

Overview Office of Electricity Delivery and Energy Reliability Activities

and Regional CHP Application Centers

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and
Merrill Smith
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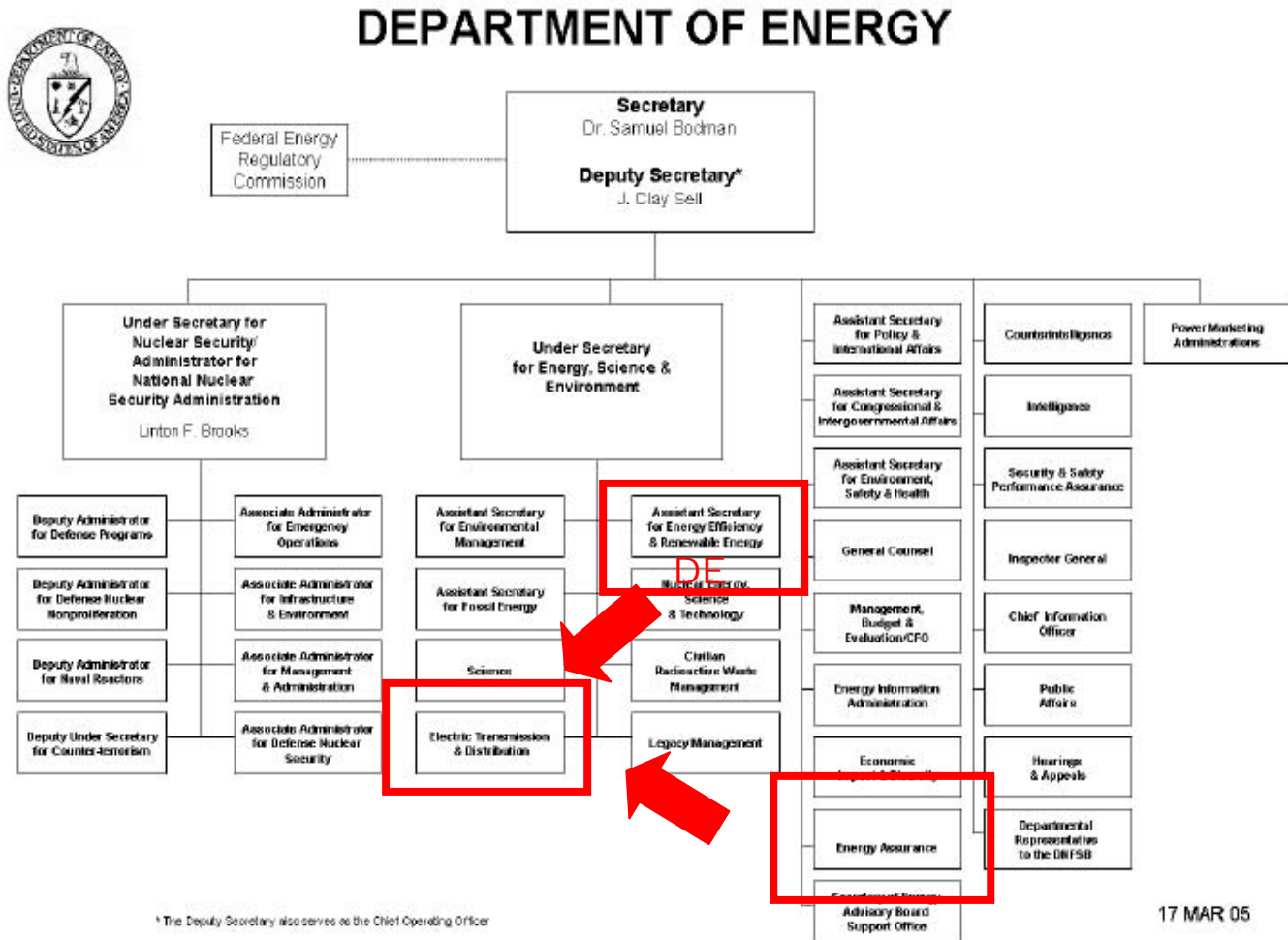


OE Mission Priorities

- **Promote investment in grid modernizing R&D;**
- **Rebuild capacity to assist industry in safeguarding against cyber security threats;**
- **Help industry bolster critical energy infrastructure security;**
- **Assist states and industry in recovery from energy supply due to intentional act or natural disasters.**



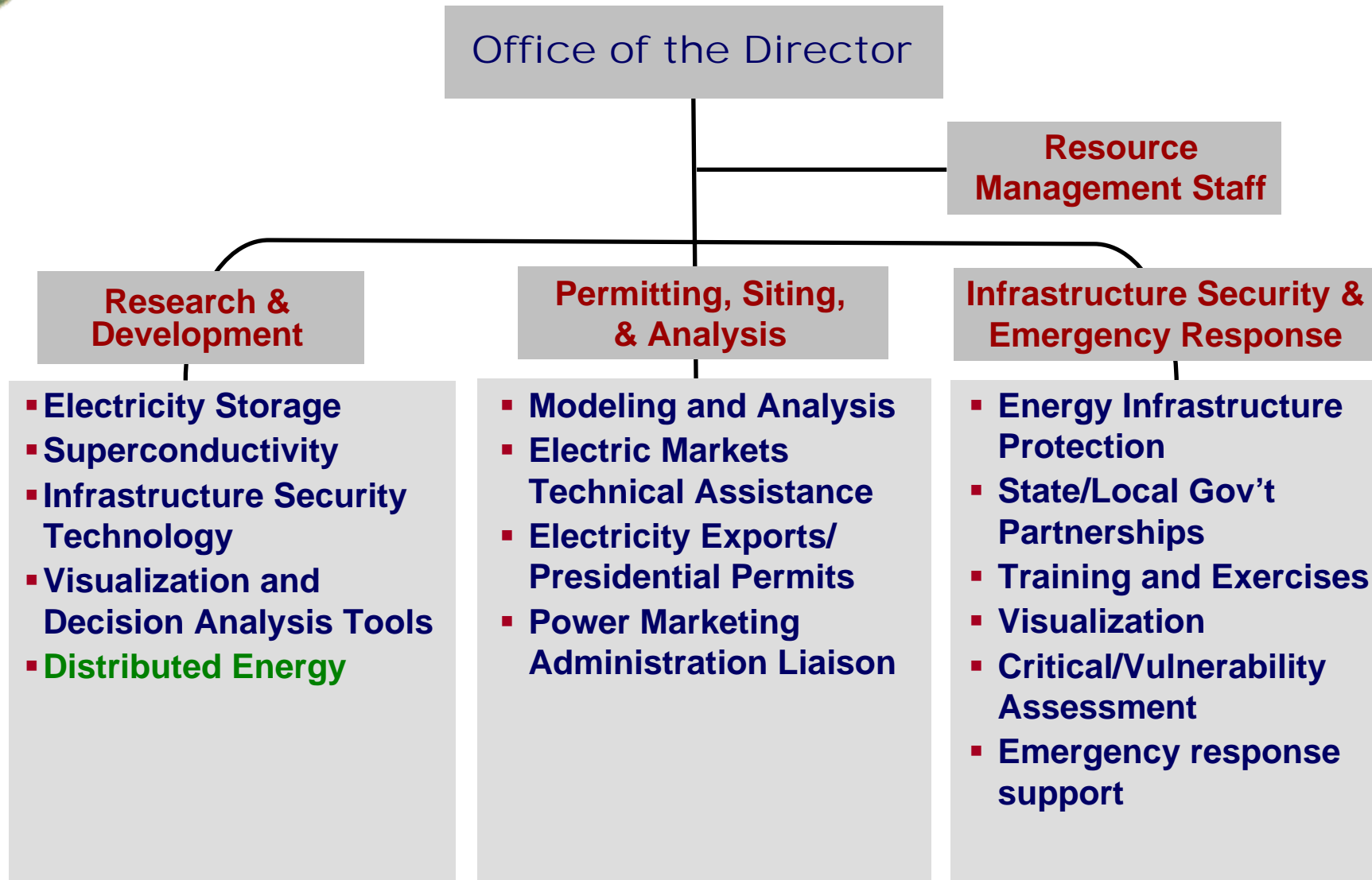
OE's Formation



* The Deputy Secretary also serves as the Chief Operating Officer



Organizational Structure





R&D Goals

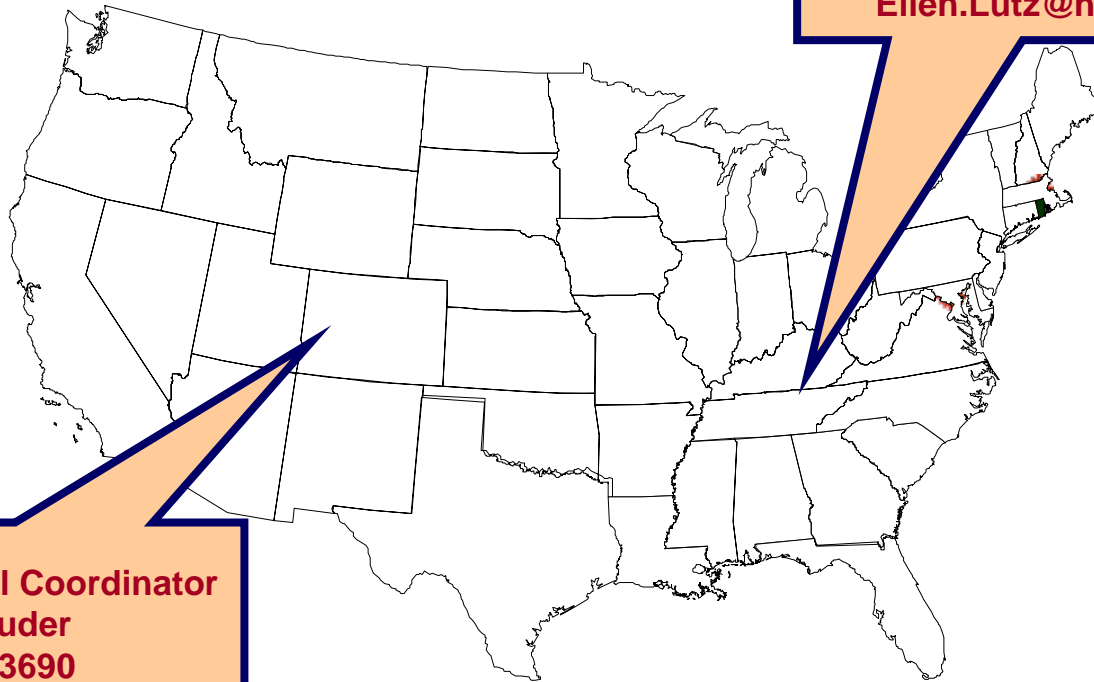
- **Improve electric reliability and lower outage costs to consumers;**
- **Promote investment in infrastructure, job creation, and regional economic growth;**
- **Strengthen energy security and lower financial risks to utilities from manmade or natural disasters;**
- **Enable greater development of alternative energy sources (e.g., wind, nuclear);**
- **Increase energy efficiency and lessen environmental impacts.**



OE Regional Coordinators

Permitting, Siting, and Analysis

Resources for State Energy Offices



Eastern Regional Coordinator
Ellen Lutz
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Western Regional Coordinator
Julia Souder
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OE's Major Responsibilities from EPACT 2005

Description	Due Date	POC
SEC. 139(c) Report on findings of energy efficient electric and natural gas utilities study	08/08/2006	Larry Mansueti
SEC. 368(a) Designation of corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution corridors on Federal land in certain contiguous Western States	08/08/2007	Julia Souder
SEC. 368(b) Designation of corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution corridors on Federal land in States other than the contiguous Western States	08/08/2009	Julia Souder
SEC. 921, 922, 923, 924(b), 925(a) Establish several specific RD&D and commercial application programs related to distributed energy and advanced grid reliability	No Due Date	Bill Parks
SEC. 925(b) Report on a 5-year program plan to guide R&D activities for transmission and distribution systems	08/08/2006	Bill Parks
SEC. 925(d) Report on progress made to implement the 5-year plan required under section 925(b)	08/08/2008	Bill Parks
SEC. 1101(b) Report on trends in the workforce	08/09/2006	Gil Bindewald
SEC. 1106 Support the establishment of a National Power Plant Operations Technology and Educational Center.		Bill Parks
SEC. 1221(a) 16 U.S.C. 824 Sec. 216 (a) (1) Study of electric transmission congestion	08/08/2006, triennially	Poonum Agrawal
SEC. 1221(a) 16 U.S.C. 824 Sec. 216 (a) (2) Report designating national interest electric transmission corridors	8/8/2006	Poonum Agrawal
SEC. 1221(a) 16 U.S.C. 824 Sec. 216 (h)(7)(A) Regulations for implementing DOE role as lead agency for Federal authorizations and environmental reviews for transmission facilities	02/08/2007	Julia Souder
SEC. 1221(a) 16 U.S.C. 824 Sec. 216 (h)(7)(B)(i) MOU with all agencies with authority to issue permits with regard to siting a transmission facility	08/08/2006	Julia Souder
SEC. 1221(b) Report identifying all existing designated transmission and distribution corridors on Federal land	Released soon	Julia Souder
SEC. 1234 Report on study of economic dispatch	Released soon	David Meyer
SEC. 1252 (d) Report on demand response national benefits and recommendations	02/04/2006	Larry Mansueti
SEC. 1813(b) Report on just compensation and use of energy rights-of-way on Indian tribal land	08/08/2006	David Meyer
SEC. 1815(a) Establishment of a Task Force to study competition in the markets for electric energy	No Due Date	David Meyer
SEC. 1815(b) Report on competition in the wholesale and retail markets for electric energy	08/08/2006	David Meyer
SEC. 1816(b) Report on a study of the benefits of using mobile transformers mobile substations	08/08/2006	Bill Parks
Sec. 1817 Report on the benefits of distributed generation	02/08/2007	Pat Hoffman
SEC. 1822 Contract to study effects of electrical contaminants on the reliability of energy production systems	02/05/2006	Philip Overholt
SEC. 1832(c) Report on a joint study, with the States, of the benefits of economic dispatch	11/06/2005	David Meyer
SEC. 1839 Report establishing a system to make info on the functional status of transmission lines available	02/08/2006	Philip Overholt



Conclusion

- **Distributed Energy is critical to modernizing the grid, infrastructure security and restoration from energy supply disruptions.**
- **OE policy activities based on EPAct can energize distributed energy technologies**
- **Infrastructure security is a huge opportunity and requires stakeholder involvement**
- **Budget is tight as a result of congressionally directed projects.**



DE Funding Summary

(\$M)

	FY2004	FY2005	FY2006	FY2007 Request
Discretionary – DE program	58,696	57,170	29,129	29,652
Earmarks	988	3,246	27,500	
Total	59,684	60,416	56,629	29,652



For More Information...

Office of Electricity Delivery and Energy
Reliability's website

www.electricity.doe.gov



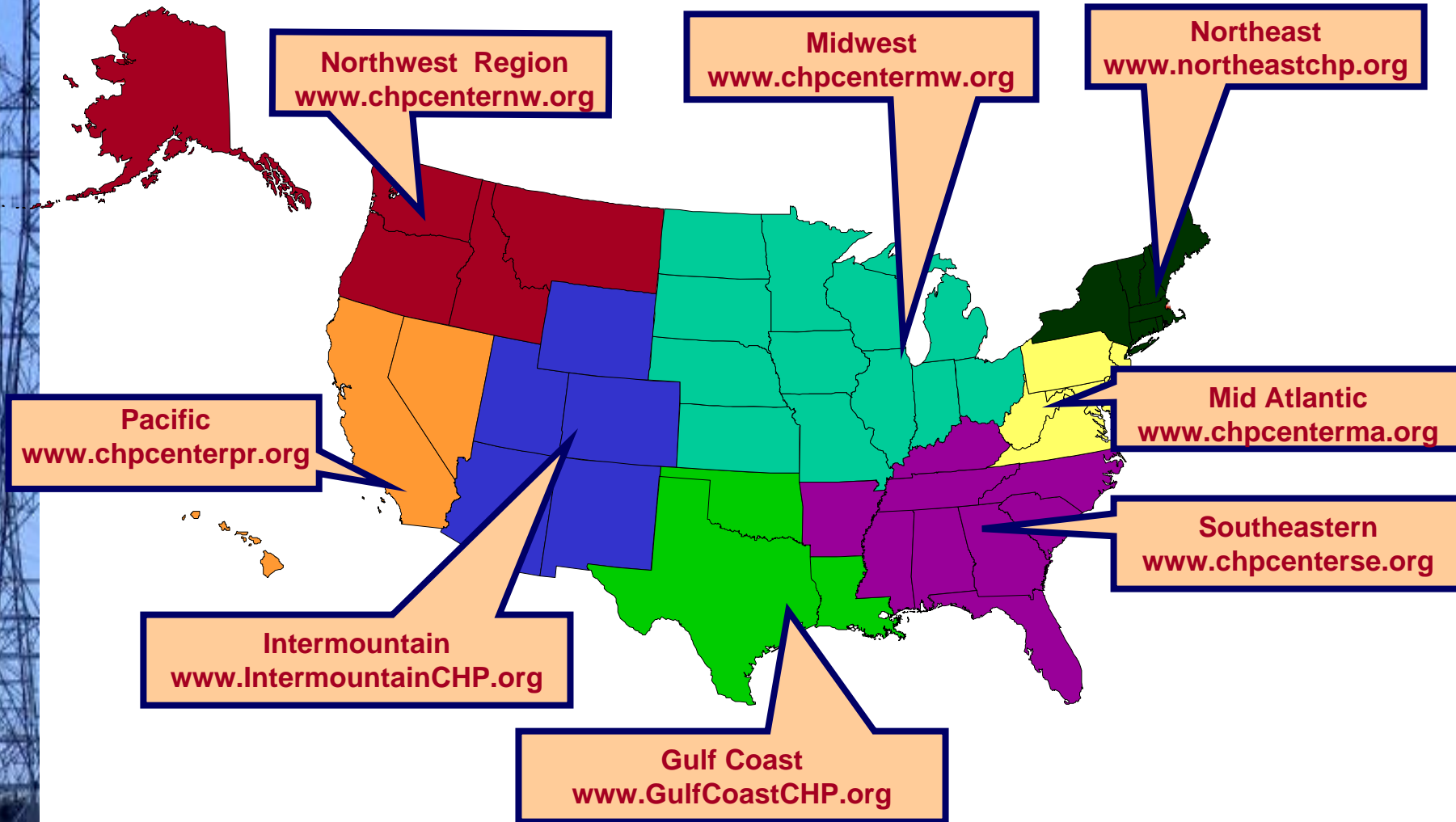
Regional CHP Application Centers

- **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.**
 - Educating regional players on benefits of CHP technologies, while reducing perceived risks
 - Providing project specific support
 - Providing feedback to DOE and industry regarding future R&D program needs
 - Providing regional coordination and implementation of DOE projects



Regional Application Centers

Promoting CHP technology and practices and identifying and implementing regional CHP projects





RAC Strategy: Services, Focus and Collaboration

- **RAC SERVICES OFFERED**
 - **Education and Outreach**
 - Websites (Available & Updated)
 - Focused Training and Educational Courses
 - 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 Focus Areas

- Midwest – Hospitals, Ethanol, Farms, A/Es, Municipal Utilities, Regulatory
- Intermountain – Waste Water Treatment and Landfills, Regulatory
- Mid-Atlantic – FEMP / Government Buildings, Agriculture
- 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



State Collaboration

- Some State Energy Offices are cost sharing RAC activities that specifically benefit their states
- CHP target market workshops have been coordinated with State Energy Offices. Examples – Hospitals in IL, Ethanol and hog farms in IA, Arch & Eng in IL
- Mid Atlantic RAC Advisory Board includes State Energy Office representatives from DE, MD, PA, and VA
- Northeast RAC developed a Strategic Plan for their center in partnership with the State Energy Offices in their region (not NE roadmap)
- Gulf Coast and Southeast RACs have been involved with hurricane rebuild efforts in effected states
- The TX and LA State Energy Offices recently participated in the Gulf Coast RAC roadmap meeting
- Each State Energy Office in the NW was funded by the NW RAC to lead, develop, and organize a CHP education program in their state
- The UT State Energy Office co-sponsored a CHP target market workshops for wastewater treatment and landfill facilities which was replicated in CA (with additional replication anticipated)
- The Midwest RAC teamed with the State Energy Offices in IA, OH, MN, WI to develop a CHP outreach program for municipal electric utilities
- All five State Energy Offices in the Intermountain region participated in the Intermountain Summit in 2004



RAC Accomplishments

- **Regional Roadmap Workshops**
 - In 2004/2005, all 8 RACs have been engaged in developing these roadmaps to identify a plan forward and regional areas of focus
 - Engaged over 250 companies engaged in CHP
- **Technical Assistance > 200 MWs affected**
- **Education and Outreach: RAC is source of unbiased information and education**
 - Regulatory Forums and Interface
 - State and Regional Power Planning Efforts
 - Targeted Market Workshops
- **Partnering with other DOE and Government Programs**
 - Drove Regional Marketing efforts for US DOE's Integrated Energy System Webcast – Tripled attendance
 - 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



RACs are now well positioned to:

- engage and educate key state and regional organizations to promote CHP as an option in Regional Power Planning
- engage key target markets in their region to educate them on benefits of CHP
- identify key potential CHP projects for project development and technical support –
- work together to leverage resources and optimize overall program success.



For Further Information

- **Gulf Coast Region CHP Application Center**
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 - **Intermountain Region CHP Application Center**
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- Regional CHP Center Coordination Activities**
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