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February 22, 2007

RECEIVED

FEB 23 2007

PUBLIC SERVICE
COMMISSION

MS ELIZABETH O'DONNELL
EXECUTIVE DIRECTOR
PUBLIC SERVICE COMMISSION OF KENTUCKY
211 SOWER BOULEVARD
FRANKFORT KY 40602

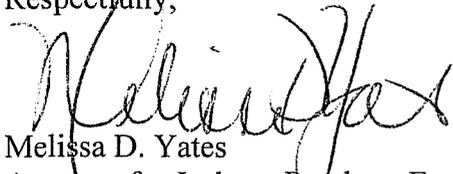
**Re: *Response of Jackson Purchase Energy Corporation to the
Commission's Second Data request, Case No. 2006-00494***

Dear Ms. O'Donnell:

Please find enclosed an original and six (6) copies of Jackson Purchase Energy Corporation's (JPEC) Response to the Commission's Second Data Request to Jurisdictional Electric Distribution Utilities.

Should you need any further information from me regarding this filing, please contact me.

Respectfully,



Melissa D. Yates
Attorney for Jackson Purchase Energy Corporation (JPEC)

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COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION OF KENTUCKY

RECEIVED

FEB 23 2007

PUBLIC SERVICE
COMMISSION

IN THE MATTER OF

AN INVESTIGATION OF THE RELIABILITY)
MEASURES OF KENTUCKY'S JURISDICTIONAL)
ELECTRIC DISTRIBUTION UTILITIES AND)
CERTAIN RELIABILITY MAINTENANCE PRACTICES)

CASE NO. 2006-0494

JACKSON PURCHASE ENERGY CORPORATION (JPEC)

RESPONSE TO COMMISSION'S SECOND DATA REQUEST

February 22, 2007

**JACKSON PURCHASE ENERGY CORPORATION (JPEC)
RESPONSE OF JACKSON PURCHASE ENERGY CORPORATION (JPEC)
TO SECOND DATA REQUEST OF COMMISSION STAFF
CASE NO. 2006-00494**

1 **Item 1)** Describe in detail how the company utilizes all of the reliability
2 measures it monitors.

3 **Response:**

4 JPEC is beginning to use reliability measures for trending to determine if
5 maintenance strategies are working effectively. We are also beginning to examine
6 trending per substation, feeder, and line section to determine which areas of the
7 system need specific attention.

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10 **Witness)** Tracy Bensley

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**JACKSON PURCHASE ENERGY CORPORATION (JPEC)
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1 **Item 2)** Has the company determined an appropriate operating range or
2 performance threshold based on these measures? If yes, identify.

3 **Response:**

4 No. We began recording these measurements in 2001 and, prior to 2006, have not
5 developed enough data for appropriate trending. We have concerns that data
6 collected from 2001 to 2005, because it was a more manual process of data entry, is
7 not as accurate as data collected starting in 2006 with our new Outage Management
8 System.

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11 **Witness)** Tracy Bensley

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1 **Item 3)** Describe in detail how the company develops formal plans to address
2 its worst performing circuits. If the company does not develop such plans, indicate so
3 in the response.

4 **Response:**

5 JPEC is now using reliability analysis, combined with system voltage and load
6 studies, to compare individual circuit and line section operating statistics. We use
7 this combination of data to determine which circuits or line sections need
8 maintenance the most. Once we have the circuits rated, we work on the circuits with
9 the worst performance records first. We can reevaluate circuit performance annually
10 with this combination of data to determine circuits that need attention within a given
11 year.

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14 **Witness)** Tracy Bensley
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1 Item 4) Why are momentary outages excluded?

2 **Response:**

3 Momentary outages are excluded because we do not have a reliable method for
4 recording them accurately. SCADA is not available on JPEC's devices outside the
5 substation. We do not have enough human resources to continually check counters
6 on reclosing devices to obtain accurate information on momentary outages. The high
7 cost of the available technology to record the exact quantity and location of
8 momentary outages prohibits the implementation of such a system

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11 **Witness)** Tracy Bensley

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1 **Item 5)** Why are major event days or major storms excluded?

2 **Response:**

3 Until 2006, major event days or major storms were not excluded in our calculations.
4 With the implementation of a new outage management system in 2006, we can more
5 accurately determine and isolate which outages are produced by major events.
6 Therefore, we began calculating our reliability indices with and without major events
7 in 2006. Because major events result in extended outages that are not
8 representative of typical operating conditions, we need to calculate our reliability
9 indices without the major event data to rate our performance under normal
10 conditions.

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Witness) Tracy Bensley

**JACKSON PURCHASE ENERGY CORPORATION (JPEC)
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1 **Item 6)** Provide a hard copy citing of the Rural Utilities Service ("RUS")
2 reliability monitoring or reporting requirements or, in the alternative, provide an
3 accessible Internet site.

4 **Response:**

5 RUS Draft Bulletin 161-1 may be accessed via the internet at
6 <http://www.jpenergy.com/news.aspx>.

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9 **Witness)** Tracy Bensley

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**JACKSON PURCHASE ENERGY CORPORATION (JPEC)
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1 Item 7) Provide and describe in detail any service restoration or outage
2 response procedure utilized.

3 **Response:**

4 See Attachment A – JPEC General Outage Procedure No. 6-1
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7 **Witness)** Tracy Bensley
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Attachment A

JACKSON PURCHASE ECC SUGGESTED OPERATING PROCEDURE

GENERAL OUTAGE PROCEDURE

1. Receive call and determine location (account number).
2. Proceed to location of reported outage.
3. Determine extent of the outage.
 - A. Individual meter:
 1. Co-op problem.
 2. Customer's problem.
 - B. Individual transformer (one or more meters).
 - C. Single phase tap out (few meters).
 - D. Main single phase feedline out (many meters).
 - E. One or two phase of three phase tap out.
 - F. One or two phase of main three phase line out.
 - G. Line three phase recloser out.
 - H. Substation recloser open.
 - I. Substation out.

4. On A, B and C above, determine cause, make necessary repair, restore service as quickly as feasible and report.

5. On D above, determine cause and length of time to make repairs.
 - A. If repair time determined to be short, proceed with repairs.

 - B. If repair time determined to be long and service can be restored to a number of consumers with little work, restore as much as possible then proceed with repair, restore service and report.

6. On E & F above, determine if condition is detrimental to any three phase equipment. Isolate affected equipment, determine cause of outage and, if necessary, open remaining phases to make repairs. Can any portion of service be restored or kept on ahead of repair area? Make same time judgment as in 5, proceed with repairs, restore service and report.

7. On G above, patrol line to next sectionalizing point.
 - A. Correct problem or isolate. Make same time judgment as 5 and 6 above to restore as much service as soon as possible.

 - B. Clear rest of line.

 - C. Restore three phase recloser.

 - D. Restore service and report.

8. On H & I above, see general substation procedures.

ACCEPTED: 6/25/87

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1 Item 8) Refer to the RUS drawing M1.30G "RIGHT-OF-WAY CLEARING
2 GUIDE" ("ROW Guide"), a copy has been provided in Appendix A.

3 a. Is this type of clearance requirement appropriate for all areas of
4 a distribution system? If not, what types of exclusions or exceptions should be
5 made?

6 b. If the distribution utility is not already following this guide, provide
7 an estimate of the cost and time-line to implement.

8 **Response:**

9 a. Yes, this type of clearance requirement is appropriate for all areas of an
10 overhead distribution system.

11 b. N/A

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14 **Witness)** Tracy Bensley

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1 Item 9) Refer to North American Electric Reliability Corporation (“NERC”)
2 standard FAC-003-1 “Transmission Vegetation Management Program” (“NERC
3 Standard”), a copy is attached in Appendix B.

4 a. Does the company prefer the type of standard described in the
5 NERC Standard over the type of standard described in the ROW Guide? Explain why
6 you prefer one over the other.

7 b. Refer to section R3 of the NERC Standard and substitute
8 “distribution” for “transmission.” Is the distribution utility capable of meeting the
9 reporting requirements described in the section? If not, why not?

10 c. Again referring to section R3 as applied to distribution, how
11 many sustained outages would be reportable for the calendar year 2006?

12 **Response:**

13 a. JPEC prefers the standard described in the ROW Guide. The NERC standard is
14 designed around and intended for transmission right-of-way. It should not be applied
15 to distribution right-of-way because the number of consumers per mile affected by
16 line operations on transmission lines will generally far exceed the number of
17 consumers per mile affected by line operations on distribution lines. The cost per
18 consumer increases substantially when applying transmission standards, such as
19 relaying schemes and maintenance plans, to distribution lines. Therefore, it is not
20 practical to follow the NERC standard for distribution right-of-way. The NERC
21 standard would require excessive resources to examine and develop a plan for each
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1 individual section of distribution right-of-way. The ROW Guide provides a simple
2 system for clearing and maintaining right-of-way for reliable distribution system
3 operation.

4 b. JPEC is capable of meeting these reporting requirements.

5 c. 276

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8 Witness) Tracy Bensley

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1 Item 10 Provide and discuss any right-of-way maintenance standard which is
2 preferable to those identified in questions 1 and 2 above.

3 **Response:**

4 **Assuming the PSC means questions 8 and 9 instead of 1 and 2** – Not only does
5 JPEC prefer the ROW Guide for its right-of-way maintenance, but JPEC’s mortgage
6 covenants also require us to follow RUS standards. The NERC standard is designed
7 to be used in the maintenance of a transmission system. JPEC is strictly a
8 distribution system and relies on Big Rivers Electric Corporation for its transmission
9 requirements. We do not believe the NERC standard is appropriate to use in the
10 maintenance of a distribution system.

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Witness) Tracy Bensley

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1 Item 27 Why doesn't Jackson Purchase exclude any outages from its reliability
2 measures?

3 **Response:**

4 JPEC believes the reliability measures should be based on all sustained outages.
5 Our members see all sustained outages as a nuisance regardless of the cause.
6 However, we are now examining data including and excluding major events to allow
7 us to measure our performance under both extreme and normal conditions.

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11 Witness) Tracy Bensley

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1 **Item 28** Describe in detail the capabilities of the new outage management and
2 reporting system to monitor outages and provide reliability-related information.

3 **Response:**

4 The new outage management reporting system being utilized by JPEC allows for
5 extremely detailed outage information. This information can be used to pinpoint
6 problem areas on our system and determine individual consumers experiencing
7 unacceptable levels of system performance. With this system, we are capable of
8 recording the following details for each outage:

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- | | |
|--|------------------------------|
| 10 1. Creation time | 2. Restoration time |
| 11 3. Crew assigned to outage | 4. Number of meters affected |
| 12 5. Duration time | 6. Accumulated time |
| 13 7. Protective device associated with outage | 8. Cause of outage |
| 14 9. Substation | 10. Circuit |
| 15 11. Individual members affected | 12. Weather conditions |
| 16 13. Comments | |
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19 Witness) Tracy Bensley
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