



PACIFIC REGION
COMBINED HEAT & POWER
APPLICATION CENTER

Pacific Region CHP Application Center (PRAC) Network

Sponsored By:

**California Energy Commission, PIER Program
U.S. Department of Energy, Seattle Regional Office**

In Partnership With:

Pacific Southwest CHP Initiative



***Rebuild Hawaii Meeting
Honolulu, HI June 24, 2004***



Origin

In December 1998, the Assistant Secretary for Energy Efficiency and Renewable Energy issued a CHP Challenge calling on industry and government to work together to double the capacity of CHP in the United States by 2010

- **1998: 46 GW**
- **2010: 92 GW**



Response

– 1999: CHP Roadmap Working Group

- US DOE, ORNL, Utilities, R&D Organizations
- Regional Centers





Response

- **1999: CHP Roadmap Working Group**
 - US DOE, ORNL, Utilities, R&D Organizations
 - Regional Centers

- **2001: “Pilot Regional Center” Established**
 - Midwest Region CHP Application Center
 - University of Illinois, Chicago
 - Cuttica
 - Facilitate Deployment of CHP Technologies
 - Establish Protocols and Methods for Future Centers
 - Education
 - Information
 - Project Assistance



Response

- **2003: Solicitation for New Centers**
 - Intermountain (AZ, CO, NM, UT, WY)
 - Northwest (AL, ID, OR, MT, WA)
 - Mid-Atlantic (DL, MD, NJ, PA, VA)
 - Northeast (CT, ME, NH, NY, RI, VT)
 - Pacific (CA, HI, NV, Pacific Territories)

**Pacific Region CHP Application Center
(PRAC) Network**

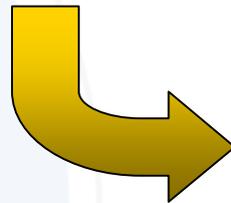


PRAC Structure

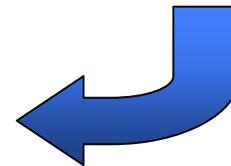
UCB/UCI/SDSU
PSW CHP Initiative

DOE Seattle/HQ
CEC PIER
National Labs

*Education
and
Research*

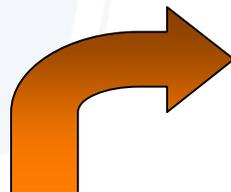


PRAC

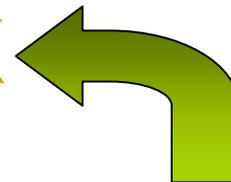


Government

Business



Network



Environment

Electric/Gas Utilities
Technology Providers
CA Clean DG Coalition

EPA and CA ARB
Regional AQMDs
Environmental NGOs



PRAC Structure

- **Partnership:**
 - University of California - Berkeley
 - Energy and Resources Group (ERG)
 - Lipman, Kammen, Farrell
 - With: Lawrence Berkeley National Lab (Marnay)
 - University of California - Irvine
 - Advanced Power and Energy Program (APEP)
 - McDonell, Samuelsen, Brouwer
 - With: Sempra Energy (Berokoff, Prietto)
 - San Diego State University
 - Industrial Assessment Center (IAC)
 - Beyene
 - With: San Diego Regional Energy Office (Stillings)



PRAC Structure

- **Sponsorship:**

- DOE Office of Energy Efficiency & Renewable Energy
 - Office of Distributed Energy and Electric Reliability
 - Merrill Smith, Pat Hoffman
- California Energy Commission
 - Public Interest Energy Research (PIER) Program
 - Alan Ward, Mike Batham



- **Technical/Program Guidance:**

- DOE Seattle Regional Office
 - Chuck Collins

- **Goal**

- Include Other PR State Energy Offices, Universities, ...
- PG&E, UNR, UNLV, UH Manoa, etc.



Mission and Focus

- **Mission:**

- Develop Technology Application Knowledge and the Educational Infrastructure Necessary to:
 - Reduce Perceived Risks
 - Foster CHP as a Viable Option
 - Technical and Financial
 - Energy and Environmental

- **Strategy:**

- Education ————— Task 1
- Information ————— Task 1
- Project Assistance ————— Task 2



PRAC Work Plan

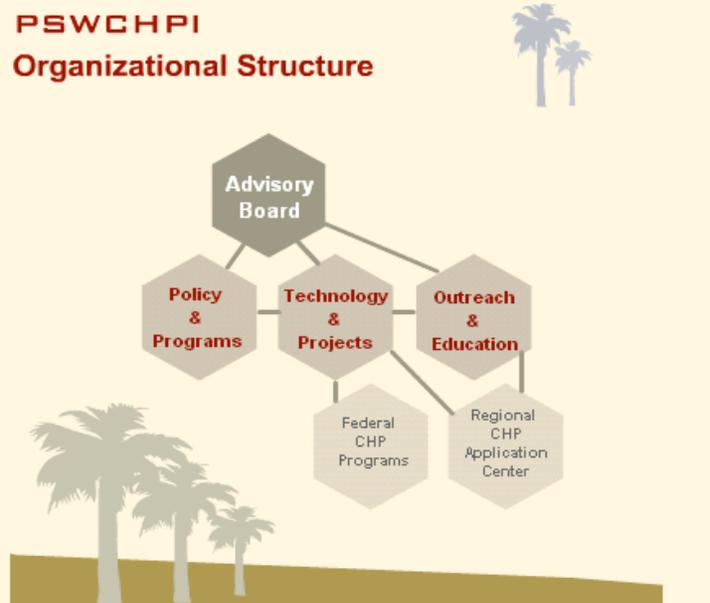
- **Task 1—Education and Information**
 - Task 1.1 General Education and Outreach (UCI)
 - Task 1.2 State Baseline Assessments (UCB)
 - Task 1.3 Case Studies and Market Conditions (UCB)
 - Task 1.4 Outreach Information (UCI)
 - Task 1.5 Website and Database Mgt. (UCI)
 - Task 1.6 Regional CHP Coalitions (UCB)

- **Task 2—Project Assistance**
 - Task 2.1 Project Screening (SDSU)
 - Task 2.2 SWAT Team (SDSU)



Status

- **Finalizing Formal Contract Mechanisms**
- **Affirming Alliances**
- **Working with National Web Content Group**
- **Working with PSWCHPI to Leverage Activity**





For Further Information

- **Pacific Region CHP Application Center**
 - www.chpcenterpr.org
 - Tim Lipman - UCB/ERG: (510) 642-4501
 - Vince McDonell - UCI/APEP: (949) 824-5950 x121
 - Asfaw Beyene - SDSU/IAC: (619) 594-7143
- **Pacific Southwest CHP Initiative:**
 - www.pswchpi.org
 - Mike Theroux, Tom Tanton
- **California Energy Commission:**
 - www.energy.ca.gov/pier
 - Allan Ward - PIER Program: (916) 651-6196
 - Mike Batham - PIER Program: (916) 654-4548
- **U.S. DOE – Seattle Regional Office:**
 - www.eere.energy.gov/sro
 - Chuck Collins: (206) 553-2159



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For Further Information

- **Regional CHP Center Coordination Activities**
 - Ted Bronson - PEA: (630) 248-8778
 - Patti Garland - ORNL: (202) 479-0292