COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

REQUEST FOR INTERVENTION AND NOTICE OF FILING	))	ADMINISTRATIVE CASE NO. 2005-00090

COMES Pennyrile Rural Electric Cooperative Corporation, 2000 Harrison Street, P.O. Box 2900, Hopkinsville, Kentucky 42241-2900, a Kentucky TVA Distribution Cooperative over which the Commission has no jurisdiction, and requests permission to intervene in this case for informational purposes only. Further, the said Distribution Cooperative hereby voluntarily tenders the attached information in response to the Commission's Order of March 10, 2005 and Appendix B attached thereto.

Respectfully submitted, this 13 day April, 2005.

J. Daniel Kemp
Kemp Ison Harton Tilley & Holland
P.O. Box 648
Hopkinsville, KY 42240
Attorney for Pennyrile Rural Electric Cooperative Corporation

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and exact copy of the Request was this 13 day of April, 2005 mailed to the following:

Jason Bentley
General Counsel
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

J. Daniel Kemp

PENNYRILE
Rural Electric Cooperative

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April 11, 2005

J. Daniel Kemp
Attorney at Law
Kemp, Ison, Harton, Tilley & Holland, LLC
612 South Main Street
Hopkinsville, KY 42241-0648

Subject : Administrative Case Number 2005-00090- An Assessment of Kentucky's Electric Generation, Transmission, and Distribution Needs for the Kentucky Public Service Commission

Dear Dan:

Attached for your information and review are answers to questions listed in Appendix B of the above referenced case number for the Kentucky Public Service Commission (PSC). In talking with Nancy Shelton of TVA, she agreed that TVA would primarily be responsible for questions 1 through 25, which primarily represent generation and transmission capabilities. TVA plans to have a response to the PSC by April 30. Pennyrile has provided answers to questions 1, 2a., 4, 5, 7, 18, 25b, and 25c, and 26 through 33. In question 29, Pennyrile does not collect Customer Average Interruption Frequency Index (CAIFI) data, and it is not collected by most electric utilities.

A question that I do not have a good feel for at the present time is question 33 regarding cost/budgets for transmission and distribution facilities replacement for years 2000 trough 2025, especially with discussions that took place in our meeting last Thursday and Friday. Otherwise, I feel that Pennyrile has answered all the other questions well.

Thank you for your time and cooperation. If you have any questions or comments, please feel free to call me at 886-2555.

Sincerely,

John W. Wheeler, P.E.

John W. Wheeler, P.E
Manager of Engineering

JW: tp
Cc: Eston Glover

Attachments

1. Provide a summary description of your utility's resource planning process. This should include a discussion of generation, transmission, demand-side, and distribution resource planning.

Pennyrile RECC is required by the Rural Utilities Service (RUS) for loan-funding purposes to have two planning processes in place. One is a *System Planning Report*, or *Long Range Plan*, in which Pennyrile is to forecast demand and energy data for a period of 20 years. This report is to be updated every 10 years to aid (via regression analysis) in forecasting for the next 20 years. Input is also gathered from Pennyrile RECC Engineering, Key Accounts, and District Managers of any projected large loads that may be locating within their areas. This data is also input into the *System Planning Report.* With this data, load flow studies are run, and proposed new substations, feeder breakers, and reconductor projects are identified.

The second planning process that is used by Pennyrile RECC is the *Construction Work Plan* (CWP). In order to develop the Construction Work Plan, a *Power Requirement Study* is required by the Rural Utilities Service (RUS). This study, which is performed by the Kentucky RUS Field Representative and the Manager of Engineering at Pennyrile RECC, also uses historical data to project future demands and energy sales for the following 10 years for each class of customer. Once the *Power Requirements Study* is complete, the *Construction Work Plan* (CSW) is developed. This enables Pennyrile to acquire its loan funding from RUS. The *CSW,* which typically is a four-year plan, uses the *Power Requirement Study* and the *System Planning Report* as guides for the development. In the CWS, detailed load-flow studies are run to identify large projects such as new substations, new feeder projects, and reconductors.

2. Are new technologies for improving reliability, efficiently and safety investigation and considered for implementation in your power generation, transmission and distribution system? **Yes**

   a. If yes, discuss the new technologies that were considered in the last five (5) years and indicate which, if any, were implemented.

   There are three areas in which new technologies have been implemented:

   1. **Pennyrile RECC is presently using an *Automated Meter Reading (AMR)* pilot program at the Edgoten Substation in Oak Grove. The AMR system that is being employed is the TWACS *(Two Way Automated Communications System)*which uses power-line carrier technology. This pilot program encompasses members at Oak Grove and Fort Campbell.**

   2. **A second technology is the use of a GIS *(Geographic Information System)* and GPS *(Global Positioning System)* that Pennyrile has used for its mapping system, Pennyrile has mapped approximately 140,000 points (95,000 poles & pad mounted equipment) and 45,000 meters within its service area, with an accuracy of three (3) feet. Pennyrile has also incorporated its pole file into this system, and a user can also view a pole file into this system, and a user can also view a pole inventory, as well as the pole location. Pennyrile has provided this technology to Engineering and Operations personnel via laptops.**

   3. **A third technology that Pennyrile employs is the use of the *Porche Outage Management System.* The Porche system is used on an after-hours basis. If the Dispatcher is talking to a member on the phone, the Porche system will pick up and prompt a member to provide information, which is registered on a computer screen, enabling a member to reach Pennyrile, even if a large outage is talking place. With the Porche system, during outages, Pennyrile can monitor the calls, provide feedback to the member regarding outage status, and Porche can make call backs to those whose power has been restored. This technology improves reliability and efficiency.**

4. Provide actual and weather-normalized annual load energy sales for calendar years 2000 through 2004. Provide actual annual off-system energy sales for this same period disaggregated into full requirements sales, firm capacity sales, and non-firm or economy energy sales. Off-system sales should be further disaggregated to show separately those sales in which your utility cuts as a reseller, or transporter, in a power transaction between two or more other parties.

Pennyrile RECC's actual annual native load energy sales (full-requirement sales) for years 2000 trough 2004 are as follows:

YEAR	ACTUAL ANNUAL NATIVE LOAD ENERGY SALES (KWH)
2000	1,004,885,680
2001	1,014,262,800
2002	1,035,214,602
2003	1,066,470,089
2004	1,086,972,437

5. Provide actual and weather-normalized annual coincident peak demands for calendar years 2000 through 2004 disaggregated into (a) native load demand, firm and non-firm; and (b) off-system demand, firm and non-firm.

The Tennessee Valley Authority provides Pennyrile RECC, through its all-requirements contract, firm native load demand. The actual annual coincident peak demands are listed as follows:

YEAR	MONTH	ACTUAL COINCIDENT NATIVE LOAD DEMAND (in Kw)
2000	February (winter)	198,034
	August (summer)	215,963
2001	January (winter)	219,660
	August (summer)	212,778
2002	March (winter)	198,669
	August (summer)	220,488
2003	February (winter)	245,218
	September (summer)	218,475
2004	January (winter)	216,575
	August (summer)	220,860

18. Provide your utility's definition of "transmission" and "distribution".

For Pennyrile RECC, "transmission" is defined as 69,000 volts (three-phase) and above.

25. Provide the following energy data forecast for the years 2005 through 2025.

The Tennessee Valley Authority (TVA) provides power to Pennyrile RECC at 23 delivery points (6 at 161 KV and 17 at 69KV), on its system TVA owns and operates the transmission grid to these delivery points, of which Pennyrile operates as a distributor (12, 47 and 25 KV). The total energy requirements required by Pennyrile for the years 2005 through 2025 through TVA's transmission grid are as follows:

YEAR	KWH REQUIRED
2005	1,187,769,000
2006	1,218,231,000
2007	1,248,694,000
2008	1,279,156,000
2009	1,309,619,000
2010	1,340,081,000
2011	1,370,543,000
2012	1,401,006,000
2013	1,431,468,000
2014	1,461,930,000
2015	1,492,393,000
2016	1,522,855,000
2017	1,553,318,000
2018	1,583,780,000
2019	1,614,242,000
2020	1,644,705,000
2021	1,675,167,000
2022	1,705,630,000
2023	1,736,092,000
2024	1,766,554,000
2025	1,797,017,000

This represents a projected energy growth of 2.87% per year.

Summer and winter projected peak demands through the TVA transmission grid which serves Pennyrile from the years 2005 to 2025 are as follows:

YEAR	SUMMER (in KW)	WINTER (in KW)
2005	222,575	234,486
2006	224,216	240,778
2007	225,857	247,070
2008	227,499	253,362
2009	229,140	259,653
2010	230,781	265,945
2011	232,423	272,237
2012	234,064	278,529
2013	235,705	284,820
2014	237,847	291,112
2015	238,988	297,404
2016	240,629	303,696
2017	242,271	309,987
2018	243,912	316,279
2019	245,553	322,571
2020	247,194	328,863
2021	248,836	335,154
2022	250,477	341,146
2023	252,118	347,738
2024	253,760	354,030
2025	255,401	360,321

26. Provide the yearly System Average Duration Index ("SAIDI") and the System Average Interruption Frequency Index ("SAIFI"), excluding major outages, by feeder for each distribution substation on your system for the past 5 years.

These indices are measured in hours.

PENNYRILE SAIDI DATA-EXCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Adairville	254	2.63	1.66	1.52	6.91	1.48
	264	0.07	1.24	0.30	0.55	0.21
Canton	214	-----	-----	-----	-----	2.88
	234	-----	-----	-----	-----	3.86
Cadiz	214	1.54	0.11	1.12	3.25	0.32
	224	3.04	1.16	2.50	4.34	0.26
	234	2.00	0.00	0.00	0.95	0.00
	244	0.16	0.06	1.05	1.96	0.82
	254	1.31	0.61	3.75	1.89	0.23
	264	4.01	9.37	6.22	4.31	0.50
Cerulean	234	5.78	1.57	15.13	5.90	3.61
Clifty	214	0.50	1.22	2.90	1.49	4.24
	224	0.44	0.10	4.65	0.72	5.83
	234	0.80	0.08	0.45	0.47	6.28
Commerce Park	214	2.08	0.00	0.44	0.00	0.00
	224	2.09	0.04	0.93	0.00	2.04
	244	3.00	0.83	1.37	7.76	1.44
	254	2.30	0.00	0.10	1.68	0.71
Dunmor	1425-1	1.56	1.52	1.31	1.90	5.68
	1425-2	0.72	11.58	0.66	0.88	0.44
	1425-3	1.14	2.06	1.85	3.71	24.13
	1425-4	0.48	1.68	0.00	5.93	2.71
Edgoten	224	-----	-----	-----	0.40	1.12
	234	3.06	0.63	2.42	5.56	2.08
	244	3.89	1.00	1.92	8.88	0.82
	254	2.93	2.51	2.01	4.69	0.91
Elkton	224	2.03	0.84	0.17	0.95	0.01
	234	2.72	1.57	2.57	1.99	3.25
	244	3.06	1.59	1.68	1.72	2.54
	254	9.66	2.93	6.17	2.22	1.83
Ennis	214	0.97	0.84	7.30	5.02	1.45
	244	0.88	5.51	1.82	1.69	4.57
Green Hills	214	0.75	0.36	0.56	0.15	0.05
	224	0.09	0.50	0.69	0.00	0.00
	234	0.48	0.41	0.51	0.77	0.34
	244	1.40	1.78	3.29	2.50	1.35
	254	1.02	0.34	1.68	11.08	4.74
	264	2.19	0.71	1.86	8.33	0.95
Happy Hollow	224	1.05	0.58	0.52	2.77	2.63
	234	2.65	0.46	0.62	1.49	6.99
	244	0.90	2.51	1.10	2.17	2.43
Homer	224	1.85	1.86	8.20	3.45	2.57
	234	0.25	0.09	3.56	0.91	1.33
Hopson	1525-1	4.26	2.83	2.43	1.70	4.48
	1525-2	4.25	7.06	5.15	4.37	10.22
	1525-3	4.19	1.77	1.36	2.98	0.48
Kirkmansville	214	6.26	5.36	5.56	5.40	3.32
	234	3.54	2.71	3.76	3.35	1.12
Lewisburg	214	2.02	1.49	1.90	1.07	4.40
	244	1.10	0.59	3.19	1.80	4.79

PENNYRILE SAIDI DATA-EXCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Lyon	394	2.05	1.47	6.42	3.08	14.73
Pee Dee	344	1.56	2.59	3.31	3.13	3.33
Penchem	1125-1	2.54	4.42	2.39	1.40	2.91
	1125-2	4.46	6.71	3.37	5.76	0.96
	1125-3	3.07	5.89	2.08	2.17	0.74
	1125-4	-----	-----	0.89	0.93	0.44
Rockcastle	214	0.90	6.96	2.49	5.40	0.70
	224	0.50	7.74	2.16	1.35	5.01
Russellville	324	0.14	0.28	1.32	0.91	2.61
	334	0.00	0.02	0.00	0.00	0.00
	344	0.23	0.98	2.15	0.47	3.00
	354	1.49	0.27	0.88	7.82	3.54
	374	1.46	0.45	3.90	0.70	2.90
South Hopkinsville	224	-----	1.25	1.71	0.48	4.38
	234	-----	0.02	0.47	0.49	1.03
	244	-----	4.13	1.71	0.77	8.33
	AVG/YR	2.63	2.39	2.99	3.25	3.00

PENNYRILE SAIFI DATA-EXCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Adairville	254	1.97	1.23	1.05	4.60	1.05
	264	0.07	1.32	0.23	0.42	0.20
Canton	214	-----	-----	-----	-----	1.65
	234	-----	-----	-----	-----	3.30
Cadiz	214	1.85	0.13	1.75	3.92	0.38
	224	2.89	1.37	1.96	3.39	0.32
	234	1.00	0.00	0.00	2.00	0.00
	244	0.16	0.05	1.09	1.98	0.85
	254	1.64	0.52	2.75	2.23	0.34
	264	3.26	7.38	4.75	3.91	0.57
Cerulean	234	3.42	1.07	9.51	3.71	2.12
Clifty	214	0.39	0.60	1.95	0.99	3.34
	224	0.26	0.05	3.27	0.34	2.63
	234	0.47	0.06	0.42	0.29	4.39
Commerce Park	214	1.00	0.00	0.33	0.00	0.00
	224	1.79	0.06	1.00	0.00	1.12
	244	2.37	0.57	1.11	4.70	0.76
	254	2.00	0.00	0.13	1.95	0.47
Dunmor	1425-1	0.53	1.03	0.81	0.68	1.24
	1425-2	0.36	6.36	0.36	0.44	0.47
	1425-3	0.86	1.74	1.01	2.51	8.84
	1425-4	0.48	1.50	0.00	2.35	1.27
Edgoten	224	-----	-----	-----	0.40	1.10
	234	2.79	0.57	2.02	3.97	1.48
	244	3.77	0.79	1.43	6.30	0.50
	254	2.81	1.75	1.56	3.02	0.62
Elkton	224	2.78	1.59	0.35	0.92	0.01
	234	2.30	1.25	2.22	1.68	2.91
	244	2.60	1.49	1.65	1.63	2.19
	254	14.00	3.66	7.72	2.34	2.02
Ennis	214	0.41	0.56	3.28	2.20	0.87
	244	0.57	2.70	0.87	1.34	2.61
Green Hills	214	0.99	0.20	0.50	0.16	0.08
	224	0.14	0.43	1.00	0.00	0.00
	234	0.25	0.20	0.82	0.92	0.22
	244	1.14	1.22	3.22	1.48	1.11
	254	0.97	0.22	1.34	8.94	4.16
	264	1.65	0.71	1.83	5.31	0.33
Happy Hollow	224	0.85	0.57	0.30	1.41	2.21
	234	2.23	0.55	0.58	0.95	5.03
	244	0.72	2.06	1.11	1.26	1.67
Homer	224	1.69	1.78	5.33	1.20	1.78
	234	0.22	0.84	2.68	0.90	1.47
Hopson	1525-1	2.20	1.24	1.21	0.97	2.52
	1525-2	2.07	3.81	2.86	2.66	4.87
	1525-3	2.70	1.00	0.66	2.07	0.31
Kirkmansville	214	3.46	2.63	3.39	2.88	1.56
	234	2.98	2.21	2.28	2.39	0.87

PENNYRILE SAIFI DATA-EXCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Lewisburg	214	1.70	1.52	1.29	0.54	3.86
	244	0.76	0.26	2.77	1.14	3.69
Lyon	394	0.96	0.60	2.23	1.25	5.16
Pee Dee	344	0.90	1.38	2.03	1.23	1.75
Penchem	1125-1	2.82	3.40	2.26	1.13	2.19
	1125-2	3.57	6.33	2.96	4.43	0.61
	1125-3	2.90	5.30	1.63	1.89	0.52
	1125-4	----- -	-----	0.81	0.77	0.22
Rockcastle	214	0.55	3.80	1.61	3.63	0.53
	224	0.36	6.40	1.39	1.10	2.60
Russellville	324	0.23	0.29	0.86	0.79	2.56
	334	0.00	1.00	0.00	0.00	0.00
	344	0.21	0.75	2.24	0.35	2.52
	354	1.47	0.16	0.58	2.22	2.29
	374	1.42	0.37	2.64	0.52	2.39
South Hopkinsville	224	-----	1.13	1.75	0.34	2.96
	234	-----	0.06	0.85	0.73	1.45
	244	-----	3.79	1.71	0.41	4.01
	AVG/YR	2.01	1.73	2.21	2.12	1.97

27. Provide the yearly SAIDI and SAIFI, including major outages, by feeder for each distribution on your system for the last 5 years. Explain how you define major outages.

In this case, *major outages* are defined as outages caused by Pennyrile's power supplier – the Tennessee Valley Authority.

PENNYRILE SAIDI DATA-INCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Adairville	254	7.90	4.13	3.64	10.91	4.58
	264	5.34	3.71	2.42	4.55	3.31
Canton	214	-----	-----	-----	-----	2.88
	234	-----	-----	-----	-----	3.86
Cadiz	214	2.24	0.71	1.21	3.52	0.32
	224	3.74	1.76	2.50	4.61	0.26
	234	2.70	0.60	0.00	1.20	0.00
	244	0.86	0.66	1.05	2.23	0.82
	254	2.01	1.12	3.75	2.16	0.23
	264	4.71	9.97	6.22	4.58	0.50
Cerulean	234	6.48	2.17	19.20	6.17	11.25
Clifty	214	1.50	2.10	4.13	1.49	4.24
	224	1.44	1.08	5.88	0.72	5.83
	234	1.80	1.06	1.68	0.47	6.28
Commerce Park	214	2.08	0.00	0.44	0.00	0.00
	224	2.09	0.04	0.93	0.00	2.04
	244	3.00	0.83	1.37	7.76	1.44
	254	2.30	0.00	0.10	1.68	0.71
Dunmor	1425-1	3.58	3.20	1.31	1.90	11.18
	1425-2	2.16	13.26	0.66	0.88	5.94
	1425-3	2.58	3.73	1.85	3.71	29.63
	1425-4	1.92	3.36	0.00	5.39	8.21
Edgoten	224	-----	-----	-----	0.40	1.12
	234	6.92	0.63	2.42	5.56	2.08
	244	7.65	1.00	1.92	8.88	0.82
	254	5.53	2.51	2.01	4.69	0.91
Elkton	224	5.53	14.16	0.17	1.68	0.01
	234	6.22	15.04	2.57	2.72	3.25
	244	6.56	15.09	1.68	2.45	2.54
	254	13.16	16.31	6.17	2.95	1.83
Ennis	214	6.06	2.48	7.30	5.02	6.95
	244	5.97	7.07	1.82	1.69	10.07
Green Hills	214	0.75	2.01	1.16	0.15	0.05
	224	0.09	2.16	1.29	0.00	0.00
	234	0.48	2.06	1.11	0.77	0.34
	244	1.40	3.43	3.89	2.50	1.35
	254	1.02	1.99	2.28	11.08	4.74
	264	2.19	0.95	2.46	8.33	0.95
Happy Hollow	224	1.05	1.26	0.52	2.77	8.81
	234	2.65	1.14	0.62	1.49	9.91
	244	0.90	2.56	1.10	2.17	4.93
Homer	224	4.63	2.68	9.23	4.45	2.57
	234	3.03	0.91	4.59	1.91	1.33
Hopson	1525-1	4.96	3.43	7.93	22.26	4.48
	1525-2	4.95	7.66	10.65	24.93	10.22
	1525-3	4.89	2.37	6.86	23.54	0.48
Kirkmansville	214	6.34	12.69	9.76	11.00	6.41
	234	3.62	10.90	2.96	8.95	3.62
Lewisburg	214	2.02	1.49	1.90	1.07	4.40
	244	1.10	0.59	3.19	1.80	4.79

PENNYRILE SAIDI DATA-INCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Lyon	394	2.07	1.47	13.15	5.64	15.01
Pee Dee	344	2.90	3.19	5.01	11.28	3.33
Penchem	1125-1	5.49	4.44	10.40	12.40	3.13
	1125-2	7.21	6.72	11.39	16.76	1.18
	1125-3	6.02	5.90	10.09	10.09	0.96
	1125-4	-----	-----	8.90	11.93	0.67
Rockcastle	214	4.52	7.56	2.49	9.04	0.70
	224	4.12	8.34	2.16	4.99	5.01
Russellville	324	0.14	0.28	1.99	1.14	3.58
	334	1.75	4.82	5.15	3.23	0.97
	344	0.23	0.98	8.90	3.70	7.74
	354	1.49	0.27	7.63	3.05	4.51
	374	1.46	0.45	4.57	0.93	3.87
South Hopkinsville	224	-----	6.25	2.30	0.48	4.41
	234	-----	2.43	1.07	0.49	1.03
	244	-----	9.09	2.31	0.77	8.33
	AVG/YR	4.22	4.54	4.50	5.84	4.27

PENNYRILE SAIFI DATA-INCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Adairville	254	5.81	2.99	2.49	7.33	3.18
	264	4.05	3.67	1.70	3.48	2.80
Canton	214	-----	-----	-----	-----	1.65
	234	-----	-----	-----	-----	3.30
Cadiz	214	2.69	0.85	1.75	4.35	0.38
	224	3.59	2.10	1.96	3.66	0.32
	234	2.70	1.00	0.00	3.00	0.00
	244	0.91	0.54	1.09	2.42	0.85
	254	2.52	1.07	2.75	2.64	0.34
	264	3.89	7.91	4.75	4.24	0.57
Cerulean	234	3.86	1.50	11.77	3.93	6.32
Clifty	214	1.24	1.07	2.79	0.99	3.34
	224	1.08	0.63	4.17	0.34	2.63
	234	1.28	0.95	1.53	0.29	4.39
Commerce Park	214	1.00	0.00	0.33	0.00	0.00
	224	1.79	0.06	1.00	0.00	1.12
	244	2.37	0.57	1.11	4.70	0.76
	254	2.00	0.10	0.13	1.95	0.47
Dunmor	1425-1	1.52	1.19	0.81	0.68	2.74
	1425-2	1.47	7.80	0.36	0.44	3.19
	1425-3	2.02	3.22	1.01	2.51	11.05
	1425-4	2.60	3.20	0.00	2.35	4.10
Edgoten	224	-----	-----	-----	0.40	1.10
	234	6.02	0.57	2.02	3.97	1.48
	244	7.15	0.79	1.43	6.30	0.50
	254	5.08	1.75	1.56	3.02	0.62
Elkton	224	6.36	6.65	0.35	1.68	0.01
	234	5.27	10.59	2.22	2.32	2.91
	244	5.56	12.07	1.65	2.34	2.19
	254	18.27	16.18	7.72	3.11	2.02
Ennis	214	3.09	2.05	3.28	2.20	3.95
	244	4.23	3.84	0.87	1.34	5.60
Green Hills	214	0.99	1.20	1.11	0.16	0.08
	224	0.14	2.07	1.95	0.00	0.00
	234	0.25	1.44	1.83	0.92	0.22
	244	1.14	2.41	3.85	1.48	1.11
	254	0.97	1.45	1.87	8.94	4.16
	264	1.65	0.97	2.45	5.31	0.33
Happy Hollow	224	0.85	1.28	0.30	1.41	6.29
	234	2.23	1.38	0.58	0.95	7.03
	244	0.72	2.69	1.11	1.26	3.37
Homer	224	4.49	3.08	6.15	2.63	1.78
	234	2.78	0.94	3.48	1.99	1.47
Hopson	1525-1	2.61	1.55	3.77	10.86	2.52
	1525-2	2.48	4.23	5.41	11.87	4.87
	1525-3	3.24	1.39	3.10	12.73	0.31
Kirkmansville	214	3.54	6.24	5.91	5.79	3.04
	234	3.20	7.84	4.68	6.00	2.81
Lewisburg	214	1.70	1.57	1.29	0.54	3.86
	244	0.76	0.27	2.77	1.14	3.69

PENNYRILE SAIFI DATA-INCLUDING MAJOR OUTAGES (2000-2004)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Lyon	394	1.05	0.60	4.40	2.28	5.67
Pee Dee	344	1.70	1.72	3.11	4.44	1.75
Penchem	1125-1	5.90	3.55	9.04	9.19	2.41
	1125-2	5.89	6.35	8.63	11.64	0.77
	1125-3	5.57	5.41	7.48	10.54	0.68
	1125-4	-----	-----	4.00	6.49	0.60
Rockcastle	214	2.74	4.50	1.61	6.15	0.53
	224	2.86	7.07	1.39	4.06	2.60
Russellville	324	0.23	0.29	1.45	1.06	3.73
	334	1.00	2.00	5.04	2.00	0.97
	344	0.21	0.75	8.72	2.74	6.17
	354	1.47	0.16	4.95	2.48	3.03
	374	1.42	0.37	3.16	0.61	3.28
South Hopkinsville	224	-----	5.63	2.37	0.34	3.02
	234	-----	2.73	1.91	0.73	1.45
	244	-----	8.27	2.33	0.41	4.01
	AVG/YR	3.25	3.31	3.31	3.74	2.79

28. What is acceptable value for SAIDI and SAIFI? Explain how it was derived.

An acceptable value for SAIDI is five (5) hours or less (300 minutes). This value is based on the Rural Utilities Service (RUS) standard for distribution electric cooperatives. An acceptable value for SAIFI is a frequency of two (2) or less, as noted by the Electric Power Research Institute. From 2000 through 2004, excluding Tennessee Valley Authority (TVA) power supplier outages, Pennyrile's SAIFI is 2.01.

29. Provide the yearly Customer Average Interruption Index ("CAIDI") and the Customer Average Interruption Frequency Index ("CAIFI"), including and excluding major outages, on your system for the last five (5) years. What is an acceptable value for CAIDI and CAIFI? Explain how it was derived.

Pennyrile RECC's CAIDI data is attached as part of this document. Pennyrile does not monitor CAIFI reliability data. Since 2000, excluding major outages (outages the Tennessee Valley Authority, the power supplier), Pennyrile has averaged a CAIDI of 1.42 hours, or 85 minutes, of which power has been restored after an outage has occurred. Pennyrile feels, given its large geographical area (5,000 miles of line) and low density (9 customers per mile), that an average of 1.50 hours, or 90 minutes, is adequate for power restoration purposes.

PENNYRILE CAIDI DATA-INCLUDING MAJOR OUTAGES (2000-2004) (measured in hours)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Adairville	254	1.36	1.38	1.46	1.49	1.44
	264	1.32	1.01	1.39	1.31	1.18
Canton	214	-----	-----	-----	-----	1.74
	234	-----	-----	-----	-----	1.17
Cadiz	214	0.83	0.84	0.69	0.81	0.84
	224	1.04	0.84	1.28	1.26	0.82
	234	1.35	0.60	0.00	0.40	0.00
	244	0.94	1.23	0.96	0.92	0.97
	254	0.80	1.13	1.36	0.82	0.69
	264	1.12	1.26	1.31	1.08	0.89
Cerulean	234	1.68	1.45	1.63	1.57	1.78
Clifty	214	1.21	1.97	1.48	1.51	1.27
	224	1.33	1.72	1.41	2.11	2.22
	234	1.41	1.11	1.10	1.63	1.43
Commerce Park	214	2.08	0.00	1.33	0.00	0.00
	224	1.17	0.67	0.93	0.00	1.82
	244	1.27	1.46	1.23	1.65	1.89
	254	1.50	0.00	0.83	0.86	1.52
Dunmor	1425-1	2.36	1.37	1.61	2.81	4.08
	1425-2	1.47	1.70	1.80	2.01	1.86
	1425-3	1.28	1.16	1.84	1.48	2.68
	1425-4	0.74	1.05	0.00	2.29	2.00
Edgoten	224	-----	-----	-----	0.99	1.02
	234	1.15	1.11	1.20	1.40	1.40
	244	1.07	1.27	1.34	1.41	1.62
	254	1.09	1.43	1.29	1.55	1.47
Elkton	224	0.87	2.13	0.50	1.00	1.33
	234	1.18	1.42	1.16	1.17	1.12
	244	1.18	1.25	1.03	1.05	1.16
	254	0.72	1.03	0.80	0.95	0.91
Ennis	214	1.96	1.21	2.23	2.28	1.76
	244	1.41	1.84	2.10	1.26	1.80
Green Hills	214	0.76	1.67	1.04	0.90	0.66
	224	0.65	1.05	0.66	0.00	0.00
	234	1.97	1.43	0.61	0.84	1.54
	244	1.22	1.42	1.01	1.69	1.22
	254	1.06	1.38	1.22	1.24	1.14
	264	1.33	0.98	1.00	1.57	2.84
Happy Hollow	224	1.23	0.99	1.72	1.97	1.40
	234	1.19	0.83	1.08	1.57	1.41
	244	1.24	1.20	1.00	1.73	1.46
Homer	224	1.03	0.87	1.50	1.69	1.44
	234	1.09	0.97	1.32	0.96	0.90
Hopson	1525-1	1.90	2.22	2.10	2.05	1.77
	1525-2	2.00	1.81	1.97	2.10	2.10
	1525-3	1.51	1.70	2.21	1.85	1.52
Kirkmansville	214	1.79	2.01	1.65	1.90	2.11
	234	1.13	1.30	1.70	1.49	1.29
Lewisburg	214	1.19	0.95	1.48	2.00	1.14
	244	1.46	2.24	1.15	1.58	1.30

PENNYRILE CAIDI DATA-INCLUDING MAJOR OUTAGES (2000-2004) (measured in hours)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Lyon	394	1.97	2.43	2.98	2.47	2.65
Pee Dee	344	1.70	1.85	1.61	2.54	1.90
Penchem	1125-1	0.93	1.25	1.15	1.35	1.30
	1125-2	1.26	1.03	1.32	1.44	1.53
	1125-3	1.08	1.09	1.35	1.25	1.40
	1125-4	-----	-----	2.23	1.83	1.11
Rockcastle	214	1.65	1.68	1.54	1.47	1.31
	224	1.44	1.18	1.55	1.23	1.93
Russellville	324	0.59	0.98	1.37	1.08	0.96
	334	1.75	2.41	1.26	1.62	0.49
	344	1.10	1.31	1.02	1.35	1.21
	354	1.02	1.70	1.54	1.23	1.49
	374	1.03	1.21	1.45	1.52	1.18
South Hopkinsville	224	-----	1.11	0.97	1.39	1.46
	234	-----	0.89	0.56	0.67	0.71
	244	-----	1.10	0.99	1.88	2.08
	AVG/YR	1.30	1.37	1.36	1.56	1.52

PENNYRILE CAIDI DATA-EXCLUDING MAJOR OUTAGES (measured in hours)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Adairville	254	1.87	1.35	1.45	1.50	1.41
	264	0.07	0.94	1.32	1.31	1.01
Canton	214	-----	-----	-----	-----	1.74
	234	-----	-----	-----	-----	1.17
Cadiz	214	1.15	0.85	0.69	0.83	0.84
	224	2.98	0.85	1.28	1.28	0.82
	234	2.00	0.00	0.00	0.47	0.00
	244	0.16	1.31	0.96	0.99	0.97
	254	1.31	1.17	1.36	0.85	0.69
	264	3.78	1.27	1.31	1.10	0.89
Cerulean	234	5.14	1.47	1.59	1.59	1.70
Clifty	214	0.50	2.04	1.49	1.51	1.27
	224	0.44	2.21	1.42	2.11	2.22
	234	0.80	1.32	1.07	1.63	1.43
Commerce Park	214	0.00	0.00	1.33	0.00	0.00
	224	0.02	0.67	0.93	0.00	1.82
	244	0.92	1.46	1.23	1.65	1.89
	254	0.23	0.00	0.83	0.86	1.52
Dunmor	1425-1	1.53	1.47	1.61	2.81	4.56
	1425-2	0.72	1.82	.1.80	2.01	0.94
	1425-3	1.14	1.18	1.84	1.48	2.73
	1425-4	0.48	1.12	0.00	2.29	2.13
Edgoten	224	-----	-----	------	0.99	1.02
	234	1.29	1.11	1.20	1.40	1.40
	244	2.12	1.27	1.34	1.41	1.62
	254	0.96	1.43	1.29	1.55	1.47
Elkton	224	0.51	0.50	0.50	1.04	1.33
	234	0.74	1.26	1.16	1.18	1.12
	244	1.48	1.07	1.03	1.06	1.16
	254	8.15	0.80	0.80	0.95	0.91
Ennis	214	0.97	1.50	2.23	2.28	1.68
	244	0.88	2.04	2.10	1.26	1.75
Green Hills	214	0.73	1.84	1.11	0.90	0.66
	224	0.09	1.20	0.69	0.00	0.00
	234	0.48	2.03	0.62	0.84	1.54
	244	1.32	1.46	1.02	1.69	1.22
	254	1.02	1.60	1.25	1.24	1.14
	264	2.02	0.99	1.02	1.57	2.84
Happy Hollow	224	1.04	1.03	1.72	1.97	1.19
	234	2.55	0.84	1.08	1.57	1.39
	244	0.89	1.22	1.00	1.73	1.45
Homer	224	1.85	1.05	1.54	2.88	1.44
	234	0.25	1.06	1.33	1.01	0.90
Hopson	1525-1	4.24	2.27	2.00	1.76	1.77
	1525-2	4.20	1.85	1.80	1.64	2.10
	1525-3	4.18	1.77	2.05	1.44	1.52
Kirkmansville	214	6.10	2.04	1.64	1.88	2.12
	234	3.54	1.23	1.65	1.40	1.29
Lewisburg	214	1.96	0.93	1.48	2.00	1.14
	244	1.08	2.25	1.15	1.58	1.30

PENNYRILE CAIDI DATA-EXCLUDING MAJOR OUTAGES (measured in hours)

SUBSTATION	FEEDER	2000	2001	2002	2003	2004
Lyon	394	2.05	2.43	2.90	2.48	2.85
Pee Dee	344	1.37	1.87	1.63	2.56	1.90
Penchem	1125-1	1.04	1.30	1.06	1.24	1.33
	1125-2	2.93	1.06	1.14	1.30	1.57
	1125-3	1.03	1.11	1.28	1.15	1.42
	1125-4	-----	-----	1.09	1.21	2.00
Rockcastle	214	0.79	2.00	1.54	1.49	1.31
	224	0.43	1.21	1.55	1.26	1.93
Russellville	324	0.14	0.98	1.54	1.15	1.02
	334	0.00	0.02	0.00	0.00	0.00
	344	0.23	1.31	0.96	1.33	1.19
	354	1.43	1.70	1.52	1.27	1.55
	374	1.25	1.21	1.48	1.35	1.21
South Hopkinsville	224	-----	1.11	0.98	1.39	1.48
	234	-----	0.33	0.55	0.67	0.71
	244	-----	1.09	1.00	1.88	2.08
	AVG/YR	1.3	1.38	1.35	1.53	1.52

30. Identify and describe all reportable distribution outages from January 1, 2003 until the present date. Categorize the causes and provide the frequency of occurrence for each cause category.

Since January 1, 2003, distribution outage causes, their frequency of occurrence, and outage hour percentages for Pennyrile RECC are listed as follows:

CAUSE	FREQUENCY OF OCCURRENCE	PERCENT OF OUTAGE TIME
Storm/ Lightning	1302 (30%)	52%
Equipment failure/ Overload	866 (20%)	20%
Unknown	854 (20%)	9%
Animal	671 (16%)	4%
Trees/ Right-Of-Way	235 (5%)	4%
Planned	203 (5%)	3%
Public Accident	187 (4%)	8%
TOTAL	4318 (100%)	

31. Does your utility have a distribution and/or transmission reliability program? **Yes.**

a. How does your company measure reliability?

Pennyrile RECC measures reliability in several ways: First, an overall SAIDI is calculated for all outages, including the power supplier for each substation and for each feeder; secondly, a SAIDI is calculated for outages caused on the Pennyrile distribution system; and thirdly, momentary interruptions for each substation breaker and electronic three phase recloser are collected on a monthly basis and totaled. Each feeder is rated, using these three criteria. Using this information, a Pennyrile lineman executes a pole to feeder patrol and provides minor maintenance to correct these issues. Also; all outages exceeding 50 or more customers are reviewed immediately for sectionalization purposes, as these outages cause 80 percent of the Pennyrile outage hours. Also, Pennyrile has an aggressive recloser maintenance program; in which the number of operations and age of the equipment is used to determine recloser changeout. All 1000 of Pennyrile's reclosers have been changed out during the past 10 years.

b. How is the program monitored?

Each substation breaker and three phase electronic recloser on Pennyrile RECC's system is reviewed on a monthly basis, and general conditions, amp reading, and momentary interruptions are recorded. This information is stored in a Excel file, and the Manager of Engineering reviews this information for exceptions. As noted in question 31a, if there is an abnormal number of momentary operations on a given feeder, a Pennyrile RECC Lineman is assigned the responsibility of patrolling the feeder, looking at each pole and each piece of equipment, and he performs minor repairs, such as replacing defective lightning arresters and installing animal protection.

c. What are the results of the system?

Pennyrile has experienced a reduction of 47% in momentary interruption during the past six (6) years in its distribution system. The number of members affected by a Pennyrile-caused outage has also been reduced by 32% (60.5 to 41.4 members per outage) during same time frame. Thirdly, the percentage of Pennyrile outages after than 50 members has been reduced 41% during this time frame.

d. How are proposed improvements for liability approved and implemented?

In the recloser maintenance and sectionalizing program, the Manager of Engineering reviews the data during the Fall of the previous year and determines the location and cost of recloser replacement and sectionalization. This is budgeted into Pennyrile's overall budget for the following year and it is approved by Management and the Board of Directors. Once approved, work orders are drawn and Operations personnel perform the work.

32. Provide a Summary description of your utility's

a. Right-Of-Way management program. Provide the budget for the last five (5) years.

See attached documentation.

b. Vegetation management program. Provide the budget for the last five (5) years .

See attached documentation.

PENNYRILE
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Fax 270-522-1366
800-297-4707

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Elkton, KY 42220-0519
Phone 270-265-2545
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Pennyrile Electric Right of Way Maintenance Program

Pennyrile Electric typically uses a five year rotation schedule for the maintenance of our right-of-way. Customarily, contract crews are used to complete various circuits each year. In areas where spraying is also needed to control the growth of brush and opportunistic trees in our right of way, those areas are also sprayed on a five year rotating schedule. Pennyrile contracts with two right of way/tree trimming companies to complete this work. Both companies are required, by contract, to comply with all federal, state and local regulations. Crews hired to spray right of ways are licensed through the Department of Agriculture. Additionally, Pennyrile Electric also employs a three man right of way crew in each of our four district offices to assist in the maintenance of our right of way in addition to the five year schedule.

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Right-of-Way Maintenance Budget
2000-2005

Year	Spraying Budget	Trimming Budget	Total R/W Budget
2000	$200,000.00	$600,000.00	$800,000.00
2001	$170,000.00	$630,000.00	$800,000.00
2002	$165,000.00	$660,000.00	$825,000.00
2003	$135,000.00	$678,000.00	$813,000.00
2004	$145,000.00	$750,000.00	$895,000.00
2005	$170,000.00	$725,000.00	$895,000.00

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P.O Box 519
Elkton, KY 42220-0519
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Fax 270-265-3622
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Right-Of-Way Maintenance Report
2000-2005

Year	Sprayed	Trimmed
2000	953 Acres	816.73 Miles
2001	920.5 Acres	782.0 Miles
2002	482.35 Acres	693.0 Miles
2003	627.5 Acres	743.36 Miles
2004	916.25 Acres	688.0 Miles
2005	incomplete	incomplete

32. c. Transmission and distribution inspection program. Provide the budget for the last five (5) years.

See attached documentation.

PENNYRILE RECC OVERHEAD & UNDERGROUND INSPECTION PROGRAMS

Pennyrile RECC presently employs three (3) pole inspection programs. There are approximately 95,000 wood transmission and distribution poles within Pennyrile's service area. Each year, Osmose Wood Preserving Company, headquartered in Buffalo, N.Y., performs ground-line inspections and treatment of approximately 9,500 wood poles, 10 percent, of Pennyrile's poles. During this inspection, Osmose performs boring test of poles that of five (5) years of age or greater, treats the pole with wood preservative (if needed), takes resistance readings (of poles with lightning arresters on them), installs guy markers, and noted all visual defects (such as woodpecker holes) that are found. The cycle length of this program is 10 years.

A second pole inspection program is performed by a Pennyrile RECC meter reader. Each year, Pennyrile uses this meter reader to read approximately one-third of its meters. As the meter reader reads the meter, he visually observes the overhead wood poles in the area, and notes defects that he finds (such as inadequate line clearances), and they are repaired by local line crews in a timely manner.

A third pole inspection program is performed by a Pennyrile RECC Lineman. This Lineman is assigned the responsibility of patrolling overhead feeders which have proven to be unreliable, especially with excessive momentary interruptions, or "blinks". This Lineman physically looks at every pole and every piece of equipment that could cause these momentary interruptions. He replaces defective lightning arresters and installs animal protection. During the past six (6) years, momentary operations have been reduced by 47% due to this program and an aggressive ROW maintenance program.

During the winter of 2003-04, Pennyrile RECC began an underground inspection program of its pad-mounted switchgear and transformers, both single and three phase. During this inspection, Pennyrile personnel use infrared equipment to check elbow terminations and elbow arresters for evidence of loose connections, which can cause a significant rise in temperature. Warning decals and schematic diagrams are also installed during this inspection. Pennyrile inspects 33 percent of its underground facilities on an annual basis (a three year cycle).

The budget for the past five years for the transmission and pole inspection program is as follows:

YEAR	BUDGET	
2000	$115,000	
2001	124,000	
2002	127,000	
2003	$0	(the Osmose program was suspended in 2003)
2004	$128,500	
2005	$249,700	(increase due to upgrade of pole inspections from 5% to 10% of Pennyrile's system annually)

33. Explain the criteria your utility uses to determine if pole or conductor replacement is necessary. Provide cost/budgets for transmission and distribution facilities replacement for the years 2000 trough 2025.

Pennyrile RECC uses Osmose to inspect and treat 10% of its poles (approximately 9,400) per year. The average rejection rate is 3%, or approximately 282 poles per year. In Pennyrile's system, most of the conductor replacement stems from the deterioration of the steel core of the type ACSR conductor, especially in #4 ACSR. All copperweld conductor was replaced by the late 1990's. The criteria that Pennyrile uses in replacing #4 ACSR typically is two-fold: (1) the number of outages that has occurred in the past five (5) years, and (2) the number of sleeves, or splices, that have been installed per mile of conductor.

Cost/budgets for transmission and distribution facilities replacement for years 2000 through 2025 are listed as follows:

YEAR	COST/BUDGET
2000	$1,296,863
2001	$719,395
2002	$1,145,424
2003	$692,884
2004	$845,474
2005	$659,887
2006	$940,008
2007	$968,208
2008	$997,254
2009	$1,027,172
2010	$1,057,987
2011	$1,089,727
2012	$1,122,419
2013	$1,156,091
2014	$1,190,774
2015	$1,226,497
2016	$1,263,292
2017	$1,301,191
2018	$1,340,227
2019	$1,380,433
2020	$1,421,846
2021	$1,464,502
2022	$1,508,437
2023	$1,553,690
2024	$1,600,301
2025	$1,648,310

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ORDER	)	ADMINISTRATIVE
	)	CASE NO. 2005-00090

Pursuant to the Commission's Order of March 10, 2005, Pennyrile Rural Electric Cooperative Corporation, a Kentucky TVA Non-Jurisdictional Distribution Cooperative, is permitted to intervene in this matter for informational purposes.

So Ordered, this ___ day of _____, 2005.

_____

Tendered by:

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