

**Table B.2. Major Disturbances and Unusual Occurrences, Year-to-Date through December 2009**

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected <sup>1</sup>
<b>January</b>						
1/5/2009	Oncor Electric Delivery Company, LLC (TRE)	5:00 a.m.	North and Central Texas	Severe Storm	N/A	157,019
1/7/2009	Duke Energy Carolinas (SERC)	5:00 p.m.	Piedmont of North and South Carolina	High Winds	300	70,000
1/8/2009	Florida Keys Electric Cooperative Assoc. Inc. (FRCC)	11:46 p.m.	Florida Keys	Transmission Equipment Failure	55	31,000
1/17/2009	State Line Energy, LLC (RFC)	8:00 a.m.	PJM, Indiana	Fuel Supply Deficiency	N/A	N/A
1/22/2009	Crawfordsville Electric Light and Power (RFC)	4:00 p.m.	Crawfordsville, Indiana	Shed Load	50	9,700
1/27/2009	Louisville Gas and Electric/Kentucky Utilities (RFC)	5:00 a.m.	State of Kentucky	Ice Storm	N/A	383,000
1/27/2009	East Kentucky Power Cooperative, Inc. (SERC)	5:03 a.m.	Central and Eastern Kentucky	Ice Storm	600	190,000
1/27/2009	Big Rivers Electric Corporation (SERC)	7:10 a.m.	Western Kentucky and Southern Indiana	Ice Storm	350	3
1/27/2009	Associated Electric Cooperative, Inc. (SERC)	11:00 a.m.	South Central and Southeast Missouri	Winter Storm	200	62,500
1/27/2009	Entergy Corporation (SERC)	1:46 p.m.	Northern Arkansas	Ice Storm	N/A	111,818
1/27/2009	American Electric Power (RFC)	3:43 p.m.	CSWS-AEP West	Ice/Snow Storm	N/A	59,402
1/27/2009	Arkansas Electric Cooperative Corporation (SERC)	9:00 p.m.	Northern Arkansas	Ice Storm	600	215,700
1/27/2009	Tennessee Valley Authority (SERC)	9:45 p.m.	TVA Service Territory	Ice Storm	850	1
1/28/2009	Midwest ISO (RFC)	12:10 a.m.	East Central Missouri	Winter Storm	300	1
1/28/2009	Midwest ISO (RFC)	3:00 a.m.	Illinois, Indiana, Ohio and Kentucky	Winter Storm	N/A	230,300
1/28/2009	Henderson Municipal Power and Light (RFC)	4:00 a.m.	City of Henderson, Kentucky and Portions of Henderson County, Kentucky	Ice Storm	21	3,500
1/28/2009	Vectren Energy Delivery of Indiana (RFC)	6:00 a.m.	Indiana, Evansville, Metro Area	Ice Storm	506	75,000

1/28/2009	Duke Energy Indiana (RFC)	7:50 a.m.	Southern Indiana	Ice/Snow Storm	N/A	53,700
1/28/2009	Tennessee Valley Authority (SERC)	9:00 a.m.	Northeast Tennessee and Southwest Kentucky	Ice Storm	N/A	109,527
1/28/2009	Duke Energy Ohio (RFC)	10:00 a.m.	Northern Kentucky and Southwest Ohio	Ice/Snow Storm	N/A	53,600
<b>February</b>						
2/11/2009	CenterPoint Energy (TRE)	2:30 a.m.	Houston, Texas	High Winds	350	64,801
2/11/2009	American Electric Power (RFC)	6:00 p.m.	Kentucky, West Virginia and Ohio	Severe Thunderstorms	N/A	279,813
2/11/2009	Allegheny Power (RFC)	6:18 p.m.	Maryland, Virginia, West Virginia and Pennsylvania	Severe Thunderstorms	N/A	374,644
2/11/2009	Louisville Gas and Electric/Kentucky Utilities (RFC)	7:00 p.m.	State of Kentucky	Severe Thunderstorms	N/A	78,000
2/11/2009	Midwest ISO (RFC)	9:00 p.m.	Northern Kentucky and Southwest Ohio	Severe Thunderstorms	350	63,000
2/12/2009	Midwest ISO (RFC)	2:30 a.m.	Central and Eastern Ohio	High Winds	168	184,000
2/12/2009	Penelec (RFC)	8:00 a.m.	Western and North Eastern Pennsylvania	High Winds	130	132,000
2/13/2009	Ohio Edison Company (RFC)	2:30 a.m.	Central and Eastern Ohio	High Winds	168	184,000
2/23/2009	Central Maine Power Company (NPCC)	2:38 a.m.	Southern Central and Western Maine	Ice/Snow Storm	N/A	131,000
<b>March</b>						
3/1/2009	El Paso Electric Company (WECC)	12:15 a.m.	City of El Paso, Texas, County of El Paso	Transmission Equipment Failure	250	132,000
3/1/2009	Southern Company (SERC)	4:00 p.m.	Southern Balancing Area	Severe Weather	75	60,000
3/1/2009	Duke Energy Carolinas (SERC)	8:54 p.m.	Duke Energy Carolinas Balance Authority	Ice/Snow Storm	1,000	180,000
3/1/2009	Dominion Virginia/North Carolina Power (SERC)	10:00 p.m.	Central Virginia - Spotsylvania County	Winter Storm	210	217,000
3/3/2009	New Covert Generating Company, LLC (RFC)	6:48 a.m.	Southwest Michigan	Transformer Faulted/Unit Tripped	378	N/A

**Table B.2. Major Disturbances and Unusual Occurrences, Year-to-Date through December 2009**

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected <sup>1</sup>
3/3/2009	American Electric Power (REC)	10:00 p.m.	Roanoke, Virginia	Made Public Appeals	350	0
3/8/2009	Crockett Cogeneration (WECC)	10:16 p.m.	San Francisco Bay Area, California	Unit Shut Down	150	-

April						
4/6/2009	Consumers Energy (RFC)	1:00 a.m.	Michigan, Lower Peninsula	Winter Storm	75	70,793
4/10/2009	Southern Company (SERC)	10:00 p.m.	Alabama and Georgia	Severe Thunderstorms	162	56,679
4/23/2009	State of California, Department of Water Resources (WECC)	12:00 a.m.	Restricted Hydro Electric Capability	Fuel Supply Deficiency	-	-
4/23/2009	Puget Sound Energy (WECC)	4:25 p.m.	Skagit County, Washington	Transmission Tripped	244	93,300
4/23/2009	Southern California Edison Co (WECC)	5:54 p.m.	Communities of Elsinore, Hemet, Moreno Valley, Perris, San Jacinto and Temecula in the southeastern area of Riverside County in California	Substation Load Interruption	512	280,000
4/24/2009	Constellation Energy (SERC)	11:09 a.m.	Ruston, Louisiana	Complete Electric System Failure	32	11,000
4/25/2009	Detroit Edison (RFC)	2:30 p.m.	Western Region of Service Territory	High Winds/Rain	N/A	125,000
4/27/2009	CenterPoint Energy (TRE)	3:30 p.m.	Greater Houston/Galveston Area	High Winds	176	158,000
May						
5/8/2009	The Empire District Electric Company (SERC)	7:30 a.m.	SW Missouri	Severe Thunderstorm	266	83,000
5/8/2009	Ameren (SERC)	1:30 p.m.	Southern Illinois	Severe Thunderstorm	300	68,800
5/29/2009	Big Rivers Electric Corporation (SERC)	9:05 a.m.	Henderson County, Kentucky	Transmission Equipment Failure	342	1
June						
6/5/2009	Pacific Gas and Electric (WECC)	1:38 p.m.	East of Fresno California	Electrical System Separation	1	70
6/9/2009	Baltimore Gas and Electric (RFC)	5:25 p.m.	Central Maryland	Severe Thunderstorms	60	85,091
6/10/2009	Oncor Electric Delivery Company, LLC (TRE)	6:00 p.m.	North and Central Texas	Severe Storms	N/A	800,000
6/12/2009	Tennessee Valley Authority (SERC)	4:37 p.m.	Chattanooga, Tennessee	Severe Storm	860	136,000
6/12/2009	Entergy Corporation (SERC)	5:45 p.m.	Arkansas, North Mississippi	Severe Thunderstorms	N/A	81,645
6/12/2009	Southern Company (SERC)	10:00 p.m.	Georgia	Severe Thunderstorm	290	102,000
6/16/2009	California Department of Water Resources (WECC)	11:00 p.m.	A.D. Edmonston Pumping Plant	Fuel Supply Deficiency	300	0

6/19/2009	Consumers Energy (RFC)	12:01 a.m.	Michigan Lower Peninsula	Severe Storm	75	99,000
6/19/2009	Exelon Corporation ComEd (SERC)	1:00 p.m.	The Entire ComEd Service Territory	Severe Storm	N/A	245,000
6/24/2009	SW Louisiana Electric Membership Corp/ Louisiana Generating LLC (SERC)	1:30 p.m.	Southwest Louisiana	Made Public Appeals	N/A	N/A
6/25/2009	ERCOT ISO (TRE)	3:16 p.m.	ERCOT Region	Made Public Appeals	N/A	N/A
6/25/2009	Detroit Edison (RFC)	3:30 p.m.	Western Region of Service Territory	High Winds/Rain	N/A	118,000
6/26/2009	Duke Energy Midwest (RFC)	1:00 a.m.	Southwest Ohio, Northern Kentucky, Central and Southern Indiana	Severe Thunderstorms	327	85,000
6/26/2009	Connecticut Light and Power (NPCC)	5:00 p.m.	Central Connecticut	Severe Thunderstorms	N/A	50,752

### July

7/2/2009	ISO New England (NPCC)	10:44 p.m.	Northern Maine	Electrical System Separation	0	0
7/7/2009	ERCOT ISO (TRE)	3:30 p.m.	San Antonio, Texas	Made Public Appeals	N/A	N/A
7/8/2009	ERCOT ISO (TRE)	1:30 p.m.	ERCOT Region	Made Public Appeals	N/A	N/A
7/14/2009	AEP West (SPP)	1:00 p.m.	AEP SWEPCO/Louisiana Area	Made Public Appeals	N/A	N/A

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Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected
7/15/2009	AEP West (SPP)	1:00 p.m.	AEP SWEPCO/Louisiana Area	Made Public Appeals	N/A	N/A
7/16/2009	AEP West (SPP)	1:00 p.m.	AEP SWEPCO/Louisiana Area	Made Public Appeals	N/A	N/A
7/18/2009	CenterPoint Energy (TRE)	7:00 p.m.	Houston/Galveston Area	Thunderstorms	51	73,000
7/20/2009	Public Service Company of Colorado (WECC)	9:50 p.m.	Metro Denver (Jefferson, Adams, and Arapahoe Counties)	Severe Thunderstorm	150	86,058
7/21/2009	Crockett Cogeneration (WECC)	5:34 a.m.	San Francisco Bay Area, California	Unit Tripped	136	1
7/27/2009	Tennessee Valley Authority (SERC)	5:05 a.m.	Chattanooga, Tennessee	Failure of Computer Hardware Used for Monitoring	N/A	N/A
7/28/2009	PacificCorp (WECC)	8:18 p.m.	Salt Lake City Utah and Northern Utah	Loss of Part of Substation	316	N/A

### August

8/2/2009	PECO Energy (RFC)	2:17 a.m.	Chester, Montgomery, Delaware, Philadelphia and Bucks Counties, Pennsylvania	Highwinds	N/A	70,264
8/4/2009	Duke Energy Midwest (RFC)	1:45 p.m.	Northern Kentucky, Southwest Ohio and Central and South Indiana	Thunderstorms	50	63,700
8/5/2009	ERCOT ISO (TRE)	3:00 p.m.	ERCOT Region	Made Public Appeals	N/A	N/A
8/7/2009	Detroit Edison (RFC)	11:00 p.m.	Western Region of Service Territory	High Winds and Rain	N/A	137,000
8/9/2009	Consumers Energy (RFC)	7:31 p.m.	Michigan, Lower Peninsula	Severe Thunderstorms	N/A	58,156
8/12/2009	CenterPoint Energy (TRE)	6:25 p.m.	South Houston Service Area	Thunderstorms	491	73,000
8/21/2009	CenterPoint Energy (TRE)	7:00 p.m.	Houston Metropolitan Service Area	Thunderstorms	544	80,000
8/29/2009	Western Area Power Administration Upper Great Plains Region (MRO)	11:00 a.m.	Western South Dakota	Electrical System Separation	373	18
8/29/2009	Midwest ISO (RFC)	10:54 p.m.	Western South Dakota	Electrical System Separation	84	0
8/31/2009	Los Angeles Department of Water and Power (WECC)	10:31 a.m.	City of Los Angeles, California	Made Public Appeals	N/A	N/A
<b>October</b>						
10/7/2009	Detroit Edison (RFC)	5:45 a.m.	Southeast Michigan	Severe Storms	N/A	75,000
10/9/2009	California Department of Water Resources (WECC)	6:30 p.m.	Central Valley, CA (Bakersfield, CA)	Transmission System Interruption	180	N/A
10/9/2009	Entergy Corporation (SERC)	10:45 p.m.	Arkansas and North Louisiana	Winter Storm	N/A	56,000
10/13/2009	Western Area Power Administration Upper Great Plains Region (WECC)	12:48 p.m.	Southeastern Wyoming	Ice	101	35,500
10/13/2009	Sacramento Municipal Utility District (WECC)	3:45 p.m.	Sacramento County	High Winds	90	94,000
10/13/2009	Pacific Gas and Electric (WECC)	4:00 p.m.	Northern California	High Winds and Rain	350	859,554
<b>November</b>						
11/12/2009	Dominion VirginiaPower/Dominion North Carolina Power (SERC)	6:45 p.m.	Southeastern Virginia, Northeastern North Carolina	Tropical Storm Ida	400	335,000
11/18/2009	California Dept of Water Resources (WECC)	6:15 a.m.	Central Valley, CA	Switching Failure	630	N/A
<b>December</b>						

12/7/2009	California Department of Water Resources (WECC)	10:00 p.m.	California	Forced Outage Equipment Failure	400	N/A
12/8/2009	Arizona Public Service (WECC)	1:00 a.m.	Arizona	Severe Weather	N/A	140,000
12/8/2009	California Independent System Operator (WECC)	6:34 a.m.	California	Load Shed/Made Public Appeals	N/A	N/A
12/9/2009	American Electric Power (RFC)	1:37 p.m.	Ohio	Severe Weather	N/A	48,102
12/10/2009	Detroit Edison (RFC)	5:45 p.m.	Michigan	Severe Weather	N/A	65,562
12/18/2009	American Electric Power (RFC)	8:00 p.m.	West Virginia, Kentucky, Ohio	Severe Weather	N/A	403,913
12/18/2009	Progress Energy Carolinas Inc (SERC)	10:55 p.m.	Western North Carolina	Severe Weather	N/A	47,000

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[1] [Estimated values.](#)

[Note: Estimates for 2009 are preliminary.](#)

[Source: Form OE-417, "Electric Emergency Incident and Disturbance Report."](#)

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**Restoration****Date/Time**

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6:00 p.m. January  
06

8:05 p.m. January  
07

11:25 a.m. January  
09

8:00 a.m. January  
25

5:05 p.m. January  
22

4:30 p.m. January  
29

5:15 p.m. January  
31

7:30 p.m. February  
04

6:00 p.m. January  
30

5:00 p.m. February  
03

9:00 a.m. January  
29

6:00 a.m. January  
29

10:17 p.m. January  
27

9:20 p.m. January  
30

8:03 a.m. February  
13

5:00 p.m. February  
07

6:00 p.m. February  
05

8:03 a.m. February  
13  
8:00 a.m. February  
05

9:20 p.m. January  
30

12:00 p.m.  
February 11  
5:00 p.m. February  
13

8:10 p.m. February  
16

11:00 a.m.  
February 12

12:00 p.m.  
February 12

6:00 a.m. February  
12  
10:00 p.m.  
February 15

3:00 a.m. February  
15  
1:46 p.m. February  
24

3:00 a.m. March 01

11:25 p.m. March  
01

4:06 p.m. March  
03

6:00 p.m. March  
03

6:05 a.m. April 26

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**Restoration**  
**Date/Time**

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8:17 p.m. March  
04

11:45 p.m. March  
08



12:00 p.m. April  
08  
2:30 a.m. April 11

Ongoing

12:29 a.m. April 24  
7:58 p.m. April 23

11:21 a.m. April 24

1:00 a.m. April 29

11:30 a.m. April 28

9:00 a.m. May 08

11:20 p.m. May 14

7:57 p.m. May 29

8:18 p.m. June 05

5:00 a.m. June 11

10:00 a.m. June 14

6:53 p.m. June 12

11:59 p.m. June 15

6:00 p.m. June 13

2:00 a.m. June 17

11:00 p.m. June 21

11:59 p.m. June 19


10:00 p.m. June 24

7:00 p.m. June 25

8:00 p.m. June 28

9:00 a.m. June 27

9:00 a.m. June 29

  
1:25 a.m. July 03

7:00 p.m. July 07

7:00 p.m. July 08

6:00 p.m. July 14

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**Restoration  
Date/Time**

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6:00 p.m. July 15

6:00 p.m. July 16


9:00 p.m. July 19

7:00 p.m. July 22

8:43 a.m. July 21

5:47 a.m. July 27

8:33 p.m. July 28



1:09 p.m. August  
03

9:00 p.m. August  
08

7:00 p.m. August  
05

10:00 p.m. August  
11

9:59 a.m. August  
10

10:00 a.m. August  
12

8:00 a.m. August  
22

2:01 p.m. August  
29

11:53 p.m. August  
29

12:00 a.m. August  
31

11:00 p.m. October  
09

7:10 p.m. October  
09

4:00 p.m. October  
11

2:34 p.m. October  
13

5:50 p.m. October  
13

10:30 p.m. October  
13

4:25 a.m.  
November 14

10:00 a.m.  
November 18

4:00 a.m.  
December 08

11:00 a.m.  
December 10  
12:00 p.m.  
December 08

6:30 a.m.  
December 10

8:00 a.m.  
December 12  
9:30 p.m.  
December 25

11:15 p.m.  
December 19

