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# ENTERGY NEW ORLEANS, INC. CITY OF NEW ORLEANS Docket No. UD-99-2



Response of: Entergy New Orleans, Inc. to the First Set of Data Requests

of Requesting Party: City of New Orleans

Question No.: CNO 1-24

Part No .:

Addendum:

Question:

Regarding ENO's Michoud and Paterson Stations:

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- a. Please identify any system constraints that would require ENO to generate with either of these facilities out of economic order or at times when the total cost of generation from these facilities is higher than the cost of other power within or available to Entergy's system from non-affiliates.
- b. Has ENO operated the Michoud or Paterson facilities under the conditions identified in (CNO 1-24)(a)? If answer is in the affirmative, please indicate, for each instance, the date of the event, the duration of the event, the MWh generated, and the fuel cost incurred.

## Response

a. The Company objects to this request on the grounds that it is overly broad and unduly burdensome. It may not be possible for the Company to identify any potential system constraints that could require ENO to generate with either of the facilities identified in the request out of economic order or at times when the total cost of generation from these facilities is higher than the cost of other power within or available to Entergy's system from non-affiliates. However, notwithstanding and without waiving this objection, the Company intends to provide a response to this request.

See attached description of the Entergy System operating constraints.

b. The Company does not maintain such records. Furthermore, if the such records did exist, the frequency with which such condition occurs would make it unduly burdensome for the Company to provide such information.

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Records are not maintained in the manner as specified in the question. However, see the system dispatcher notes as provided in the Company's response to Gordon 1-23.

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# System Operation Constraints Affecting Unit Commitment And Dispatch

1. 1

The following is a list of the current system operation constraints that affect unit commitment and dispatch, reasons for the constraints, and their application terms. This is intended to be a comprehensive list of constraints that are expected to exist for a period of time such that they should be considered in planning models.

In general, the System is operated for worst first contingency — i.e., upon outage of any transmission line, generator, or transformer all bus voltages and transmission line loading remain within Entergy Planning Criteria without dispatcher action. These constraints can vary considerably. Among the greatest typical contributors are: load magnitude, load distribution, native unit commitment, neighboring utility unit commitment, native generation dispatch, neighboring utility generation dispatch, power transfer between Entergy and other utilities, power transfer between external utilities, planned generator outages, and planned transmission facility outages. These general guidelines are tested under a wide variety of conditions and designed to accommodate all reasonable situations. However, they may be altered at the discretion of System Dispatching due to reliability, economy, additional temporary constraints, or other unplanned events.

#### Arkansas

- Couch 2 must run at minimum capability due to inexpensive J&W and McKamie gas supplies. (subject to gas availability)
- Ritchie 2 and Independence 2 should not be scheduled out for maintenance simultaneously due to EPI preference.
- 3. Sufficient generation should be committed south of El Dorado, Arkansas to limit the total flow on the Sheridan-El Dorado EHV and Sheridan-Hot Springs EHV 500kV lines to 2100 MW, due to possible overloading during contingencies. The amount of generation required will vary with system conditions.

#### Mississippi

- 4. Baxter Wilson 1 and 2 combined generation is limited to 1150 MW when burning gas due to gas pipeline constraints.
  - Baxter Wilson 1 and 2 combined generation is limited to 1050 MW burning oil or split-firing oil and gas with Baxter Wilson 2 limited to 650 MW and Baxter Wilson 1 at 400 MW.
- 5. Rex Brown #4 unit should be committed any time the Entergy-Mississippi load is expected to exceed 1800 MW. If Rex Brown 4 is not available, Units 2 and 3 should be committed.

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6. Baxter Wilson 2 and Gerald Andrus may burn oil for economy without restriction.

#### South Louisiana

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- 7. Amite South Import is usually maintained below 2000 MW to 2400 MW due to potential line loading problems during contingencies. (applies seasonally)
- The combined total generation output of Gypsy 1 and 2 must be limited to 400 MW with the Gypsy 230/115 kV transformer out of service due to line loading during contingencies.
- 9. Two of the following three units should be committed due to voltage problems during contingencies:
  - a. Ninemile 4
  - b.Ninemile 5
  - c.Michoud 3
- Franklin-McKnight 500 kV line flow from south to north should be limited to 850 MW to 1200 MW due to Gypsy-Madisonville 230 kV line loading problems upon outage of the Franklin-McKnight 500 kV line. (applies seasonally)

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- Lake Charles and Texas import limit from Baton Rouge and LP&L South is 750 MW to 1200 MW due to potential line loading problems during contingencies.
- Nelson 6 is dispatched to its maximum capability due to Sam Rayburn G&T and SRMA ownership contract obligation and Texas PUC requirements.
- 13. At least two of the following four units should be committed due to potential line loading and voltage problems in Lake Charles area during contingencies:
  - Nelson 4
  - Nelson 6
  - Sabine 4
  - Sabine 5

Also, three of the four units are needed for voltage support during summer and winter peak seasons.

14. Sabine 4 or 5 (on 230 kV bus) must be committed due to voltage problems. Furthermore, a minimum of three Sabine units are required to be committed for voltage support problems. This includes two Sabine 138 kV units and one 230 kV unit.

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- 15. A minimum of one unit at Lewis Creek must be committed at all times due to voltage support. Furthermore, Lewis Creek 1 and 2 must be committed during summer for voltage support.
- Sabine 1, 2, 3, 4, and 5 and Lewis Creek 1 and 2 have assured gas availability due to Sabine gas storage facilities.
- 17. Toledo Bend 1 and 2, hydro units, may be run as needed June through September for a maximum of six hours per day. All other times, the Sabine River Authority runs Toledo Bend 1 and 2 at their discretion, regardless of System needs.

#### General

- 18. ANO 1, ANO 2, Grand Gulf, River Bend, and Waterford 3 are dispatched to their maximum capability when available, unless restricted due to plant tests, plant constraints, or contingencies.
- 19. Restricted oil burning (less than 10% for any rolling three year period and less than 15% for any year), no oil burning capability, and peaking gas unit classifications are provided in Attachment 1. Designations are required for Continuing Emissions Monitoring (CEM) compliance.