

DRAFT Appendix H

Description of Strategic Supply Resource Plan and Portfolio Design Considerations

Fall 2006 Request for Proposals (RFP) for Limited-Term Supply-Side Resources

Entergy Services, Inc. August 31<u>October 24</u>, 2006

Overview

The purposes of Appendix H are the following:

- Provide a high-level overview of the Entergy System's Strategic Supply Resource Plan.
- Provide a range of MWs anticipated to meet the Entergy System's incremental needs and the rationale behind it.
- Provide an overview of the Portfolio Design Considerations that will be used to select a portfolio of resources to meet the Entergy System's incremental needs.
- Provide a brief summary of further evaluations of proposals after a portfolio has been selected to meet the Entergy System's incremental needs.

Strategic Supply Resource Plan

This section provides a high-level overview of the Entergy System's (utility) Strategic Supply Resource Plan ("SSRP"). The SSRP is based on principles and planning objectives adopted by the Entergy Operating Committee and provides a long-term resource strategy.

The supply needs that determine the resource requirements of the Entergy Operating Companies are driven by six basic resource supply objectives:

- 1. Provide adequate resources to meet customer peak demands with adequate reliability.
- 2. Provide low cost base load resources to serve base load requirements (the firm load level that is expected to be exceeded for at least 85% of all hours per year).
- 3. Provide efficient, dispatchable load following resources to serve the time varying load shape levels that are above the base load requirement load levels.
- 4. Provide a generation portfolio that is more efficient and avoids an over-reliance on aging resources.
- 5. Mitigate the exposure to price volatility associated with uncertainties in fuel and purchased power costs.
- 6. Risk Mitigation Supply Diversity Mitigate the exposure to major supply disruptions that could occur from concentrated or systematic risks, for example outages of a single generation facility.

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Incremental Requirements

At this time, the Entergy System's 2008 portfolio capacity is expected to be roughly 1,300 MWs less than its projected 2008 peak load plus reliability reserve requirement. The basis for the 1,300 MWs is shown below in Chart A.



Chart A

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The Entergy System incremental resource requirements shown in Chart A may be viewed for each Entergy Operating Company as shown below in Charts B - F.

Chart B

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Chart C

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Chart D





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Entergy Mississippi Resource Requirements and Capability for 2008 Forecasted Firm Load Plus 10% Reserve Margin Owned Units and All Contracted Resources





Entergy New Orleans Resource Requirements and Capability for 2008 Forecasted Firm Load Plus 10% Reserve Margin Owned Units and All Contracted Resources



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The primary objective of this RFP is to solicit competitive proposals to provide the Entergy Operating Companies with flexible and cost-effective generating resources to meet their retail customers' needs in a reliable and economical manner. This RFP primarily seeks incremental baseload, load-following, and peaking resources that are needed to meet the reliability needs of the Entergy Operating Companies. After incremental resource needs have been met, the evaluation will consider whether further resource additions above incremental needs can provide additional cost savings for customers (See Appendix E-1).

Historically, the Entergy System does not contract for its full reliability requirement in advance of the summer peak season. Instead, the System has reserved up to 1,000 MWs of summer resource needs for the short-term market. This process preserves for the System the flexibility to respond to changes in load and changes in System and market conditions.

Consistent with prior practice described above, incremental needs will be considered met when capacity additions have brought the portfolio capacity to within 500 MWs of the current projected reliability requirements. The System's incremental resource requirement will be met with resources selected through this RFP, potential resources to be obtained through the on-going 2006 Long-Term RFP, and other resource additions that may be made through the market.

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Total Incremental Resource Needs to be Met through this RFP: 0 MWs to 800 MWs.

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Portfolio Design Considerations

In assembling potential alternative portfolios for evaluation to meet incremental resource requirements, the Proposal Evaluation Team will consider the following objectives:

- 1. Using the principles and planning objectives set forth in the SSRP, the System seeks to develop a portfolio of resources matched to the customer load shape. Consistent with that strategy, incremental resource additions will be considered in relation to the System's generating requirements for supply roles (base load, load following and peaking capacity).
- 2. The Entergy System is seeking to add flexible, dispatchable capacity. Preference will be given to products that offer dispatch flexibility.
- 3. ESI prefers portfolios of resources that are dispersed geographically throughout the System. Resources will be evaluated based on their geographic location with consideration given for any potential locational benefits. Preference will be given to resources located in the WOTAB and Amite South regions.
- 4. The System's SSRP seeks to balance multiple planning objectives, including reliability, production cost, and risk mitigation. As part of the supply strategy, the System has implemented a "portfolio" approach to limited-term contracts based on the following principles:
 - The resulting portfolio should include a mix of products with varying contract durations and laddered expiration dates (multi-year contracts that expire at various times).
 - > The laddering of contract expiration dates should provide flexibility that enables the System to respond to changing market conditions and dynamic System requirements.
 - > The portfolio approach should limit risk by diversifying contract expiries.

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<u>Additional information regarding Portfolio Considerations Beyond Incremental Needs</u> After incremental resource objectives are met by <u>Evaluation and the Candidate Portfolio</u>, the EET will consider whether further production cost savings can be realized by adding additional proposals to the portfolio, which will include, but not be limited to, removing a level of comparable capacity from a set of identified Entergy System resources. Only proposals with a minimum term of three years will be considered for this Final Portfolio<u>Capacity Substitution</u> *Analysis*.

The Final Portfolio Analysis will use spreadsheet and production cost models to assess potential fixed and variable cost savings and efficiencies. However, for this purpose, the Entergy System portfolio will include the Candidate Portfolio selected through the process described is contained in Appendix E-1, in order to evaluate additional incremental cost savings to determine the Final Portfolio. As in the Proposal Economic Evaluation, the Final Portfolio Analysis process will consider the net present value effect (on an incremental per-MW basis) of the selected proposals on the Entergy System's total production cost, levelized over the term of the resource availability as appropriate for each proposal.

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