Transmission Challenges and Vision for the Future

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Electricity Transmission Conference
Carnegie Mellon Electric Industry Center

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Who We Are

- Southern Company is an investor owned energy company in the Southeastern U.S. and a holding company for:
  - Alabama Power Company
  - Georgia Power Company
  - Gulf Power Company
  - Mississippi Power Company
  - Savannah Electric & Power Company
  - Southern Power Company

  supplying electric service in the states of Alabama, Florida, Georgia, Mississippi.
- Other Businesses
  - Southern Company Gas
  - Southern Nuclear
  - Southern LINC
  - Southern Telecom

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Southern Company Profile

- 39,000 MW
- 28,000 circuit miles
- For 2003:
  - $1.5 billion earnings
  - $11.3 billion total revenues
- 25,000+ employees
- Fortune magazine's most admired electric and gas utility – 3 years running

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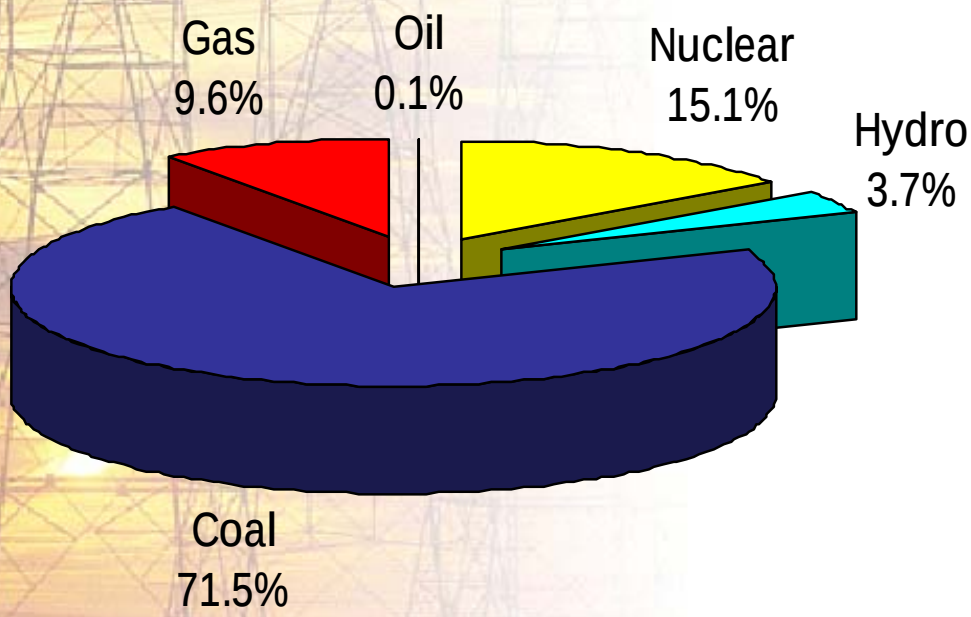
Generating Mix

- 281 generating units at 69 plants in the Southeast
- 2004 Generation Fuel Mix:



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Agenda

- Southern Company's Transmission Business
- Key Issues for Southern Company
- Policy Needs
- Conclusions

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Southern's Transmission Business

- Vertically-integrated, traditional regulated utility
- Competition (bidding) for new generation
- Transmission planning based on needs of native load and transmission service requests

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Advantages of this Approach

- Clear accountability
- Resource planning
- Economies of scope
- Benefits come from incremental generation, not existing
- Integrated utility manages risks on behalf of customers
- States retain jurisdiction

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Results Have Been Good

- Rates 20% below national average
- $2.6 billion new transmission investment (2004-2008)
- Continuous reliability improvement
- High customer satisfaction
- Favorable Wall Street views

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Key Issues for Southern Company

- Overbuild of merchant generation
- Transmission pricing
- RTO/market mandates
- State vs. Federal jurisdiction
- Market-based rates
- Technology

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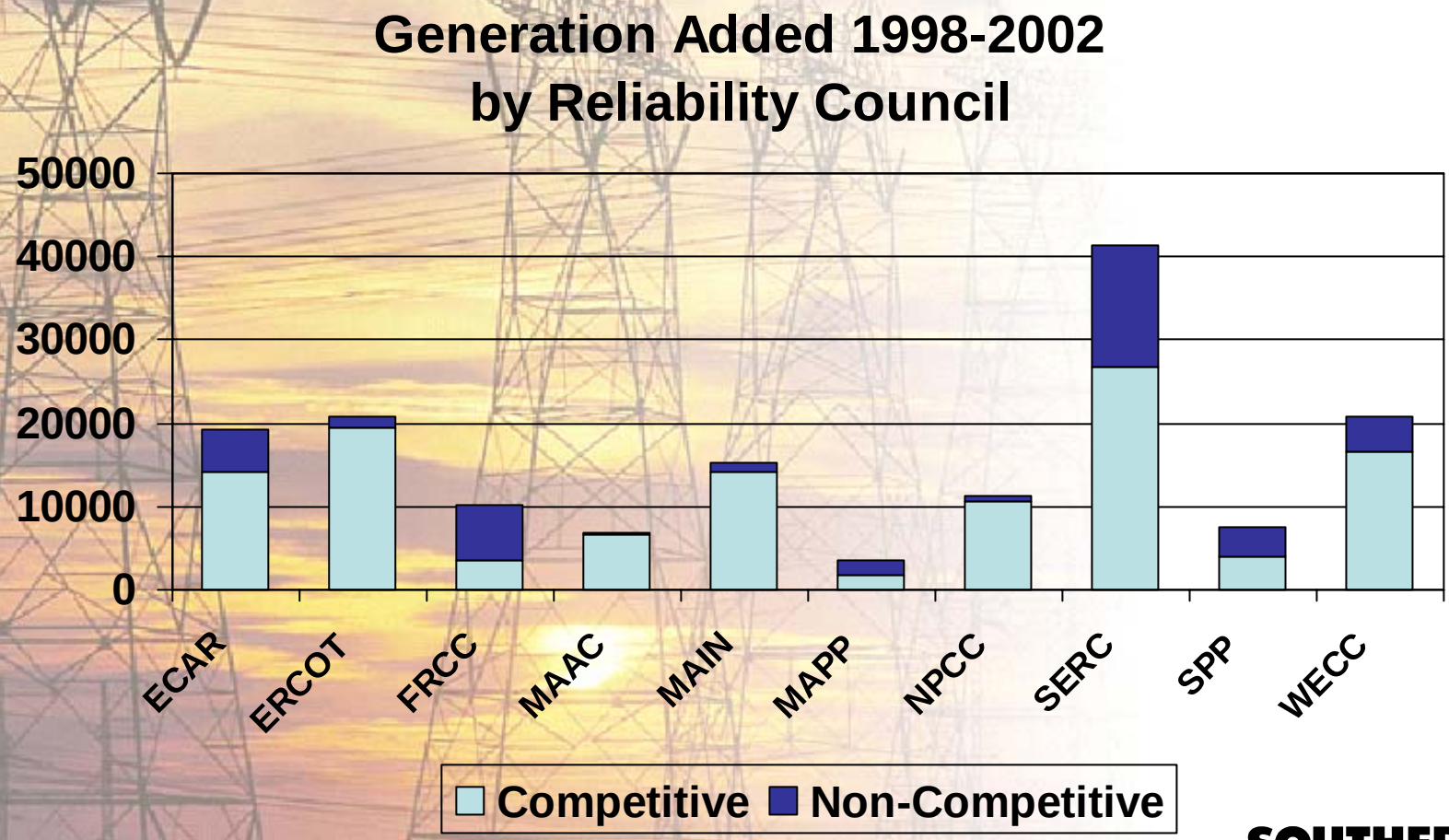
Generation Additions by Region



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Key Issues – Merchant Generation

- Numerous merchant generators located in our region
  - Access to fuel sources
  - Land and water availability
  - Poor communities
  - Gas pipeline rates vs. electric transmission rates
  - Poor decisions

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Key Issues – Transmission Pricing

- Traditional planning looked at total costs (G+T+D)
- Now, decisions being made by different parties
- Problems have resulted from current "rolled in" pricing:
  - Generators don't face the true cost of their location decisions
  - Beneficiaries of investments don't always pay the costs
  - Inconsistent with LMP – socializes congestion costs
- Participant funding is needed

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Why is Participant Funding Vital?

- Sends the right price signals for efficient generator location decisions
- Clarifies responsibility for transmission upgrades
- Avoids having customers shoulder the burden for investments that do not benefit them
- Facilitates more economically efficient grid expansion
- Resolves inevitable conflicts between generation and transmission alternatives

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Other Transmission Issues

- Rate of Return – must reflect risk
- Incentives for new investments
- Siting
- NERC/NAESB changes
- Interconnection standards and cost allocation

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Key Issues - RTO/Market Mandates

- RTOs should be tailored to meet regional needs
- Costs of RTOs vs. benefits is key regional issue

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RTO Costs (2003)

	Revenue Requirement	Cost per Unit ($/MWh)
PJM	$252,164,806	0.723
NYISO	117,578,796	0.718
ISO–NE	102,924,000	0.787
CA ISO	235,240,000	1.020
ERCOT	184,159,748	0.545
Ontario	107,204,400	0.705

Source: Public Power Council

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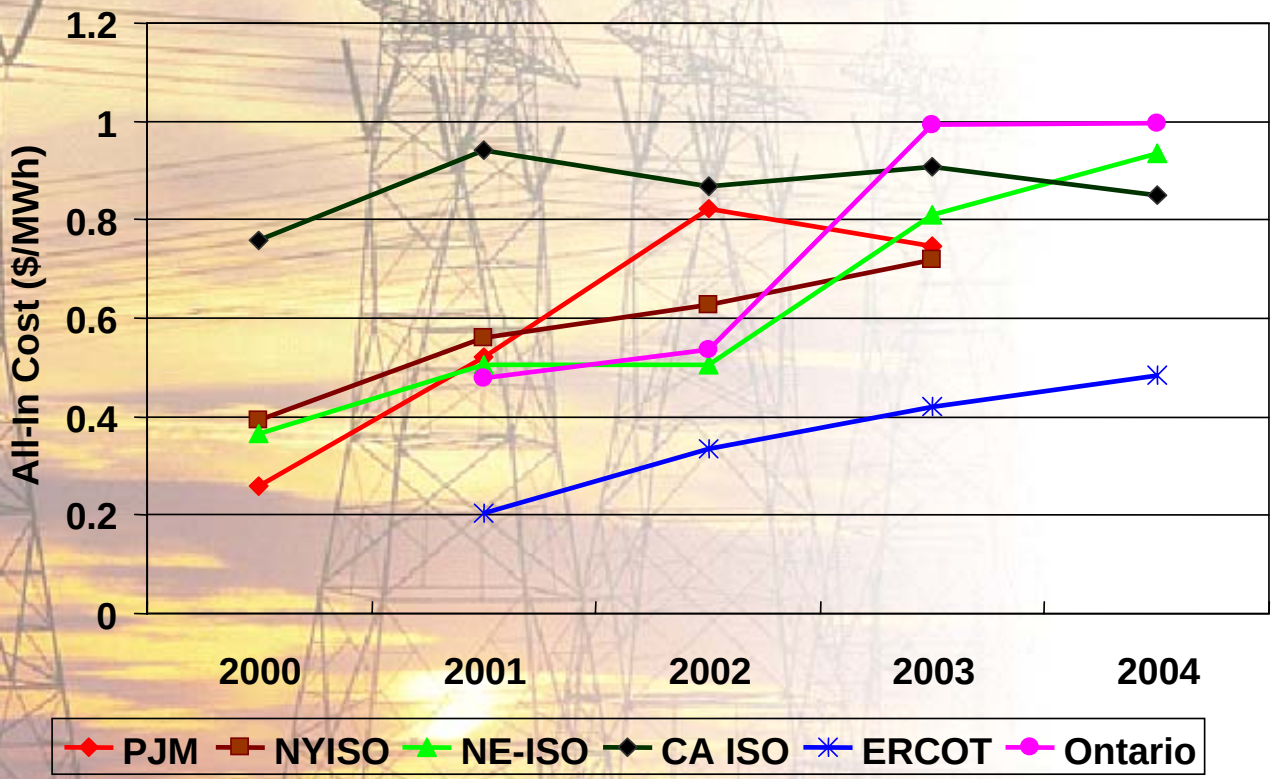
RTO Cost Trends (2000-2004)



Source: Public Power Council

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RTOs – A SE Model? (Entergy)

- Independent operation (or oversight) of OASIS and granting of interconnections and transmission access
- Regional planning and reliability coordination by independent entity
- Short-term formal competitive procurement process
- Independent entity to make participant funding determinations

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Key Issues - Market-Based Rates

- FERC market power screens
- Market share screen is troublesome
- Test for RTO participants is different
- Southern Company failed market share screen in initial filing
- If FERC proceeds, we will file more detailed tests and evidence

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Key Issues - Technology

- Reliability metrics
- Real-time observation and analyses
- Planning tools
- FACTS
- EMS, Metering and Communications

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Key Policy Needs

- Mandatory reliability standards
- Improved transmission and interconnection pricing regime
  - participant funding
  - incentives, where appropriate
- Realistic market power tests
- Maintain RTOs as an option, with regional flexibility

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Key Policy Needs (cont.)

- Increased federal R&D funding – focused on near-term applications
- Resolution of state/federal jurisdictional tensions
- Limited federal eminent domain as a backstop to states

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Conclusions

- We need to keep our eye on the ball – the customer
- Regional characteristics and concerns drive choices
- There is a place for the traditional, vertically integrated utility

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