

Midwest CHP Application Center

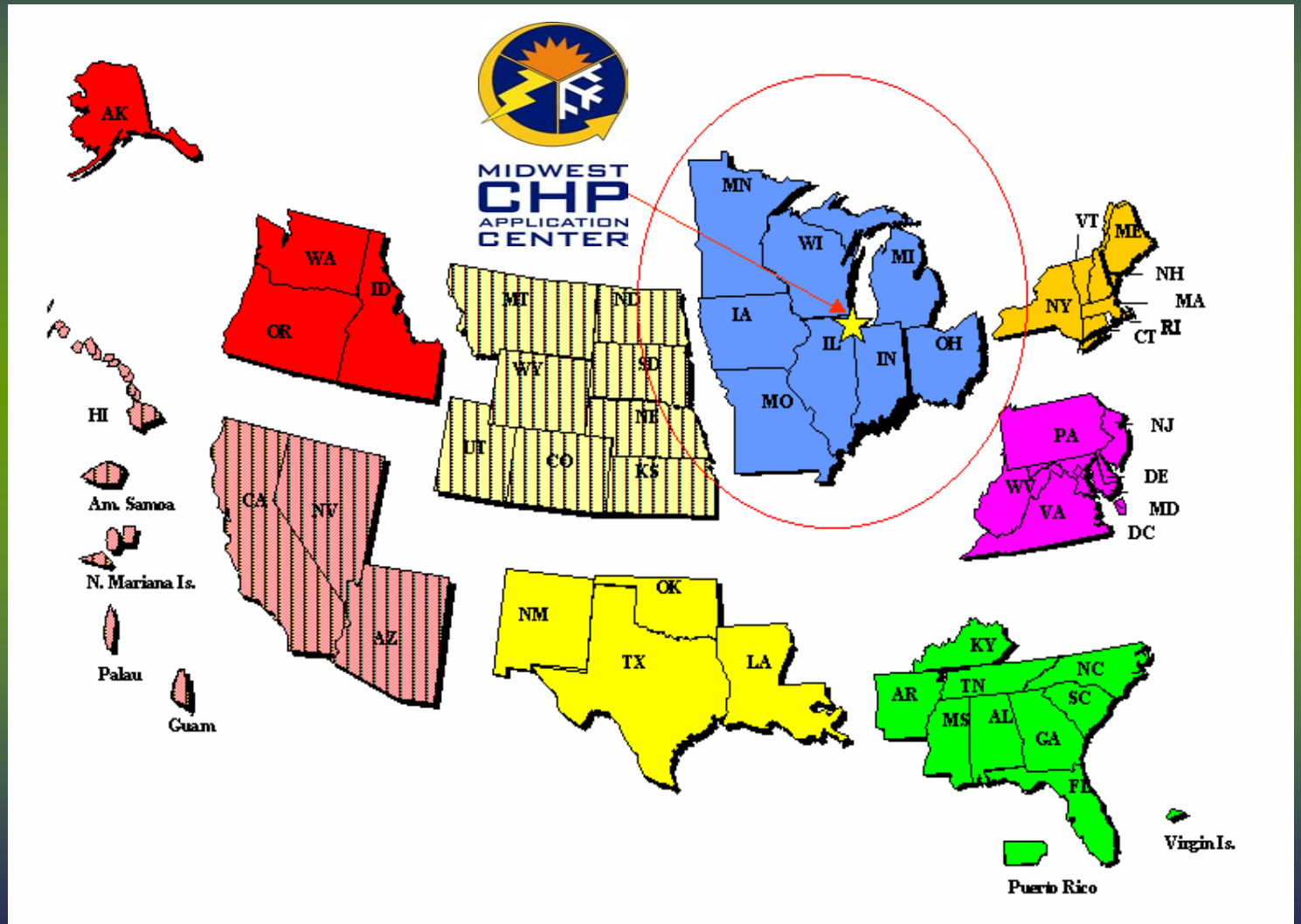


**Combined Heat and Power
A Workshop for Illinois Businesses
July 9, 2002
Chicago, Illinois**

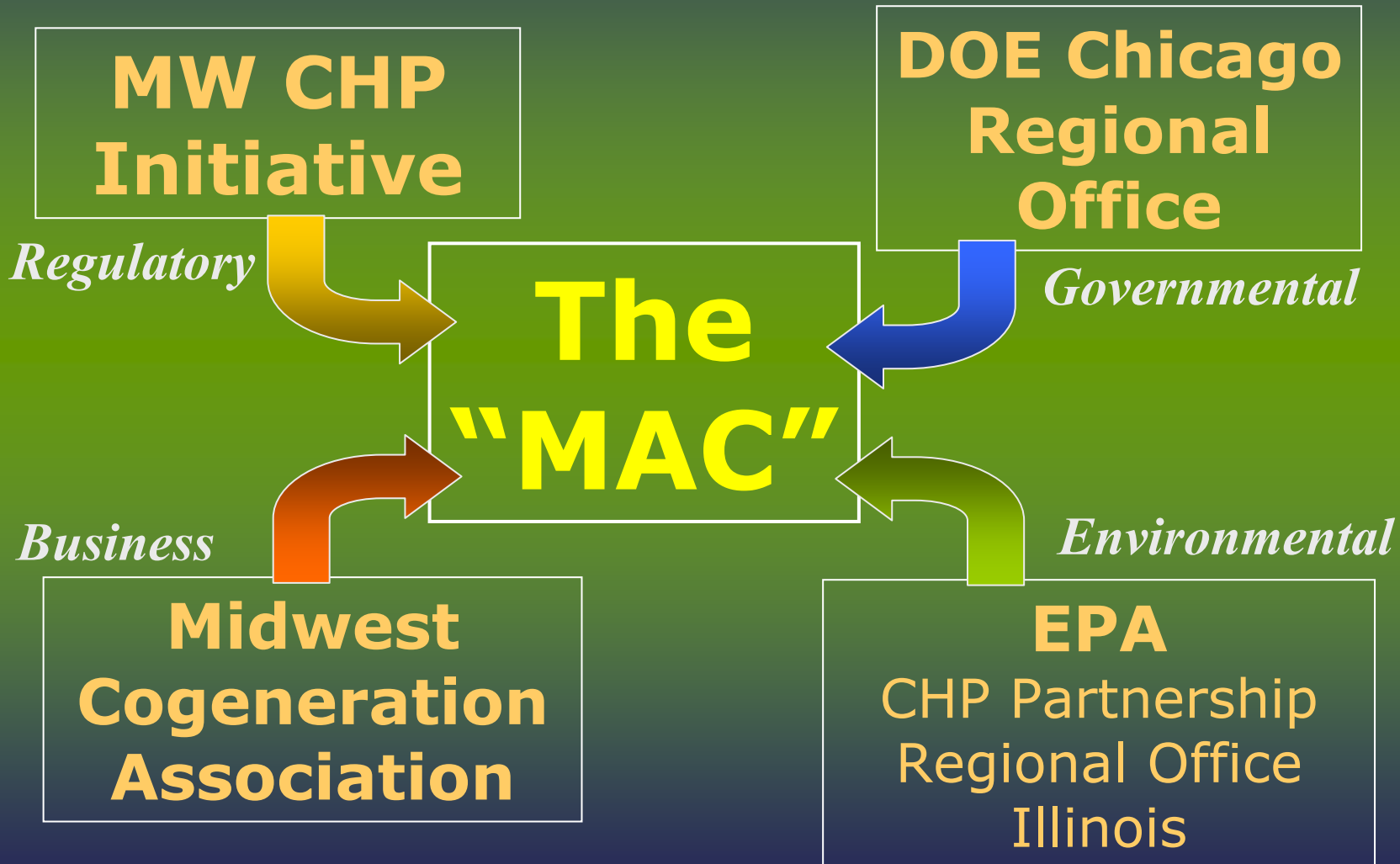
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The "MAC"



Working Together in the Midwest



Midwest CHP Application Center

Mission:

Develop Technology Application Knowledge and the Educational Infrastructure Necessary to:

- Reduce Perceived Risks
- Foster CHP for Buildings as a Viable:
 - Technical and Financial Option
 - Energy and Environmental Option

Focus: *(Foster Project Identification)*

- Education
- Information
- Project Assistance



CHP Target Audience

- ◆ Architects/Engineers
- ◆ Building/Facility Owners/Operators
- ◆ State/Local Officials
 - Energy Offices
 - Utility Commissions
 - Regulators (General Assembly)

Commercial, Institutional, & Industrial Project Support (Services)

- ◆ Initial Screening Assessments
- ◆ Technology Education
- ◆ Viable Site Assessment Visits
- ◆ Case Studies
- ◆ Assist in Project Justification
- ◆ Partnership Assistance
- ◆ Feasibility Assessments
- ◆ SWAT Team Assistance



Technical Assistance Program

- ◆ Project Support by Stages
 - Standard Outreach - *Information*
 - Investigation – *Viability Assessment*
 - Design Bid – *Detailed Assessment and SWAT*
 - Post Commission – *Case Study*
- ◆ Screening Criteria for Each Stage
 - Target Audience
 - Electric/Thermal Compatibility
 - Financial Viability
 - Financial Availability

Current Project Involvement

◆ Commercial

- Retail
- Multifamily
- Health Club
- Museums

◆ Institutional

- High Schools
- Colleges
- Universities

◆ Light Industry

- Paper
- Metal Gear
- Meat Packing
- Plating & Film Coatings
- Brewery
- Refrigeration Coil
- Chocolate

Illinois Characterizations

Conclusions

- ◆ Most Effective Deployment is at State and Local Levels
- ◆ Reaffirmed Barriers
 - Lack of Interconnection Standards and Fees
 - Standby Charges and Rates
 - Operating Costs
 - Capital Costs and Payback
- ◆ Identified Some Favorable Characteristics
 - Open Access
 - Favorable Alliances
 - Reasonable Market Potential

MAC Website

www.CHPCenterMW.org

- ◆ Regional and State Specific Information
 - Illinois Baseline Characterization
- ◆ Audience Focused
- ◆ Integrated with National CHP Website
 - Interactive Database of Site Installations and Contacts
 - Technology Animations
 - Interactive Virtual Tours of Test Site



Website – Home Page



Cooling, Heating and Power for Buildings

Reduce energy cost • Improve power reliability • Increase energy efficiency • Improve environmental quality

- News & Events
- Technical Professionals
- Building Owners
- Policy Makers/Planners
- Financial Institutions
- General Public
- Region/State
- MAC Outreach
- MAC Partners
- Library
- Links

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A New Perspective on Energy

Integrated systems for cooling, heating and power (CHP) for buildings incorporate multiple technologies for providing energy services to a single building or to a campus of buildings. Electricity to such buildings is provided by on-site or near-site power generators using one or more of the many options: internal combustion (IC) engines, combustion turbines, mini- or micro-turbines, and fuel cells. In CHP systems, waste heat from power generation equipment is recovered for operating equipment for cooling, heating, or controlling humidity in buildings, by using absorption chillers, desiccant dehumidifiers, or heat recovery equipment for producing steam or hot water. These integrated systems are known by a variety of acronyms: CHP, CHPB (Cooling, Heating and Power for Buildings), CCHP (Combined Cooling Heating and Power), BCHP (Buildings Cooling, Heating and Power), and IES (Integrated Energy Systems).

CHP systems provide many benefits, including:

- Reduced energy costs
- Improved power reliability
- Increased energy efficiency
- Improved environmental quality



Click map to check status in your state

The Midwest CHP Application Center was established in March 2001 for the U.S. Department of Energy (DOE) at the University of Illinois at Chicago (UIC) Energy Resources Center (ERC). The Center is a partnership between UIC/ERC and the Gas Technology Institute (GTI). Its mission is to provide application assistance, technology information, and educational support in the eight Midwest states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

The objective of this site is to provide you with information on CHP for buildings to facilitate your decisions relating to these systems. Information on the site has been organized to address anticipated needs of various user groups. Click on a link of your choice to learn about some of the basics, benefits, success stories and much more.

As you move through the site, your current location will be identified by "bread crumbs" along the top of all pages. Available sub-topics will appear in the list of links, on the left of the page, below the link for the major category currently open. The footer for each page also contains links to all the major sections of this Website and the major organizations providing support for it.

Vision, Mission and Focus of the

News & Events

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Chicago, IL



Sponsored by:

- Illinois Department of Commerce and Community Affairs
- Chicago Department of Environment
- U.S. EPA Combined Heat and Power Partnership
- U.S. Department of Energy

[More Information](#)

For Further Information

Midwest CHP Application Center

www.CHPCenterMW.org

Midwest CHP Initiative

www.NEMW.org/USCHPA/regional.htm

US EPA CHP Partnership

www.EPA.gov/CHP/

Midwest Cogeneration Association

www.Cogeneration.org

