



Appendix I-2

***Preliminary Due Diligence List
(Existing Solid Fuel Resources)***

For

***2011 Western Region
Request For Proposals
For
Long-Term
Supply-Side Resources***

Entergy Services, Inc.

~~December 9, 2011~~

As Amended

February 17, 2012

Formatted: Cover Entity

APPENDIX I-2
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APPENDIX I-2
PRELIMINARY DUE DILIGENCE LIST
(EXISTING SOLID FUEL RESOURCES)

As part of the RFP, ESI has posted this Appendix I-2, which contains a list of preliminary due diligence requests. ESI will require Bidders who intend to submit a proposal(s) originating from a solid fuel resource currently in commercial operation to provide a comprehensive response to each question accordingly and as required below. Failure to provide such a response to a question as required will result in an increased risk of a Bidder's proposal being deemed non-conforming and rejected from further consideration.

Bidders proposing an Ownership Acquisition Product (Product Package D) should respond to each request below by 5:00 pm CPT on the Required Proposal Submission Time. Bidders proposing Product Package A should respond to each request below marked by an asterisk "*" by 5:00 pm CPT on the Required Proposal Submission Time. Bidders proposing a PPA-type Product will be notified if and when it will be necessary to submit a response to the remaining requests. **The RFP Web Portal will not be used to collect the response to this Appendix I-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 then to provide the response to the RFP Administrator by the applicable deadline.

1. Plant and Equipment

- 1.1. Site Plan and General Arrangement Drawings*
 - 1.1.1. Power Island*
 - 1.1.2. Road and Rail Access to Site*
 - 1.1.3. Coal Supply and Transport Information*
 - 1.1.4. Startup Fuel and Transport Information*
 - 1.1.5. Other transportation infrastructure (waterways, highways)*
 - 1.1.6. Major one line diagrams*
- 1.2. Station Description and Major Equipment List
 - 1.2.1. Turbines
 - 1.2.2. Boiler Contract Data Sheet and Side Elevation Drawings
 - 1.2.3. Air pollution 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
 - 1.2.7. Instrumentation and Control System (DCS) and Updates
 - 1.2.8. Water Supply and Wastewater Discharge

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- 1.2.9. Fire Protection
- 1.2.10. Fuel 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)
- 1.2.13. Plant Cooling System (wet, dry, hybrid), including annual plant water requirements

1.3. Plant Design Life*

1.4. Operational Characteristics*

- 1.4.1. Provide a description of the various modes of operation of the generating unit.*
- 1.4.2. Provide the minimum and maximum load range in each mode of operation.*
- 1.4.3. Provide maximum ramp rates over the load range for each mode of operation.*
- 1.4.4. Provide minimum run times.*
- 1.4.5. Provide a typical start-up MW and Fuel usage profile versus time for each type of start-up (hot, warm and cold). Define hot, warm and cold start-up in terms of time off-line. Provide the typical shutdown time.*
- 1.4.6. Provide the MVar capability range of the generator. (Include 'as tested results').*
- 1.4.7. Is or will the unit be equipped with automatic generation control (AGC)?*
- 1.4.8. What is the operating range of the unit under AGC?*

2. Operations and Maintenance

2.1. Timeline of entities in charge of operation and maintenance of the plant including any major sub-contractors*

2.2. Electric Generating Statistics (Historic COD – 2011)

- 2.2.1. Gross, Auxiliary, and Net Generation*
- 2.2.2. Unit Heat Rate
- ~~2.2.3. Heat Rate Curves~~
 - ~~2.2.3.1-2.2.2.1. Summer (97 deg F, 56% RH) Min.-Max.~~
 - ~~2.2.3.2-2.2.2.2. Winter (68 deg F, 74% RH) Min.-Max.~~
 - ~~2.2.3.3-2.2.2.3. Max., 75%, 50%; Min. %~~
- ~~2.2.4-2.2.3. EFOR*~~
- ~~2.2.5-2.2.4. Fuel Consumption, Costs, Historic Suppliers, and Mines~~
 - ~~2.2.5.1-2.2.4.1. Project Fuel Costs (5 Years)~~
 - ~~2.2.5.2-2.2.4.2. Reagent and catalyst cost~~
- ~~2.2.6-2.2.5. Accredited unit capacity~~
- ~~2.2.7-2.2.6. Outage Event Summary*~~
- ~~2.2.8-2.2.7. Historic Capacity Factors*~~
- ~~2.2.9-2.2.8. Historic Service Hours*~~

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|---------------------------|---|
| 2.2.10-2.2.9. | Derate Causes, Time, and kWh* |
| 2.2.11-2.2.10. | History of Planned Outages Major Units* |
| 2.2.12-2.2.11. | Planned Outage Schedule * |
| 2.2.13-2.2.12. | Turbine Overhaul Cycle (Year) & Outage Time (Weeks)* |
| 2.2.14-2.2.13. | Reports from any boiler, turbine, or unit Performance Tests |
| 2.2.15-2.2.14. | Number of Boiler and Turbine Cold and Hot Starts |
| 2.2.16-2.2.15. | Turbine Generator Ramp Rate* |
| 2.2.17-2.2.16. | System Cold Start Time* |
| 2.2.18-2.2.17. | System Hot Start Time* |
| 2.2.19-2.2.18. | System Minimum Down Time* |
| 2.2.20-2.2.19. | Historic Outage Rates (forced, maintenance, planned, etc.)* |
| 2.2.21-2.2.20. | Historic Operating Factors* |
| 2.2.22-2.2.21. | |

2.3. Inspection Reports

2.3.1. Boilers

- 2.3.1.1. Boiler Inspection Reports from last Overhaul
- 2.3.1.2. Boiler/SH/RH Tube Failure Metallurgical Reports
- 2.3.1.3. Boiler/SH/RH Tube Chemical Analyses of Deposits

2.3.2. Turbines

- 2.3.2.1. Turbine Blade Deposit Chemistry report
- 2.3.2.2. Rotor Boresonic Inspection Reports
- 2.3.2.3. Bearing Vibration Analysis & Predictive Maintenance Data

2.3.3. Generators

- 2.3.3.1. Generator Inspection Degradation Report

2.4. Site Spares Inventory Major Components and Value

- 2.4.1. Turbines
- 2.4.2. Generators
- 2.4.3. Boiler
- 2.4.4. Other (Include BOP)

2.5. Site Black Start Capability*

2.6. Balance of Plant Routine, Predictive and Preventive Maintenance Activities

2.7. Capital Work Requests and Major Maintenance Expenditures for COD-2005

2.8. Capital Work Requests and Major Maintenance Expenditures for planned 2006 – 2010.

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- 2.9. Fuel Specifications including Design Fuel
- 2.10. Ash Disposal Plan (life of plant)*
 - 2.10.1. Provide annual projected bottom ash and fly ash production
- 2.11. Operation/Maintenance Contracts (copies of all documents including all amendments thereto)
 - 2.11.1. Operating Agreements
 - 2.11.2. Service Agreements (Internal and External)
 - 2.11.3. Warranty Contracts
 - 2.11.4. Vendor/Procurement
 - 2.11.5. Water Contracts/Rights
 - 2.11.6. NOx/SO₂ Allowance or Allocation Agreements
 - 2.11.7. Guaranties/Credit Support
- 2.12. Capital Projects/Commitments (copies of all documents including all amendments thereto)
 - 2.12.1. Commitments or Purchase Orders
 - 2.12.2. Construction/Engineering Agreements
 - 2.12.3. Utility Service Agreements (copies of all documents including all amendments thereto)
 - 2.12.4. Potable Water
 - 2.12.5. Wastewater/Sewer
 - 2.12.6. Station Service Agreement
 - 2.12.7. Other Material Contracts (copies of all documents including all amendments thereto)
 - 2.12.8. Lease Agreements and Contracts ≥ \$100,000 Per Year
 - 2.12.9. Summary Value of All Other Leases and Contracts
- 2.13. Operation/Maintenance Contracts (copies of all documents including all amendments thereto)
 - 2.13.1. Service Agreements (Internal and External) including LTSA
- 2.14. Capacity-Related Benefits*
 - 2.14.1. Describe any studies or other actions needed to qualify the Facility, or the portion allocated to Buyer, for capacity-related benefits
 - 2.14.2. Describe the status and any results of any such actions
- 2.15. Ancillary Services*
 - 2.15.1. (To the extent not provided in response to requests in the RFP Web Portal) Indicate whether the Facility is or will be capable of providing any ancillary services to Buyer and, if so, which ones and the basis of that belief

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2.16. Nameplate Capacity

2.16.1. 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

2.16.1.1. Proposed procedures for metering;*

2.16.1.2. Tagging/scheduling with the Balancing Authority or similar action (if applicable);*

2.16.1.3. Joint use of Common Facilities (as defined in the Main Body);* and

2.16.1.4. Settlement*

2.16.2. If less than the all the Nameplate Capacity is proposed for an acquisition, provide in the detail the proposal for

2.16.2.1. Metering, tagging/scheduling with the balancing authority or similar action (if applicable)

2.16.2.2. Settlement

2.16.2.3. Operation and Maintenance of the Common Facilities and Separate Facilities

2.16.2.4. Joint Ownership of the Common Facilities

2.16.2.5. Separate Ownership of the Separate Facilities

2.17. Dispatch/Curtailment Enhancements*

2.17.1. Specify and generally describe any enhanced dispatch and/or curtailment rights (or collection of dispatch and/or curtailment rights) and each proposed price adjustment, if any, for each such right (or collection of rights)*

3. Environmental

- 3.1. Provide a list of any potentially contaminated activities at nearby facilities/sites that may have been identified.*
- 3.2. Provide a list of all environmental permits/registrations, including any federal, state or municipal permits issued related to the Facility or site.*
- 3.3. Describe any pending permit-renewal proceedings, any pending requests for modification, and any expected hurdles to re-issuance.*
- 3.4. Provide copies of any past or current environmental site assessments, including any draft and final reports of investigations or remediation studies of site or Facility conditions, regarding past or current environmental conditions whether prepared on behalf of the Owner or in the Owner's possession or control.*

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- 3.5. 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).*
- 3.6. Has the site or Facility been evaluated for a change in operations or alteration, including Start-up and Shut-down emissions and any expansion? If so, state whether any environmental review of the alteration has been undertaken by the Owners or requested by or submitted to any government agency. Provide copies of all relevant documents, including any assessment, form, statement, or environmental report, and specify the status of such document(s) and the process.*
- 3.7. Provide a list of all groundwater monitoring or production wells at the site or facility and provide copies of state registrations for each well. Additionally, provide copies of geological and hydro geological maps that provide details of the soil and groundwater underneath the plant.*

4. Transmission

Transmission Interconnection

- 4.1. Description of Transmission and Interconnection Facilities*
- 4.2. Maximum Generator/Facility Capability as studied in the Large Generator Interconnection Procedures Study (P_{MAX} Value)*
- 4.3. Description of switchyard protection schemes associated with the plant along with any historic operation of these schemes
 - 4.3.1. Condition report for generation step-up (GSU) transformer and outage history
- 4.4. Overview of Monitoring and Control Systems*
- 4.5. Load Flow Study Summaries
 - 4.5.1. Interconnection Study
 - 4.5.2. Transmission Study
- 4.6. Reliability
 - 4.6.1. List of issues effecting the grid relative to the operation (loss) of site generation
 - 4.6.2. List of issues effecting operation relative to the loss of local transmission
- 4.7. Does the unit have separate power flow metering equipment distinct from other units located at the plant site?*

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4.8. Transmission Agreements

- 4.8.1. Current status of interconnection agreement including status of any required or optional system upgrades.
- 4.8.2. List of mandatory thermal, stability and short circuit upgrades along with cost and time frames to implement the mitigation. *(Based upon facility study, if completed and available.)*

4.9. Provide the total interconnection and related upgrade costs that are or are expected to be assigned to Bidder under the electric interconnection agreement for the proposed resource*

4.10. For Off-System Resources, describe the capability or modifications required to establish at the interconnection point a non-physical electrical interface point (a "pseudo tie") between the Balancing Authority in which the interconnection point is located and the Energy Electric System Balancing Authority so that the facility can be treated as a resource within the Energy Electric System Balancing Authority.*

Transmission Service

4.9.4.11. _____ Whether any transmission service requests are pending associated with the generating unit, and if so, whether a System Impact Study or Facilities Study is available.*

4.10.4.12. _____ List of any transmission rights currently granted, requested or planned to be requested from the plant along with any associated rollover rights and transmission credits.*

4.11.4.13. _____ Control Area arrangements including generator imbalance arrangements or necessary ancillary services.*

4.14. For Off-System Resources, provide the costs 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

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- 5.2. List of Inventory write-offs or potential obsolete inventory. Materials & supplies/inventory detail/subledger.
- 5.3. Detailed General Ledger related to plant
- 5.4. Plant-related Procurement Contract Liabilities (i.e., contracts committed to but not paid)
- 5.5. O&M from COD - 2011 by significant category
- 5.6. Summary of Property, Plant and Equipment
- 5.7. Site Capital Expenditures since commercial operation
- 5.8. List of plant-specific debt instruments; credit agreements, indentures, letters of credit, reimbursement agreements, guarantees, indemnity or assumption agreements and agreements relating to contingent obligations and any amendments thereto; security or pledge agreements and any agreements or instruments evidencing a lien or encumbrance on or other right with respect to any of the assets of the plant.
- 5.9. 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, Fitch). Lien information that might impact the credit worthiness of the Bidder and/or the Bidder's credit support provider.
- 5.10. Tax abatement agreements with state or local authorities and any amendments thereto
- 5.11. Copies of any material contracts/commitments not otherwise requested and any amendments thereto
- 5.12. A list of any pending claims, actions, disputes or other proceedings currently pending or threatened against the project
- 5.13. Copies of all bankruptcy court orders, including the order discharging the project and debtor from the bankruptcy proceedings
- 5.14. Copies of project contracts not rejected during the bankruptcy proceedings and still in effect, in any
- 5.15. 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)

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- 5.16. A list of any pending claims, actions, disputes or other proceedings currently pending or threatened against the project
- 5.17. A list of contracts rejected by the debtor/project and terminated during the bankruptcy proceedings
- 5.18. All property tax renditions, assessments, property tax bills and related payment support for the last three assessment periods for the generation facility; and a copy of the assessment for the current assessment period if not yet paid
- 5.19. Documents related to any formal or informal property tax protests, litigation filed, related correspondence, legal opinions received, and judicial or administrative decisions rendered during the last ten years and year-to-date, and current status of any such proceedings
- 5.20. Copies of any formal or informal property tax agreements (i.e. PILOT, TIP, etc.) with state or local authorities in force during the preceding five years, or effective in the current year or succeeding years
- 5.21. List of all applicable tax jurisdictions, tax rates, millage rates, assessment ratios, current equalization ratio
- 5.22. List of real estate and related facilities, both owned and leased, with legal description
- 5.23. Other tax information that a buyer would reasonable expect the seller to disclose to them before determination of the sale/purchase price (based on willing and informed buyer and seller) and efficient transition after the sale transaction is closed

6. Fuel & Power Supply

- 6.1. Fuel
 - 6.1.1. Fuel Consumption, Costs, Historic Suppliers*
 - 6.1.1.1. Projected Fuel Costs*
 - 6.1.1.2. Projected consumable, reagent, and catalyst costs
 - 6.1.2. Fuel (copies of all documents and any amendments thereto)
 - 6.1.2.1. Commodity Contracts (coal, petroleum coke, limestone, ash, etc.)
 - 6.1.2.2. Transportation Contracts
 - 6.1.2.3. Pulverizer or Mill Maintenance Contracts
 - 6.1.2.4. Storage Quantity on Site*
 - 6.1.2.5. State and Local Taxing as it applies to stored fuel
 - 6.1.2.6. Any fuel commitments*

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- 6.1.2.7. Any hedges or hedging commitments*
 - 6.1.2.8. Current supply sources and typical pricing structure. For existing commodity and transportation contracts: primary receipt points; alternative receipt and delivery points.*
 - 6.1.2.9. Does the unit have dual fuel capability? If so, please describe and provide key contractual terms for such fuel arrangements.*
 - 6.1.2.10. Does the unit have the flexibility to readily use coal from different mines and producing regions?*
 - 6.1.2.11. 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.
 - 6.1.2.12. Provide records of the reconciliation between physical and book inventory for the last five years.
 - 6.1.3. Startup Fuel*
 - 6.1.4. Type (oil, gas, etc.)*
 - 6.1.5. Storage Capacity at Site*
- 6.2. Power Supply
- 6.2.1. Copies of all documents and any amendments thereto
 - 6.2.1.1. Short-term contracts/commitments
 - 6.2.1.2. Long-Term contracts
 - 6.2.1.3. Ownership/Joint Ownership agreements
 - 6.2.1.4. Contracts for the sale of Other Associated Electric Products (Ancillary Services)
- 6.3. Insurance
- 6.3.1. Provide the estimated value (on a replacement cost basis) split by buildings, machinery and equipment, transformers, transmission and distribution assets and other supporting structures of the generating plant.
 - 6.3.2. Provide the loss history, if any, including date of loss, cause of loss, type of loss, duration of associated outage, and gross loss figures for both property and boiler & machinery losses.
 - 6.3.3. Provide detail regarding any building(s) included in the generating plant such as the area (in square feet), general construction type (e.g. masonry, frame, metal, concrete, etc.), general description of use (office, warehouse, machine shop, turbine building, etc.), whether or not combustibles/chemicals are stored in them, and whether or not the building has a fire suppression system.
 - 6.3.4. For buildings with fire suppression systems provide system design details, equipment protected, and the design basis (gallons per minute sprinkler demand).
 - 6.3.5. Detail on the location of the closest emergency response facility and approximate response time.

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7. Compliance

7.1. NERC Compliance

- 7.1.1. Information on what RRO this plant was registered with and when
- 7.1.2. Copy of current NERC compliance program document, and all policies and procedures relating to NERC compliance and all data proving compliance these procedures and policies.
- 7.1.3. Copy of any past audit documents, internal audits, self certifications, reporting forms and self reports of non-compliance including mitigation plans
- 7.1.4. Facility and Modeling data including: Steady state modeling data (real(max and min) and reactive(leading and lagging) capability including auxiliary loads), dynamic models for the generators, excitation systems, governors, power system stabilizers, transformer design data and current tap settings, short circuit data and all interconnection data.
- 7.1.5. Maintenance records on protective system maintenance including protective relays, dc systems, potential and current transformers, station batteries and special protection systems. Also any past mis-operation reports.
- 7.1.6. Large Generator Interconnect documents provided to the transmission provider.
- 7.1.7. Study results of the interconnect process.

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