



Appendix E-1

Proposal Evaluation Process Description For 2006 Request For Proposals (RFP) For Long-Term Supply-Side Resources

Entergy Services, Inc. January 31April 17, 2006

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1. Overview of Evaluation Process

The overarching objective in the evaluation and selection of generation resources is to procure resources that meet the supply objectives of the Entergy System at the lowest reasonable cost consistent with the provision of reliable service. The evaluation process described in this Appendix E-1 has been designed to facilitate the fair and impartial evaluation of all proposals received in response to the 2006 Long-Term RFP. The evaluation process will be carried out by three evaluation teams, the Economic Evaluation Team ("EET"), the Fuel Evaluation Team ("FET"), and the Transmission Analysis Group ("TAG", see Appendix E-2)¹. After conforming proposals have been identified and redacted by the Process IM, the Process IM will distribute to each evaluation team only that proposal information that will be necessary for that evaluation team's analysis.

All conforming proposals then will be subject to an initial economic analysis that will calculate a cost ranking of each proposal, in the manner described in Section 2.1 below. Leading proposals in each category will be selected for a Preliminary CCGT Shortlist and a Preliminary Solid Fuel Shortlist.

Proposals that are placed on the Preliminary Shortlists then will be subjected to more detailed analyses, including preliminary due diligence. From these analyses, a Final Shortlist will be developed for CCGT proposals, while remaining Solid Fuel proposals will be subject to a detailed evaluation process during which proposals are expected to be refined prior to being selected for award.final selection. The Evaluation IM will monitor the evaluation process, and certain decisions (described below) will be made only in consultation with the Evaluation IM and with the Process IM.

The evaluation teams will not conduct inter-product comparisons between CCGT and Solid Fuel proposals. CCGT and Solid Fuel proposals will be evaluated separately, using similar but distinct processes. The evaluations of the two product categories will proceed on different schedules. Specific tools and assumptions may differ, reflecting differences in the <u>nature and the</u> objectives of the products.

The proposals received in response to this RFP will first be evaluated in light of the System's currently-identified need for incremental baseload and load-following capacity. ESI also will examine displacement of existing resources with proposals received in response to this RFP and generally will utilize the same evaluation criteria

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¹ In addition-to the economic evaluation of the proposals, each conforming proposal will be analyzed by the Credit Evaluation Team ("CET", see Appendix F) to assess potential credit risks and collateral requirements.

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and methodology used in the evaluation of incremental resources to identify benefits associated with such displacements.

In preparing Appendix E-1, ESI has attempted to provide Bidders with a sufficiently detailed description of the evaluation process so that Bidders will understand how their proposals will be evaluated. However, it is not possible to provide a comprehensive description of every analytical tool or approach that may be employed during the evaluation process, and the evaluation teams will retain the discretion, subject to overview by the Evaluation IM, to use the evaluation methods and assumptions that they consider appropriate to identify those proposals that best meet the planning objectives of the Entergy System's Strategic Supply Resource Plan ("SSRP", which is described in Appendix H), consistent with providing reliable service to customers at the lowest reasonable cost. Given that circumstances may require adjustment of the proposal evaluation process, this document should be viewed as a general framework for evaluation and not as a prescriptive procedure.

1.1 Overview of CCGT Proposal Evaluation Process

The CCGT proposal evaluation process will involve two stages: (1) a screening level analysis; and (2) a due diligence stage. The screening level analysis will result in a Preliminary CCGT Shortlist. Following selection of the Preliminary CCGT Shortlist, the evaluation will move into preliminary due diligence, during which remaining Bidders will be asked to provide preliminary due diligence information and will have an opportunity to make "best and final" offers. At this time, Bidders will be allowed to improve, but not otherwise materially alter, a proposal, and are prohibited from increasing the cost terms, including increasing the acquisition price or capacity charge from those in the initial proposal. Stage 2 of the CCGT proposal evaluation process will ultimately result in a Final CCGT Shortlist but may consist of several successive rounds of detailed evaluation. The number of such rounds will depend on, among other factors, the number of proposals received and the terms and conditions of these proposals. Final selection will be made from the Final CCGT Shortlist based on a variety of factors, including, but not limited to, relative economics, geographic location, and transactional considerations. Final proposal selection then will proceed to the execution of a Letter of Intent ("LOI") by each selected Bidder, comprehensive due diligence and negotiation of a Definitive Agreement.

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<u>Figure 1</u>





1.2 Overview of Solid Fuel Proposal Evaluation Process

The Solid Fuel proposal evaluation process will involve two stages: (1) a screening level analysis; and (2) a detailed evaluation stage. The screening level analysis will result in a Preliminary Solid Fuel Shortlist. Following selection of the Preliminary Solid Fuel Shortlist, the evaluation will move into a more detailed evaluation stage, during which remaining Bidders will be asked to provide preliminary due diligence information and will have an opportunity to make "best and final" offers. At this time, Bidders will be allowed to improve, but not otherwise materially alter, a proposal, their proposals, and are prohibited from increasing the cost terms, including increasing with the acquisition price or capacity charge from limited exception applicable to those cost terms that are subject to material pricing changes in the initial relevant external market, for example, the cost of labor, materials and certain components such as boilers and turbines. If a Bidder seeks to increase the cost of a Solid Fuel proposal, the Bidder must have provided the required information in Part 3 of the Proposal Submission Form and will be required to demonstrate either that (1) the change in that cost was not known, and not reasonably knowable, to the Bidder when the proposal was formulated; or (2) the cause of the change was associated with risks identified in the bidders proposal that could not be reasonably or cost-effectively controlled as of the date of the proposal. The second stage of the process will result in a Final Solid Fuel Shortlist. Final selection will be made from the Final Solid Fuel Shortlist based on a variety of factors, including but not limited to, relative economics, geographic location, and transactional considerations. Final proposal selection will then proceed to the execution of a LOI by each selected Bidder, comprehensive due diligence and negotiation of a Definitive Agreement. Note that Stage 2 in the Solid Fuel proposal evaluation process is different from Stage 2 in the CCGT proposal evaluation process. In particular, because Solid Fuel proposals are likely

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to be less well defined than CCGT proposals, the Stage 2 process will include additional analysis to better identify various elements of those proposals.

<u>Figure 2</u>

Overview of RFP Evaluation Process for Solid Fuel Proposals



1.2.1 Treatment of Development Risk During the Evaluation Process

Some proposed Solid Fuel resources will be at more advanced stages of development than others. Figure 3 illustrates the range of development status likely to be encountered during the evaluation process.

Figure 3 – Spectrum of Development Status



The evaluation process recognizes that the development status of proposed resources is likely to differ and that few, if any, proposals are likely to be near the

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definitive stage of development at the time of submission. The Stage 2 Solid Fuel proposal evaluation process will be more extended than that provided for CCGT proposals in order to allow for proposals to become more fully defined.

Given the likely differences in development status of the resources identified in Solid Fuel proposals, ESI expects that the precision of proposed price parameters will likely vary. Proposals for resources at more advanced stages of development will be positioned to provide more definitive price estimates than proposals at less advanced stages of development. Further, the earlier a project is in the overall development process, the greater the uncertainties surrounding technical design specifications, commercial feasibility, and ultimate project completion. During Stage 2, the evaluation process will consider how much of this price and cost uncertainty would be borne by the Buyer versus the Bidder/Seller. Although greater precision in costs and other characteristics is preferred, uncertainty on these factors will not necessarily disqualify a proposal from further consideration.

2. Detailed Description of Evaluation Process

2.1 Stage 1: Screening Analysis (Applies To Both CCGT and Solid Fuel Proposals)

The purpose of the screening analysis is to identify the most promising proposals for further consideration from an economic perspective. CCGT and Solid Fuel proposals will be evaluated and ranked separately. In the case of CCGT proposals, the screening analysis will result in a Preliminary CCGT Shortlist. In the case of Solid Fuel proposals, the screening analysis will result in a Preliminary Solid Fuel Shortlist. The primary decision metric will be an economic ranking of the proposals (segregated between CCGT and Solid Fuel proposals) based on the levelized full-in economic cost of each proposal on a dollar per MWh basis over the relevant planning horizon, twenty and thirty years for CCGT proposals and Solid Fuel proposals, respectively.

Economic Ranking

The economic ranking of proposals will be developed by the EET using an Excel spreadsheet model. The model will calculate an economic cost ranking of each proposal. Cost will be measured on a dollar per MWh basis and will reflect the levelized cost over the relevant planning horizon. Operating assumptions will reflect an expected operation role, including number of starts and capacity factor. Sensitivities will consider a range of

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these operating assumptions, consistent with the objectives of the product category as well as other key uncertainties, such as fuel prices. CCGT proposals will be evaluated in a high capacity factor, load-following role. Solid Fuel proposals will be evaluated in a baseload role.

Levelized full-in economic cost will reflect the results of the detailed transmission evaluation, which is described in Appendix E-2. Levelized full-in economic cost also will consider, but not necessarily be limited to, the following cost elements:

Long-Term PPAs

- Option Premium, inclusive of all Fixed Cost charges (Bidder supplied information);
- Estimated Cost of Transmission Service, including costs required to qualify a resource as a Long-Term Network Resource (see Appendix E-2);
- Fuel (for Product Package A: Bidder supplied information; for Product Packages B and D: based on Bidder supplied heat rate);
- Variable O&M (Bidder supplied information);
- Start-Up Charges (Bidder supplied information).

Acquisitions

- Acquisition Price (Bidder supplied information);
- Estimated Cost of Transmission Service, including costs required to qualify a resource as a Long-Term Network Resource and the cost of obtaining firm point-to-point transmission service to the Entergy Control Area, where applicable (see Appendix E-2);
- Fuel;
- Fixed O&M;
- Variable O&M;
- Start-Up Charges;
- Emissions Charges;
- Cost of Capital.

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2.2 Stage 2: Preliminary Shortlist Evaluation (Applies To Both CCGT Proposals and Solid Fuel Proposals)

During Stage 2, the economic analysis will expand to examine the net delivered supply cost effects ("net system benefit") on the Entergy System of each proposal selected to the Preliminary Shortlists, considered in conjunction with existing resources. Net system benefit will be evaluated over the relevant planning horizon and will be measured on a net present value ("NPV") basis. The primary tool used in <u>EET will use</u> the <u>Planning & Risk (PROSYM) production cost tool in Stage 2 economic evaluation</u> will be used by the <u>EET</u> to determine net system benefit relating to each proposal when added to the Entergy System. Other production cost tools, including PROMOD, may be used near the end of each of the CCGT and Solid Fuel Stage 2 evaluation processes to confirm operation expectations of the proposals selected to each Preliminary Shortlist. The Stage 2 economic analysis will be supplemented with other tools, such as detailed fuel evaluations from the FET, as described in Sections 3.1 and 3.2 below, and other criteria assessments, in order to identify the proposal or proposals that best meet the System's supply objectives.

Imputed Debt

The Stage 2 economic evaluation will consider the potential effects of proposals on the Buyer's capital costs including the use of debt capacity. Accordingly, the effects of imputed debt will be considered for PPA proposals in Stage 2. The EET will not use debt imputation in the Stage 1 initial screening analysis. However, the results of the Preliminary Shortlist evaluation will be presented with and without the effects of imputed debt internally, and to the Process IM, the Evaluation IM, and the staff(s) of commission(s) participating in overseeing the 2006 Long-Term RFP process.

2.3 **Point of View Assumptions**

During the Stage 1 screening level analysis, the EET will evaluate resources using point-of-view assumptions for certain key inputs, such as commodity fuel prices and heat rate. These assumptions will be consistently applied to all similar proposals.

Point-of-view ("POV") assumptions are parameters developed by the EET that are initially fixed for all proposed resources, except in the following circumstances:

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- POV assumptions will be replaced, in consultation with the Evaluation IM, by Bidder provided assumptions (proposal specific assumptions) where the terms of a proposal guarantee cost or performance relative to the input. The Process IM will be informed of those changes.
- POV assumptions will be replaced, in consultation with the Evaluation IM, by proposal specific assumptions where a proposal offers clear evidence that resource design parameters lie outside those contemplated by the POV. The Process IM will be informed of those changes. However, in this circumstance, the EET, in consultation with the Evaluation IM and the Process IM, will consider whether the change should be applied only to the proposal in question or whether the proposal specific assumption implies a need to alter the POV applied to all proposals.

In Stage 2, POV assumptions will be replaced with proposal specific assumptions as the latter become available.

The EET will develop POV assumptions and provide them to the Evaluation IM and the Process IM prior to the receipt of proposals. In the event that a proposal offers a technology or design parameter not considered by the pre-determined POV, the EET, in consultation with the Evaluation IM, will develop a POV in a manner consistent with other POV assumptions.

2.4 Normalizing Term

The start and end dates of proposals received in response to this RFP may vary within the limitations set forth in the RFP documents. Proposals will be evaluated on common timelines, 20 years (January 1, 2007 to December 31, 2026) for CCGT proposals and 30 years (January 1, 2007 to December 31, 2036) for Solid Fuel proposals. In order to do so, the EET will define replacement power costs for periods not covered in a given proposal. For example, if a proposal begins six months after the defined start of the common evaluation period, then predefined predelivery costs for those six months will be added to the proposal costs. Alternately, if a proposal ends two years before the end of the common evaluation period, then predefined postdelivery costs for those two years will be added to the proposal costs.

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2.5 Terminal Value

During Stage 2, the EET will consider whether a proposal offers potential benefit beyond the defined planning horizon and will evaluate this additional value for proposals to which it applies.

3. Fuel Supply Evaluations

3.1 CCGT Proposal Fuel Supply Evaluation

CCGT proposal fuel supply will be evaluated using a combination of quantitative criteria, such as estimated fuel delivery cost adders, and qualitative criteria, such as locational elements of transportation reliability. These criteria will be used to measure attributes such as the expected cost, reliability and flexibility of fuel supply.

The goal of the fuel evaluation process is to assess the capability of the fuel supply and delivery systems to allow for the economic, reliable, and flexible operation of the generation resource specified in the proposal.

ESI prefers proposals that provide maximum flexibility and multiple sources of fuel supply and transportation arrangements.

Fuel Considerations In Stage 1 Screening Analysis

In Stage 1 of the proposal economic evaluation process, the FET will provide the EET with the expected per-unit fuel delivery cost adder for each conforming proposal. The EET will use this adder as a component of the expected fuel cost for economic screening. Expected cost will consider the cost of the commodity, transportation costs, and other costs such as taxes. Those costs will be estimated based on ESI's internal point of view.

Fuel Considerations In Stage 2

In Stage 2 of the proposal economic evaluation process, the FET will perform a more detailed evaluation of the fuel aspects of the proposals on the Preliminary CCGT Shortlist. The reliability and flexibility of the fuel supply, along with other secondary issues, will be incorporated into this evaluation.

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The reliability of fuel supply will consider the reliability of access to the fuel commodity (supply reliability) and of the systems for transporting the fuel to the generating resource (transportation reliability). The assessment of supply reliability will be based on the degree of fuel diversity and access to fuel, including diversity in the type of fuel that the resource is capable of consuming (*e.g.*, via fuel switching capability), the geographic location of the source of the fuel, the locations on the interconnected pipelines that are available for the receipt of fuel for transportation to the generation resource, and the availability of storage options for the fuel.

Transportation reliability will consider the available options for transporting the fuel to the resource (*e.g.*, the number of interconnected gas pipelines, the specific interconnected pipelines and perhaps the feasibility of interconnecting to other pipelines in the vicinity of the resource, and access to waterways for barge transportation of liquid fuels), and the reliability of those transportation options (*e.g.*, the types and levels of contracted and available gas pipeline transportation services).

The assessment of the flexibility of fuel delivery will consider the types of "flexible" services offered by and available from the interconnected gas pipelines, both on an intra-day or hourly basis and on a daily basis (*e.g.*, operational balancing agreements, hourly transportation services, and park and loan services). Some of the criteria used to measure fuel reliability also will be used to assess the flexibility of fuel supply (*e.g.*, the number of interconnected gas pipelines, access to gas storage facilities, and fuel-switching capabilities).

Other secondary attributes also will be evaluated, including measures of optionality, such as the capability to divert fuel to alternate locations.

Other issues also will be evaluated, such as the specific operational characteristics of the gas pipelines (*e.g.*, available delivery pressures, ability to operate in both flow control and pressure control modes, and the ability of that facility to receive fuel simultaneously on multiple connected pipelines), and relevant fuel storage facilities, such as the capacity of oil storage tanks.

The final result of the fuel evaluation in Stage 2 will be a detailed assessment of the reliability and diversity of the fuel supply, which may be used as a decision factor in proposal selection.

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3.2 Solid Fuel Proposal Fuel Supply Evaluation

Solid Fuel proposals generally will be evaluated using ESI's internal assumptions for commodity and delivery cost pertaining to the fuel(s) and delivery channel(s) offered by each such proposal.

Internal assumptions may be adjusted, as appropriate, to reflect specific fuel sourcing or delivery arrangements if a Solid Fuel proposal demonstrates that sourcing is reasonably certain, reliable, and transferable. Consequently, if a proposal indicates that transferable contracts are in place to source or deliver fuel at specific prices, and such arrangements are verified by the FET, then the evaluation will reflect these provisions. Internal fuel assumptions will not be adjusted based on assertions within the Solid Fuel proposal that are technically or commercially unrealistic as determined by the FET in consultation with the Evaluation IM.

Consistent with expectations for the overall evaluation, the fuel evaluation process is expected to be one of increasing detail, as efforts focus on a narrowing list of proposals and additional information becomes available for these remaining proposals.

The fuel evaluation of proposals will be based principally on the primary fuel strategy for each proposal. The primary fuel strategy will consider the preferred fuel (whether single source or blend) and preferred delivery channel. The FET will determine the primary fuel strategy based on information provided by the Bidder, as well as the FET assessment of the commercial and technical achievability of the strategy. In the event a proposal offers multiple fuel strategies, the FET will select as the primary fuel strategy the fuel sourcing and delivery options that the FET determines will best meet the planning objectives related to this product at the lowest reasonable cost.

The benefits of alternative (secondary) sources of fuel or delivery channels will be considered through economic sensitivities. During the Stage 1 evaluation, few, if any, sensitivities regarding fuel sourcing and delivery will be incorporated into the screening analysis. During the Stage 2 evaluation, greater emphasis will be placed on quantifying the benefits associated with fuel flexibility. Sensitivity analysis will be the primary tool for quantifying such benefits; however, other tools, such as stochastic analysis, also may be considered.

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