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January 11, 2007

MS. BETH O'DONNELL
EXECUTIVE DIRECTOR
KENTUCKY PUBLIC SERVICE COMMISSION
211 SOWER BLVD.
FRANKFORT KY 40602

RECEIVED

JAN 12 2007

PUBLIC SERVICE
COMMISSION

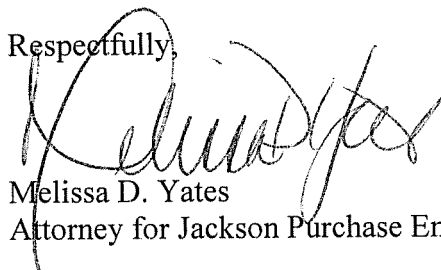
**Re: Response of Jackson Purchase Energy Corporation
to the Commission's First Data Requests Case No. 2006-00494**

Dear Ms. O'Donnell:

Please find enclosed an original and seven (7) copies of Jackson Purchase Energy's Response to the Commission's First Data Request in the above referenced matter. I have also enclosed an additional copy for file-stamping, which I would ask that you return to me in the enclosed self-addressed, stamped envelope.

Should you need any further information from me regarding this filing, please do not hesitate to contact me.

Respectfully,



Melissa D. Yates
Attorney for Jackson Purchase Energy Corporation

86038

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

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Item 1) Does utility management measure, monitor, or track distribution reliability?

- a. If so, describe the measures used and how they are calculated.
- b. If reliability is monitored, provide the results for the past 5 years for system wide reliability.

Response a) Yes. JPEC uses five indices to measure reliability:

- 1) SAIFI - System Average Interruption Frequency Index
= total number of customer interruptions/total number of customers served
- 2) SAIDI = System Average Interruption Duration Index
= sum of customer interruption durations/total number of customers served
- 3) CAIFI = Customer Average Interruption Frequency Index
= total number of customer interruptions/total number of customers affected
- 4) CAIDI = Customer Average Interruption Duration Index
= sum of customer interruption durations/total number of customer interruptions
- 5) ASAI = Average Service Availability Index
= total number of customer hours available/total customer hours demanded

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Response b)

| <u>Year</u> | <u>SAIFI</u> | <u>SAIDI</u> | <u>CAIFI</u> | <u>CAIDI</u> | <u>ASAI</u> |
|-------------|--------------|--------------|--------------|--------------|-------------|
| 2002 | 1.73516 | 151.59215 | 1.95321 | 87.36501 | 0.99971 |
| 2003 | 2.12828 | 224.20432 | 2.43072 | 105.34541 | 0.99957 |
| 2004 | 2.41599 | 199.25385 | 2.66619 | 82.47282 | 0.99962 |
| 2005 | 1.59265 | 109.64564 | 2.15047 | 68.84457 | 0.99979 |

The 2001 index data has been archived and is not currently available. The indices for 2006 have not yet been calculated.

Witness) Tracy Bensley

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Item 2) Are any outages excluded from your reliability measurement? If so, what criteria are used to exclude outages?

Response) We have included all outages in calculating our indices.

Witness) Tracy Bensley

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Item 3) Does the utility differentiate between momentary and sustained outages?

- a. What criteria are used to differentiate?
- b. Is information about momentary interruptions recorded?

Response) JPEC does not track or record momentary outages.

Response a) Should JPEC begin differentiating, a sustained outage would be defined as any outage lasting longer than the longest open interval time of the upline reclosing devices used for line protection. For example, if a breaker has an open interval of 30 seconds before reclosing, a sustained outage for the line being protected by that device would be defined as any outage lasting longer than 30 seconds.

Response b) To date, JPEC has not recorded information about momentary interruptions.

Witness) Tracy Bensley

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Item 4) At what level of detail does the utility record customer outages (individual customer, by re-closer, by circuit, by substation, etc.)?

Response) Prior to 2006, JPEC recorded outages detailed by substation and circuit. A new outage management and reporting system was installed and implemented beginning January 1, 2006. This new system provides outage details for sustained outages that include substation, circuit, protective device (recloser or fuse), and individual customer.

Witness) Tracy Bensley

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3 **Item 5)** How does the utility detect that a customer is experiencing an outage?

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5 **Response)** Outages at JPEC are detected using two methods: 1) If an entire
6 substation or circuit is out, JPEC's SCADA system will alarm dispatch personnel with
7 information about the outage. 2) For outages smaller than an entire circuit, JPEC
8 depends on customers calling in to detect outages.

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11 **Witness)** Tracy Bensley

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Item 6) How does the utility know when a customer is restored?

Response) JPEC depends on line personnel notifying dispatch personnel that outages have been restored. Once notification from line personnel has been received, dispatch personnel may contact a sample of customers involved in the outage to verify restoration.

Witness) Tracy Bensley

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Item 7) Are the causes of outages categorized and recorded? If they are, provide a list of the categories used.

Response) Yes, causes are categorized as follows:

- | | | |
|--------------------|------------------------|------------------|
| Planned | Animal | Arrester |
| Hotline Clamp | Cutout | Bad Insulator |
| Lightning | OCR (breaker/recloser) | Bad Pole |
| Public | Right-of-way | Storm |
| Substation | Bad Transformer | Bad Primary Wire |
| Bad Secondary Wire | Line Equipment | Supplier |
| Member Trouble | Unknown | |

Witness) Tracy Bensley

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Item 8) Can the utility record outage information for each circuit in the system including for each customer outage:

- a. Length of each disruption?
- b. Number of customers affected by each disruption?
- c. Number of customers served by each circuit:
- d. Cause of each interruption?

Response a) Yes
Response b) Yes
Response c) Yes
Response d) Yes

Witness) Tracy Bensley

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Item 9) If the answer to any part of Item 8 is no, what would be required to enable the utility to collect this level of data?

- a. Provide an estimated cost to obtain this level of detail.
- b. Provide an estimated timeline to implement such upgrades.

Response a) Not applicable.

Response b) Not applicable.

Witness) Tracy Bensley

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Item 10) Does the utility follow any type of standard (e.g., ANSI A300) for trimming trees in or near to the distribution right-of-way?

Response) JPEC, as an RUS borrower, follows RUS specifications for right-of-way clearing. These specifications are attached and designated as Attachment A.

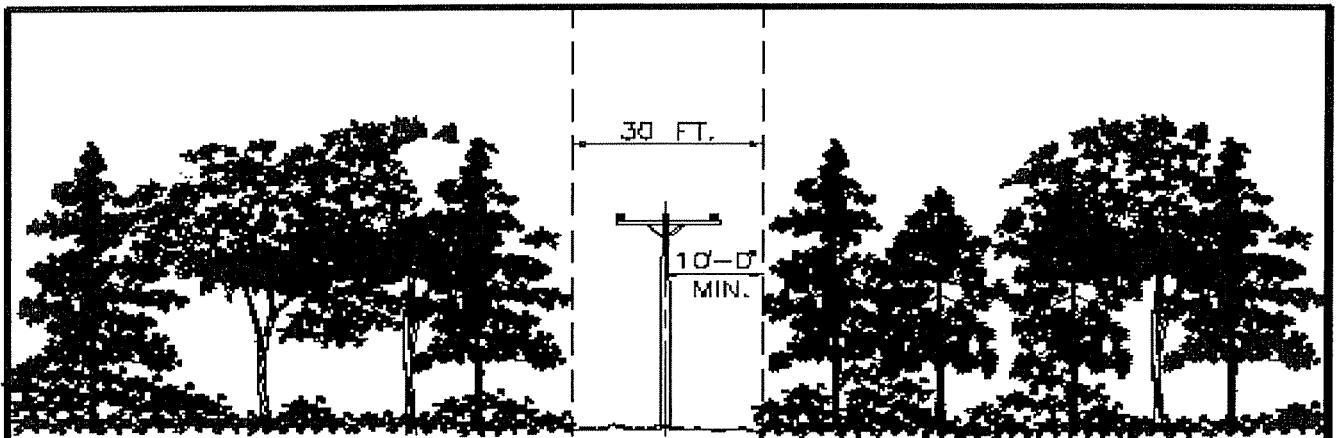
Witness) Tracy Bensley

SPECIFICATIONS FOR RIGHT-OF-WAY CLEARING

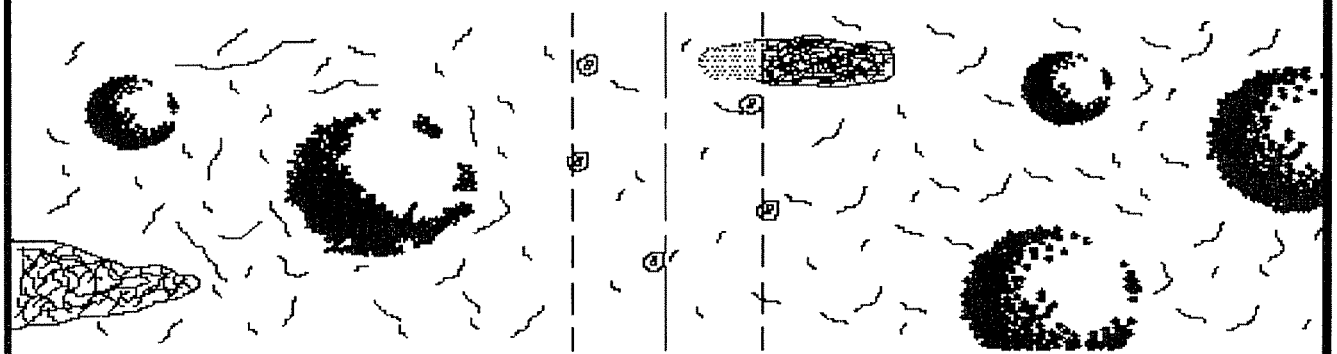
The right-of-way shall be prepared by removing trees, clearing underbrush, and trimming trees so that the right-of-way is cleared close to the ground and to the width specified. However, low growing shrubs, which will not interfere with the operation or maintenance of the line, can be left undisturbed if so directed by the property owner. Slash may be clipped and blown on the right-of-way if so allowed. Trim, but do not remove shade, fruit, or ornamental trees unless otherwise authorized.

All trimming shall be done using good arboricultural practices.

The landowner's written permission is usually required prior to cutting trees outside of the right-of-way. Trim trees fronting each side of the right-of-way symmetrically unless otherwise specified. Remove dead trees beyond the right-of-way which would strike the line in falling. Also, either remove or top leaning trees beyond the right-of-way that would strike the line in falling.

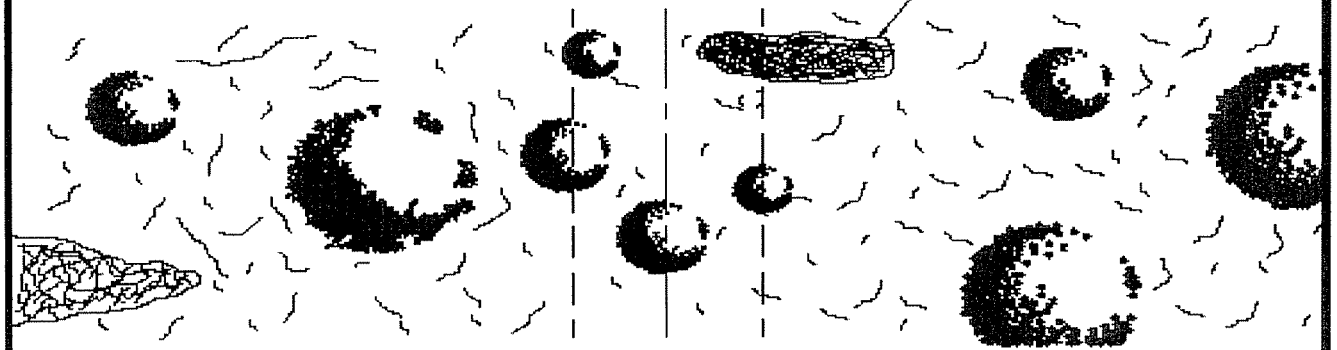


ELEVATION



AFTER CLEARING

Underbrush



BEFORE CLEARING

NOTE:
Change suffix of drawing number to designate clearing width. (e.g. M1.30G specifies 30 foot wide clearing).

JPEC clears right-of-way 30' wide for single phase lines and 40' wide for multi-phase lines.

RIGHT-OF-WAY CLEARING GUIDE

APRIL 2005

RUS

M1.30G
(R1)

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Item 11) What criteria does the utility use to determine when vegetation maintenance or tree trimming is required?

Response) JPEC is on a four year rotation for clearing right-of-way. Should vegetation be observed near, in contact with, or in danger of making contact with energized lines before the clearing rotation for a particular section of line is due, a job order is produced to clear the vegetation from the line.

Witness) Tracy Bensley

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Item 12) Is the tree trimming performed by utility personnel or by contractor? If by contractor, describe the controls management uses to ensure trees are trimmed per utility requirements.

Response) JPEC utilizes a contractor to perform tree trimming. A JPEC supervisor is assigned to schedule the contractor's work, monitor the contractor's performance, and inspect all work performed by the contractor. The contractor is not paid for performance of the work on a section of line unless all of the work for that section of line is completed according to JPEC specifications.

Witness) Tracy Bensley

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Item 13) Is any portion of the utility system subject to local codes or ordinances regarding tree trimming or vegetation management?

- a. Which areas of the system are covered by local codes ordinances?
- b. For each covered area, what do the local codes or ordinance require?

Response) Yes.

Response a) Clarks River National Wildlife Refuge in McCracken, Marshall, and Graves Counties

Response b) Clarks River National Wildlife Refuge requires one year prior approval on chemical spraying for vegetation management. The U.S. Fish and Wildlife Service approves the type of chemicals being applied and the areas of application

Witness) Tracy Bensley

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Item 14) How often does the utility clear its distribution easements?

Response) JPEC is on a four year rotation for clearing right-of-way.

Witness) Tracy Bensley

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Item 15) How much has the utility spent on distribution easement clearing for each of the last 5 years? Include the cost per mile expended.

Response)

| <u>Year</u> | <u>Clearing</u> | <u>Miles of Line Cleared</u> | <u>Cost per Mile</u> |
|-------------------|-----------------|----------------------------------|--------------------------|
| 2002 | \$ 412,319.20 | 459.76 | \$896.81 |
| 2003 | \$ 739,762.20 | 462.95 | \$ 1,597.93 |
| 2004 | \$ 466,390.83 | 623.00 | \$ 748.62 |
| 2005 | \$ 1,125,906.52 | 509.42 | \$ 2,210.19 |
| 2006 (thru 11/30) | \$ 934,588.75 | 463.16 | \$ 2,017.87 |

Witness) Tracy Bensley, Chuck Williamson

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Item 16) What annual amount of money is included in the current retail rates for distribution easement clearing?

Response) In our 1997 rate case (Case No. 97-224), we used \$354,018 for tree trimming in our adjusted test year.

Witness) Chuck Williamson