P.O. Box 489 Brandenburg, KY 40108-0489 (270) 422-2162

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3/26/08

RECEIVED

MAR 2 8 2008

Director of Engineering Kentucky Public Service Commission P.O. Box 615 211 Sower Blvd. Frankfort, Ky 40602 PUBLIC SERVICE COMMISSION

Mr. Welch,

Enclosed with this cover letter is the reliability report for the year of 2007 as required per case/order number 2006-00494. Within this report you will find the SAIDI, CAIDI, and SAIFI indices for the last 5 years as Meade County RECC has measured, recorded, and reported it internally for many years. These indices are calculated in two manners: (1) with all outages and (2) without all power supplier and storm related outages. No major event days are calculated or excluded in these indices.

Also included is MCRECC's system summary depicting the three indices excluding the calculated major event days as IEEE 1366 prescribes. Due to the large undertaking necessary to convert and incorporate the previous four years of data into these calculations, this method was used for 2007's outage numbers only.

The next page contains the results of the 10 worst performing circuits within MCRECC's system per index. Each circuit is listed with its corresponding calculated index value along with its largest contributing factor. Major event days are excluded in these calculations.

The last page lists the top ten causes of system outages per index. The corresponding index value is listed with that cause and, again, major event days are excluded.

With this packet, a CD is included which contains all but this cover letter and the five-year reliability report as described in the first paragraph. If you should have any questions or concerns, you may contact me at (270) 422-2911, ext. 3149.

Sincerely,

David R. Poe Vice President of Operations & Engineering

# **Meade County RECC**

1351 Highway 79

Brandenburg Kentucky 40108

**System Reliability Study 2007** 



### Reliability Indices for 2003 - 2007

		2003	2004	2005	2006	2007
Including all outages	SAIDI	109.800	626.070	152.322	214.554	96.006
	CAIDI	89.526	2440.044	126.084	116.568	69.708
	SAIFI	1.227	3.897	1.208	1.841	1.377
						* 1 % 13 1 % 1 % 1 % 1 % 1 % 1 % 1 % 1 % 1 % 1 %
Excluding outages due	SAIDI	45.222	63.120	39.882	61.758	46.824
to power supplier and	CAIDI	68.916	78.486	70.566	72.924	83.724
storms	SAIFI	0.656	0.804	0.565	0.847	0.559

SAIDI and CAIDI vaules are expressed in minutes

Meade County RECC System Summary (Excluding Major Event Days) 2007						
Outage Time	Customers Affected	Total Outage Time	Customers Served	CAIDI	SAIFI	SAIDI
76591	30599	1355939	27675	44.313	1.106	48.995

## Top 10 worst performing circuit by each index

### **System Average Interruption Duration Index**

	Meade Gounty	RECC	
	SAIDITop 10 Circuits	Largest Contributing Cause	
Invingtonia	267,0425	Public / Consumer	
Brandadony i	286,5063	Public / Consumer	
Fordsville.3	2011.64889	Public / Consumer	
Diese Valley 3	178.7047	Storms	
Battilletovyn 2	171.5156	Storms	
Union Star 2	117.5841	Public / Consumer	
Engly (o) justified &	104.9568	Storms	
lavingson 5	94,1121	Storms	
engrar 3	86.1643	Storms	
Ganeria	84,5000	Conducter	

### **System Average Interruption Frequency Index**

	Meadle County	RECO	
SAI	A Top 10 Charife	Langest Contributing Cause	
Brandenburg 1	4.4630	Public / Gensumer	
Invington 1	3.3(3)3(0	Public / Consumer	
Baidlaíown 2	3.2591	Power Supplier	
Carrett 4	2.7273	Power Supplier	
Deca Valley 3	2.4116	Storms	
Demolentoure 6	2,1384	Animals / Wildlife	
Rondsville 2	2.0386	Power Supplier	
Union Star 2	2,0029	Trees - Out of row	
Amolyville 1	1.9570	Power Supplier	
Сылат 2	1,9053	Power Supplier	

# **Customer Average Interruption Duration Index**

	Marida Columbay	RECC	
CAIDITO	iii) Ciramis	Largest Contributing Cause	
Hardinsburg II 4	17/1.7/1/48	Transformer	
Invingtein 6	156,7500	Pre-Arranged	
Mc Daniels 1	1,533,47245	Conducter	
lavington 5	150,0531:	Public / Consumer	
Harrdinsburg II 3	1(3(0),0(0)0)0	Transformer	
Fordsville 3	118 7/161	Public / Consumer	
Unitom Star 3	1(185),5720(0)	Storms	
Satedatovila 2	110(4) 3%(07/	Transformer	
Mc Daniels 3	1(01),224(0	Trees - Out of row	
Halfned 2	98.3(0)00	Trees - In row	

# Top 10 contributing causes by each index

### **System Average Interruption Duration Index**

SAIDI	
Storms	16.987
Public / Consumer	8.218
Power Supplier	4.960
Trees - Out of row	3.319
Animals / Wildlife	3.299
Unknown	3.142
Conducter	2.845
Pre-Arranged	1.891
Hardware	1.516
T <u>ransformer</u>	1.062
Transformer	1.062

#### **System Average Interruption Frequency Index**

SAIFI	
Power Supplier	0.574
Storms	0.175
Public / Consumer	0.081
Animals / Wildlife	0.065
Unknown	0.048
Trees - Out of row	0.041
Pre-Arranged	0.038
Conducter	0.029
Hardware	0.020
Transformer	0.013

## **Customer Average Interruption Duration Index**

CAII	DI
Public / Consumer	100.912
Conducter	97.198
Storms	96.977
Transformer	84.195
Trees - Out of row	80.432
Trees - In row	80.037
Hardware	76.174
Unknown	65.083
Animals / Wildlife	50.443
Pre-Arranged	49.993

Pre-Arranged 19.993