

Session 2: Industrial CHP Opportunities and Successes

Moderator:

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Panelists:

Brandon Presley,
Commissioner,
Mississippi Public
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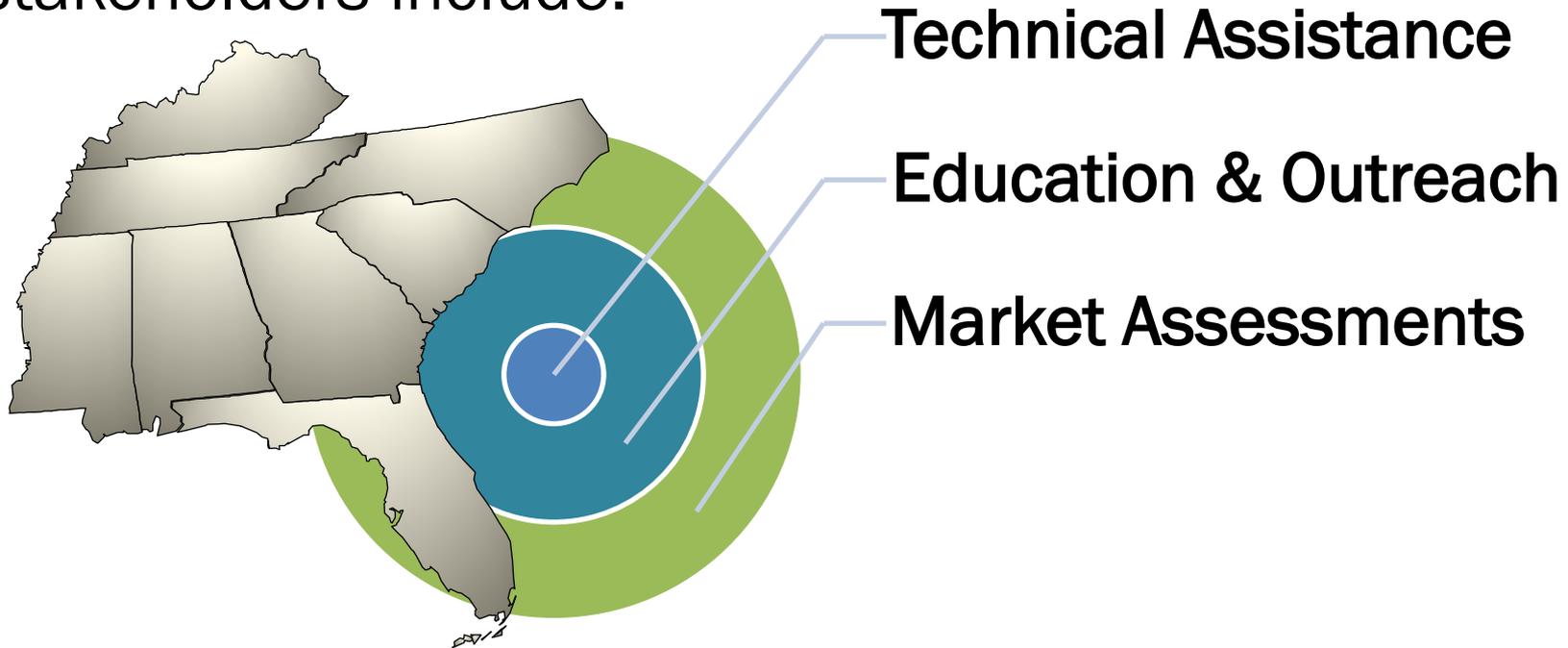
Howard Smith,
Manager of Load
Planning and
Resource
Management,
Alabama Power



DOE Southeast Clean Energy Application Center

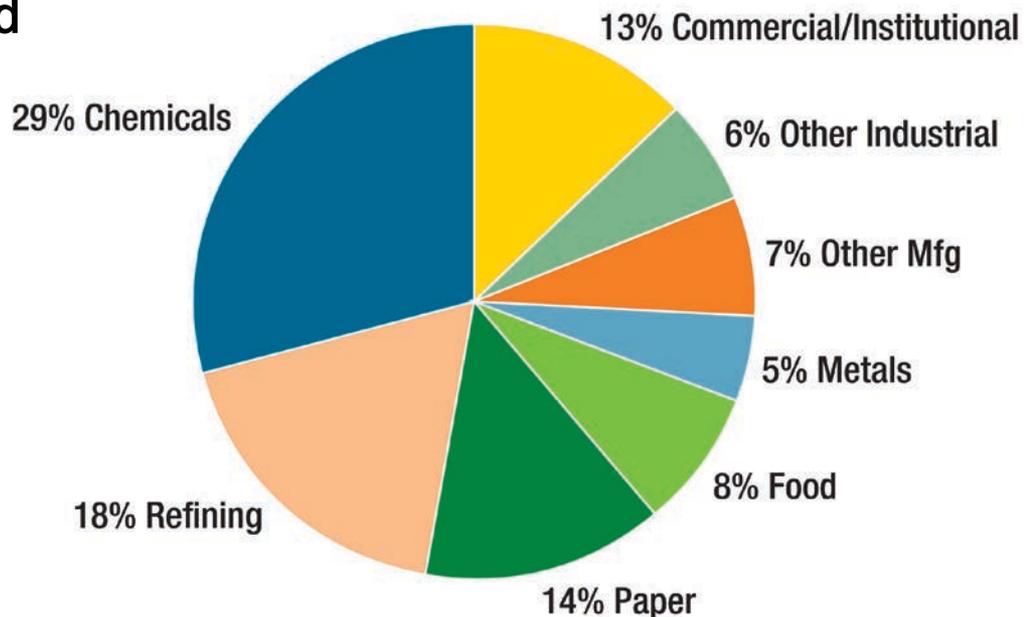
Promotes and assists in transforming the market for CHP, waste heat to power, and district energy technologies and concepts throughout the region.

Key services to energy end-users, policy, utility, & industry stakeholders include:

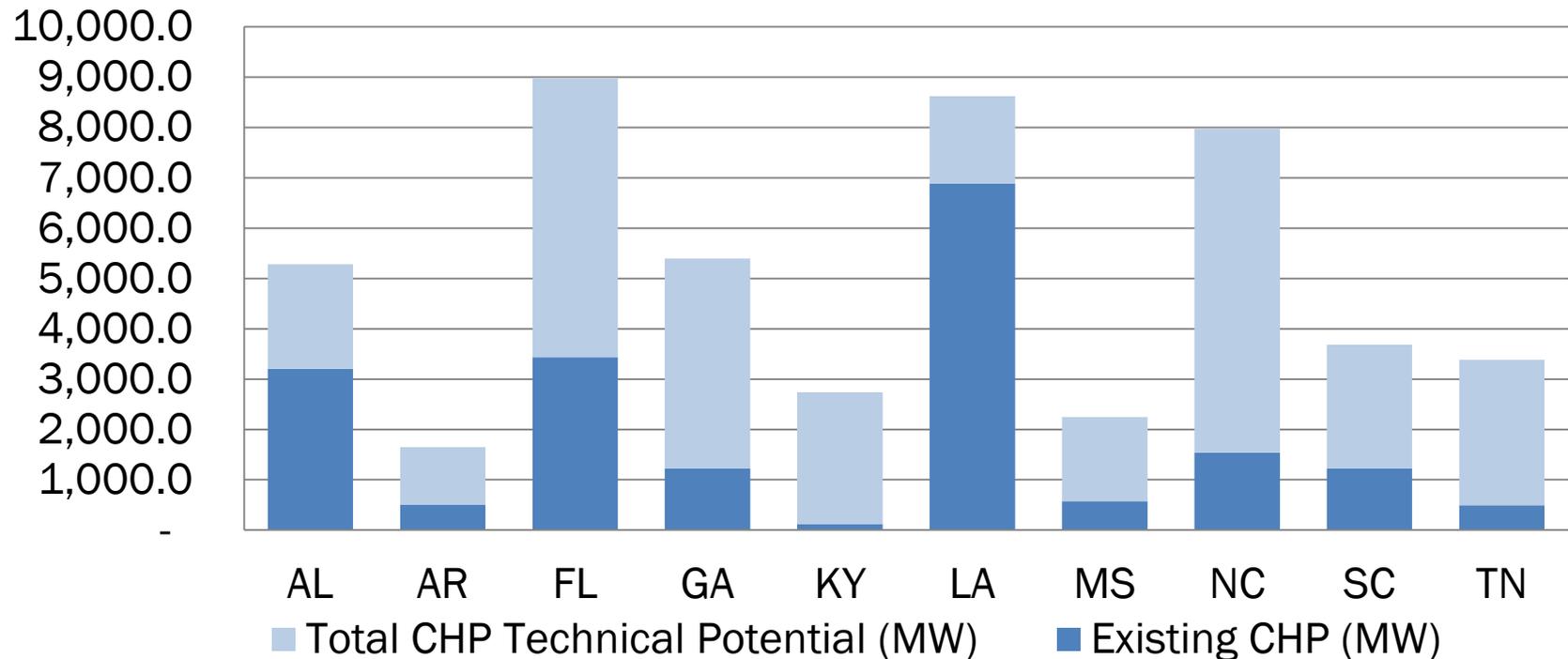


2012 National CHP Resource

- ~ 8% US generating capacity
- ~ 12% total annual MWh generated
- Industrial applications represent 87% of existing capacity
- Commercial/institutional applications represent 13% of existing capacity:
 - Hospitals, Schools, University Campuses, Hotels, Nursing Homes, Office Buildings, Apartment Complexes, Data Centers, Fitness Centers



Southeast US Existing CHP and Onsite Technical Potential

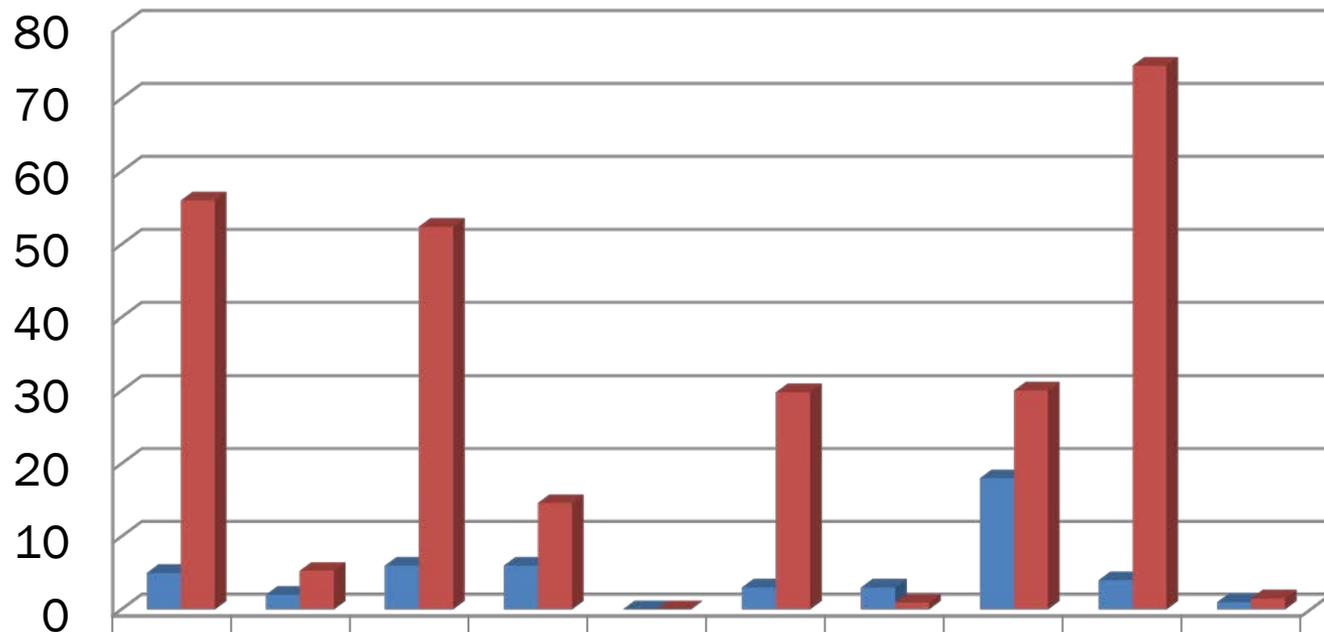


Total Existing CHP = 19,200 Megawatts

Tech Potential = 30,735 Megawatts



Southeast US CHP Project Development 2006 - 2012



■ New CHP Projects 2006-2012	5	2	6	6	0	3	3	18	4	1
■ New CHP 2006-2012 (MW)	56.0	5.3	52.4	14.6	0.0	29.8	0.9	30.0	74.5	1.5

New CHP = 265 Megawatts

New CHP Projects = 48 Sites





CHP as a Compliance Strategy for Boiler MACT

On December 20, 2012, the US EPA finalized the reconsideration process for the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (known as Boiler Maximum Achievable Control Technology (MACT)).

The CEACs are providing technical assistance to affected Major Sources using coal/oil to consider natural-gas CHP as a compliance strategy.

Fuel Type	#of Units in Southeast	Capacity (MMBtu/hr)
Coal	153	39,353
Heavy Liquid	110	11,716
Light Liquid	90	7,422
Process Gas	7	1,322
Total	360	59,814

In some cases an incremental investment in CHP yields a productive asset with favorable return on investment compared to conventional compliance

Industrial CHP Investment Considerations

- Benefits of CHP for U.S. businesses
 - Reduces energy costs for the user
 - Reduces risk of electric grid disruptions and enhances energy reliability
 - Provides stability in the face of uncertain electricity prices

- Benefits of CHP for the Nation
 - Improves U.S. manufacturing competitiveness
 - Offers a low-cost approach to new electricity generation capacity
 - Provides an immediate path to lower GHG emissions through increased energy efficiency
 - Lessens the need for new transmission and distribution (T&D) infrastructure and enhances power grid security
 - Uses abundant clean domestic energy sources
 - Uses highly skilled American labor and American technology



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