



U.S. Department of Energy
Energy Efficiency and Renewable Energy

federal energy management program

Electric Reliability & Hurricane Preparedness Plan

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Mississippi Power Company

- **Headquartered - Gulfport**
- **Subsidiary of Southern Company**
- **Serves 23 counties Southeast Mississippi**
- **192,000 retail customers**
- **Generating capacity: 3,166,192 kW**
- **Plant Radcliffe (Kemper County) under construction**





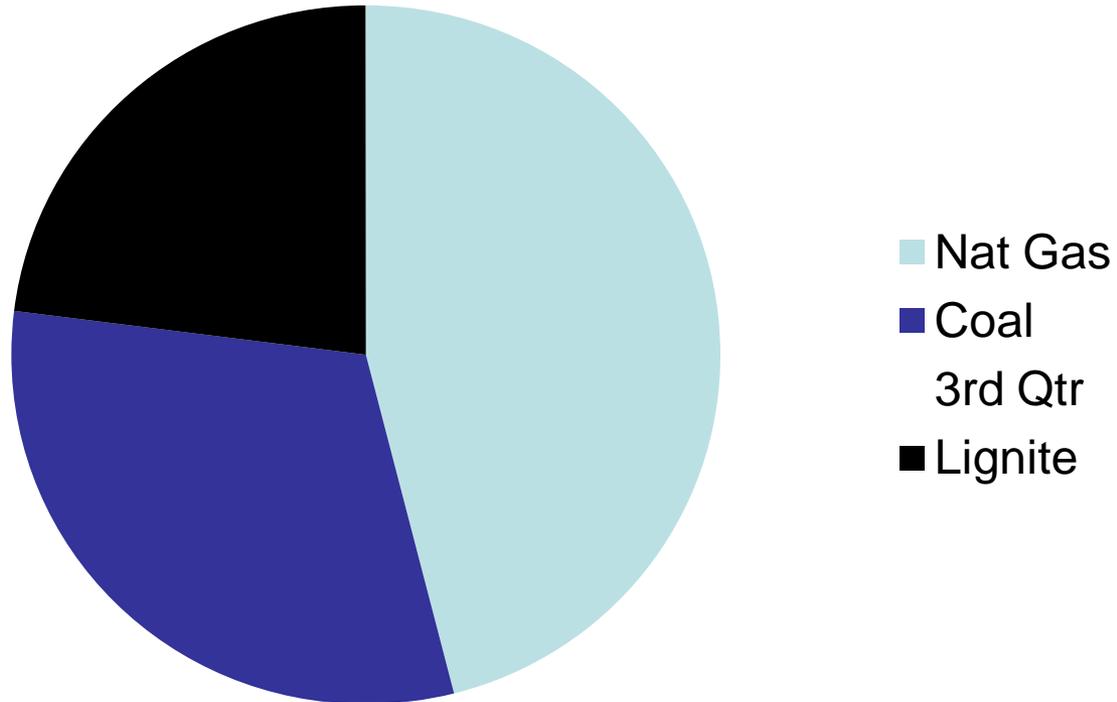
Plant Radcliffe – Kemper County

- **543 MW Lignite gasification plant**
- **Clean coal technology**
- **On line – May 2014**
- **Generation mix: Natural gas, coal and lignite**
- **Base load plant that will improve reliability and stabilize fuel costs**
- **Help meet future load growth and reserve requirements**



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New Gen Mix





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Stennis Space Center

- **115 kV – 13.8 kV**
- **3 MPC-owned substations**
 - Main
 - Saturn Drive
 - Leonard Kimble
- **Duo transmission feed (north & south)**
 - Provides redundancy, energy security, improved reliability & economic development
- **Hardening of NASA's distribution system**



Stennis Space Center

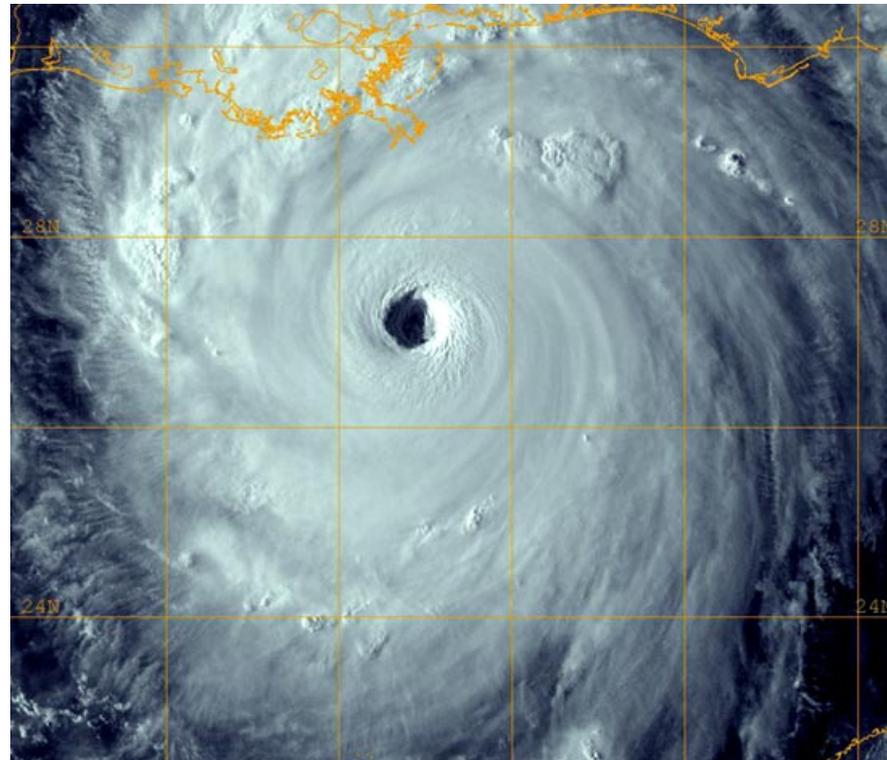
- **Mississippi Power's 6th largest retail customer**
- **\$12M Annual Revenue**
- **35 MVA peak demand**
- **Maintaining superior reliability top priority**
- **MPC's transmission lines serving NASA: 99+% reliability**



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Hurricane KATRINA





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MPC Infrastructure Damage

- **9,000 broken poles**
- **2,300 damaged transformers**
- **23,500 spans of wire down**
- **# Transmission lines affected - 120**
- **192,000 customers w/o power (100%)**
- **Power restored in 11 days**
- **Manpower – 11,000**



MPC's Hurricane Preparedness Plan

- **Dedicated A/E for key account customers**
- **Manpower resources**
 - Southern Company op-co's
 - Southern Company contractors
 - Neighboring utilities
 - SEE Mutual Assistance program
 - Internal/external support across the country
 - Tree trimmers



Preparedness plan

- **New Emergency Operations Center in North Gulfport**
- **Weather forecasters**
- **Early, expensive decisions**
- **Identify likely landfall and regional impacts**
- **Determine manpower needs**
- **Crews work prior to landfall up to 35 MPH winds**
- **Logistics**
 - Staging areas, meals, laundry, hotels, fuel, “customer support”
- **External and Key Account Communication Plan**



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Post Hurricane

- **Damage Assessment**
- **Determine manpower needs per region**
- **Restoration starts winds < 35 MPH**
- **Two work shifts**
 - 6:00 AM – 6:00 PM; 6:00 PM – 6:00 AM
- **Continuous dialogue with Key Accounts**
 - Restoration support on customer-owned systems



Restoration priorities

- **Transmission lines, substations**
- **Major feeders**
- **Hospitals, lift stations, municipalities, key account customers, (Chevron, military, etc.), emergency operations**
- **Most amount of customers with least amount of effort**
 - Residential, commercial customers







Photo by Katie Savage

Line crews swarm downtown Gulfport to complete restoration 12 days after Hurricane Katrina.







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Questions?

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