

Table B.2. Major Disturbances and Unusual Occurrences, Year-to-Date through December 2010

Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration
January							
1/6/2010	SERC	6:00 p.m.	Southwest Louisiana	Made Public Appeals	N/A	N/A	6:00 p.m. January 08
1/11/2010	FRCC/SERC	3:45 a.m.	Northern and Central Florida	Interruptible Load Shed/Made Public Appeals	N/A	N/A	9:57 a.m. January 11
1/18/2010	WECC	11:30 a.m.	Northern and Central California	Severe Storm	290	1,700,000	8:00 a.m. January 28
1/19/2010	WECC	7:30 a.m.	San Francisco	Severe Storm	300	30,000	12:24 p.m. January 19
1/19/2010	WECC	2:30 p.m.	San Diego and Orange Counties	Severe Storm	2,650	50,000	3:00 p.m. January 20
1/20/2010	WECC	1:00 p.m.	City of Los Angeles, California	Severe Storm	N/A	147,223	6:10 p.m. January 24
1/28/2010	SPP	12:00 p.m.	Oklahoma	Ice Storm	N/A	68,705	12:00 p.m. February 02
February							
2/1/2010	SPP	2:32 p.m.	Oklahoma	Ice Storm/Electrical System Separation	30	0	5:00 p.m. February 01
2/5/2010	RFC	3:00 p.m.	Southern NJ	Winter Storm	N/A	221,000	4:00 p.m. February 13
2/5/2010	SERC	6:48 p.m.	North and South Carolina	Winter Storm	500	74,000	5:00 p.m. February 07
2/5/2010	RFC	7:00 p.m.	District of Columbia, Prince Georges and Montgomery Co. MD	Winter Storm	N/A	97,651	3:46 p.m. February 12
2/5/2010	RFC	10:30 p.m.	Southwestern Pennsylvania	Winter Storm	N/A	57,000	12:00 p.m. February 12
2/5/2010	RFC	11:30 p.m.	Indiana, Ohio, W. Virginia and Virginia	Winter Storm	N/A	102,225	2:38 a.m. February 07
2/6/2010	SERC	2:30 a.m.	Virginia, North Carolina	Winter Storm	600	104,736	7:00 a.m. February 07
2/6/2010	RFC	8:00 a.m.	Delmarva Peninsula	Winter Storm	N/A	58,491	9:00 a.m. February 06
2/9/2010	RFC	6:00 p.m.	Southeastern Pennsylvania	Winter Storm	N/A	223,000	4:00 p.m. February 14
2/11/2010	TRE	12:00 p.m.	Dallas/Fort Worth and East Texas	Winter Storm	N/A	500,000	9:00 p.m. February 15
2/12/2010	SPP	5:00 a.m.	East Texas, Western Arkansas, Northern Louisiana	Winter Storm	N/A	52,999	5:00 p.m. February 12
2/14/2010	RFC	10:00 a.m.	Western Pennsylvania and Northeast Central WV	Winter Storm	900	190,000	12:00 p.m. February 14
2/19/2010	WECC	8:30 p.m.	San Joaquin Field Division/Bakersfield, CA	Firm System Load Shed	1,000	N/A	4:01 a.m. February 20
2/23/2010	NPCC	10:00 p.m.	Upstate New York	Winter Storm	N/A	150,000	4:00 p.m. February 25
2/25/2010	NPCC	12:01 a.m.	Southeastern New York, Northern New Jersey	Winter Storm	N/A	65,000	9:00 p.m. February 26

2/25/2010	NPCC	5:00 p.m.	New York City	Winter Storm	N/A	55,000	7:00 p.m. March 02
2/25/2010	NPCC	11:53 p.m.	Southern Maine and New Hampshire	Winter Storm	510	509,606	4:40 p.m. March 01
March							
3/13/2010	RFC	1:00 a.m.	Southeastern Pennsylvania	High Winds and rain	N/A	177,528	6:40 p.m. March 16
3/13/2010	NPCC	12:00 p.m.	Connecticut	High Winds and Rain	50	50,246	8:05 p.m. March 15
3/13/2010	NPCC	3:00 p.m.	Long Island	High Winds and Rain	N/A	153,000	4:00 p.m. March 17
3/13/2010	RFC	4:00 p.m.	Central New Jersey and Northern New Jersey	High Winds and Flooding	N/A	180,000	12:00 a.m. March 16
3/13/2010	RFC	6:00 p.m.	Southern, Central and Northern New Jersey	High Winds and Rain	100	360,000	12:59 p.m. March 20
3/13/2010	NPCC	6:00 p.m.	New York City and Westchester County	High Winds and Rain	N/A	173,000	9:00 a.m. March 20
3/31/2010	WECC	11:59 p.m.	San Diego and Orange Counties	Shed Firm Load	324	290,000	12:55 a.m. April 01
3/31/2010	WECC	11:59 p.m.	San Diego	Shed Firm Load	324	N/A	12:38 a.m. April 01
April							
4/16/2010	RFC	5:15 p.m.	Southwestern Pennsylvania	Severe Thunderstorms	15	120,000	5:00 p.m. April 18

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Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration
4/21/2010	SERC	3:05 p.m.	Iberville, Parish, Louisiana	Generator Tripped	N/A	N/A	8:00 p.m. April 21
4/27/2010	SERC	2:55 p.m.	Rocky Mount, NC	Transmission System Interruption	N/A	29,376	2:55 p.m. April 27
May							
5/2/2010	SERC	2:40 p.m.	Tennessee and Mississippi	Thunderstorms	N/A	50,500	7:30 p.m. May 09
5/18/2010	WECC	8:15 a.m.	Central California	Breakers Tripped	318	N/A	10:46 p.m. May 18
5/26/2010	RFC, SERC	11:45 a.m.	Maryland, Pennsylvania, West Virginia, Virginia	Made Public Appeal - System Drill	N/A	N/A	3:00 p.m. May 26
June							
6/1/2010	RFC	10:03 p.m.	Southwestern Indiana	Firm Load Shed	500	1	12:30 a.m. June 18
6/2/2010	TRE	8:18 p.m.	San Antonio, TX	Severe Weather	N/A	126,000	8:00 a.m. June 04
6/6/2010	WECC	4:45 a.m.	Northern California	Electric System Separation	3	2,650	5:35 a.m. June 06
6/7/2010	WECC	6:29 p.m.	Denver Metropolitan Area	Firm Load Shed	300	31,000	1:00 a.m. June 08
6/8/2010	TRE	11:00 a.m.	Southeastern Texas	Thunderstorms	N/A	79,741	5:00 p.m. June 08
6/9/2010	SERC	2:18 p.m.	Edenton, NC	Transmission System Interruption	N/A	4,196	3:00 p.m. June 09
6/16/2010	NPCC	11:11 a.m.	New York (Rockland and Orange Counties)	Voltage Reduction (System Test)	N/A	N/A	11:32 a.m. June 16
6/17/2010	SPP	8:30 a.m.	Morgan City, LA	Made Public Appeal	N/A	N/A	5:47 p.m. June 17

6/17/2010	SERC	9:30 a.m.	Southern Louisiana	Made Public Appeal	N/A	N/A 5:17 p.m. June 17
6/17/2010	SERC	9:30 a.m.	Southern Louisiana	Made Public Appeal	N/A	N/A 4:40 p.m. June 17
6/17/2010	SPP	9:30 a.m.	Southwestern Louisiana	Made Public Appeal	N/A	N/A 4:40 p.m. June 17
6/17/2010	MRO	10:49 a.m.	Eastern Montana	Electrical System Separation	N/A	N/A 11:02 a.m. June 17
6/18/2010	RFC	3:30 p.m.	Northwest Indiana	Thunderstorms	N/A	94,345 12:30 a.m. June 20
6/18/2010	RFC	4:00 p.m.	Chicago, IL	Severe Weather	N/A	400,000 1:00 p.m. June 20
6/18/2010	RFC	7:00 p.m.	Southern Portion of Lower Michigan	Thunderstorms	N/A	100,000 5:00 a.m. June 19
6/18/2010	RFC	8:00 p.m.	Indiana, Michigan	Severe Weather	N/A	79,000 10:45 a.m. June 21
6/18/2010	RFC	8:00 p.m.	Detroit, MI	Severe Weather	N/A	150,000 7:30 p.m. June 22
6/21/2010	RFC	1:48 p.m.	Cincinnati, OH	Thunderstorms	400	50,636 8:31 p.m. June 22
6/22/2010	SERC	3:34 p.m.	West/Central Arkansas	Made Public Appeal/Transmission Equipment Failure	84	25,159 7:00 p.m. June 22
6/23/2010	RFC	5:00 p.m.	Chicago, IL	Severe Weather	N/A	300,000 1:40 p.m. June 25
6/23/2010	RFC	5:48 p.m.	Northwest Indiana	Thunderstorms	N/A	53,000 2:21 a.m. June 24
6/24/2010	RFC	3:00 p.m.	Southwestern New Jersey	Thunderstorms	N/A	150,000 12:00 p.m. June 29
6/24/2010	RFC	3:30 p.m.	Southeastern Pennsylvania	Thunderstorms	N/A	355,000 11:59 p.m. June 29
6/25/2010	WECC	11:36 p.m.	Northern California	Electrical System Separation	N/A	N/A 1:38 a.m. June 26

July

7/6/2010	RFC	3:47 a.m.	Newark, DE	Transformer Outage	95	18,400 4:37 a.m. July 06
7/7/2010	RFC	4:13 p.m.	York, South Central Pennsylvania	Loss of Transmission Equipment	N/A	43,903 10:29 p.m. July 07
7/15/2010	RFC	7:00 p.m.	Southeastern Michigan	Severe Weather	540	127,534 11:30 p.m. July 19
7/17/2010	MRO	8:30 p.m.	Minnesota	Strong Winds, Tornadoes	N/A	63,000 10:00 p.m. July 19
7/21/2010	NPCC	6:44 p.m.	Connecticut	Thunderstorms	N/A	50,100 8:00 p.m. July 21
7/23/2010	WECC	10:00 a.m.	Northern Utah	Made Public Appeals	8-Jun	N/A 11:55 p.m. July 24
7/23/2010	RFC	7:30 p.m.	Southeastern Michigan	Severe Weather	400	82,000 6:30 p.m. July 26

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Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration
7/25/2010	RFC	3:10 p.m.	Washington, DC Region	Severe Weather	N/A	297,700	11:30 p.m. July 30
7/25/2010	RFC	3:20 p.m.	Central Maryland	Severe Weather	480	124,000	6:00 p.m. July 27
7/25/2010	SERC	4:11 p.m.	Northern Virginia	Severe Weather	900-1000	81,000	8:06 p.m. July 25
7/29/2010	SERC	5:43 p.m.	Virginia	Thunderstorms	N/A	55,000	8:07 p.m. July 29
7/29/2010	WECC	6:39 p.m.	Southern California	Shed Interruptible Load, Wildfire	522	N/A	7:26 p.m. July 29
7/29/2010	WECC	6:39 p.m.	Southern California	Shed Interruptible Load, Wildfire	522	N/A	7:26 p.m. July 29

August

8/2/2010	WECC	12:00 p.m.	Central California	Fuel Supply Deficiency (Hydro)	N/A	N/A 11:00 p.m. August 02
8/2/2010	SERC	12:45 p.m.	Southern Louisiana	Made Public Appeals	N/A	N/A 11:00 a.m. August 04
8/2/2010	SERC	12:45 p.m.	Southern Louisiana	Made Public Appeals	N/A	N/A 11:00 a.m. August 04
8/2/2010	SERC	12:45 p.m.	Southwestern Louisiana	Made Public Appeals	N/A	N/A 11:00 a.m. August 04
8/2/2010	SPP	12:45 p.m.	Southern Louisiana	Made Public Appeals	N/A	N/A 11:00 a.m. August 04
8/4/2010	SPP	12:00 p.m.	Northern Texas, Eastern New Mexico	Made Public Appeals	N/A	N/A 10:00 p.m. August 04
8/4/2010	RFC	4:45 p.m.	Western Pennsylvania, Northwestern and Central West Virginia	Thunderstorms	60	11,186 12:00 a.m. August 07
8/4/2010	RFC	5:00 p.m.	Ohio, West Virginia, Kentucky	Severe Weather	N/A	37,000 4:00 a.m. August 06
8/5/2010	RFC	3:30 p.m.	District of Columbia, Maryland	Thunderstorms	N/A	76,729 10:00 p.m. August 05
8/5/2010	RFC	3:54 p.m.	Northern Virginia	Thunderstorms	N/A	145,157 12:00 a.m. August 08
8/9/2010	RFC	12:00 p.m.	Upstate New York	Fuel Supply Deficiency	N/A	N/A 12:00 p.m. August 16
8/11/2010	RFC	3:21 p.m.	Ohio	Severe Weather	N/A	57,000 12:12 p.m. August 11
8/12/2010	RFC	6:45 a.m.	District of Columbia, Maryland	Severe Weather	N/A	101,003 9:00 p.m. August 12
8/12/2010	SPP	8:21 a.m.	Central Nebraska	Made Public Appeals	65	N/A 11:00 a.m. August 12
8/12/2010	MRO	3:42 p.m.	City of Oshkosh, Wisconsin	Made Public Appeals	30	7,600 10:10 p.m. August 12
8/19/2010	RFC	6:00 p.m.	Southeastern Michigan	Severe Weather	340	80,000 3:30 p.m. August 23
8/23/2010	TRE	5:50 p.m.	Houston, Texas	Severe Weather	746	81,586 9:30 a.m. August 24

September

9/1/2010	WECC	10:20 a.m.	Pittsburg (Bay Area), California	Electrical System Separation (Islanding)	31	15,000 12:44 p.m. September 01
9/7/2010	TRE	2:02 p.m.	San Antonio, Texas	Tropical Storm	N/A	340,350 1:27 a.m. September 08
9/20/2010	SERC	5:00 p.m.	King George County, Virginia	Low Flying Helicopter	N/A	N/A 5:30 p.m. September 20
9/21/2010	RFC	9:31 p.m.	Central and Southern Michigan	Thunderstorms	N/A	138,000 2:30 p.m. September 22
9/22/2010	WECC	6:12 a.m.	Bakersfield, California	Firm Load Shed	526	N/A 11:00 p.m. September 22
9/22/2010	RFC	4:08 p.m.	City of Pittsburgh, Pennsylvania	Thunderstorms	156	52,000 12:00 a.m. September 26
9/22/2010	RFC	5:38 p.m.	Western Pennsylvania	Thunderstorms	389	82,861 11:30 p.m. September 24
9/27/2010	WECC	3:15 p.m.	Central and Southern California	Interruptible Load Shed	595	N/A 6:12 p.m. September 27

October

10/5/2010	WECC	5:45 a.m.	City of Los Angeles, California	Rain and High Winds	N/A	73,514 6:00a.m. October 07
10/26/2010	RFC	9:00 a.m.	Northern Illinois	Thunderstorms	N/A	192,106 11:00 a.m. October 28
10/26/2010	MRO	8:00 p.m.	Minnesota	High Winds	N/A	70,000 10:00 p.m. October 28

10/27/2010	MRO	4:00 a.m.	Northeast and North Central Wisconsin	High Winds	N/A	63,000	12:00 p.m. October 27
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Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected [1]	Restoration
10/27/2010	RFC	8:00 a.m.	Michigan's Northern Lower Peninsula	High Winds	240	285,000	7:00 a.m. October 29
10/27/2010	RFC	5:00 p.m.	Northern Illinois	High Winds	N/A	127,000	4:00 a.m. October 29
10/27/2010	WECC	5:16 p.m.	Northern California	Electrical System Separation-Islanding	16	2,674	5:27 p.m. October 27
10/31/2010	WECC	10:26 p.m.	Bakersfield, California	Firm System Load Loss	500	N/A	1:45 a.m. November 01
November							
11/4/2010	WECC	9:46 a.m.	Rock Springs, Wyoming	Transmission Equipment Failure/Interruptible Load Shed	N/A	N/A	10:47 a.m. November 04
11/6/2010	WECC	3:53 p.m.	Northern California	Electrical System Separation - Islanding	20	4	6:08 p.m. November 06
11/8/2010	NPCC	6:47 a.m.	Maine	Snow and High Winds	N/A	60,863	6:00 p.m. November 08
11/13/2010	MRO	3:00 p.m.	Minnesota	Winter Storm	N/A	60,000	10:00 p.m. November 14
11/15/2010	WECC	11:00 p.m.	Puget Sound Region	High Winds	391	149,256	2:14 a.m. November 16
11/21/2010	WECC	1:39 a.m.	Northern and Central California	Winter Storm	75	60,000	4:46 p.m. November 24
11/22/2010	WECC	11:00 p.m.	Puget Sound Region, Washington	Winter Storm	420	123,535	8:00 p.m. November 24
11/23/2010	WECC	2:01 p.m.	Northern California	Electrical System Separation - Islanding	22	7,077	6:12 p.m. November 23
December							
12/3/2010	WECC	9:32 p.m.	California	Electrical System Separation - Islanding	22	7,077	2:00 a.m. December 04
12/12/2010	RFC	4:30 p.m.	Southeastern Michigan	Severe Weather	210	60,175	2:00 p.m. December 15
12/14/2010	WECC	7:20 a.m.	California	Electrical System Separation - Islanding	9	6,635	7:25 a.m. December 14
12/14/2010	WECC	7:36 a.m.	Southern California	Transmission Equipment/Firm System Load	464	N/A	9:00 a.m. December 15
12/18/2010	WECC	5:00 a.m.	Redmond, Washington	Severe Weather	184	92,090	10:00 p.m. December 19
12/26/2010	SERC	8:15 a.m.	Carolina	Severe Weather	N/A	42,000	4:15 p.m. December 26
12/30/2010	RFC	2:00 p.m.	New York	Fuel Supply Deficiency	300	N/A	6:00 a.m. January 12

[1] Estimated values.

Note: Estimates for 2010 are preliminary.

Source: Form OE-417, "Electric Emergency Incident and Disturbance Report."