ATTORNEYS AT LAW

WRIGHT & TALISMAN, P.C.

January 8, 2008

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, D.C. 20426

Re: Entergy Services, Inc., Docket No. ER05-1065-000

The ICT's Report on Entergy's Transmission System and Transmission Pricing

Dear Secretary Bose:

The Southwest Power Pool, Inc. ("SPP"), as the Independent Coordinator of Transmission ("ICT") for the Entergy Services, Inc. ("Entergy") system, hereby submits the ICT's Report on the State of Entergy's Transmission System and Transmission Pricing, in accordance with the Federal Energy Regulatory Commission's orders approving the establishment of the ICT.¹

The ICT will serve a copy of this report to all Interested Government Agencies and will make the report publicly available by posting it electronically on Entergy's OASIS.

If there are any questions related to this matter, please contact the undersigned at the number listed above.

Respectfully submitted,

<u>/s/ David S. Shaffer</u> David S. Shaffer

Counsel for the ICT

Attachments

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See Entergy Services, Inc., 115 FERC ¶ 61,095, order on reh'g, 116 FERC ¶ 61,275, order on compliance, 117 FERC ¶ 61,055 (2006), order on reh'g, 119 FERC ¶ 61,187 (2007).

ICT Report on the State of the Entergy Transmission System and Transmission Pricing

January 8, 2008





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I. <u>Purpose</u>

Southwest Power Pool, Inc. ("SPP"), as the Independent Coordinator of Transmission ("ICT") for the Entergy Services, Inc. ("Entergy" or "ESI") system, is required by the Federal Energy Regulatory Commission ("Commission" or "FERC") pursuant to the April 24, 2006, Order in ER05-1065 to file a comprehensive report assessing the state of Entergy's transmission system operations as well as an evaluation of whether Entergy's transmission pricing ensures that merchant generation is able to compete in the Entergy footprint.¹

In conjunction with the ICT's Annual Report that was filed on January 7, 2008, the instant report responds to the Commission's directive. In so doing, the report will give a brief overview of Entergy and the ICT. The report will then discuss Entergy's transmission system operations since the ICT was installed, including a review of transmission service requests ("TSR"), transmission congestion and reliability, transmission and interconnection studies, transmission planning, and the status of the Weekly Procurement Process ("WPP"). Finally, the report will examine Entergy's transmission pricing structure for the recovery of new facility costs and provide the ICT's assessment on the effectiveness of Entergy's pricing mechanism to permit competition for merchant generation.

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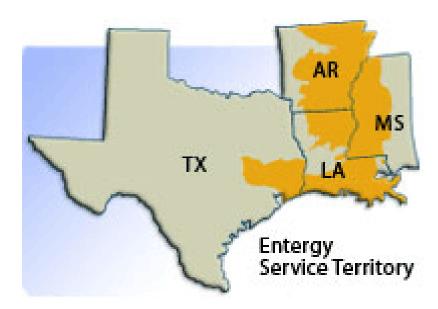
See Entergy Services, Inc., 115 FERC ¶ 61,095, at P 298 (2006) ("ICT Approval Order").



II. System Characteristics

A. Entergy

Entergy provides services for the Entergy Operating Companies, which are a part of a multi-state public utility holding company system. The operating companies include Entergy Arkansas, Inc, Entergy Gulf Coast States, Inc., Entergy Louisiana, Inc., Entergy Mississippi, Inc., and Entergy New Orleans Inc.



Entergy provides electricity to 2.7 million utility customers in Arkansas, Louisiana, Mississippi and Texas.² In 2006, residential customers comprised approximately 29% of Entergy's total energy sales with commercial, industrial, government, and sales for resale accounting for 23%, 36%, 1%, and 10%, respectively.³

Entergy also operates more than 40 generating plants using natural gas, nuclear, coal, oil, and hydroelectric power and produces approximately 30,000 megawatts ("MW") of electric generating capacity. Peak demand for 2006 was 20,887 MW. Total GWh by energy source for 2006 was approximately 113,250.6

² See www.entergy.com/operations/information

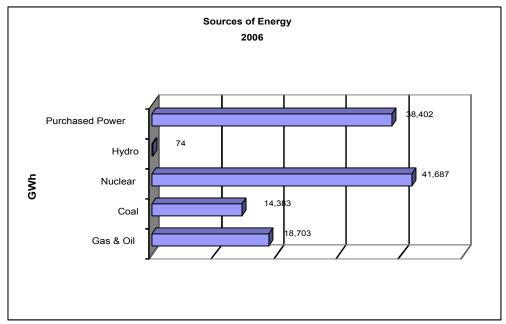
³ See www.entergy.com/content/investor relations/pdfs/2006 final IG.pdf, page 35

See www.entergy.com/operations/information

⁵ See www.entergy.com/content/investor_relations/pdfs/2006_final_IG.pdf , page 35

⁶ See id.

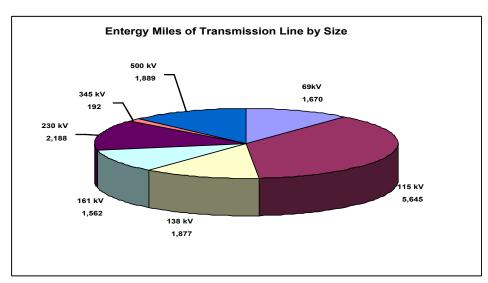




Source: www.entergy.com/content/investor_relations/pdfs/2006_final_IG.pdf , page 35.

The Entergy Operating Companies have built or acquired approximately 15,500 miles of 69kV - 500kV transmission lines and move about 23,000 MW of power across the interconnected lines in an 112,000 square-mile area.⁷

The breakdown of the miles by size of the transmission line is shown below:



Source: "Entergy Transmission Asset Management 2006 Objectives," at 6. Oasis.e-terrasolutions.com/documents/EES/2006_Trans_Planning_Summit_AM.pdf

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See www.entergy.com/operations/information.



B. SPP as the ICT for Entergy

On May 27, 2005, Entergy submitted to the Commission, on behalf of the Entergy Operating Companies, a proposed revision to its Open Access Transmission Tariff ("OATT" or "Tariff") reflecting its proposal to establish an ICT for its transmission system and to implement a WPP. In its filing, Entergy identified SPP as the candidate it had chosen to perform the function of the ICT. In the ICT Approval Order, the Commission found that SPP, operating as a Regional Transmission Operator ("RTO"), satisfied the independence requirement to operate in the capacity of the ICT for Entergy and conditionally approved the tariff changes filed by Entergy. On November 17, 2006, the ICT assumed the responsibilities set forth in Attachment A to the ICT Agreement and Attachment S in Entergy's OATT, with select reliability functions starting on November 1, 2006. Accordingly, the ICT is performing functions such as: (i) reliability coordination; (ii) AFC calculation; (iii) OASIS posting; (iv) processing of TSRs; (v) coordinating regional planning; and (vi) conducting stakeholder meetings. The ICT is also currently overseeing the design and testing of the WPP by Entergy's Weekly Operations group.



III. <u>Transmission System Operations</u>

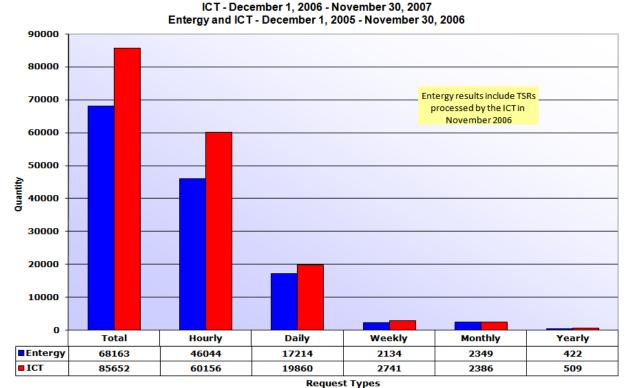
A. TSRs

In accordance with section 3.1 of Attachment S to Entergy's OATT, the ICT is responsible for evaluating (granting or denying) all TSRs on a non-discriminatory basis consistent with the TSR Processing Criteria and Transmission Study Criteria and overseeing Entergy's provision of short-term and long-term transmission service.

As demonstrated by Figure 1, there has been a significant increase in the number of TSRs received and acted on during the ICT's first year of operation, compared to the same time period in the prior year. Specifically, the total number of TSRs received by the ICT increased 26%. The percentage increase for each type of service by duration was as follows: Hourly 31%, Daily 15%, Weekly 28%, Monthly 2%, and Yearly 21%.

TSRs Recieved

Figure 1





Despite this increase in demand, TSRs have continued to be processed in a timely manner and consistent with the requirements of Entergy's OATT and Commission policy. *See infra* section III.C. In addition, the ICT, in conjunction with Entergy, has implemented the requirements of Order No. 890, including changes to the AFC process and tariff requirements for transmission service.

However, as reported in the ICT's Quarterly Performance Reports, there have been multiple error reports filed by Entergy with the Commission identifying instances where AFC data associated with Entergy's automated systems has been lost, inaccurate, or mismanaged. In some instances, those data handling errors may have affected the processing of requests for transmission service on Entergy's system. In addition, certain of these error reports have identified flawed assumptions and modeling errors. To address these problems, Entergy and the ICT are currently engaged in a "top down" review of the AFC processes, including all software and automation involved, to ensure that the AFC process is operating in an accurate and non-discriminatory manner. The ICT, consistent with its independent oversight obligations, will implement any necessary software corrections and revised procedures to improve Entergy's automated systems and, in turn, the processing of TSRs in a fair, accurate and efficient manner.

B. Transmission Congestion and Reliability

On November 1, 2006, Entergy formally transitioned the Reliability Coordinator function to the ICT as approved by the ICT Approval Order. As the Reliability Coordinator for Entergy, the ICT has authority over all matters within the scope of its duties as a North American Electric Reliability Council ("NERC") Reliability Coordinator. The ICT performs its duties in an independent manner while utilizing information from Entergy, Market Participants, and other balancing authorities. Section 5 of Attachment S to Entergy's OATT, in conjunction with the Reliability Coordinator Protocol appended to Attachment S, provides that the ICT shall have exclusive authority to execute Transmission Loading Relief ("TLR") procedures under NERC Standards IRO-006-4 and PER-004-1. Therefore, the ICT Reliability Coordinator has and exercises the authority to independently execute TLR events if it deems necessary. In order to mitigate projected overloads on the Entergy system, the ICT Reliability Coordinator also can redispatch generators, reconfigure and modify transmission maintenance and outage schedules, as well as adjust transmission schedules and reduce load to mitigate critical conditions.

As described more fully in the ICT Quarterly Performance Reports, the ICT has encountered increased congestion on the Entergy system due to record temperatures, large outages, and certain policy decisions by Entergy regarding voluntary redispatch that were implemented during the year. ⁹ This increased congestion necessarily forced the ICT to call a

See ICT Quarterly Performance Report, Docket No. ER05-1065-000, sections 3.3 and 3.4, filed March 9, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, sections 8.3 and 8.4, filed June 27, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 8.3, filed October 2, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 8.3, filed December 31, 2007.

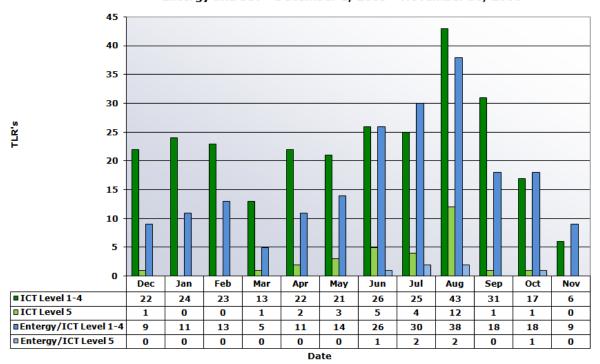
See ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 2.4, filed March 9, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 2.4, filed June 27, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 2.4, filed October 2, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 2.4, filed December 31, 2007.



higher number of TLRs to curtail transmission service and help prevent instability, uncontrolled separation, or cascading outages compared to the previous year. From December 1, 2006 through November 30, 2007, the ICT Reliability Coordinator has initiated three hundred and three (303) TLR events with a total curtailment of 471,622 MWh's during this period. For comparison purposes, from December 1, 2005 though November 30, 2006, there were a total of two hundred and eight (208) TLR events initiated with a total of 216,778 MWh's curtailed. Figure 2 illustrates these TLR events broken down by monthly totals for the ICT and Entergy/ICT.

Figure 2

TLR Events/Levels ICT - December 1, 2006 - November 30, 2007 Entergy and ICT - December 1, 2005 - November 30, 2006



Based on its first year of experience as Reliability Coordinator for Entergy and the increase in TLR events, the ICT has initiated the development of a comprehensive Reliability Improvement Plan with Entergy and its stakeholders. This plan will consider all potential mitigation options including generation redispatch, mandatory generation ratios, the use of operating guides, and coordination with the ICT long-term planning group to reduce the number of TLRs and relieve the severe congestion on portions of Entergy's system. The ICT firmly believes that these efforts will lead to a decrease in congestion and TLR events in the next year.



C. Transmission and Interconnection Studies

In accordance with the ICT's responsibility to oversee the provision of transmission service on Entergy's system, the ICT is charged with performing the studies necessary to evaluate transmission and interconnection service requests. As reported earlier, there has been a significant increase in the demand for service on Entergy's system since the ICT was installed. Correspondingly, there has been an increase in the number of TSRs and interconnection requests that require a study to be performed.

As reported in the ICT's Annual Report, during the first year of the ICT's operations requested System Impact Studies ("SIS") and Facilities Studies ("FS") related to TSRs were processed, on average, in a timely manner and within the sixty (60) day study completion deadline under Entergy's OATT.¹⁰

Further, as reported in the ICT's Annual Report, Feasibility Studies and SIS related to generation interconnection requests were processed, on average, beyond the completion deadlines for those studies as established under Entergy's OATT.¹¹ The ICT reported that these delays were due, in large part, to complex nuclear studies that postponed the start of other studies of interconnection requests lower in the gueue.¹²

During the first year of the ICT's operations, eleven (11) interconnection requests were received by the ICT. In comparison, ten (10) interconnection requests were received by Entergy in the prior year.

D. Transmission Planning

On November 17, 2007, the ICT assumed the transmission planning responsibilities for Entergy's system. Consistent with this obligation, the ICT has implemented a 2007 Interim Base Plan and has completed a draft 2008 Base Plan. As reported in the ICT's Annual Report, each Base Plan has identified new transmission projects to improve reliability and transmission service on Entergy's system. Some of those new projects have subsequently been incorporated into Entergy's Construction Plan, including the following:

- Fawil: Upgrade 138/69
- Ray Braswell Wynndale New 115 kV Line
- Close Patterson Bus Tie
- Upgrade Switch Risers at Rison
- College Station 138 kV Switch Station

The ICT's Base Plan has also been used in the evaluation of transmission upgrade cost allocation under Entergy's transmission pricing. See *infra* section IV.A.

The ICT, on its own initiative, has also developed an ICT Strategic Transmission Expansion Plan ("ISTEP"). The ISTEP provides Entergy and its stakeholders with an independent assessment of transmission projects that the ICT believes would enhance both

See ICT Annual Report at section III.8.

¹¹ See id.

See id. at section II.3 at n. 3.



reliability and economics within the Entergy footprint. The ISTEP will be subject to review and comments by stakeholders and Entergy and is intended to be finalized during the coming year.

Finally, greater regional and inter-regional planning has been a focus during the ICT's first year of operations. In particular, the ICT has actively pursued various planning initiatives with transmission systems adjacent to Entergy. For example, a Rate Pancaking Task Force was formed with stakeholders to consider the impact of rate pancaking between Entergy and SPP and develop possible alternatives to the current structure. The focus of this, and other, efforts has been to improve communications between Entergy and other transmission systems in order to improve coordination and cooperation on expansion planning and reliability matters. In addition, Entergy, transmission customers, and the ICT have continued to work together to identify system constraints and load pockets on Entergy's system and to analyze viable system enhancements and upgrades to resolve these congestion problems.

E. WPP

In the ICT Approval Order, the Commission approved the WPP as a way to improve Entergy's procurement options by allowing merchant generation and other wholesale suppliers to compete to serve Entergy's native load customers and by granting short-term firm transmission service through redispatch.¹³ The Commission envisioned that the WPP would commence in mid-2007 and Entergy's customers would then begin to see the benefits of the WPP through customer savings.

As detailed in the ICT's Quarterly Performance Reports, the development and testing of the WPP software and procedures has taken longer than originally anticipated and has delayed the implementation of the WPP. Therefore, as of the date of this report, the WPP has not commenced operations and the anticipated benefits of the WPP have not yet been realized. The ICT will continue to work closely with Entergy and stakeholders in the coming year to ensure that the WPP is fully developed and tested and that the WPP is successfully implemented.

See ICT Approval Order at P 246.

See ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 5, filed June 27, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 5, filed October 2, 2007; ICT Quarterly Performance Report, Docket No. ER05-1065-000, section 5, filed December 31, 2007.

IV. <u>Transmission Pricing</u>

A. Entergy's Transmission Pricing

The Commission-approved Entergy transmission pricing for recovery of new facility costs contains two primary components: Base Plan Upgrades (Entergy-funded) or Supplemental Upgrades (Customer-funded). Consistent with Commission practice and precedent and as described in Attachment T of the Entergy OATT, the pricing for Base Plan Upgrade costs, which includes upgrades that are needed to ensure reliability and meet load growth, are rolled-in to base transmission rates. Supplemental Upgrades, which by definition fall outside of reliability and load growth requirements, are paid for by the customer that causes the upgrade to be incurred. Under Attachment T, the Transmission Customer also receives limited rights associated with a Supplemental Upgrade. Entergy's transmission pricing is designed to send efficient price signals for new interconnections and will be applied on a comparable basis to all customers.

FERC Order No. 2003 stated that such pricing of Supplemental Upgrades would be available to transmission providers that have turned over control of their transmission systems to an RTO or ISO. Although the ICT is not functioning as an RTO for Entergy, the Commission approved Entergy's pricing structure for the initial term of the ICT and found that the level of oversight that the ICT has been given over Entergy satisfies the fundamental findings in Order 2003.¹⁹

In addition, the Entergy system has approximately 20,000 MW of merchant generation connected to its system and without the pricing for Supplemental Upgrades as described in Attachment T to Entergy's OATT, the cost of network upgrades necessary to qualify this amount of generation as network resources would be borne unfairly by native load and other transmission customers under Base Plan funding pricing.

The ICT is responsible for determining whether upgrades should be classified as Base Plan or Supplemental as defined in Entergy's OATT, including Attachment T, The Transmission Planning Protocol, Transmission Service Protocol, and Interconnection Service Protocol as appended to Attachment S, the Point-to-Point and Network Service provisions of Part II and III of the Entergy OATT, the Large Generator Interconnection Procedures (LGIP) in Attachment N, and the Large Generation Interconnection Agreement (LGIA) in Attachment O.

17 *Id.*

See Attachment T, Entergy's OATT, section 2.

¹⁶ *Id*.

See *id*. at section 4.

See ICT Approval Order at P 167.



B. ICT Assessment of Entergy's Transmission Pricing

In order to assess the effectiveness of Entergy's Transmission Pricing mechanism to ensure that merchant generation seeking to compete in the Entergy footprint is provided the proper incentives to invest in transmission, several factors must be considered. The pricing installed at the start of the ICT has been in place for only one year. Also, as described below, certain aspects of Entergy's pricing structure are still pending implementation; thus, any analysis of the effectiveness of the pricing structure in creating a more competitive environment for merchant generation and providing adequate incentives for investment in the transmission system must necessarily be considered in conjunction with these facts. That being said, this assessment considered, to the extent possible, any trends in generation interconnection or transmission upgrades that show any increase (or decrease) in competition for embedded merchant generation with network generation that may be attributable to the implementation of the new transmission pricing structure.

The first area reviewed to determine the impact of the new transmission pricing was committed investments associated with long-term TSRs. If the impact of the new transmission pricing methodology increased competition for merchant generation during the first year, long-term transmission should have shown an increase in commitments to investment by merchant generation (i.e. the Supplemental Upgrade pricing mechanism together with congestion protection in the WPP and the financial payments associated with future use should have provided adequate incentives for merchant generation to invest in transmission upgrades required to support long-term TSRs). While the ICT did experience an increase in long-term TSRs during the first year, no transmission customer, including any merchant generation, committed to fund a Supplemental Upgrade associated with a request for long-term transmission service.

The generation interconnection process is the second area that could be affected by the transmission pricing structure change. While the pricing change could impact generation interconnection decisions, the expected impact would be limited as most of the benefits would be identified through the requested transmission service as discussed above. The general market conditions could also dictate changes to the generation interconnection queue and the number of requests. The ICT did not see any significant changes to the generation interconnection queue, and considers this as a neutral indicator of the transmission pricing policy impact.

A third area of review in the ICT's assessment of the transmission pricing structure is the review of previously incurred generation interconnection costs funded by merchant generation. In accordance with section 5 of Attachment T of the Entergy OATT, the ICT completed a study of previous interconnection upgrades that were originally funded by a transmission customer and considered Base Plan for purposes of cost allocation. The purpose of this study was to complete an independent evaluation of previously incurred interconnection costs based on the current system configuration and determine whether the cost allocation for the facilities should be changed.²⁰ If the ICT determined that the upgraded facilities in question would have qualified as Base Plan upgrades under the Attachment T definition, the ICT presented this result and the supporting data in the Retrospective Generation Interconnection Analysis ("RGIA") report. The customer or Entergy is free to petition the Commission to revise the service

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See ICT Approval Order at P 239.



agreement and approved cost allocation as a result of the RGIA. The ICT's RGIA report resulted in the following upgrades being reclassified as Base Plan, and thus, the original funding customers could be eligible for refunds of any un-credited amounts on these upgrades which total approximately \$9.3 million:

- Orange Change Breakers
- Horn Lake Replace Disconnect
- Getwell-Hernando Transmission Line
- Horn Lake Replace Breaker
- Crossett North: Replace (3) 115 kV Breakers
- Attala (station upgrade)
- Winona (station upgrade)
- Winona-Koscuisko (Line upgrade)
- Vicksburg Sub Upgrade

The remaining 42 upgrades were classified Supplemental with the un-credited amounts totaling approximately \$76.9 million. Funding customers will retain the rights associated with Supplemental Upgrades as defined in Attachment T of the OATT. While the ICT evaluation did reclassify some of the upgrades, this evaluation did not provide any noticeable impact on the position of merchant generation in the Entergy footprint.

Furthermore, certain provisions of the pricing mechanism described in Attachment T and other sections of the Entergy OATT are not fully implemented at the date of this report. Under section 4.4 of Attachment T, transmission customers that fund a Supplemental Upgrade will receive financial payments for any future short-term use of that upgrade. In the May 25, 2007 Order on Compliance, the Commission required that Entergy file a status report regarding the development of the software necessary to implement this section of Attachment T.²¹ In its status report on October 1, 2007, Entergy reiterated its commitment to develop the appropriate software and keep the Commission apprised of the future progress. However, at the time of this report, the software has not been implemented nor does the ICT have a date certain when the software will be in place.

Another complicating factor in the assessment of the transmission pricing structure in Attachment T is the implementation of the WPP. As reported above, the WPP has been delayed by unexpected issues in the development of the software and testing. The implementation of the WPP is expected to provide benefits to customers funding Supplemental Upgrades because of the Attachment V and T provisions that protect those customers from congestion charges in the WPP. Because the compensation and WPP-related provisions of the transmission pricing structure have not been implemented, it is somewhat premature to draw conclusions regarding the effectiveness of the full transmission pricing structure approved by the Commission in Docket No. ER05-1065.

Finally, as explained in section III.B. above, the ICT experienced an increase in transmission congestion and TLRs on the Entergy transmission system during the past year. The high level of TLRs demonstrates that there is considerable room for transmission expansion to provide for a more economic and reliable operation of the grid. While the congestion that is currently experienced on the system may not be at a level or duration to support the funding of transmission system expansion by Entergy or a single customer, the ICT is committed to work

²¹ Entergy Services, Inc.,119 FERC ¶ 61,187 (2007).



with Entergy and its stakeholders to find both economic and reliability transmission solutions that incorporate both the current TLR events as well as an assessment of Short-Term and Long-Term transmission requests.

C. Summary of ICT Assessment

Although there are several factors that arguably make this assessment premature, the ICT has, to date, seen little evidence that Entergy's Transmission Pricing has changed the conditions of merchant generation seeking to compete in the Entergy footprint during the first year of operation. From currently available indications, conditions appear to be generally unchanged from the prior state. The new transmission pricing policy did not provide for any measurable change in Long-Term or Short-Term transmission requests receiving service through use of the new pricing methodology nor was there any change in generation interconnection requests. If the approximately 20,000 MW of existing merchant generation within the Entergy footprint was transmission constrained and the new transmission pricing policy provided for a substantial improvement in their ability or willingness to fund Supplemental Upgrades, it is expected that additional upgrades through TSRs would have been pursued during the year. While there was an increase in the amount of TSRs, this increase cannot be attributed to the new transmission pricing policy. However, the ICT expects that the full implementation of the WPP and short-term compensation mechanism will create additional incentives that may provide merchant generation and other transmission customers the motivation to commit to Supplemental Upgrades, thereby increasing competition to serve Entergy's network load.