



Regional CHP Application Centers

Intermountain CHP Summit

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Ted Bronson, Power Equipment Associates

Regional CHP Application Centers

DOE Headquarters program of regional centers to lead deployment of CHP by:

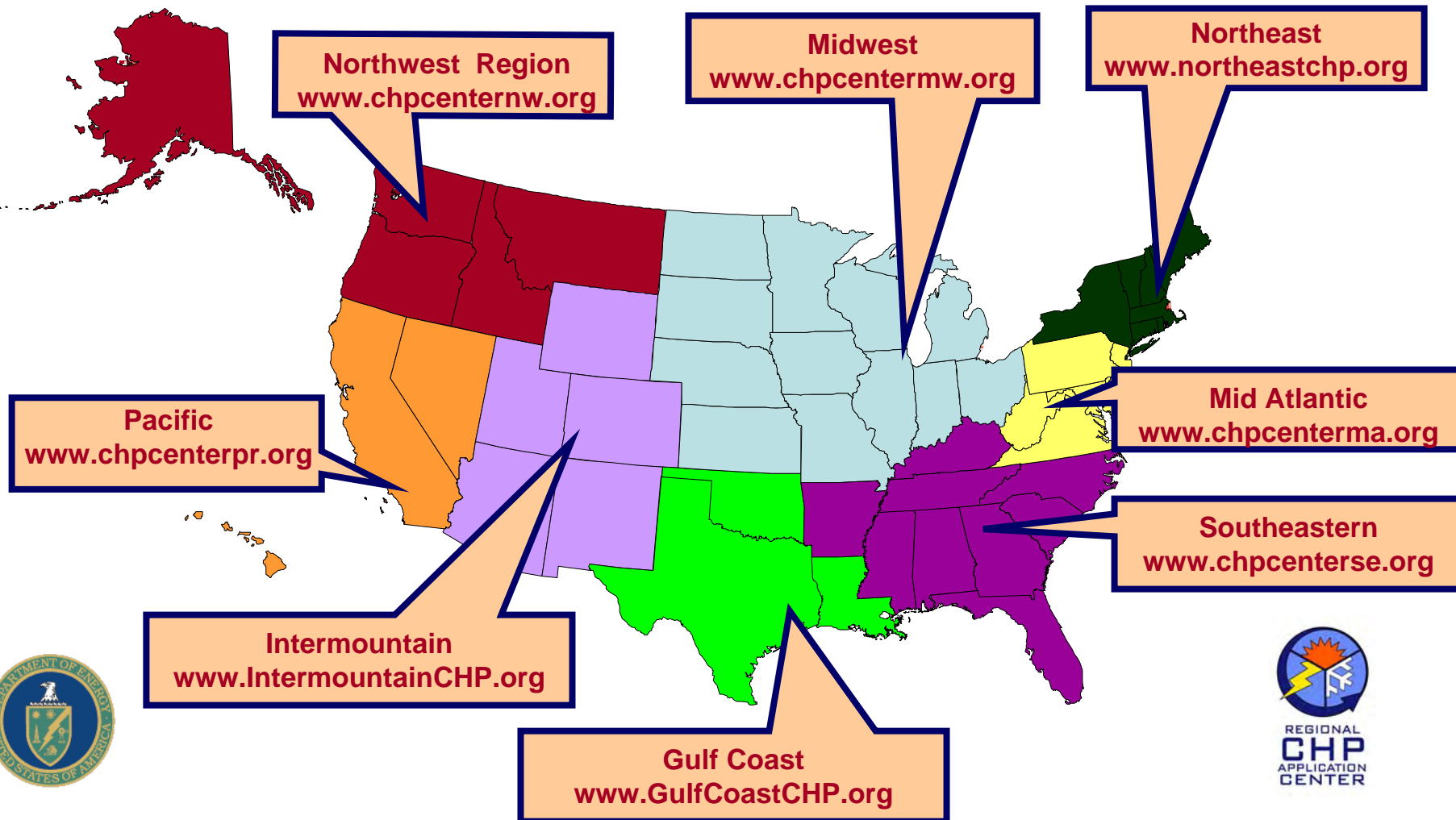
- **Educating regional players on benefits to reduce perceived risk**
- **Providing project specific support**
- **Providing feedback to DOE and industry regarding future R&D program needs**
- **Providing regional coordination and implementation of DOE and other government projects**

The overriding goal is to ensure achievement of the goal of doubling CHP use by 2010



Regional Application Centers

The regional application centers will promote combined heating and power (CHP) technology and practices, serve as a central repository and clearinghouse of CHP information, and identify and help implement regional CHP projects.



RAC Strategy

RACs implement a Strategy of

- **Services**
- **Focus**
- **Collaboration**

To:

- **Build Public Awareness**
- **Provide Local Project Specific Support**
- **Advance market penetration of US DOE developed CHP systems projects and tools**

All in support of Doubling CHP in the U.S. by 2010



RAC Strategy – Services

Services offered by all RACs:

- **Education and Outreach**
 - » **Websites**
 - » **Focused Training and Education**
 - » **Targeted End User Market Workshops**
 - » **Regulatory / Regional Power Planning Group Education**
 - » **Project Profiles / Case Studies**
- **Project Support**
 - » **Site Evaluations / Screening**
 - » **Application Analysis (Tech / Financial)**
 - » **Technical Assistance**



RAC Strategy – Focus

- **RACs focus on leading opportunities for their region:**
 - **Midwest – Hospitals, Ethanol, Farms, A/Es, Municipal Utilities, Regulatory**
 - **Intermountain – Waste Water Treatment and Landfills, Regulatory**
 - **Mid-Atlantic – Government facilities, opportunity fuels**
 - **Northeast – Commercial Office Buildings, HUD, Grid Congestion Relief, Wood Products, Hospitals, A/Es**
 - **Northwest – Farms, Waste Heat to Power, District Energy**
 - **Pacific – Ultra Clean Technologies, Waste Heat to Power**
 - **Gulf Coast – Hurricane Recovery Efforts, Cooling and Dehumidification Technologies, Hospitals**
 - **Southeast - Hurricane Recovery Efforts, Cooling and Dehumidification Technologies, Agriculture**



RAC Strategy – Collaboration

- **RACs share information and work together to:**
 - Leverage each others actions and best practices
 - Highlight and publicize emerging DOE DER projects, and those of other government partners (EPA, HUD, IDEA)
 - Provide a feedback mechanism to US DOE as to what is working and what is not
- **Collaboration activities include:**
 - Quarterly Working Group Calls
 - Semi-Annual Face to Face Meetings
 - Frequent one-on-one interaction on special issues
- **CHP Application Center Toolkit (CD) developed by ORNL to provide RACs with easy access to key organizational and market information and tools**



RAC Accomplishments

- **Regional Roadmap Workshops**

- In 2004/2005, all 8 RACs held workshops to develop roadmaps tailored for their region
- Engaged over 250 companies in this process
- Some RACs used forum to build Stakeholder advisory groups or Ad-hoc Initiatives

- **Websites**

- Each RAC has an established website as an educational source to end-users, policy makers and other stakeholders. (oldest - MW - >30,000 hits/ month)



RAC Accomplishments

- **Partnering with other DOE and Government Programs**
 - Working with EPA to advance CHP at Ethanol Plants
 - Working with HUD to advance CHP in urban buildings
 - Working with FEMP to advance CHP at government buildings
 - Drove Regional Marketing efforts for US DOE's Integrated Energy System Webcast – Tripled attendance
- **Technical Assistance > 200 Sites Assessed**
 - Ethan Allen Furniture Factory
 - Over 40 Project Profiles Developed
- **Education and Outreach: RAC is source of unbiased information and education**
 - Targeted Market Workshops
 - State and Regional Power Planning Efforts
 - Regulatory Forums and Interface



RAC Education and Outreach

- **Target Market Workshops**
 - **Hospitals and Healthcare**
 - **Ethanol Plants**
 - **Municipal Landfills and Wastewater Treatment Plants**
 - **CHP and Anaerobic Digesters for Dairy Farms, including Manure to Power**
 - **Disaster Response and Recovery**
 - **Municipal Utilities and Cooperatives**
 - **K-12 Schools**
 - **Universities**
 - **Multi-family Housing**
 - **Food Processing**
 - **Waste Heat to Power – Recycled Energy**
 - **Industrials**
 - **CHP for Architects and Engineers**



RAC Education and Outreach

- **State and Regional Power Planning Efforts**
 - **Western Governors Association**
 - » **Power Planning Effort focusing on deployment of Clean Energy Technologies**
 - » **4 RACs submitted White Paper on Importance of CHP**
 - **Gulf Coast Rebuild Efforts**
 - » **Profiling Mississippi Baptist Medical Center – one of few hospitals that operated throughout hurricane**
 - » **Mississippi State Rebuild Task Force on Power Options**
 - » **Texas County Judges & Emergency Preparedness Plan**
 - » **Positioning to be involved in Louisiana efforts**



RAC Education and Outreach

- **State and Regional Power Planning Efforts (cont'd)**
 - **Northwest Power Planning Council**
 - **Rebuild Hawaii**
 - **Connecticut Clean Energy Organization**
 - » **CHP legislation to identify CHP for grid support**
 - **Strategic Energy Plan of Contra Costa County**
 - » **Recommended 3 CHP projects**
 - » **RAC supporting and working to identify additional opportunities**



RAC Education and Outreach

- **Regulatory Forums and Interface**
 - **MW Regulatory Forums**
 - » **Interconnection (2002-Chicago IL)**
 - » **Tariffs (2003 – St. Paul, MN)**
 - » **State Economic and Job Benefits (2005 - Detroit, MI)**
 - **Support of MADRI Efforts**
 - » **Interconnection Standard**
 - » **Business Practices**



RAC Education and Outreach

- **Regulatory Forums and Interface (Cont'd)**
 - **Interconnection Standard Development in MA and CT**
 - **Illinois Commerce Commission and State interface**
 - » **Support of Illinois Interconnection Workshops and Interconnection Rule Development**
 - » **Testimony to IL NE Blackout Investigation**



FY'06 Plans

Continue Education and Project Support Efforts

- Targeted market workshops (new and leveraging existing workshops to other Regions)
- Work with Power Planning agencies to ensure CHP is included – especially with Gulf Coast Rebuild efforts
- Educating Regulators and Policy Makers
- Work with States on CHP Implementation Plans
- Develop at least 50 new Project Profiles of key applications
- Advance Focus on identification and support of key projects
- Support EPA Partnership, HUD, and FEMP efforts
- Support efforts of US DOE DER Demonstrations, National Accounts, and Intergrated Energy System Programs
- Work Together to leverage RAC and overall program success



For Further Information

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