SPP/Entergy CBA Study Proposed Work Plan

**Background**

SPP has been directed by the Arkansas Public Service Commission ("APSC") to perform, with the assistance of an independent third party, a comprehensive Cost Benefit Analysis Study ("CBA Study") of two scenarios: (1) full SPP membership by all the Entergy Operating Companies as compared to participation under the existing ICT services arrangement, and (2) full SPP membership by Entergy Arkansas, Inc. ("EAI"), as a stand-alone entity, compared to continuing under the existing ICT services arrangement. As part of a June 24th Technical Conference in Charleston, SC, the Retail Regulators of the Entergy Operating Companies (collectively “Entergy Retail Regulators”) asked that the CBA Study include an additional evaluation of each of the Entergy Operating Companies (Entergy Gulf States Louisiana, L.L.C. ("EGSI"), Entergy Louisiana, LLC. ("ELL"), Entergy Mississippi, Inc. ("EMI"), Entergy New Orleans, Inc. ("ENOI"), Entergy Services, Inc. and the Entergy Operating Companies are collectively referred to as the “Entergy System.” In further discussion during that Conference, stakeholders also asked that the evaluation include the impacts on wholesale customers of the Entergy Operating Companies (e.g., municipals, cooperatives, etc.), the Entergy System network transmission customers (LA Gen), and other transmission dependent entities. The Chairman of FERC also offered to contribute funds to offset the costs of this CBA Study.

Following the June 24th meeting, the Chairman of FERC clarified his offer in a letter filed in the Entergy ICT docket that would lay out the process and obligations of their participation (Exhibit A).

Following preliminary discussions to develop the Entergy-Regional State Committee ("E-RSC"), representatives of each of the Entergy Retail Regulators, including from the APSC, have agreed that responsibility for overseeing conduct of the CBA would be with the E-RSC (when established). **The CBA will be performed by an independent Third Party Consultant ("TPC") that will be hired based on a Request for Proposal ("RFP") selection process.**

**CBA Study**

This CBA Study will analyze only Specific results for any entity, including the state jurisdictions, will be performed as an Addendum to this main study that will determine the costs and impacts to each of the Entergy Operating Companies, as well as affected transmission customers and other stakeholders. To make these addendum analyses efficient and comprehensive, it is recommended that the scope for them be finalized during the analyses performed in this CBA Study. **This CBA Study will analyze (1) the continued participation of all Entergy Operating Companies under the existing ICT services arrangement (referred to as the “Base Case”), versus (2) the full membership of**
all Entergy Operating Companies, as well as Cleco Power in SPP under the SPP OATT with SPP’s Future Market Design in effect (referred to as the “Change Case”). Entergy, using its own resources, shall calculate the allocation of costs and benefits determined in the CBA Study among the Entergy Operating Companies consistent with the Entergy System Agreement.

In addition to the CBA Study, Entergy Retail Regulators and market participants may want to request additional studies, examples of which are listed in the attached Addendum. Such studies shall be separately negotiated by the requesting party under separate contract(s) and their performance shall not interfere with or delay the TPC’s timely performance of the CBA Study.

FERC has committed to fund this CBA Study.

The purpose of this proposed work plan, which is subject to modification and approval by FERC and the E-RSC, is to advance the scope and process for completing the studies.

**Studies Assumptions and Purposes**

The primary assumptions of the analysis are:

1. The study will use the most up-to-date information available with respect to input parameters such as:
   a. the current transmission and generation topology,
   b. planned transmission upgrades within both the Entergy System and SPP that are required to be in-service by 2022
   c. heat rates, fuel price forecasts, and merchant bid data publicly available or as-supplied by the operator of resources.
   d. firm and non-firm service obligations, load forecasts, including verifiable demand response and verifiable energy efficiency,
   e. requirements for flexible capability, i.e., responsive reserves,
   f. Qualified Facility (“QF”) put estimates,
   g. Reliability Must Run (“RMR”) requirements, operating directives (operating guides), etc.
   h. wind penetration estimates,
   i. new generation projects that will be in-service by 2022 and existing generation that will no longer be in-service, e.g., retired, as of 2022;
   j. the attributes economic value of seams (or barriers) that exist between SPP and Entergy and that will be eliminated if Entergy joins SPP. Seams/barriers include economic, operational and transactional limitations that exist because the Entergy System and SPP are operated separately, e.g., pancaked transmission rates, ramping restrictions, scheduling differences, market differences.
   k. current and estimated SPP tariff charges, e.g., related administrative charges, that will apply to the Entergy Companies,
1. The Study Period will be 10 years (1/1/2013 through 12/31/2022) with financial/economic analyses extended or extrapolated for another 10-20 year horizon.

M. For purposes of the Base Case and Change Case, EAI will leave the Entergy System Agreement in 2014 and EMI will leave the Entergy System Agreement in 2016.

2. A single balancing authority is operational in the combined SPP-Entergy region by 2013, for the Change Case.

3. SPP’s Future Market Design, including a centralized day-ahead market including a single security system constrained unit commitment and dispatch process, and centralized ancillary services markets are in place by 2013.

4. All studies and analysis should assume that all current bi-lateral transactions and other market mechanisms remain options for both the Base and Change Case, with the exception that the Weekly Procurement Process (“WPP”) will not exist in the Change Case, pre-day ahead bi-lateral mechanisms remain an option under full RTO membership.

5. All transmission facilities of all Entergy Operating Companies will be placed under the SPP Open Access Transmission Tariff and all existing long term firm (e.g., network, and point to point and pre-Order No.888) transmission system contracts will be honored.

The purposes of the studies are to:

1. Assess the cost impacts and potential savings to the Entergy System of joining SPP versus remaining with the existing ICT services arrangement.

2. Identify barriers between the Entergy System and SPP, quantify the costs of those barriers (or seams), and estimate costs for eliminating these barriers.

3. Identify the transmission reliability upgrades (and associated costs) necessary, if any, for the Entergy system to meet SPP criteria as a condition of putting the Entergy transmission facilities under the SPP OATT.

4. Identify the costs and benefits associated with all transmission upgrades on SPP’s transmission system that would be allocated to the Entergy System in the event of full membership in SPP consistent with the current System Agreement.

5. Estimate savings including the reduction in Adjusted Production Costs1 adjusted production costs of the Entergy System due to economic upgrades.

6. List and quantify other costs and benefits of SPP membership that would accrue to the Entergy System versus remaining with the existing ICT services arrangement.

7. List and quantify other costs and benefits that would accrue to SPP members, in aggregate, as a result of Entergy joining the SPP RTO.

---

1 Adjusted Production Cost (APC) as defined by SPP in economic analyses consistent with the Balanced Portfolio in the approved SPP OATT where APC = Production Costs – Revenue from Sales + Cost of Purchases
Appropriate confidentiality agreements will be executed to allow access to all data (e.g., system and resource data), operating guides, etc., needed by the independent third party to complete the studies while protecting competitively sensitive data of the Entergy System (including each Operating Company), SPP members, other entities inside the Entergy System and of each market participant.

Work Plan

Below is a proposed study work plan. A proposed work plan timeline is attached as Exhibit B (DRAFT Exhibit B Entergy CBA V8.3 Timeline Oct 14 RFP.pdf). The remainder of this section provides a brief discussion of each phase.

Phase I – Request For Proposals

The E-RSC and FERC, facilitated by SPP, and including input from stakeholders and the Entergy System, shall develop a Request For Proposals (“RFP”) for an independent Third Party Consultant (“TPC”) to conduct the CBA Study. After the E-RSC has reviewed and approved the RFP and the list of TPCs to receive the RFP, SPP will issue the RFP consistent with the procedures and protocols required by FERC. The E-RSC and FERC, facilitated by SPP, shall evaluate TPC responses to the RFP and select the TPC to conduct the CBA Study.

Phase II - Develop Study Scope

This phase can be thought of as the scoping or design phase. The main objective is to set a clear vision for the analysis to achieve an objective and accurate result. SPP will work with the TPC, representatives of the FERC, Entergy Retail Regulators, the Entergy System, and interested stakeholders to:

1. Understand the SPP OATT and answer questions to clarify the study.
2. Identify any transmission upgrades that are necessary to integrate the Entergy System into the SPP transmission system and meet the SPP Criteria requirements for reliability. These projects may be located on SPP or Entergy’s System. The costs of each project will be estimated and SPP will identify under existing Commission-approved tariffs how the costs for those projects would be recovered.

3. TPC sensitivity cases—To identify any transmission upgrades that would relieve congestion, to the extent beneficial, within or between both SPP and Entergy. The costs of each project will be estimated and SPP will identify under existing Commission-approved tariffs how the costs of those projects might be recovered.

Assumptions to be discussed and agreed to by the E-RSC and FERC (with input from SPP, Entergy and are):
Different policy issues or other stakeholders may include, but are not limited to, the following:

1. **Alternative** input parameters (e.g. fuel price forecasts, projected levels of wind generation, renewable portfolio/electricity standards, carbon taxes/legislation, etc); 
2. The effects on costs and benefits of delayed implementation of a on-time and delay scenarios for consolidated balancing authority, and 
3. The effects on costs and benefits of delayed implementation of SPP’s Future Market Design; 
4. The assumptions applicable to modeling Renewable Portfolio/Electricity Standards; and, 
5. The assumptions applicable to modeling emissions, energy efficiency and demand response. 

3. On-time and delay scenarios for day-ahead market. 
4. Although EAI and EMI have indicated their intent to withdraw from the System Agreement by 2014 and 2016 respectively, whether this is considered in the study and how modeling will be affected by this expressed intent. 

Translating the requirements for the study into the specific base cases and change cases will be completed during this phase of the project.

During this phase, the independent TPC will work working with the E-RSC and FERC, will also work with representatives of SPP, the Entergy System and other stakeholders to obtain direction as to how certain policy issues, which may impact the results, should be addressed. For instance, these issues will include if and how assumptions are to be made regarding renewable portfolio/electricity standards, emissions policy, energy efficiency, and demand response and how eachall of these should be modeled in the studies. The independent TPC working with the E-RSC and FERC will seek input from representatives of SPP, the Entergy System and other stakeholders to make sure these items are addressed appropriately.

The development and implementation of appropriate Confidentiality Agreements will be critical during this phase to protect the proprietary/commercially sensitive nature of system parameters and key study assumptions that affect SPP, Entergy, transmission customers and affected stakeholder groups, as well as enable replication of study results (to the extent possible without publicly divulging confidential or competitively sensitive information) to validate conclusions and enable support of subsequent recommendations.

**Phase III – Setup**
Tasks in this phase are all related to getting the basic data and models organized to support the technical studies conducted in Phase IV. This work can begin as soon as specific resources are assigned to the project.

Upon completion of the Setup Phase, the TPC, facilitated by SPP, will provide a written report followed by a presentation to the E-RSC, FERC, and the stakeholders explaining the data used (including the source of the data) to develop the models and all underlying major assumptions used. The purpose of this presentation is to ensure that all parties understand and have confidence in the CBA Study.

**Phase IV – Technical Studies**

The bulk of the analysis to model integration of the Entergy System into the SPP transmission system is conducted in this phase. The transmission project assessment studies described above are performed in this phase. The TPC, with SPP’s input and Entergy’s support, will identify those reliability economic projects into: (1) those projects necessary to integrate SPP and Entergy (“Group 1”), and (2) those projects that would produce cost justified benefits but that are not required to integrate SPP and Entergy (“Group 2”).

The TPC, with SPP’s input, with the required Group 1 reliability projects and the Group 2 economic projects will complete the production costs savings portion of the study.

The TPC will assume a Study Period of 10 years, beginning on 1/1/2013 through 12/31/2022 with financial/economic analyses extended or extrapolated for another 10-20 year horizon.

Similarly, based on the decisions during the scenario analysis phase of the E-RSC and FERC, with input from the other stakeholders, there may direct additional also need to be various sensitivity analyses related to different policy issues or other input parameters (e.g. fuel price forecasts, projected levels of wind generation, renewable standards, and transmission cost allocation methodologies, etc).

For each major scenario, the analysis will assess whether any net benefits are achievable only through the RTO structure or are could also be achieved in whole or part under the existing ICT services arrangement. The Entergy System will provide input to the TPC, as requested, concerning the TPC’s evaluation of economic benefits of reliability projects necessary to integrate SPP and Entergy.

**Phase V – Cost Benefit Analysis**

The tasks in this phase focus on assessing all the costs and benefits for integrating the Entergy System, as well as Cleco Power, into the SPP region. These costs include, without limitation, systems and personnel support costs, as well as SPP and or FERC fees, and costs for service provided pursuant to SPP’s and schedules under its OATT
(e.g., ancillary services). The—Also, the additional costs and benefits that accrue from individual Entergy Operating Company and/or the Entergy System participation, as well as Cleco Power, in the SPP OATT will be assessed including changes in systems, personnel, etc. The allocation of costs for the reliability and economic upgrades on the Entergy System and on SPP’s system will also be determined using the same methodology used by SPP to assess its member or to integrate other members based on guidance by of the E-RSC. The TPC will determine the costs and benefits of Entergy and Cleco Power’s full participation in the SPP markets compared and will also compare to the costs and benefits of maintaining an ICT services arrangement. In addition, the TPC working with the SPP will identify how these transmission upgrade costs will be allocated between the existing SPP footprint and the Entergy System and Cleco Power. Similarly, the TPC will assess the production cost savings determined in the technical studies and any other costs and benefits identified during the analysis. The final outcome of this phase will be the overall assessment of the net benefits or costs of the proposal for the Entergy System and SPP, including the aggregate impacts on wholesale customers of the Entergy Operating Companies (e.g., municipals, cooperatives), the Entergy system network transmission customers (LA Gen), and other affected entities (e.g., Cleco Power). Entergy, using its own resources, shall calculate the allocation of costs and benefits determined in the CBA Study among the Entergy Operating Companies consistent with the Entergy System Agreement. The TPC and SPP shall coordinate with Entergy so that the TPC’s aggregated CBA Study results for the Entergy System are transferred to Entergy so that the EOC level allocations can be performed.

Phase VI – Report & Recommendations

The TPC will prepare a comprehensive report that (1) identifies each major study assumption and the basis for that assumption, using the previous written report; (2) identifies all data and other information, to the extent it is not proprietary/commercially sensitive, used to conduct the CBA and the sources for that data; (3) quantifies the benefits and costs associated with this CBA Study, as well as the estimated benefits and costs to the typical Entergy customer; and (4) identifies how changes to the major assumptions (i.e., the sensitivity cases) would affect the costs and benefits; and (5) offers a recommendation whether membership by the Entergy System in SPP is cost beneficial.

The TPC with SPP will present the report to the E-RSC, FERC, and interested stakeholders.

Stakeholder Participation

- For all interested stakeholders, including Entergy, the TPC will conduct a regular bi-monthly review session to update attendees on progress, obtain feedback and input on key studies assumptions and alternatives being considered and answer questions stakeholders may have at that time.
For the E-RSC and FERC, the TPC will provide bi-monthly progress reports and additional updates as requested.
ADDENDUM

Introduction

The CBA Study, to be prepared by the TPC, is intended to develop estimates of the full range of costs and benefits from Entergy joining the SPP RTO with SPP’s Future Market Design in effect as compared to Entergy’s continued participation in the current ICT arrangement. This is the analysis that will be funded by FERC. Based on reviews of the draft CBA Study work scope documents, stakeholders and the Entergy Retail Regulators have suggested that some parties may desire some additional analyses (e.g., studies, sensitivities) to be performed that are not included in the CBA work scope, some of which are listed in this Addendum.

The purpose of this Addendum is to notify the TPC that stakeholders and Entergy Retail Regulators may request the TPC to conduct additional analyses not covered or funded under the CBA Study work scope through separate contract(s) between those parties and the TPC. These additional analyses are not to be conducted under the CBA Study RFP and shall not interfere with the timely completion of the CBA Study.

Examples of the additional analyses suggested by the Entergy Retail Regulators and stakeholders include the following:

A. Economic Transmission Expansion - a study to identify and assess the benefits and costs of additional economic transmission expansion to reduce transmission congestion that would follow from the CBA Study. These “projects” could be identified based on the results of the CBA Study and constraints that remain from the Change Case
and, if requested, quantifying the benefits of the transmission expansion as well as estimating the costs to obtain those benefits.

**B. Enhanced ICT Service Arrangement** - a study to quantify various costs and benefits associated with implementing an ICT with additional improvements (or enhancements). The party requesting this study would have to identify the specific enhancements to be made to the ICT, for example, refinements to the existing WPP, changes to operating directives/guides in planning studies and processing long term service requests.

**C. Enhanced Seams Arrangement** - a study to evaluate the costs and benefits of using a “seams agreement” between Entergy and the SPP to better integrate markets and power flows between the two regions. The party requesting this study would have to define the Seams Agreement, identify the seams to be eliminated and how they would be eliminated.

**D. Entergy Transition Costs and Benefits** - a study to identify the costs and benefits of Entergy joining SPP before the SPP implements its Future Market Design, e.g., prior to 2013.

**E. Entergy Tariff Changes** - a study to assess the costs and benefits of making discrete changes to Entergy’s policies and open access transmission tariff. The party requesting this study would have to identify the specific changes.
F. **Entergy Continues WPP** - a study evaluating the costs and benefits of Entergy’s continued use of the current WPP even if the Entergy System joins SPP and fully participates in SPP’s Future Market Design.

H. **SPP adds WPP** - a study evaluating the costs and benefits of SPP incorporating the WPP into the Future Market Design. TO BE DETERMINED