

**U.S. Department of Energy  
Pre-Congestion Study Regional Workshop for the  
2012 National Electric Congestion Study**

Entergy System  
December 8, 2011

# DOE 2009 Congestion Study

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- DOE Study notes that:
  - Several load pockets exist on the Entergy system—Acadiana, Amite South, WOTAB (West of the Atchafalaya Basin).
  - McAdams flowgate (the interface between Entergy and TVA) is congested.
  - There is limited transfer capability in the Ozarks between Entergy and SPP.
  - ICT is studying the need for upgrades.
- DOE Study has no cost data regarding the cost of congestion in the Entergy area.

# Congestion Was and Continues to Be Addressed

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- Areas of congestion are continually identified through:
  - Entergy analysis of TLRs and operational issues.
  - ICT ISTEP Process
  - Customer Input
- In 2011, unusual events increased number of TLRs (i.e., TLRs not congestion-related):
  - Arkansas & Mississippi storms
  - Mississippi floods
  - Construction outages
- Entergy has identified and taken actions to remedy congestion, where economic to do so, in most of the areas mentioned in 2009 DOE Study.

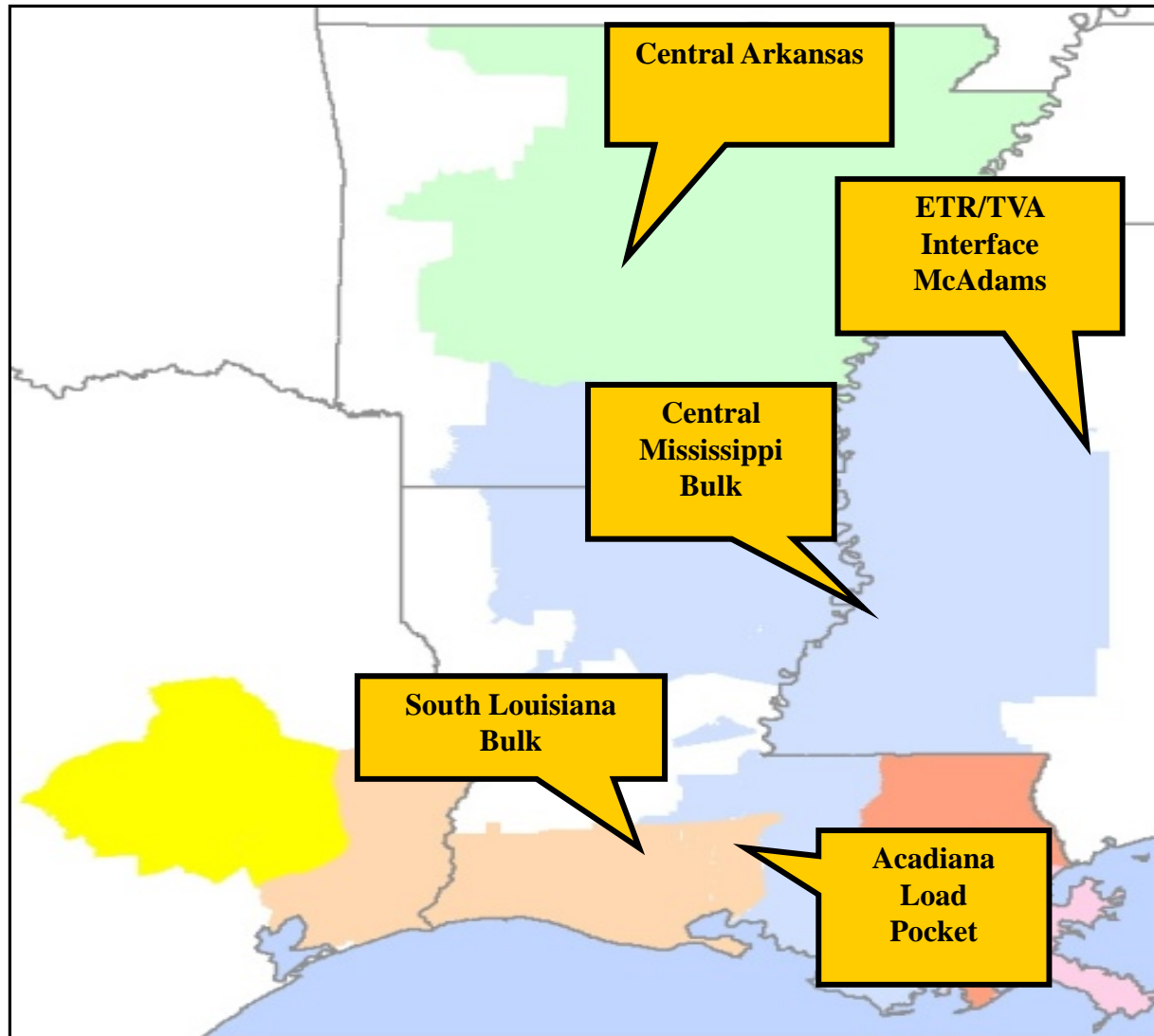
# Congestion-Relieving Projects Are Subject to Cost-Benefit Analysis

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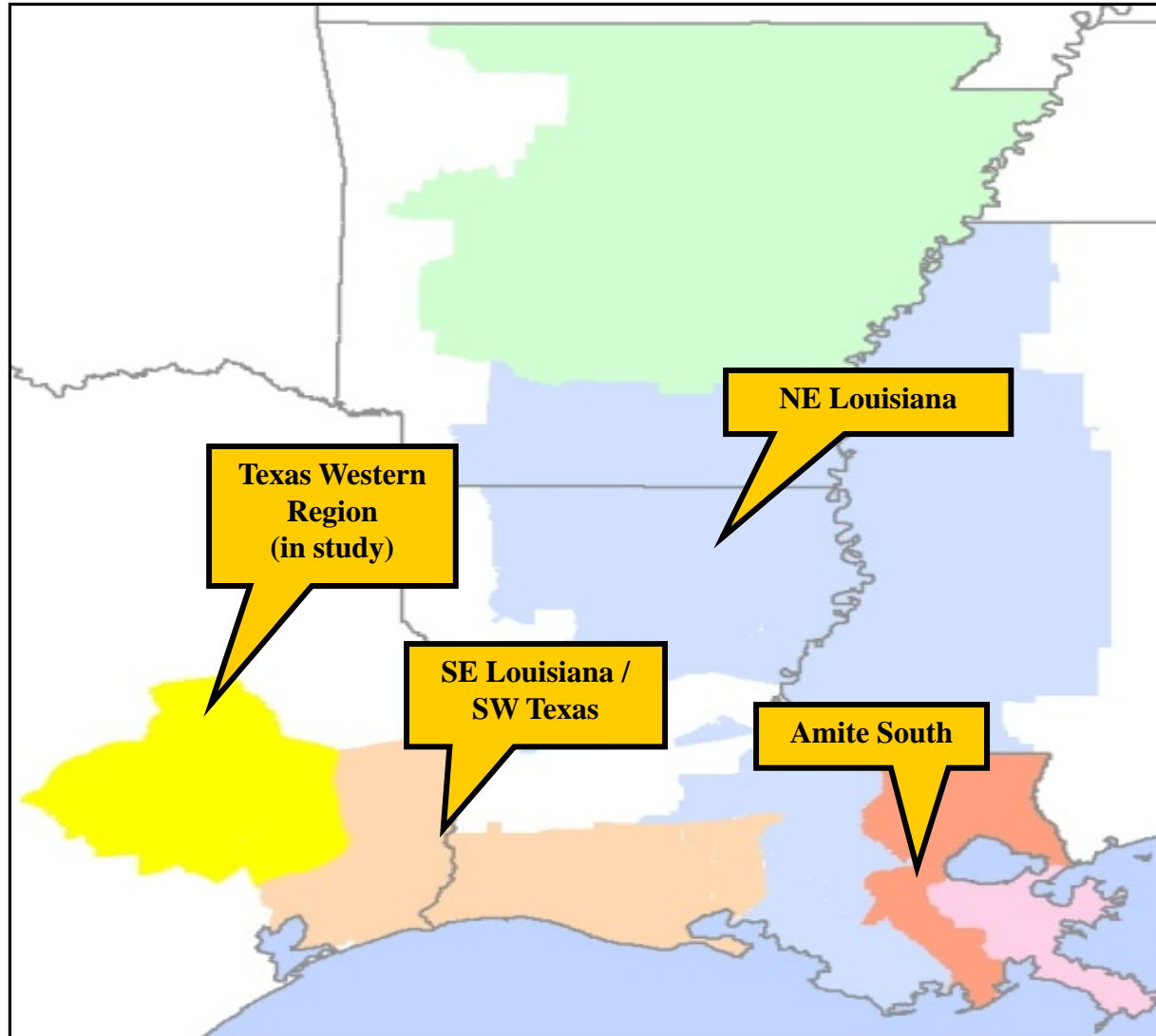
- ICT and Entergy perform economic analyses of potential-congestion reducing projects.
- Geographic/environmental constraints can make congestion relieving projects uneconomic.
- DOE Study Figure 4-20 identified 5 projects being studied by ICT;
  - Planning of Acadiana had largely been completed by Entergy before ICT Study.
  - 4 other projects all proved uneconomic.
- Many other congestion-relieving projects, however, have been found economic for some regions and construction or planning is underway.

# Entergy Region: 5 Congested Areas Identified by Entergy, and All have been Addressed

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# Entergy Region: 4 Congested Areas Identified by Entergy, and are being Addressed or in Study



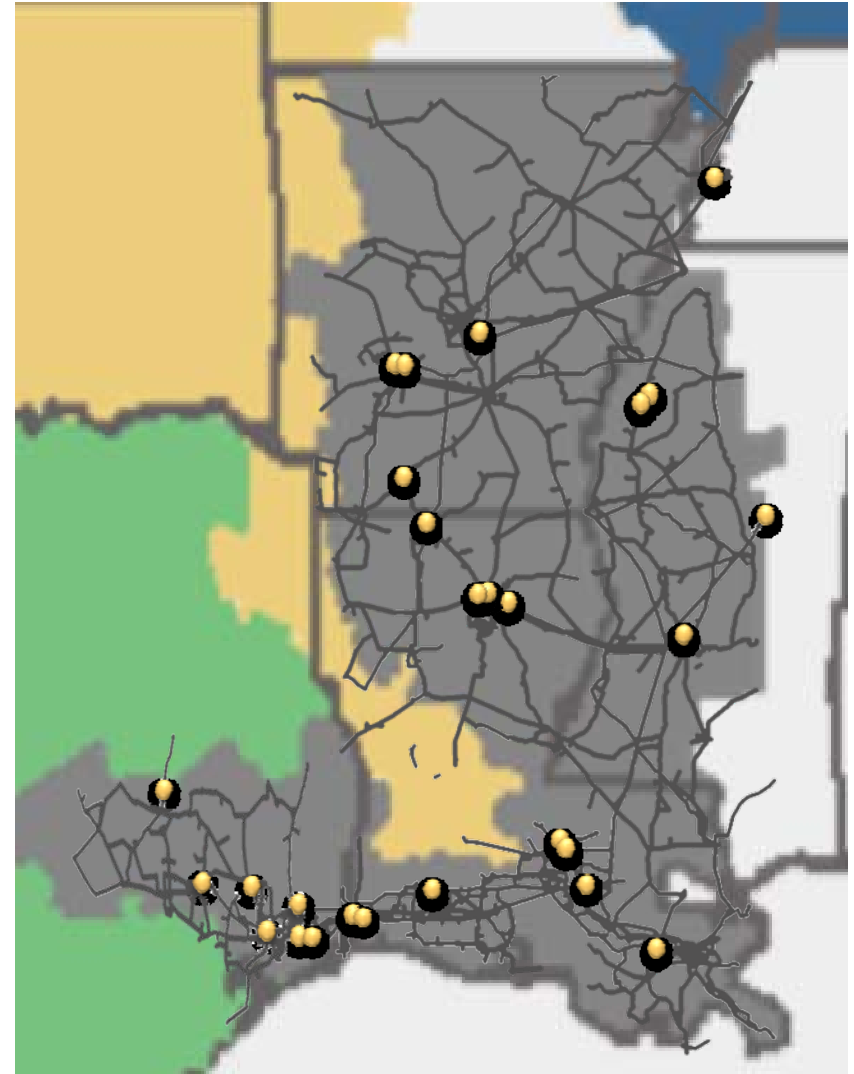
# Transmission Investment Last 5 Years – nearly \$1.9 billion

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	(\$MM)
<u>O&amp;M Expense</u>	
Transmission	653.9
Distribution Substation	52.8
Total	706.7
 <u>Capital Additions</u>	
Transmission	886.4
Distribution Substation	271.6
IPP (Reimbursement CIAC)	2.6
Total	1,160.6
 Total Transmission Business (O&M + Capital)	<b>1,867.3</b>

# Entergy transmission system enables the free flow of extensive amounts of energy

- 16,402 MW of new generation in the Entergy footprint
- 70% of energy from new generators has firm service in 2009-2011 timeframe
- 62% of energy from new generators has firm service in 2007-2025 timeframe





# Transmission Investment Going Forward 2012 – 2016

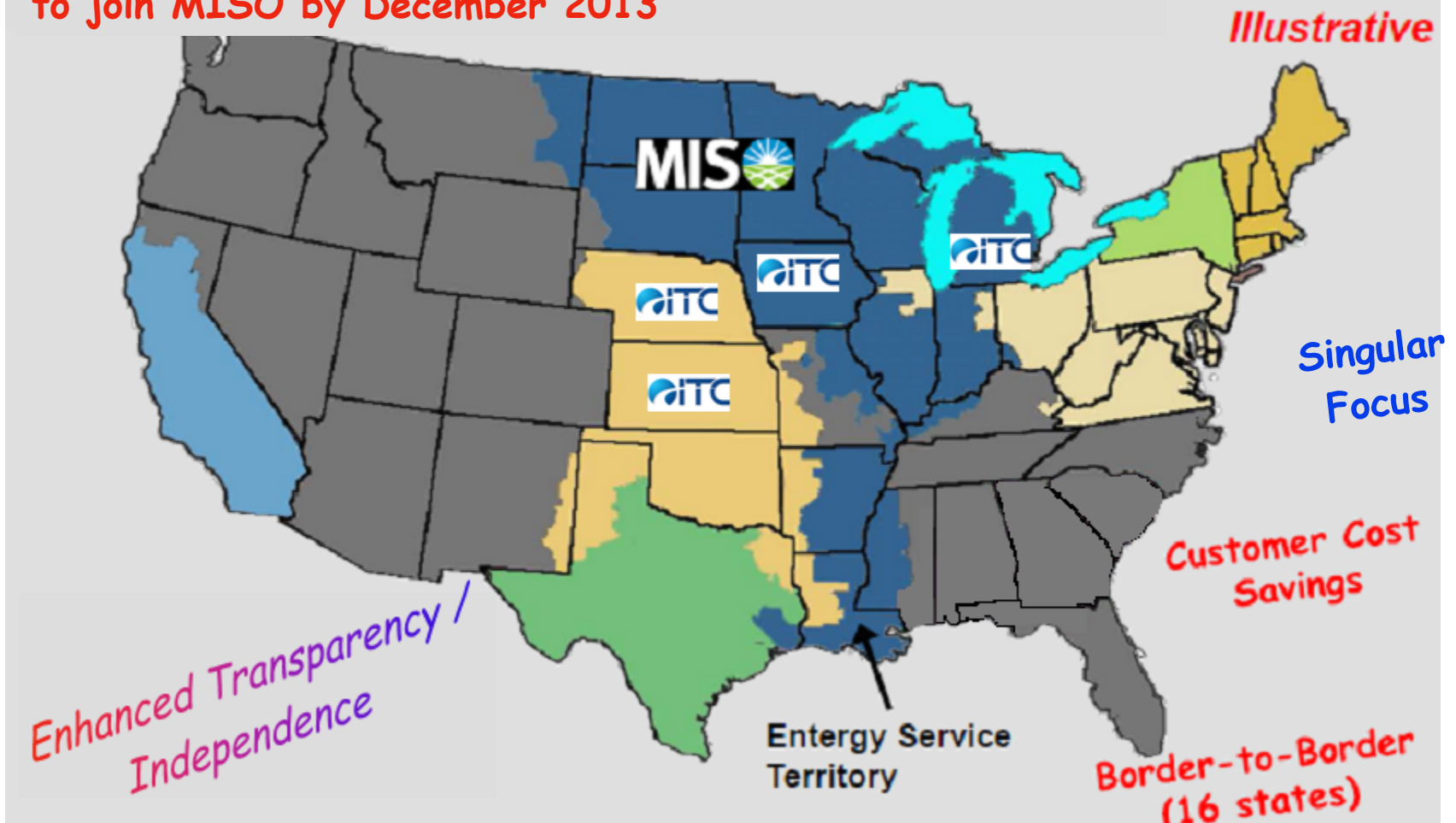
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## **144 projects, including:**

- 14 autotransformers
- 25 new transmission lines
- 41 line upgrades
- 1 line conversion to 230 kV
- 10 new substations
- 20 capacitor banks
- 1 SVC
- 32 substation expansion, reconfiguration or equipment addition/upgrade projects

# MISO / Transco Proposal

4/25/2011 - Entergy Proposes for all Operating Companies to join MISO by December 2013



12/5/2011 - Entergy Proposes to Transfer of Transmission Assets to ITC 10