



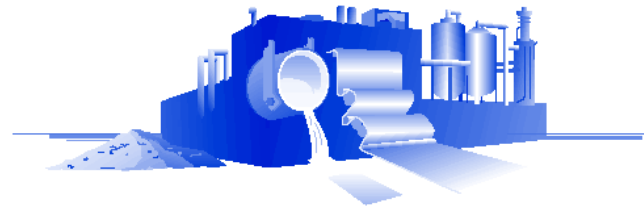
CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

Resources to Support CHP Installations The Northeast CHP Application Center



Salute to Manufacturing Week
Onsite Power and Manufacturing Workshop
October 23, 2003

Eric Winkler, Ph.D.

Department of Mechanical & Industrial Engineering
University of Massachusetts - Amherst



NORTHEAST
CHP
APPLICATION
CENTER



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

DRIVERS/ASSETS

- Higher than average cost of energy when compared to the rest of the country
- Long-standing history of support for, and success in delivering, energy efficiency programs
- Existing programs throughout the region supporting and promoting the CHP and efficient energy management practices.
- Leveraging state pump-priming activities to create sustainable markets for CHP products and services.



NORTHEAST
CHP
APPLICATION
CENTER



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

PROGRAM MISSION

- Facilitate the technology transfer and delivery of advanced CHP Technologies that assist DOE in meeting the goal of doubling CHP in the Northeast region over the next decade.
- Accelerate the market penetration of energy efficient and environmentally superior CHP.
- Increase CHP penetration to improve the environment, raise productivity in buildings and industry, lower regional energy costs, strengthen energy security, enhance consumer choice and reduce price risks for end-users.



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

VIRTUAL CENTER TEAM

- University of Massachusetts- Amherst's Center for Energy Efficiency & Renewable Energy
- Pace University School of Law- Pace Energy Project

With financial support from

- US Department of Energy
- New York State Energy and Research Development Authority (NYSERDA)
- Massachusetts Division of Energy Resources
- Maine State Planning Office – State Energy Office



NORTHEAST
CHP
APPLICATION
CENTER



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003



Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst



CEERE

PARTNERING AND COLLABORATION

- State Advisory Panel
- Executive Advisory Council
- Northeast CHP Initiative - alliance of environmental, industry, utilities, academic, and government organizations interested in CHP.
- Other State and Federal Programs e.g. IAC, IOF
- University Staff and Students



NORTHEAST
CHP
APPLICATION
CENTER





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

TARGETED ACTIVITIES

- Application assistance,
- Market research,
- Education and outreach
- Interface with national programs and initiatives



NORTHEAST
CHP
APPLICATION
CENTER



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

MARKET ORIENTATION

- End-users
 - Commercial
 - Institutional
 - Industrial
- CHP developers,
- Other CHP stakeholders in the region.



NORTHEAST
CHP
APPLICATION
CENTER



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

APPLICATION CENTER GOALS

- One-Stop Technology and Policy Clearinghouse
- Promote Standardized and Easily Replicable CHP Solutions Within Target Markets
- Guide Market Participants To Select Projects that will Improve the Technical, Economic and Environmental Performance of CHP



NORTHEAST
CHP
APPLICATION
CENTER



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

APPLICATION CENTER GOALS

- Create Central Repository of CHP Operating History and Validated Performance Metrics to Educate Customers and Inform Policymakers
- Educate Policymakers so that they can Formulate Solutions to Overcome Market and Regulatory Barriers to Create CHP Penetration
- Promote Opportunities for Grid Connected CHP Systems that meet Load Response and Program Objectives



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

INITIAL TASKS

- Formally Establish Advisory Group and Council
- Web Site
- CHP Personnel Contact Database.
- Identify Priority Thrust Areas
- Baseline Assessment Prioritization.
- Develop Database of CHP Sites.
- Develop/Adopt Case Study Protocol.
- Develop/Adopt CHP Screening Protocol



www.northeastchp.org



Copyright, Eric Winkler University of Massachusetts at Amherst. 2003





CEERE

www.ceere.org

Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst

Contacts

Larry Ambs, Ph.D. - **413-545-2539**
Director **ambs@ceere.org**

Beka Kosanovic Ph.D. - **413-545-0684**
Assistant Director **kosanovi@ceere.org**

Eric Winkler, Ph.D. - **413-545-2853**
Director, Technical Services **winkler@ceere.org**

www.ceere.org

www.northeastchp.org

www.maiof.org



**NORTHEAST
CHP
APPLICATION
CENTER**



www.northeastchp.org

Copyright, Eric Winkler University of Massachusetts at Amherst. 2003



Center for Energy Efficiency & Renewable Energy

University of Massachusetts, Amherst



CEERE

NYSERDA

PACE
UNIVERSITY

CHP
EPA COMBINED HEAT AND
POWER PARTNERSHIP



energy

Northeast
NECHPI
Combined Heat and Power Initiative



MA MEP



Maine IOF

