Session Two: Transmission Expansion in Restructured Electricity Markets

Harvard Electricity Policy Group
Thirty-ninth Plenary Session

Rick Riley Entergy Services, Inc.

May 19, 2005



Entergy Background

- Control Area (CA) Peak Load approximately 22,000 MW
- Entergy generation 22,500 MW
- Merchant generation 17,000 MW
- 15,500 miles of transmission lines
- Retail electric service to 2.7 million customers

Entergy has continued to invest in the transmission grid

| | 2000 | 2001 | 2002 | 2003 | 2004 | Total 5 yrs. |
|------------------------------------|-------------|-------------|-------------|--------------|-------------|--------------------------|
| Trans O&M Expense (560-573) | 87,165,672 | 91,277,965 | 87,255,034 | 91,811,352 | 97,849,825 | 455,359,848 |
| Dist Sub O&M Expense (582,591,592) | 8,268,149 | 17,186,552 | 18,298,146 | 20,096,831 | 10,621,450 | 74,471,128 |
| Total Trans Business O&M Expense | 95,433,821 | 108,464,517 | 105,553,180 | 111,908,183 | 108,471,275 | 529,830,976 |
| Trans Capital Additions (350-359) | 154,659,918 | 148,620,717 | 172,960,196 | 270,681,530 | 205,314,373 | 952,236,734 |
| Dist Sub Cap Adds (361, 362) | 53,003,294 | 68,171,965 | 96,904,016 | 59,122,978 | 73,331,160 | 350,533,413 |
| Total Trans Business Capital | 207,663,212 | 216,792,682 | 269,864,212 | 329,804,508 | 278,645,533 | 1,302,770,147 |
| IPP (Reimbursement CIAC) | 13,045,471 | 102,616,676 | 58,559,980 | (28,735,924) | (7,571,865) | 137,914,338 |
| Total Trans Bus Cap. (incl CIAC) | 220,708,683 | 319,409,358 | 328,424,192 | 301,068,584 | 271,073,668 | 1,440,684,485 |
| Transmission (O&M + Cap) | 254,871,061 | 342,515,358 | 318,775,210 | 333,756,958 | 295,592,333 | 1,545,510,920 |
| Dsub (O&M + Cap) | 61,271,443 | 85,358,517 | 115,202,162 | 79,219,809 | 83,952,610 | 425 _, 004 541 |
| Total Trans Business (O&M + Cap) | 316,142,504 | 427,873,875 | 433,977,372 | 412,976,767 | 379,544,943 | 1,970,515,461 |

Almost **\$2 Billion** Spent in last five years!!



Historical Drivers for Transmission Expansion

- Reliability projects
- Load growth
- Load redistribution

The company has continued to invest in the system for reliability and load growth

- Western Region Construction of the China – Porter 230 kV line increased Western Region LSC for the 2005 summer by approximately 200 MW
- Amite-south Upon completion of the Conway – Panama 230 kV line, Amite South Import Capability will increase approx. 350 MW
- Downstream of Gypsy Upon completion of the DSG Phase II projects, DSG load serving capability will increase approximately 450 – 500 MW





Newly evolving drivers for Transmission Expansion

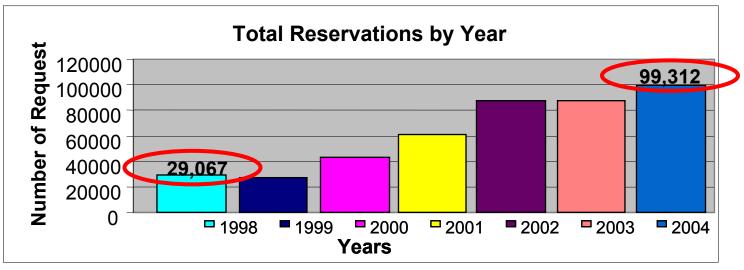
- Generator Interconnection
- Firm PTP and NITS service
- Economic projects

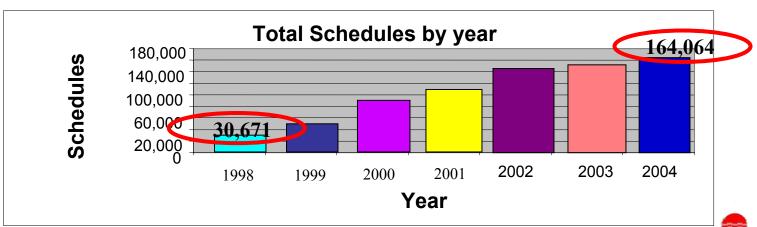
The merchant activity in the Entergy region has resulted in a demand for more transmission capability

- 17,000 MW of merchant plants added since 1998
- Transmission often an afterthought when siting new units
- Very few have asked for Firm Transmission Service



There has also been a dramatic increase in wholesale activity on the Entergy System

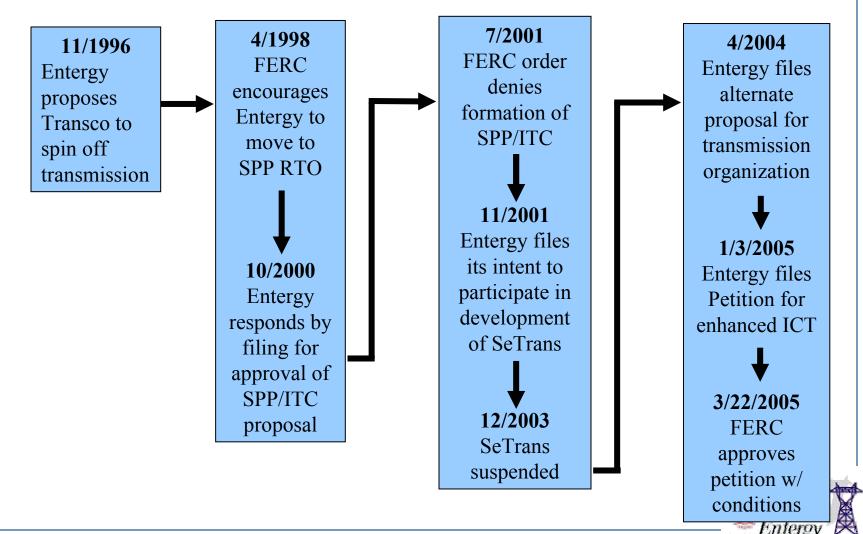




Entergy has been a staunch supporter of Participant Funding to address this issue

- The SeTrans proposal included a Participant Funding protocol
 - Awarded Financial Transmission Rights to parties that expanded the transmission system
- In light of the suspension of the SeTrans effort, Entergy has proposed a similar "beneficiary pays" pricing policy in the context of our ICT Proposal

The ICT proposal is a continuation of Entergy's efforts to promote greater independence and transparency in the provision of Transmission Service



Overview of the Entergy ICT Proposal

- Will establish an Independent Coordinator of Transmission (ICT)
- The ICT will:
 - Grant transmission service
 - Calculate Available Flowgate Capacity (AFC)
 - Administer Entergy's OASIS
 - Perform an enhanced regional planning function
 - Provide oversight over the new Weekly Procurement Process
 - Administer the Entergy Transmission Expansion and Pricing Policy

The ICT Pricing Proposal is based on the **Commission's "Higher of" Pricing Policy**

- Transmission expansion projects categorized as Basefunded or Supplemental Projects
- Base-funded projects are those projects in the ICT base plan that are required to honor long-term firm service commitments, to accommodate load growth from existing resources, and to maintain reliability
- Supplemental Projects include upgrades required for new PTP and NITS service, generator interconnection, and investments designed to reduce congestion and increase transfer capability

Cost recovery for PTP Service

- The costs of Supplemental Upgrades that are required to grant PTP service requests will be recoverable under the Commission's "or" pricing policy.
- The requesting customer will be charged the higher of:
 - the applicable PTP rate recoverable from the customer over the requested term of service, factoring the cost of the upgrade into the rate; or
 - the incremental cost of the upgrade.

Network Service and Interconnection service do not create additional revenues

- Accordingly, the costs of Supplemental Upgrades required to accommodate generator interconnection service requests for Energy Resource Interconnection Service or Network Resource Interconnection Service will be recovered from the requesting interconnection customer.
- The costs of Supplemental Upgrades required to accommodate Network Customer service requests, including designation of new Long Term NITS resources, will be recoverable from the requesting Network Customer.

Transmission Rights

- The ICT proposal does not include an LMP/FTR market structure, thus offering financial transmission rights currently not an option
- Customer's funding Supplemental Upgrades will, however, receive:
 - The rights associated with the service request
 - Congestion protection
 - PTP allowance
 - Financial compensation for long-term service sold to others