherst

## Attendance list

MWWG meeting location: Boston, 29 August 2006

Jon Abe, Mass Renewable Energy Trust, MTC

Karen Adams, Army Corps of Engineers

Megan Amsler, Cape & Islands Self-Reliance Corporation

Mark Barnett, Foley Hoag LLP

Dave Beck, Jay Cashman Inc.

Lynn Benander, Co-op Power

Glen Berkowitz, Beaufort Power

Howard Bernstein, Mass Division of Energy Resources (DOER)

Dwayne Breger, Mass Division of Energy Resources (DOER)

Trevor Childs, Jay Cashman Inc.

Sam Cleaves, Metropolitan Area Planning Council (MAPC)

Tyke Crowley, Senator John Kerry

Martha Dansdill, HealthLink

Roger Dashner, Marshfield Planning Board; NStar Lynn DiTullio, Renewable Energy Research

Laboratory (RERL), UMass, Amherst

Dennis Duffy, CapeWind, Energy Management, Inc. (EMI)

Anthony Duros, Mass. Turnpike Authority (MTA)

Jason Gifford, Sustainable Energy Advantage

Aileen Giovanello, Tetra Tech EC, Inc.

Jim Gordon, CapeWind

Jan Gudell, Mass Division of Energy Resources (DOER)

Irina Gumennik, Tetra Tech EC, Inc.

Sean Harrigan, Rockport

David Heimann, Sierra Club, Energy Committee,

Raphael Herz, Mass Renewable Energy Trust, MTC Mike Jacobs, AWEA

Rick Johnson, Varian Semiconductor

Rhoda Kanet, Hull

Richard Kerver, Alliance for Post-petroleum Local Economy

Kevin Kotelly, US Army Corps of Engineers, Regulatory Division

Brian Kuhn, Plymouth Energy Committee

Enid Kumin, Energy Facilities Siting Board (EFSB)

Jens Larsen, Copenhagen Environment and Energy Office

Richard Lawrence, Cape and Islands Self Reliance Tyler Leeds, Mass Renewable Energy Trust, MTC Bob Loebelenz, Lion Spring Farm, Lion Spring Sun Star

Meg Lusardi, Mass Division of Energy Resources (DOER)

Gordon MacFarland, Wind Works LLC

Thomas Mackie, Mackie Shea O'Brien, PC

David Mannix, Methuen Construction Co., Inc.

Michael Mayhew, Maine State Energy Program Manager

Don McCauley, McCauley Lyman LLC

Minuteman Wind, LLC

Gail McCormick, HealthLink

Richard Michaud,

Meredith Miller, Constellation NewEnergy

Lauren Miller, Clean Air - Cool Planet

Lee Mondale, HealthLink

Nancy Nylen, Center for Ecological Technology; Berkshire Renewable Energy Collab.

David O'Connor, Commissioner, Mass Division of Energy Resources (DOER)

Gerry Palano,

Alex Pless, Rockport Wind Energy Committee

Imran Qidwai,

Howard Quin, Epsilon Associates

Sue Reid, Conservation Law Foundation (CLF)

Mark Rodgers, CapeWind Associates

Dave Schropfer, Eastham, Selectman

Farrell Seiler, New Hampshire Wind Energy
Associates

Christine Serrentino, Renewable Energy Research Laboratory (RERL), UMass, Amherst

Barbara Shapiro, Energy Facilities Siting Board (EFSB)

Bob Shatten, Boreal Renewable Energy Development

Kate Smolski, GreenPeace

Joseph Soares, Cape Light Compact

Andy Stern, Hull Wind

Fred Unger, Heartwood Group, Inc

Jack Wiggin, Urban Harbors Institute, UMass Boston

David Wold, AV Inc

David Wright, SweetBriar

Sally Wright, Renewable Energy Research Laboratory (RERL), UMass, Amherst

Yuki Yamamoto, Oceanwind Technology