

Appendix B

Major Disturbances and Unusual Occurrences

Table B.1. Major Disturbances and Unusual Occurrences, Year-to-Date through April 2012

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹¹	Restoration Date/Time
January							
01/09/12	The Dow Chemical Company(SERC)	1:36 p.m.	Louisiana	Load Shed	150	1	1:05 a.m. January 11
01/10/12	Luminant Energy Company LLC(TRE)	9:30 p.m.	Rusk County, Texas	Load Shed	N/A	N/A	9:30 p.m. January 10
01/19/12	Puget Sound Energy(WECC)	7:00 a.m.	King, Pierce and Thurston Counties, Washington	Severe Weather - Winter Storm	1,600	426,000	3:00 p.m. January 20
February							
02/19/12	American Electric Power(SERC)	5:00 p.m.	Kentucky, Virginia, West Virginia	Severe Weather - Winter Storm	Unknown	90,000	7:33 a.m. February 21
02/28/12	Pacific Gas and Electric(WECC)	2:59 a.m.	Sacramento, California	Electrical System Separation (Islanding)	1	1	6:12 a.m. February 28
March							
03/02/12	Tennessee Valley Authority (TVA)(SERC)	12:37 p.m.	Northern Alabama; Southeast Tennessee	Severe Weather - Tornadoes	500	Unknown	12:01 p.m. March 05
03/02/12	City of Piggott, Arkansas(SERC)	1:45 p.m.	Piggott, Arkansas	Operational Failure/Equipment Malfunction	N/A	N/A	3:30 p.m. March 02
03/02/12	Detroit Edison, Subsidiary of DTE Energy(RFC)	9:00 p.m.	Southeastern, Michigan	Severe Weather - Winter Storm	371	130,000	4:30 p.m. March 05
03/02/12	Consumers Energy(RFC)	9:00 p.m.	Lower Peninsula, Michigan	Severe Weather - Winter Storm	50	140,000	5:30 p.m. March 04
03/20/12	CenterPoint Energy(TRE)	8:00 a.m.	Houston, Texas	Severe Weather - Thunderstorms	N/A	96,000	1:00 p.m. March 20
03/29/12	Lansing Board of Water & Light(RFC)	12:01 p.m.	Lansing, Michigan	Electrical System Separation (Islanding)	Unknown	0	12:02 p.m. March 29
April							
04/16/12	Detroit Edison, Subsidiary of DTE Energy(RFC)	3:46 p.m.	Southeast, Michigan	Severe Weather - High Winds	218	111,393	2:00 a.m. April 19
04/20/12	CenterPoint Energy(TRE)	2:27 p.m.	Metropolitan Houston, Texas	Severe Weather - Thunderstorms	N/A	120,377	4:27 a.m. April 21

¹¹ Estimated values.

Note: Estimates are preliminary.

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

Table B.2 Major Disturbances and Unusual Occurrences, Year-to-Date through December 2011

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
January							
01/12/11	National Grid(NPCC)	6:00 a.m.	Massachusetts	Winter Storm	N/A	80,000	2:00 p.m. January 12
01/13/11	JEA(FRCC)	7:21 a.m.	North Florida	Firm System Load Shed	150	20,900	8:13 a.m. January 13
01/26/11	Potomac Electric Power Co/PEPCO Holdings Inc.(RFC)	5:00 p.m.	Montgomery and Prince George's County, Maryland and District of Columbia	Winter Storm	N/A	210,000	8:00 a.m. January 31
01/26/11	Baltimore Gas and Electric Company(RFC)	6:28 p.m.	Maryland	Winter Storm	N/A	234,326	5:00 p.m. January 29
01/26/11	Dominion - Virginia Power(SERC)	7:43 p.m.	Northern Virginia	Winter Storm	600	150,084	6:18 p.m. January 27
01/27/11	Delmarva Power & Light Company(RFC)	9:30 a.m.	Hockessin, Delaware	Vandalism	0	0	9:30 a.m. January 27
01/27/11	AES Greenidge, LLC(NPCC)	5:00 p.m.	Central New York	Fuel Supply Deficiency (Coal)	108	N/A	5:00 a.m. January 30
01/31/11	Duke Energy Midwest(RFC)	10:00 p.m.	Southwestern Ohio and Indiana	Ice Storm	996	272,880	12:00 p.m. February 03
February							
02/01/11	American Electric Power - Ohio(RFC)	3:00 p.m.	Indiana, Ohio	Winter Storm	Unknown	158,013	12:00 p.m. February 03
02/01/11	Exelon Corp/ComEd - Commonwealth Edison(RFC)	9:00 p.m.	Northern Illinois	Winter Storm	Unknown	190,000	2:00 p.m. February 02
02/02/11	Exelon Corporation/PECO(RFC)	3:00 a.m.	Philadelphia area, Pennsylvania	Winter Storm	Unknown	213,000	11:59 p.m. February 04
02/02/11	ERCOT ISO(TRE)	5:43 a.m.	Texas	Generation Inadequacy/Load Shed	4,000	1,069,730	10:00 a.m. February 03
02/02/11	Salt River Project(WECC)	6:22 a.m.	Central Arizona	Generation Inadequacy/Load Shed	3,963	69,000	9:57 a.m. February 02
02/02/11	El Paso Electric Company(WECC)	7:24 a.m.	Dona Ana and El Paso Counties, Texas and Hudspeth County, New Mexico	Generation Inadequacy/Load Shed	280	178,000	10:23 p.m. February 02
02/02/11	Southwestern Public Service(SPP)	5:00 p.m.	Texas Panhandle, Southeastern New Mexico	Fuel Supply Deficiency (Natural Gas)	Unknown	Unknown	10:00 p.m. February 03
02/03/11	San Diego Gas and Electric Company(WECC)	3:00 p.m.	San Diego area, California	Fuel Supply Deficiency (Natural Gas)	N/A	Unknown	12:00 p.m. February 04
02/03/11	ERCOT ISO(TRE)	10:04 p.m.	Texas	Generation Inadequacy/Load Shed	400	86,013	12:32 p.m. February 04
02/09/11	CenterPoint Energy(TRE)	3:45 a.m.	Western Houston, Texas	Winter Storm	399	60,000	9:12 a.m. February 09
02/09/11	ERCOT ISO(TRE)	4:30 p.m.	Texas	Cold Weather Event	N/A	N/A	12:33 p.m. February 10
02/17/11	Pacific Gas and Electric(WECC)	1:25 a.m.	Northern and Central California	Major Storm	91	80,000	10:13 a.m. February 19
02/19/11	Exelon Corporation/PECO(RFC)	12:30 p.m.	Philadelphia area, Pennsylvania	Major Storm	Unknown	118,000	4:00 a.m. February 20
02/20/11	Consumers Energy(RFC)	4:00 p.m.	Southern Lower Peninsula, Michigan	Winter Storm	262	160,000	4:00 p.m. February 23
02/24/11	American Electric Power (CSWS-SPP)(SPP)	4:51 p.m.	Arkansas	Electrical System Separation (Islanding)	4	Unknown	4:54 p.m. February 24
02/25/11	Pacific Gas and Electric(WECC)	8:00 a.m.	Northern and Central California	Winter Storm	91	80,000	5:30 p.m. February 28
02/25/11	Dominion - Virginia Power(SERC)	3:20 p.m.	Virginia	Severe Weather	Unknown	50,000	6:00 p.m. February 25
02/25/11	Baltimore Gas & Electric(RFC)	3:23 p.m.	Maryland	Severe Weather	Unknown	93,000	6:00 p.m. February 27
March							
03/01/11	AES Somerset(NPCC)	8:00 a.m.	Western New York	Fuel Supply Deficiency (Coal)	675	Unknown	9:30 a.m. March 05
03/08/11	AES Somerset(NPCC)	8:00 a.m.	Western New York	Fuel Supply Deficiency (Coal)	676	Unknown	9:00 a.m. March 18
03/11/11	Pacific Gas and Electric(WECC)	7:02 a.m.	Humboldt and Eureka, California	Generation Inadequacy/Load Shed	15	6,800	9:15 a.m. March 11
03/13/11	PacifiCorp(WECC)	2:20 p.m.	Oregon	Severe Weather	Unknown	9,000	3:46 p.m. March 14

¹ Estimated values.

Table B.2 Major Disturbances and Unusual Occurrences, Year-to-Date through December 2011

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
03/19/11	Pacific Gas and Electric(WECC)	11:56 p.m.	Northern and Central California	Major Storm	91	128,000	7:10 p.m. March 24
03/20/11	Los Angeles Department of Water and Power(WECC)	9:44 a.m.	Los Angeles, California	Major Storm	Unknown	79,000	10:00 a.m. March 21
03/21/11	Southern California Edison Company (SCE)(WECC)	12:35 p.m.	Southern California	Major Storm	150	54,332	2:45 p.m. March 21
03/23/11	American Electric Power - AEP(RFC)	6:30 p.m.	Indiana, Kentucky, Michigan, Ohio, Tennessee, Virginia, West Virginia	Major Storm	Unknown	60,596	4:55 a.m. March 24
03/27/11	Pacific Gas and Electric(WECC)	1:27 p.m.	Sonoma and Central Valley, California	Transmission Level Outage	295	165,000	5:00 p.m. March 27
03/31/11	Tampa Electric Company(FRCC)	11:30 a.m.	Greater Tampa Bay, Florida	Severe Weather	206	87,000	8:30 p.m. March 31
03/31/11	Progress Energy Florida (PEF)(FRCC)	2:30 p.m.	Central and Western Florida	Severe Weather	Unknown	50,000	11:59 p.m. April 01
April							
04/04/11	Tennessee Valley Authority(SERC)	11:47 a.m.	Memphis, Tennessee	Severe Weather	359	63,000	12:01 a.m. April 08
04/04/11	Memphis Light Gas and Water Division(SERC)	1:00 p.m.	Shelby County, Tennessee	Severe Weather	300	63,000	12:00 a.m. April 05
04/04/11	Tennessee Valley Authority(SERC)	2:00 p.m.	Davidson Count, Tennessee	Severe Weather	300	73,000	12:01 a.m. April 08
04/04/11	Entergy Corporation(SERC)	7:00 p.m.	Southeast Arkansas, Southeast Louisiana, Western Mississippi, Eastern Texas	Severe Weather	Unknown	74,645	8:00 p.m. April 05
04/04/11	American Electric Power (AEP)(RFC)	7:00 p.m.	Kentucky, West Virginia	Severe Weather	Unknown	52,920	12:00 p.m. April 05
04/04/11	Southern Company(SERC)	9:00 p.m.	Alabama, Florida, Georgia, Mississippi	Severe Weather	674	303,434	11:30 p.m. April 05
04/05/11	Duke Energy Carolinas(SERC)	2:00 a.m.	North Carolina, South Carolina	Severe Weather	1,200	256,000	11:00 p.m. April 07
04/16/11	Progress Energy Carolinas Inc(SERC)	2:16 p.m.	Central and Eastern North Carolina	Severe Weather	Unknown	220,000	4:30 p.m. April 17
04/19/11	Ameren Illinois(SERC)	8:00 p.m.	Illinois	Severe Weather	Unknown	80,000	10:00 p.m. April 19
04/19/11	Memphis Light Gas and Water Division(SERC)	10:44 p.m.	Memphis, Tennessee	Severe Weather	100	64,000	2:00 a.m. April 20
04/19/11	Tennessee Valley Authority(SERC)	11:02 p.m.	Memphis, Tennessee	Severe Weather	300	105,000	5:32 p.m. April 21
04/19/11	Constellation Energy Control and Dispatch(SERC)	11:13 p.m.	Osceola, Arkansas	Severe Weather	22	Unknown	7:14 p.m. April 20
04/20/11	Duke Energy Midwest(RFC)	2:00 a.m.	Indiana, Kentucky, Ohio	Severe Weather - High Winds	Unknown	165,711	12:00 p.m. April 21
04/20/11	City of Ruston & Constellation Energy(SERC)	8:07 a.m.	Ruston, Louisiana	Equipment Malfunction	33	11,000	8:14 a.m. April 20
04/22/11	Ameren(SERC)	9:00 p.m.	Metro St. Louis area, Missouri	Severe Weather	0	55,000	11:00 p.m. April 22
04/25/11	Tennessee Valley Authority(SERC)	4:33 p.m.	Northeast Tennessee	Equipment Malfunction	140	Unknown	5:19 p.m. April 25
04/25/11	Entergy Corporation(SPP)	5:30 p.m.	Arkansas, Louisiana, Mississippi	Severe Weather	Unknown	141,700	6:00 p.m. April 27
04/26/11	Entergy Corporation(SPP)	5:49 a.m.	Southern Louisiana	Severe Weather	120	Unknown	9:59 a.m. April 27
04/26/11	Tennessee Valley Authority(SERC)	9:51 a.m.	Alabama, Georgia, Mississippi, Tennessee	Severe Weather	Unknown	55,000	9:51 a.m. April 28
04/26/11	West Memphis Utilities(SPP)	6:14 p.m.	Eastern Arkansas	Severe Weather	50	13,000	5:00 p.m. April 28
04/27/11	Southern Company(SERC)	8:00 a.m.	Alabama, Florida, Georgia, Mississippi	Severe Weather	1,422	426,640	4:03 p.m. May 02
04/27/11	Tennessee Valley Authority(SERC)	10:00 a.m.	Alabama, Georgia, Mississippi, Tennessee	Severe Weather	Unknown	612,000	4:29 p.m. April 29
04/27/11	American Electric Power(SERC)	10:00 p.m.	Ohio, Tennessee, Virginia	Severe Weather	0	69,000	10:00 a.m. April 28
04/28/11	FirstEnergy Service Company(RFC)	5:00 a.m.	Cleveland area, Ohio	Severe Weather	Unknown	86,000	6:30 p.m. April 30
04/28/11	Mesquite Power, LLC(WECC)	4:09 p.m.	Phoenix, Arizona	Equipment Malfunction	960	Unknown	4:10 p.m. April 28
May							
05/02/11	Hawaiian Electric Company(N/A)	5:06 p.m.	Hawaii	Severe Weather	220	62,000	8:00 p.m. May 02
05/10/11	Midwest Independent System Operator (MISO)(RFC)	3:25 a.m.	Upper Peninsula, Michigan	Generation Inadequacy; Load Shed; Electrical System Separation (Islanding)	585	78,213	2:10 p.m. May 11
05/10/11	American Electric Power(RFC)	10:21 p.m.	Kentucky, West Virginia	Severe Weather	Unknown	58,000	2:25 p.m. May 11
05/11/11	Duke Energy Carolinas(SERC)	12:15 a.m.	Charlotte, North Carolina	Severe Weather	300	71,000	5:20 p.m. May 11
05/22/11	Empire District Electric(SPP)	5:09 p.m.	Joplin, Sarcouxie, and Wentworth, Missouri	Severe Weather	200	20,000	12:01 p.m. May 31
05/23/11	Ameren(SERC)	12:30 p.m.	St. Louis County, Missouri	Severe Weather	Unknown	70,000	12:30 p.m. May 25
05/23/11	Duke Energy Midwest(RFC)	4:45 p.m.	Central, Indiana	Severe Weather	1,024	215,387	11:59 p.m. May 25
05/24/11	Dominion Virginia Power(SERC)	4:35 p.m.	Eastern Virginia	Severe Weather	790	175,000	12:40 p.m. May 25
05/24/11	Oklahoma Gas & Electric(SPP)	4:45 p.m.	Central Oklahoma	Severe Weather	Unknown	54,000	5:00 p.m. May 26

05/25/11	Duke Energy Midwest(RFC)	10:14 p.m.	Central Indiana	Severe Weather	200	141,000	11:00 a.m. May	28
05/26/11	Greenwood Utilities Commission(SERC)	1:00 a.m.	Greenwood, Mississippi	Transmission Level Interruption	30	10,000	6:00 a.m. May	26
05/26/11	Southern Company(SERC)	6:30 p.m.	Southern Balancing Area, Georgia	Severe Weather	729	218,783	4:44 a.m. May	28
05/26/11	PPL Electric Utilities(RFC)	7:56 p.m.	Central Pennsylvania	Severe Weather	150	120,001	6:00 p.m. May	27
05/29/11	Consumers Energy(RFC)	6:30 p.m.	Mid and Southern Lower Peninsula, Michigan	Severe Weather	250	113,000	10:00 p.m. May	31
June								
06/02/11	South Carolina Electric and Gas(SERC)	11:45 p.m.	Greater Columbia, South Carolina	Severe Weather	0	50,465	4:00 p.m. June	04
06/05/11	CenterPoint Energy(TRE)	5:30 a.m.	Houston Metro-Area, Texas	Severe Thunderstorms	473	78,000	1:30 a.m. June	06
06/05/11	Pacific Gas and Electric(WECC)	8:02 p.m.	Melones, California	Electrical System Separation (Islanding)	10	5,314	8:55 p.m. June	05
06/06/11	El Paso Electric Company(SPP)	12:13 a.m.	El Paso County, Texas; Dona Ana County, New Mexico	Load Shed/ Automatic undervoltage relay action	450	162,000	3:15 a.m. June	06
06/06/11	West Memphis Utilities(SPP)	3:00 p.m.	Eastern, Arkansas	Public Appeal to Reduce Electricity Usage	Unknown	13,000	3:00 p.m. June	08
06/07/11	American Electric Power(RFC)	2:00 p.m.	Ohio	Severe Weather	Unknown	52,747	6:00 a.m. June	08
06/09/11	Exelon Corporation/ComEd(RFC)	4:30 a.m.	Illinois	Severe Thunderstorms	Unknown	169,000	12:00 p.m. June	09
06/09/11	ISO New England/Northeast Utilities(NPCC)	5:51 p.m.	Western, Massachusetts; Connecticut	Severe Thunderstorms	0	100,000	12:00 p.m. June	10
06/12/11	Dominion Virginia Power(RFC)	7:00 p.m.	Virginia	Severe Thunderstorms	250	56,000	8:30 p.m. June	12
06/15/11	Southern Company(SERC)	7:15 p.m.	Georgia	Severe Thunderstorms	563	169,000	6:00 a.m. June	16
06/15/11	Duke Energy(SERC)	7:17 p.m.	Piedmont, North Carolina	Severe Thunderstorms	300	70,135	1:45 a.m. June	16
06/18/11	Southern Company(SERC)	3:30 p.m.	Northern, Georgia	Severe Thunderstorms	312	93,828	3:42 p.m. June	19
06/18/11	West Memphis Utilities(SPP)	4:45 p.m.	Eastern, Arkansas	Public Appeal to Reduce Electricity Usage	Unknown	Unknown	11:59 p.m. June	20
06/18/11	Duke Energy Carolinas(SERC)	5:00 p.m.	North Carolina; South Carolina	Severe Thunderstorms	300	70,000	9:33 p.m. June	18
06/21/11	American Electric Power (AEP)(RFC)	6:30 p.m.	AEP Region	Severe Weather	Unknown	56,000	7:00 a.m. June	22
06/21/11	Exelon Corporation/ComEd(RFC)	9:45 p.m.	Illinois	Severe Thunderstorms	Unknown	300,000	2:00 a.m. June	23
06/22/11	Tennessee Valley Authority (TVA)(SERC)	9:46 a.m.	Knoxville, Tennessee	Severe Weather	Unknown	106,300	9:46 a.m. June	22
06/22/11	Southern Company(SERC)	7:00 p.m.	Alabama; Georgia	Severe Thunderstorms	316	75,101	1:00 a.m. June	23
06/24/11	Southern Company(SERC)	6:30 p.m.	North/North Central Alabama; Georgia	Severe Thunderstorms	340	102,275	1:30 a.m. June	25
06/26/11	Sunflower Electric Power Corporation(SPP)	4:46 p.m.	Southwest Kansas	Public Appeal to Reduce Electricity Usage	Unknown	Unknown	7:59 a.m. June	27
06/26/11	Southern Company(SERC)	6:00 p.m.	Alabama; Georgia	Severe Thunderstorms	300	90,160	1:00 p.m. June	27
06/27/11	AMEREN(SERC)	12:00 a.m.	Illinois; Missouri	Severe Thunderstorms	Unknown	80,000	1:00 a.m. June	29
06/27/11	ERCOT ISO(TRE)	3:00 p.m.	Texas	Public Appeal to Reduce Electricity Usage	0	0	7:00 p.m. June	27
06/29/11	Southwestern Public Service(SPP)	11:30 a.m.	Panhandle and Muleshoe, Texas	Public Appeal to Reduce Electricity Usage	0	0	6:04 p.m. June	29
06/30/11	Salt River Project(WECC)	2:11 p.m.	Phoenix, Arizona	Major System Interruption/Load Shed	5,299	160,000	11:25 p.m. June	30
06/30/11	Exelon Corporation/ComEd(RFC)	10:30 p.m.	Illinois	Severe Weather	Unknown	121,000	5:00 p.m. July	01

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Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
July							
07/01/11	Xcel Energy Northern States Power Company(MRO)	5:00 p.m.	Southwest and South Central Minnesota	Severe Weather	Unknown	70,000	8:00 p.m. July 03
07/02/11	Detroit Edison, Subsidiary of DTE Energy(RFC)	8:15 p.m.	South East, Lower Peninsula, Michigan	Severe Weather	Unknown	182,000	10:00 p.m. July 06
07/04/11	Dominion Virginia Power(SERC)	6:00 p.m.	Virginia	Severe Weather	150	51,580	9:00 p.m. July 04
07/11/11	Exelon Corporation/ComEd(RFC)	9:00 a.m.	Illinois	Severe Weather	Unknown	500,000	9:00 a.m. July 11
07/11/11	Detroit Edison, Subsidiary of DTE Energy(RFC)	9:00 a.m.	Michigan	Severe Weather	254	103,000	10:25 a.m. July 11
07/11/11	Consumers Energy(RFC)	11:15 a.m.	Western and Southern Lower Peninsula Michigan	Severe Weather	Unknown	85,000	8:15 a.m. July 12
07/11/11	American Electric Power (AEP)(RFC)	2:27 p.m.	Indiana, Michigan, Ohio	Severe Weather	Unknown	120,000	3:50 p.m. July 12
07/13/11	Public Service Company of Colorado(WECC)	5:19 p.m.	Pueblo, Colorado	Load Shed	580	N/A	10:03 p.m. July 13
07/14/11	ERCOT ISO(TRE)	11:00 a.m.	Texas	Public Appeal to Reduce Electricity Usage	0	0	7:00 p.m. July 14
07/18/11	Detroit Edison, Subsidiary of DTE Energy(RFC)	5:00 p.m.	Southeast Michigan	Severe Weather	N/A	197,166	1:30 p.m. July 24
07/21/11	Consumers Energy(RFC)	12:32 p.m.	Lower Peninsula, Michigan	Public Appeal to Reduce Electricity Usage	8,881	N/A	6:30 a.m. July 22
07/21/11	City Water Light and Power(SERC)	1:00 p.m.	Springfield, Illinois	Public Appeal to Reduce Electricity Usage	N/A	N/A	3:00 p.m. July 21
07/22/11	Niagara Mohawk Power Corporation (dba National Grid)(NPCC)	11:00 a.m.	Upstate, New York	Public Appeal to Reduce Electricity Usage	N/A	N/A	6:00 p.m. July 22
07/22/11	PJM Interconnection(RFC)	11:34 a.m.	Ohio	Load Shed	206	23,000	5:26 p.m. July 22
07/23/11	Exelon Corporation/ComEd(RFC)	2:30 a.m.	Illinois	Severe Weather	Unknown	169,000	9:00 a.m. July 24
07/28/11	Exelon Corporation/ComEd(RFC)	12:14 a.m.	Entire ComEd Territory, Indiana	Severe Weather	Unknown	201,000	12:00 p.m. July 29
07/28/11	Owensboro Municipal Utilities(SERC)	7:26 a.m.	Daviess County, Kentucky	Fuel Supply Deficiency (Coal)	N/A	N/A	7:26 a.m. July 29
07/29/11	FirstEnergy Corp: Jersey Central Power & Light(RFC)	8:45 p.m.	Central New Jersey	Severe Weather	N/A	67,900	4:24 a.m. August 01
August							
08/01/11	ERCOT ISO(TRE)	3:00 p.m.	Texas	Public Appeal to Reduce Electricity Usage	0	0	7:00 p.m. August 05
08/02/11	Oklahoma Gas & Electric(SPP)	10:15 a.m.	Oklahoma	Public Appeal to Reduce Electricity Usage	N/A	N/A	9:16 a.m. August 03
08/02/11	Exelon Corporation/ComEd(RFC)	9:30 p.m.	Northeast, Illinois	Severe Weather	Unknown	71,500	7:00 p.m. August 03
08/03/11	AES Somerset LLC(NPCC)	10:00 a.m.	Western New York	Fuel Supply Deficiency (Coal)	675	Unknown	10:00 a.m. August 19
08/03/11	Grand River Dam Authority(SPP)	4:29 p.m.	Northeast Oklahoma	Public Appeal to Reduce Electricity Usage	300	N/A	11:40 p.m. August 03
08/03/11	Entergy(SPP)	4:30 p.m.	Central Arkansas	Public Appeal to Reduce Electricity Usage	0	0	9:00 p.m. August 03
08/04/11	American Electric Power (AEP)(SPP)	10:30 a.m.	Arkansas, Oklahoma, Texas	Public Appeal to Reduce Electricity Usage	N/A	N/A	4:00 p.m. August 04
08/08/11	Oklahoma Municipal Power Authority(SPP)	7:36 p.m.	Oklahoma	Electrical System Separation (Islanding)	92	14,500	12:00 p.m. August 09
08/08/11	Oklahoma Gas & Electric(SPP)	8:58 p.m.	Northern and Central Oklahoma	Severe Weather	N/A	54,000	4:30 p.m. August 10
08/13/11	LG&E and KU Energy LLC(SERC)	4:41 p.m.	Kentucky	Severe Weather	Unknown	181,700	7:00 p.m. August 14
08/20/11	Detroit Edison, Subsidiary of DTE Energy(RFC)	5:42 p.m.	Southeastern Michigan	Severe Weather	254	65,000	8:00 p.m. August 23
08/21/11	Puerto Rico Electric Power Authority (PREPA)(N/A)	10:45 p.m.	Puerto Rico	Severe Weather	2,200	931,000	10:45 p.m. August 23

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Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
08/23/11	Southwestern Public Service Company(SPP)	10:30 a.m.	Southeastern New Mexico, Texas Panhandle	Public Appeal to Reduce Electricity Usage	0	0	4:54 p.m. August 23
08/23/11	Dominion Virginia Power(RFC)	1:51 p.m.	Virginia	Earthquake	0	0	1:51 p.m. August 23
08/23/11	ERCOT ISO(TRE)	3:43 p.m.	Texas	Public Appeal to Reduce Electricity Usage	0	0	7:00 p.m. August 23
08/24/11	CenterPoint Energy(TRE)	7:45 a.m.	Houston area, Texas	Severe Weather	485	79,000	6:00 a.m. August 25
08/24/11	ERCOT ISO(TRE)	1:20 p.m.	Texas	Public Appeal to Reduce Electricity Usage	0	0	7:00 p.m. August 29
08/24/11	American Electric Power (AEP)(SPP)	2:51 p.m.	Arkansas, Louisiana, Texas	Severe Weather	N/A	53,064	10:00 p.m. August 24
08/25/11	FirstEnergy Corp: Cleveland Electric Illuminating Company(RFC)	12:30 a.m.	Cleveland area, Ohio	Severe Weather	N/A	107,833	8:00 p.m. August 28
08/26/11	FirstEnergy Corp: Metropolitan Edison Company(RFC)	12:30 a.m.	Pennsylvania	Severe Weather	N/A	200,717	12:30 a.m. August 28
08/27/11	Town of Stantonsburg JRO(SERC)	2:00 a.m.	Wilson County North Carolina	Distribution System Interruption	2	1,200	5:15 a.m. August 27
08/27/11	Progress Energy Carolinas(SERC)	2:57 a.m.	Eastern North Carolina	Severe Weather	Unknown	285,465	11:30 p.m. August 29
08/27/11	Dominion Virginia Power(SERC)	10:33 a.m.	North Carolina; Virginia	Severe Weather	Unknown	1,000,000	2:00 p.m. August 29
08/27/11	Delmarva Power & Light Company(RFC)	1:00 p.m.	Delaware; Maryland	Severe Weather	N/A	165,000	1:00 p.m. August 29
08/27/11	North Carolina Eastern Municipal Power Agency(SERC)	7:00 p.m.	Eastern North Carolina	Severe Weather	200	136,000	1:31 p.m. August 29
08/27/11	Baltimore Gas and Electric Company(RFC)	8:30 p.m.	Maryland	Severe Weather	1,114	760,113	11:30 p.m. September 04
08/27/11	Atlantic City Electric Company(RFC)	10:00 p.m.	Southern New Jersey	Severe Weather	320	140,000	4:00 p.m. August 29
08/27/11	Exelon Corporation / PECO(RFC)	10:00 p.m.	Pennsylvania	Severe Weather	N/A	264,000	10:00 p.m. August 29
08/27/11	Southern Maryland Electric Cooperative (SMECO)(RFC)	11:00 p.m.	Maryland	Severe Weather	Unknown	108,000	8:00 a.m. August 29
08/27/11	Pepco(RFC)	11:05 p.m.	District of Columbia; Maryland	Severe Weather	N/A	220,000	3:30 p.m. August 29
08/28/11	Central Hudson Gas & Electric(NPCC)	12:01 a.m.	Mid-Hudson, New York	Severe Weather	N/A	180,000	12:01 a.m. August 30
08/28/11	Public Service Electric and Gas Company(RFC)	12:23 a.m.	New Jersey	Severe Weather	500	665,000	12:23 a.m. August 30
08/28/11	FirstEnergy Corp: Jersey Central Power & Light(RFC)	12:30 a.m.	Northern and Central New Jersey	Severe Weather	N/A	650,000	12:30 a.m. August 30
08/28/11	PPL Electric Utilities(RFC)	2:58 a.m.	Eastern and Northeastern Pennsylvania	Severe Weather	110	284,000	2:58 a.m. August 30
08/28/11	Long Island Power Authority(NPCC)	5:00 a.m.	Long Island, New York	Severe Weather	Unknown	152,261	5:00 a.m. August 30
08/28/11	Consolidated Edison Company of NY, Inc.(NPCC)	5:01 a.m.	Borough's and Westchester County New York	Severe Weather	N/A	50,000	5:01 a.m. September 03
08/28/11	New York State Electric & Gas Corporation(NPCC)	7:00 a.m.	New York	Severe Weather	Unknown	99,700	12:01 a.m. September 03
08/28/11	The United Illuminating Company(NPCC)	7:40 a.m.	Southwest Connecticut	Severe Weather	N/A	158,000	7:40 a.m. August 29
08/28/11	Niagara Mohawk Power Corporation(NPCC)	9:42 a.m.	Eastern New York	Severe Weather	N/A	100,000	12:01 a.m. August 30
08/28/11	ISO New England(NPCC)	12:10 p.m.	Eastern Massachusetts	Severe Weather	N/A	50,000	12:11 p.m. August 28
08/28/11	Orange and Rockland Utilities, Inc.(NPCC)	12:30 p.m.	New York	Severe Weather	N/A	116,000	12:31 p.m. August 28
September							
09/03/11	Detroit Edison, Subsidiary of DTE Energy(RFC)	2:00 p.m.	Southeast Lower Peninsula, Michigan	Severe Weather	Unknown	105,000	6:00 p.m. September 08
09/05/11	Southern Company(SERC)	4:30 p.m.	Alabama; Georgia	Severe Weather	177	53,295	3:45 p.m. September 07
09/08/11	WECC Reliability Coordinator(WECC)	3:28 p.m.	Arizona; California	Transmission/Distribution Interruption; Load Shed; Generation Inadequacy	7,000	2,000,000	3:30 p.m. September 10

Table B.2 Major Disturbances and Unusual Occurrences, Year-to-Date through December 2011

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
09/21/11	Puerto Rico Electric Power Authority (PREPA)(N/A)	2:37 p.m.	Puerto Rico	Generation Inadequacy; Load Shed	600	319,616	3:47 p.m. September 21
09/29/11	CenterPoint Energy(TRE)	5:00 a.m.	Houston metro area, Texas	Severe Weather	N/A	65,000	6:00 a.m. September 30
October							
10/26/11	Public Service Company of Colorado(WECC)	5:00 a.m.	Denver; Ft. Collins, Colorado	Severe Weather	Unknown	204,000	3:00 p.m. October 27
10/29/11	Metropolitan Edison Company(RFC)	8:59 a.m.	Pennsylvania	Severe Weather	Unknown	312,359	7:58 p.m. November 07
10/29/11	Potomac Edison(RFC)	8:59 a.m.	Pennsylvania	Severe Weather	Unknown	50,000	3:00 p.m. November 07
10/29/11	Jersey Central Power & Light Company(RFC)	9:59 a.m.	Northwest and Central New Jersey	Severe Weather	Unknown	379,000	1:00 p.m. November 07
10/29/11	New York State Elec & Gas Corp(NPCC)	11:18 a.m.	Southeast New York	Severe Weather	Unknown	161,151	12:00 a.m. November 04
10/29/11	PPL Electric Utilities(RFC)	12:57 p.m.	Harrisburg, Lehigh Valley, Lancaster Region Pennsylvania	Severe Weather	Unknown	146,721	11:00 p.m. November 03
10/29/11	Exelon Corporation/PECO(RFC)	2:00 p.m.	Southeast Pennsylvania	Severe Weather	Unknown	109,335	2:00 p.m. October 31
10/29/11	Public Service Electric and Gas Company(RFC)	2:30 p.m.	New Jersey	Severe Weather	125	197,000	12:00 p.m. November 06
10/29/11	Central Hudson Gas & Electric Corp.(NPCC)	3:00 p.m.	Mid-Hudson Valley Region, New York	Severe Weather	N/A	145,000	8:15 a.m. November 02
10/29/11	ISO New England(NPCC)	4:14 p.m.	Connecticut; Maine; Massachusetts; New Hampshire; Rhode Island	Severe Weather	Unknown	1,418,100	4:00 p.m. November 07
10/29/11	Consolidated Edison Company of NY, Inc(NPCC)	4:16 p.m.	New York City area	Severe Weather	Unknown	50,000	9:30 p.m. November 02
10/29/11	Orange and Rockland Utilities, Inc(NPCC, RFC)	8:00 p.m.	New Jersey; New York	Severe Weather	N/A	74,000	8:00 p.m. October 31
November							
11/30/11	Los Angeles Department of Water and Power(WECC)	4:56 p.m.	City of Los Angeles, California	Severe Weather	Unknown	150,000	10:00 a.m. December 02
December							
12/01/11	Southern California Edison (SCE)(WECC)	12:45 a.m.	Southern California	Severe Weather	Unknown	91,690	9:00 p.m. December 07
12/01/11	Pacific Gas and Electric(WECC)	3:29 a.m.	Northern California	Severe Weather	300	100,000	1:05 p.m. December 02
12/01/11	PacificCorp(WECC)	10:00 a.m.	Wasatch Front Area Utah	Severe Weather	Unknown	60,000	1:11 p.m. December 02
12/06/11	Montana Dakota Utilities(MRO)	8:00 a.m.	Bismarck-Mandan, North Dakota	Public Appeal to Reduce Electricity Usage	155	34,500	8:00 p.m. December 06
12/07/11	Dominion Virginia Power(SERC)	7:29 p.m.	Central Virginia	Severe Weather	240	60,000	10:57 p.m. December 07

Note: Estimates for 2011 are preliminary.

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