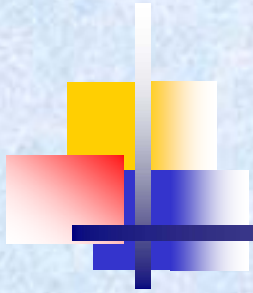




Regional CHP Application Centers

John J. Cuttica
University of Illinois at Chicago
Energy Resources Center
October 10, 2001





Regional Application Center

RAC Concept

On a Regional Basis, Provide Assistance to Local Entities to Facilitate the Technology Transfer and Deployment of Integrated Cooling, Heating, and Power (CHP) Technologies:

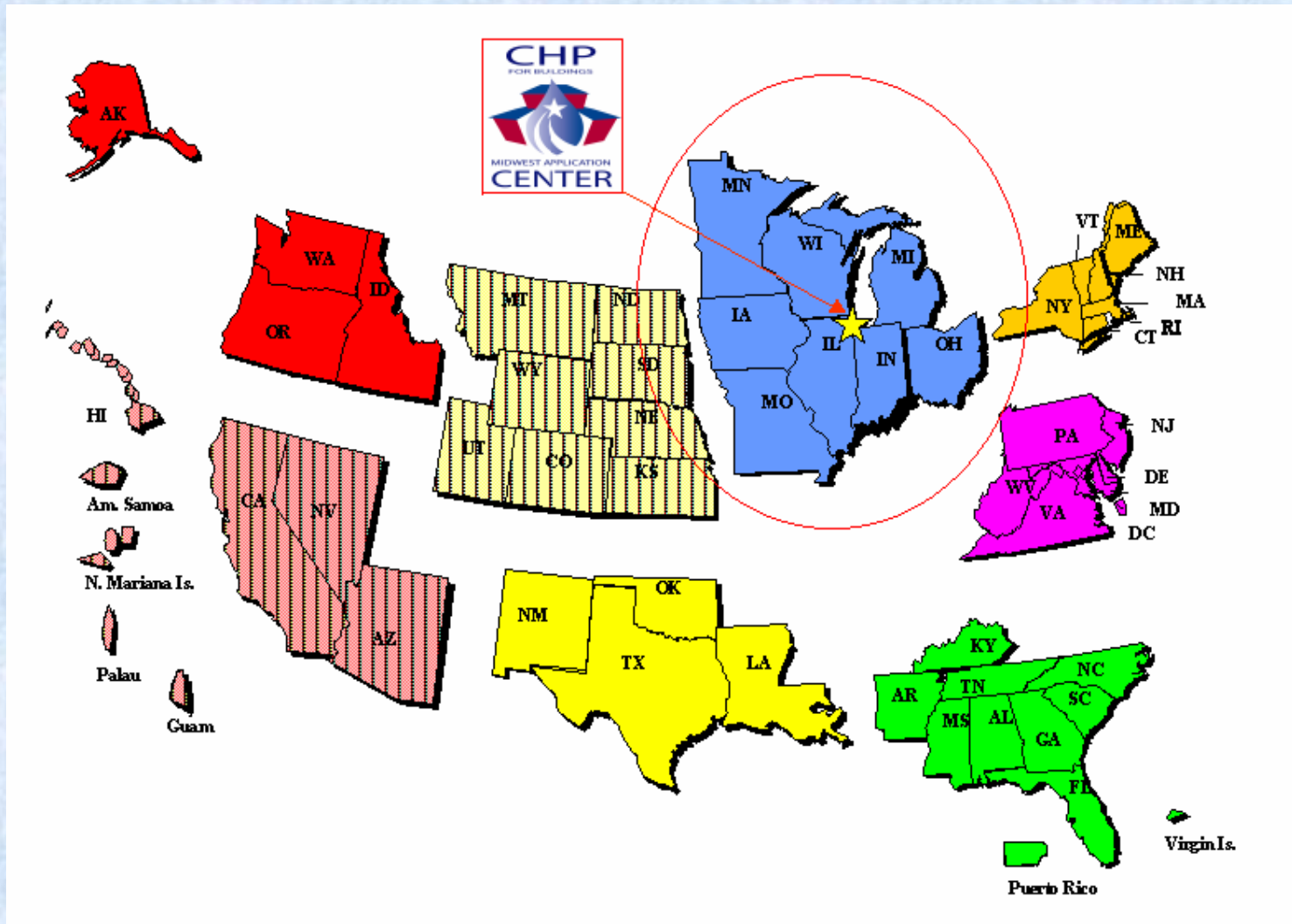
- Educate Market Players on the Benefits
- Reduce the Perceived Risks
- Provide Feedback to DOE and CHP Industry Regarding Future R&D Needs



Definition of CHP

- Integrated System
- Located At or Near the Point of Use
 - Building
 - Industrial Facility
 - District Energy
- Provides a Portion of the Electrical Load
- Utilizes the Thermal Energy
 - Cooling
 - Heating
 - Dehumidification

Potential Regional Application Centers





Midwest Regional 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/Implementation)*

- Education/Outreach
- Project Assistance



Midwest Regional Application Center

- **Partnership:**

- University of Illinois at Chicago
Energy Resources Center --- UIC/ERC
and
- Gas Technology Institute --- GTI

- **Sponsorship:**

- DOE Office of Power Technologies

- **Technical/Program Guidance:**

- Oak Ridge National Laboratory --- ORNL



Strength In Partnership

- **UIC/ERC**

- Strong State Relationships
- Energy Audits
- HVAC System Design and Integration

- **GTI**

- CHP Equipment/System Experts
- Laboratory/Field Testing Experts
- Deployment/Innovative Applications



Education/Outreach

- Website Presence
- Databases
 - Existing/Potential Sites
 - Case Studies
 - Key Contacts
- Baseline Assessments (By State)
- Participate in Workshops, Conferences, and Seminars
- Technical Education
- Screening Tools
- Build Coalitions



Midwest CHP Initiative

- An Alliance of Environmental, Industry, and Government Organizations
- Spearhead the Installation of CHP Systems Throughout the Midwest
- Members Include:
 - DOE and EPA Regional Offices
 - State Agencies (Illinois, Wisconsin, Indiana, and Michigan)
 - Non-Profit Organizations (Energy, Environment, R&D, Universities)
 - Utilities



Project Assistance

- Initial Screening Assessments
- Site Assessment Visits
- Case Studies
- Project Justification
- Arrange Partnerships
- SWAT Team

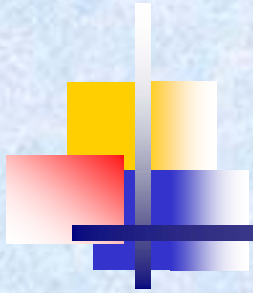


SWAT Teams

Mission:

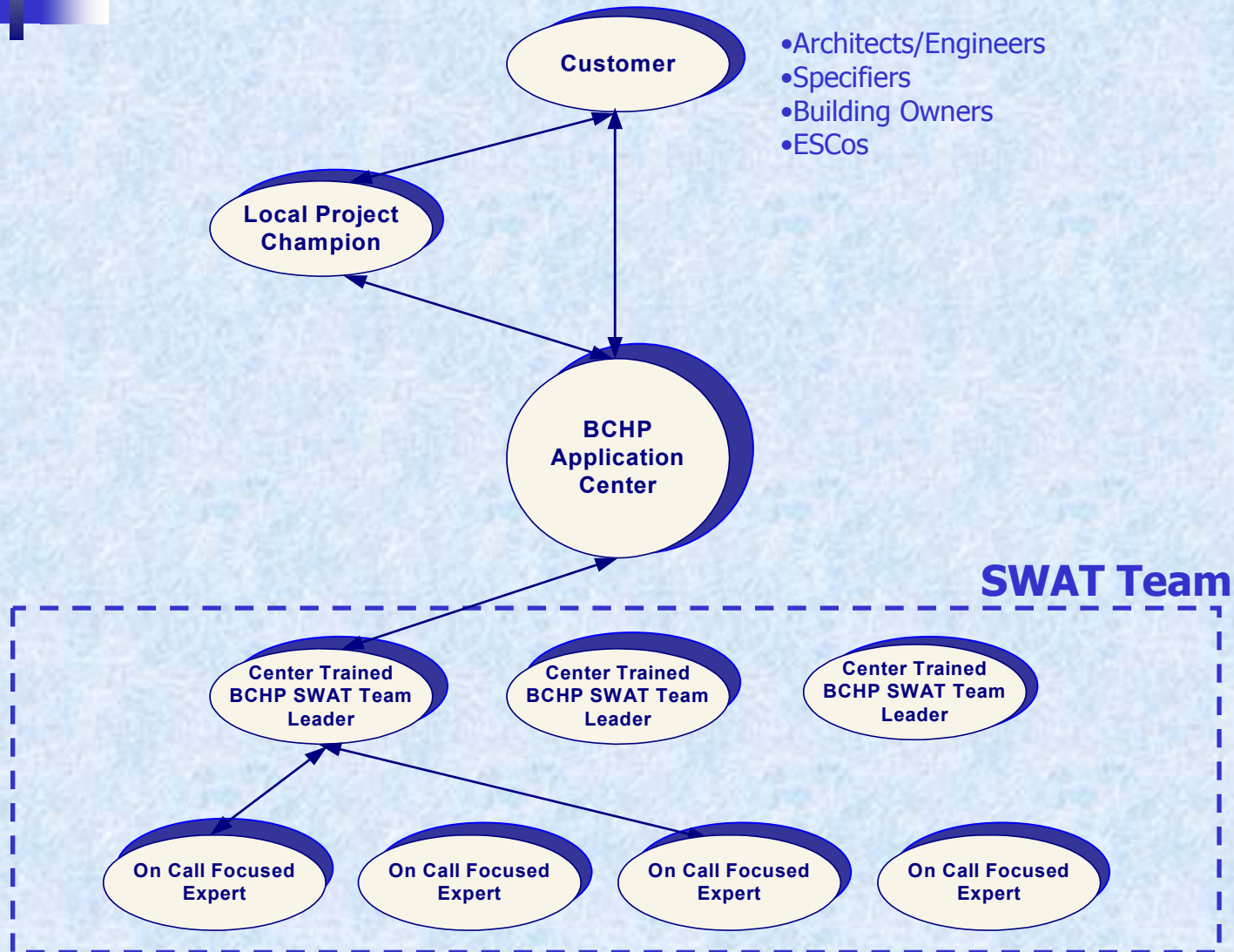
Apply “Expert” Talent to High Impact Projects to:

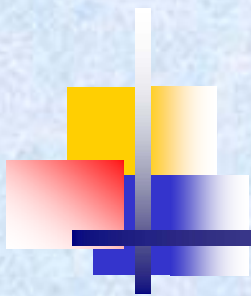
- Provide Assistance to
“Remove Perceived Risk”
- Provide Assistance to
“Identify Technical Solutions”



SWAT Team Concept

- Architects/Engineers
- Specifiers
- Building Owners
- ESCoS





Type of Experts

Local Project Champions

- Diverse Group of Center Supporters
- Respected Professionals
- Knowledgeable in CHP *for Buildings & Industry*
- Understand Center Policies & Offerings

Team Leaders

- Key Technical Individuals
- Trained in Application of CHP *for Buildings & Industry*
- First Line of Technical Assistance to Owners, Developers, Consulting Engineers

Focused Experts

- Defined Experts Available to Team Leaders
- Answer / Solve Specific Problems
- Universities, National Labs, Industry



Final Points

- Expanding the RAC Concept
 - Resource Limited (Partnerships Welcomed)
 - Guidebook in Preparation
- Coordination: RAC and FEMP
 - FEMP --- Federal Buildings and Facilities
 - RAC --- State, City, Municipal, and Private Buildings and Facilities



For Information Contact:

Midwest CHP Application Center

- **University of Illinois at Chicago**

John Cuttica 312/996-4382

Cuttica@uic.edu

Leslie Farrar 312/413-3835

LFarrar@uic.edu

- **Gas Technology Institute**

John Kelly 847/768-0665

John.Kelly@GasTechnology.org

FEMP

- **Oak Ridge National Labs**

Patrick Hughes 865/574-9337

Hughespj1@ornl.gov

