Appendix G-2

Preliminary Due Diligence List (Existing Coal and Petroleum Coke Resources)

For

2012 Request For Proposals For Long-Term, Supply-Side, Baseload Resources

DRAFT

Entergy Services, Inc. July 25, August 28, 2012

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2012 Baseload RFP

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APPENDIX G-2 PRELIMINARY DUE DILIGENCE LIST (EXISTING COAL AND PETROLEUM COKE RESOURCES)

As part of the RFP, ESI has posted this Appendix G-2, which contains a list of preliminary due diligence requests. ESI is requiring each Bidderwill require Bidders who submitsintend to submit a proposal(s) originating from an Existing Coal or Petroleum Coke Resource solid fuel resource to provide a comprehensive response to each request (to the extent question accordingly and as applicable to Bidder, the resource, or Bidder's proposal). Failure to provide the requested responses such a response could negatively affect a proposal's overall viability ranking and, in exceptional cases and after consultation with the IM, could result in a Bidder's proposal being deemed non-conforming and rejected from further consideration.

Bidders submitting proposals should respond to each request below by 5:00 pm CPT on the Required Proposal Submission Time. The RFP Proposal Submission Template will not be used to collect the response to this Appendix G-2. Bidders are required to submit their response to the questions below in such a way that clearly identifies the question to which each response pertains, and to provide the response to the RFP Administrator by the applicable deadline.

1. Equipment

1.1. Provide a Site Plan and General Arrangement Drawings that <u>includesinclude</u> the following information:

Plant and

- 1.1.1. Power Island
- 1.1.2. Road and Rail Access to Site
- 1.1.3. Fuel Supply and Transport
- 1.1.4. Startup Fuel and Transport
- 1.1.5. Other transportation infrastructure<u>, where applicable</u> (e.g. <u>railroad</u>, waterways, highways<u>, etc</u>)
- 1.1.6. Major one line diagrams
- 1.2. Provide a Station Description and Major Equipment List that includes:
 - 1.2.1. Turbines
 - 1.2.2. Boiler/ CFB combustor Contract Data Sheet and Side Elevation Drawings
 - 1.2.3. Emissions control equipment
 - 1.2.4. P&ID's of the Units
 - 1.2.5. Electrical Single Line Drawings
 - 1.2.6. Major Modifications to Units

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- 1.2.7. Instrumentation and Control System (DCS) and Updates
- 1.2.8. Water Supply and Wastewater Discharge
- 1.2.9. Fire Protection
- 1.2.10. Fuel, Limestone or other sorbents and Ash Handling Systems
- 1.2.11. Status of warranties, including expiration dates, for the major equipment
- 1.2.12. Turbine design and installation in accordance with the ASME TWDPS-1, Part 2 (Water /cool vapor induction protection)
- <u>1.2.12.</u> <u>1.2.13.</u> Plant Cooling System (wet, dry, hybrid), including annual plant water requirements
- 1.3. Provide the Plant Design Life
- 1.4. Provide the following Operational Characteristics of the proposed resource:
 - 1.4.1. Description of the various modes of operation of the generating unit
 - 1.4.2. The minimum and maximum load range in each mode of operation
 - 1.4.3. The maximum ramp rates over the load range for each mode of operation
 - 1.4.4. The minimum run times
 - 1.4.5. System Minimum Down Time
 - 1.4.6. Typical start-up MW and Fuel usage profile versus time for each type of start-up (hot, warm and cold)
 - 1.4.7. Define hot, warm and cold start-up in terms of time off-line
 - 1.4.8. The typical shutdown time
 - 1.4.9. The MVar capability range of the generator. (Include 'as tested results')
 - 1.4.10. Is or will the unit be equipped with automatic generation control (<u>"AGC)? ")?</u> (applicable only if providing an option for enhanced dispatch)
 - 1.4.11. What is the operating range of the unit under AGC? <u>(applicable only if providing an option for enhanced dispatch)</u>

2. **Operations and Maintenance**

- 2.1. As requested in Section 20 of Appendix C, indicate whether the Bidder wishes to propose enhanced dispatch and/or curtailment flexibility.
 - 2.1.1. Specify and describe the enhanced dispatch and/or curtailment right (or collection of dispatch and/or curtailment rights), and the impact on the proposal terms provided in the Proposal Submission Template.
- 2.2. 2.1. Provide the following historical Electric Generating Statistics (COD Commercial Operations Date ("COD") through 2011):
 - <u>2.2.1.</u> <u>2.1.1.</u> Gross, Auxiliary, and Net Generation
 - <u>2.2.2.</u> <u>2.1.2.</u> Unit Heat Rate
 - <u>2.2.2.1.</u> <u>2.1.2.1.</u> Summer (97 deg F, 56% RH) Min.-Max.

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- <u>2.2.2.2.</u> <u>2.1.2.2.</u> Winter (68 deg F, 74% RH) Min.-Max.
- <u>2.2.2.3.</u> <u>2.1.2.3.</u> Max., 75%, 50%; Min. %
- 2.1.3. EFOR
- 2.1.4. Fuel and Limestone or other sorbents Consumption, Costs, Historic Suppliers, and Mines
 - 2.1.4.1. Project Fuel Costs (5 Years)
 - 2.1.4.2. Reagent and catalyst cost
- <u>2.2.3.</u> <u>2.1.5.</u> Accredited unit capacity
- <u>2.2.4.</u> 2.1.6. Outage Event Summary
- <u>2.2.5.</u> <u>2.1.7.</u> Capacity Factors
- <u>2.2.6.</u> <u>2.1.8.</u> Service Hours
- 2.2.7. 2.1.9. Derate Causes, Time, and kWh
- <u>2.2.8.</u> <u>2.1.10.</u> History of Planned Outages
- 2.2.9. 2.1.11. Turbine Overhaul Cycle (Year) & Outage Time (Weeks)
- <u>2.2.10.</u> <u>2.1.12.</u> Reports from any boiler, CFB combustor, turbine, or unit Performance Tests
- <u>2.2.11.</u> <u>2.1.13.</u> Number of Boiler, CFB combustor and Turbine Cold and Hot Starts
- 2.2.12. 2.1.14. Outage Rates (forced, maintenance, planned, etc.), including:
- 2.1.15. Operating Factors
 - 2.2.12.1. Equivalent Forced Outage Rate ("EFOR")
 - 2.2.12.2. Planned Maintenance Outage Rates
- 2.3. 2.2. Provide the anticipated major maintenance schedule for the project by year for the life of the project or anticipated PPAproposal term if not life of unit.
- 2.4. Provide an organization chart that has the roles and responsibilities for those who support plant operations, environmental, regulatory compliance, and other major functions of the resource
- <u>2.5.</u> Provide the following Inspection Reports:
 - 2.5.1. 2.3.1. Boilers/CFB Combustor
 - 2.5.1.1. 2.3.1.1. Boiler/CFB Combustor Inspection Reports from last major outage
 - 2.3.1.2. Boiler/SH/RH /CFB Combustor Tube Failure Metallurgical Reports
 - 2.3.1.3. Boiler/SH/RH/CFB Combustor Tube Chemical Analyses of Deposits
 - <u>2.5.2.</u> <u>2.3.2.</u> Turbines

2.3.2.1. Turbine Blade Deposit Chemistry report

- <u>2.5.2.1.</u> 2.3.2.2. Rotor Boresonic Inspection Reports
- 2.5.2.2. 2.3.2.3. Bearing Vibration Analysis & Predictive Maintenance Data
- 2.5.2.3. 2.3.2.4. Turbine inspection reports (including valves)

<u>2.5.3.</u> <u>2.3.3.</u> Generator Inspection Reports

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Preliminary Due Diligence List (Existing Coal and Petroleum Coke Resources)

- <u>2.6.</u> <u>2.4.</u> Provide the Site Spares Inventory for the Major Components including:
 - <u>2.6.1.</u> 2.4.1. Turbines
 - <u>2.6.2.</u> <u>2.4.2.</u> Generators
 - 2.6.3. 2.4.3. Boiler/CFB Combustor
 - <u>2.6.4.</u> <u>2.4.4.</u> Other (Include BOP)
- 2.7. 2.5. Describe Balance of Plant Routine, Predictive and Preventive Maintenance Activities/Programs
- 2.8. 2.6. Provide Capital Work Requests and Major Maintenance Expenditures for CODthrough 2012
- 2.9. Provide planned major capital upgrades and projects for the Facility during the proposal term
 - 2.9.1. Provide Capital Work Requests
 - 2.9.2. 2.7. Capital Work Requests and Provide Major Maintenance Expenditures for planned 2012 2017.
- <u>2.10.</u> 2.8. Provide Fuel Specifications including Design Fuel and fuel analysis reports
- <u>2.11.</u> <u>2.9.</u> Describe the Ash Disposal Plan (life of plant)
 - 2.11.1. 2.9.1. Provide annual projected bottom ash and fly ash production
- 2.12. 2.10. Provide a list of all <u>current</u> Operation/Maintenance Contracts including:
 - <u>2.12.1.</u> <u>2.10.1.</u> Operating Agreements
 - <u>2.12.2.</u> 2.10.2. Service Agreements (Internal and External)
 - <u>2.12.3.</u> 2.10.3. Warranty Contracts
 - <u>2.12.4.</u> 2.10.4. Vendor/Procurement
 - <u>2.12.5.</u> <u>2.10.5.</u> Water Contracts/Rights
 - <u>2.12.6.</u> 2.10.6. NOx/SO₂ Allowance or Allocation Agreements
 - 2.12.7. 2.10.7. Guaranties/Credit Support
- <u>2.13.</u> <u>2.11.</u> Provide a list of Capital Projects/Commitments including:
 - <u>2.13.1.</u> <u>2.11.1.</u> Commitments or Purchase Orders
 - <u>2.13.2.</u> 2.11.2. Construction/Engineering Agreements
- <u>2.14.</u> <u>2.12.</u> Provide a list of Utility Service Agreements including:
 - <u>2.14.1.</u> 2.12.1. Potable Water
 - <u>2.14.2.</u> 2.12.2. Wastewater/Sewer
 - <u>2.14.3.</u> 2.12.3. Station Service Agreement

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Preliminary Due Diligence List (Existing Coal and Petroleum Coke Resources)

2.14.4. Other Material Contracts

- 2.15. 2.13. Provide a list of Operation/Maintenance Contracts including: 2.15.1. 2.13.1. Service Agreements (Internal and External) including LTSA
- 2.16. 2.14. Capacity-Related Benefits and/or Environmental Attributes (as requested in Appendix C Section 13):
 - 2.16.1. 2.14.1. Describe any studies or other actions needed to qualify the Facility, or the portion allocated to Buyer, for capacity-related benefits <u>and/or Environmental</u> <u>Attributes</u>
 - 2.16.2. 2.14.2. Describe the status and any results of any such actions
- 2.17. 2.15. Indicate As requested in Appendix C Section 15, indicate whether the Facility is or will be capable of providing any ancillary services or Other Electrical Products to Buyer and, if so, which ones and the basis of that belief
- 2.18. If an option for enhanced dispatch is included with proposal, describe the Spinning and Operating Reserve Capabilities and historic performance
- <u>2.19.</u> 2.16. Nameplate Capacity
 - 2.19.1. 2.16.1. If As requested in Appendix C Section 9, if Bidder proposes to allocate to Buyer less than all of the nameplate capacity of the Facility, please describe in detail how Bidder intends to sub-divide the capacity (*e.g.*, by dedicating to Buyer certain generating units at the Facility), including
 - <u>2.19.1.1.</u> <u>2.16.1.1.</u> Proposed procedures for metering;
 - 2.19.1.2. 2.16.1.2. Tagging/scheduling with the Balancing Authority or similar action (if applicable);
 - 2.19.1.3. 2.16.1.3. Joint use of Common Facilities; and
 - <u>2.19.1.4.</u> 2.16.1.4. Settlement

3. Environmental

- 3.1. What is the national Ambient Air Quality Standards ("NAAQS") attainment status for the project region, on a pollutant basis for all criteria pollutants?
- 3.2. Provide a list of all current effective environmental permits/registrations, including any federal, state or municipal permits issued related to the Facility or site.

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- 3.3. Describe any pending permit-renewal proceedings and any pending requests for permit modification. Define and describe any expected hurdles to permit re-issuance or permit modifications.
- 3.4. Provide a detailed overview of the environmental management procedures in place to manage compliance with both existing Permit Conditions (all media) and Federal & State proposed and newly promulgated regulations.
- 3.5. Define and describe the regulatory compliance plan for major environmental regulations (all mediaAs applicable and including, but not limited to: Cross-State Air Pollution Rule ("CSAPR"), Mercury and Air Toxics Standards ("MATS"), Regional Haze, Reciprocating Internal Combustion Engines National Emission Standards for Hazardous Air Pollutants ("RICE NESHAPS"), Clean Water Act ("CWA") 316b, etc.) proposed or promulgated with effective compliance dates that would be applicable to the facility and/or require the permitting of and future installation of control devices. Please provide installation and operating costs for all control devices that will be installed to meet regulatory requirements.
- 3.6. Describe the Facility environmental performance over the past five years (i.e., annual wastewater violations, excess air emissions unrelated to startup and shutdown, reportable spills and releases).

4. Transmission

Transmission Interconnection

- 4.1. Description of Transmission and Interconnection Facilities
- <u>4.1.</u> <u>4.2. Maximum Generator/Facility Capability as studied in the Provide</u> Large Generator Interconnection Procedures Study (PMAX Value)<u>Agreement</u>
- 4.3. Description of switchyard protection schemes associated with the plant along with any historic operation of these schemes
- 4.4. Overview of Monitoring and Control Systems
- 4.5. Load Flow Study Summaries
 4.5.1. Interconnection Study
 4.5.2. Transmission Study
 4.2. 4.6. Reliability
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- <u>4.2.1.</u> <u>4.6.1. ListProvide a list of issues affecting the grid relative to the operation (loss) of site generation (if applicable)</u>
- <u>4.2.2.</u> <u>4.6.2. ListProvide a list of issues affecting operation relative to the loss of local transmission (if applicable)</u>
- 4.7. Provide Large Generator Interconnection Agreement
- 4.8. Does the unit have separate power flow metering equipment distinct from other units located at the plant site?

Transmission Service

- <u>4.3.</u> <u>4.9. Whether Discuss whether</u> any transmission service requests are pending associated with the generating unit, and if so, whether a System Impact Study or Facilities Study is available.
- <u>4.4.</u> <u>4.10. ListProved a list</u> of any transmission rights currently granted, requested or planned to be requested from the plant along with any associated rollover rights and transmission credits.
- 4.5. For Off-System Resources, provide the transmission service request number from OATI-OASIS as evidence of transmission service to the Entergy system.
- 4.6. 4.11. For Off System Resources, provide the costs For Off-System Resources, indicate whether the Bidder has estimated costs and/or considered the expected costs within the proposal to obtain and provide all transmission service necessary for the Off-System Resource to deliver the offered amount of Capacity, energy and Other Electric Products to Buyer at the Energy Delivery Point, including, without limitation, all transmission upgrades or other improvements necessary to obtain such service.

5. Financial Information

- 5.1. Current ownership structure
- 5.2. Financial statements for the past three years for the Bidder and/or the Bidder's credit support provider; including balance sheet, income statement and cash flow along with the long-term debt structure. Any ratings (if available) from the major ratings agencies, (S&P, Moody's, and/or Fitch). Lien information that might impact the credit worthiness of the Bidder and/or the Bidder's credit support provider.

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- 5.3. A list of any pending claims, actions, disputes or other proceedings currently pending or threatened against the project
- 5.4. Copies of all bankruptcy court orders, including the order discharging the project and debtor from the bankruptcy proceedings
- 5.5. Copies of project contracts not rejected during the bankruptcy proceedings and still in effect
- 5.6. Advise as to whether any project funds are subject to a constructive trust or equitable lien in favor of third parties (per ruling of bankruptcy court)

6. Fuel Supply and Transportation (For items marked with an asterisk (*), please include copies of all documents and any amendments thereto).

- 6.1. Fuel (coal, petroleum coke, limestone <u>or other sorbents</u> if applicable, or other)
 - 6.1.1. Historic Suppliers*
 - 6.1.1.1. Current supply sources and typical pricing structure*
 - 6.1.1.2. Does the unit have the flexibility to readily use fuel from different mines and producing regions or other applicable sources?
 - 6.1.1.3. Description of any historical supply disruptions
 - 6.1.2. Contracts* Include sources of supply, pricing terms and indexing applied, contract term, and counterparties. For existing commodity and transportation contracts identify primary receipt points; alternative receipt and delivery points.
 - 6.1.2.1. Commodity Contracts* (coal, petroleum coke, limestone, ash, etc.)
 - 6.1.2.2. Transportation Contracts (rail, barge)*
 - 6.1.2.3. Transportation Equipment Contracts*
 - 6.1.2.4. Fuel Handling Contracts*
 - 6.1.2.5. Ancillary Agreements*
 - 6.1.2.6. Pulverizer or Mill Maintenance Contracts*
 - 6.1.2.7. Any fuel commitments*
 - 6.1.2.8. Any hedges or hedging commitments*
 - 6.1.2.9. Key contractual terms for multiple fuel capability arrangements, if applicable.*
 - 6.1.3. Costs

6.1.3.1. Projected Fuel CostsFuel Adder

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- 6.1.3.1.1. As requested in Appendix C Section 18, if proposal includes a Fuel Adder, indicate and specify a proposed mechanism/formula for determination of the Fuel Adder to be added to the Base Energy Price.
- 6.1.3.1.2. 6.1.3.1.1. Please list and describe each and every transportation cost component that would be included in the Fuel Adder. Include, as applicable, the transportation mode, route and mileage for each leg of each route from each origin to Seller's generating facility, and any transfer, switching, fleeting, equipment, handling or other fees or costs associated with each movement.
- <u>6.1.3.1.3.</u> For each transportation cost component listed in response to item 6.1.3.1.1. above, please describe each and every applicable rate/price adjustment mechanism, including applicable formula(ae), frequency, economic indexes and sources thereof, or other criteria used in the rate adjustment process.
- <u>6.1.3.1.4.</u> <u>6.1.3.1.3.</u> For each transportation cost component listed in response to item 6.1.3.1.1. above, please provide projected costs on a \$/ton and \$/MMBtu basis for each month during the projected term of the Agreement.
- <u>6.1.3.1.5.</u> <u>6.1.3.1.4.</u> For each economic index listed in response to item 6.1.3.1.2. above, please provide projected values for each month during the projected term of the Agreement.
- 6.1.3.1.6. Provide projected consumable, reagent, and catalyst costs
- 6.1.3.1.7. Define any applicable state and local taxes which apply to the fuel(s)
- 6.1.3.2. Historical Fuel Costs.
 - 6.1.3.2.1. For each transportation cost component listed in response to items 6.1.3.1.1 and 1.1.3.1.36.1.3.1.3 above, please provide historical costs on a \$/ton and \$/MMBtu basis for each month beginning with January 2000 through the present.
 - 6.1.3.2.2. For each economic index listed in response to items 6.1.3.1.2 and 6.1.3.1.4 above, please provide historical values for each month beginning with January 2000 through the present.

6.1.3.3. Projected consumable, reagent, and catalyst costs

6.1.3.4. Applicable state and local taxes which apply to the fuel(s)

6.1.4. Fuel Consumption

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- 6.1.4.1. Does the <u>unitresource</u> have <u>multipledual</u> fuel capability? If <u>noso</u>, please describe<u>and</u> provide key contractual terms for such fuel arrangements.
- 6.1.4.2. Startup Fuel*
 - 6.1.4.2.1. Startup Fuel Type (oil, gas, coal, etc.)*
 - 6.1.4.2.2. Startup Fuel Capacity at Site*
- 6.1.4.3. Does the unit have separate fuel metering equipment distinct from other units located at the plant site? Please describe the accuracy and calibration procedures for this equipment.*
- 6.1.5. Fuel Storage
 - 6.1.5.1. Storage Capacity at Site
 - 6.1.5.2. Storage Quantity on Site
 - 6.1.5.3. Describe the inventory policy for the facility and how much is typically maintained.

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Statistics:	
	Count
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Deletions	133
Moved from	5
Moved to	5
Style change	0
Format changed	0
Total changes	219