



**Connecticut
Light & Power**

The Northeast Utilities System

the glenbrook
cables project

September 10, 2004

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CONNECTICUT
SITING COUNCIL

Ms. Pamela B. Katz
Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. CSC 292 - Glenbrook Cables Project

Dear Ms. Katz:

This letter provides the responses to the requests for information listed below.

Response to CSC-01 Interrogatories dated 08/19/2004

CSC - 001 , 002 , 003 , 005 , 006 , 007 , 008 , 009 , 010 , 011 , 014 , 015 , 016

Respectfully submitted,

THE CONNECTICUT LIGHT AND
POWER COMPANY

By: 
P. George Corrigan
Project Manager
Glenbrook Cables Project

PCG/ssn
cc: Service List

SERVICE LIST

Docket: CSC 292

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The Connecticut Light and Power Company
Docket No. CSC 292

Data Request CSC-01
Dated: 08/19/2004
Q- CSC-001
Page 1 of 1

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Document for each year over the past ten years peak demand and mean demand for the State of Connecticut and the Norwalk-Stamford Sub-area.

Response:

Year	Summer Peak Data (MW)		Mean Demand (MW) Connecticut
	Connecticut	Norwalk-Stamford	
1994	5812	962	3466
1995	5863	986	3429
1996	5343	931	3471
1997	6019	1043	3480
1998	5836	1029	3497
1999	6345	1142	3597
2000	5900	1018	3622
2001	6795	1195	3676
2002	6851	1207	3750
2003	6604	1141	3792

Notes:

1. Total Connecticut is assumed to be the sum of CL&P, UI and CMEEC.
2. Peaks are non-coincident peaks, but coincidence factor should be greater than 98%.
3. Mean demand has been calculated as output/hours.
4. The mean demand is not available for the Norwalk-Stamford area.

The Connecticut Light and Power Company
Docket No. CSC 292

Data Request CSC-01
Dated: 08/19/2004
Q- CSC-002
Page 1 of 3

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Provide load data in megawatts for local load served from all present (or former) bulk substations in Southwest Connecticut for 1980, 1990, 2000 and 2003 at time of coincident Connecticut system peak.

Response:

Please see the attached spreadsheet.

[illegible]

[illegible]

The Connecticut Light and Power Company
Docket No. CSC 292

Data Request CSC-01
Dated: 08/19/2004
Q- CSC-003
Page 1 of 1

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Document availability and reliability of all major generating units (by individual unit) in Southwest Connecticut for the years 1980, 1990 and 2000.

Response:

As stated in the response to Docket No. 217, Q-CSC-009, CL&P has been unable to locate records that would provide the requested information relating to its divested generation assets.

The Connecticut Light and Power Company
Docket No. CSC 292

Data Request CSC-01
Dated: 08/19/2004
Q- CSC-005
Page 1 of 15

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Document reliability of each 115-kV transmission line connecting Southwest Connecticut with the rest of Connecticut since 1990. List cause of each outage and duration.

Response:

The attached spreadsheet documents reliability of transmission lines connecting and within Southwest Connecticut. It is important to note that due to the widespread severity of the August 14, 2003 blackout, this data is not available and has not been included.

<u>Year</u>	<u>Line</u>	<u>Cause</u>	<u>Outage Time</u>	<u>Rest Time</u>	<u>Duration</u>	
1990	1389	Lightning	9/2/90 21:01	9/2/90 21:01	0:00	
1990	1430	Lightning	9/2/90 21:01	9/2/90 21:01	0:00	
1990	1508	Lightning	10/14/90 0:42	10/14/90 0:42	0:00	
1990	1555	Unknown	7/24/90 0:40	7/24/90 0:40	0:00	
1990	1560	Bus Support	6/29/90 9:04	6/29/90 9:04	0:00	
1990	1565	Squirrel	12/14/90 15:15	12/14/90 15:15	0:00	
1990	1575	Inadvertent Trip	6/30/90 7:53	6/30/90 7:57	0:04	
1990	1575	Unknown	5/3/90 18:24	5/3/90 18:24	0:00	
1990	1610	Inadvertent Trip	8/2/90 14:12	8/2/90 14:12	0:00	
1990	1610	Lightning	6/18/90 17:09	6/18/90 17:17	0:08	
1990	1630	Unknown	7/12/90 10:11	7/12/90 10:11	0:00	
1990	1685	Lightning	6/18/90 17:09	6/18/90 17:09	0:00	
1990	1690	Raccoon	4/24/90 22:06	4/24/90 22:06	0:00	
1990	1690	Tree	1/24/90 11:40	1/24/90 12:45	1:05	
1990	1710	Lightning	9/2/90 21:01	9/2/90 21:01	0:00	
1990	1730	Unknown	11/12/90 17:01	11/12/90 17:01	0:00	
1990	1780	Overtrip	3/21/90 8:49	3/21/90 8:49	0:00	
1990	1867	Squirrel	5/17/90 8:45	5/17/90 8:45	0:00	
1990	1876	Bus Support	6/29/90 9:04	6/29/90 9:04	0:00	
1990	1887	Squirrel	11/28/90 7:44	11/28/90 7:44	0:00	
1990	1990	Bus Support	6/29/90 9:04	6/29/90 9:11	0:07	
1990	8100	Lig Arrester	8/13/90 16:27	8/13/90 17:37	1:10	
1990	8300	Unknown	12/3/90 21:49	12/3/90 23:24	1:35	
1990	8400	Unknown	12/1/90 17:29	12/1/90 18:50	1:21	
1990	8400	Lig Arrester	8/13/90 16:27	8/13/90 16:28	0:01	
1990	8400	Overtrip	6/18/90 17:09	6/18/90 17:21	0:12	
1990	8600	Unknown	9/14/90 5:04	9/14/90 5:04	0:00	
1990	8700	Overtrip	8/18/90 11:10	8/18/90 12:07	0:57	
1990	84004	Phase Shifter	8/6/90 9:00	8/6/90 11:15	2:15	
1990	91001	Inadvertent Trip	10/17/90 16:30	10/17/90 16:37	0:07	
1990	91001	Xfmr Fault	10/17/90 8:47	10/17/90 8:47	0:00	
1990	88005A	Inadvertent Trip	2/8/90 13:52	2/8/90 13:52	0:00	
1990	89003B	Lig Arrester	8/13/90 16:27	8/13/90 16:28	0:01	
1990	89003B	Inadvertent Trip	4/27/90 7:46	4/27/90 7:50	0:04	
1990	89005B	Unknown	11/17/90 17:30	11/17/90 18:34	1:04	
1990	89006B	Overtrip	11/17/90 17:06	11/17/90 17:16	0:10	
1991	1060	Overtrip	12/18/91 21:16	12/18/91 21:16	0:00	
1991	1060	Overtrip	12/18/91 19:07	12/18/91 19:07	0:00	
1991	1130	Lightning	8/20/91 17:42	8/20/91 17:42	0:00	
1991	1130	Overtrip	8/19/91 11:09	8/19/91 11:09	0:00	
1991	1222	breaker	7/23/91 17:03	no data	no data	
1991	1238	Lightning	7/23/91 16:49	7/23/91 16:49	0:00	
1991	1337	Lig Arrester	no data	no data	no data	
1991	1337	Lig Arrester	12/18/91 19:07	no data	no data	
1991	1430	relay failure	8/19/91 11:09	8/19/91 11:19	0:10	
1991	1470	Tree	11/27/91 15:17	11/27/91 16:04	0:47	
1991	1470	Unknown	10/27/91 5:40	10/27/91 5:40	0:00	
1991	1470	Unknown	10/1/91 6:18	10/1/91 6:18	0:00	
1991	1470	Lightning	6/16/91 17:49	6/16/91 17:49	0:00	
1991	1545	Overtrip	5/30/91 20:26	5/30/91 20:26	0:00	
1991	1555	Inadvertent Trip	12/16/91 9:03	12/16/91 9:34	0:31	
1991	1560	Xfmr Fault	11/18/91 6:55	11/18/91 6:55	0:00	
1991	1565	Unknown	10/27/91 5:40	10/27/91 5:40	0:00	
1991	1565	Overtrip	10/1/91 6:18	10/1/91 6:18	0:00	
1991	1570	Lightning	6/16/01 15:46	6/16/01 15:46	0:00	

1991	1580	wind	3/28/91 16:01	3/28/91 16:01	0:00	
1991	1580	wind	3/28/91 14:15	3/28/91 14:15	0:00	
1991	1580	wind	3/28/91 14:08	3/28/91 14:08	0:00	
1991	1583	Lightning	6/16/01 15:46	6/16/01 15:46	0:00	
1991	1594	Xfmr Fault	11/18/91 6:55	11/18/91 6:55	0:00	
1991	1622	Lightning	7/26/91 15:29	7/26/91 15:29	0:00	
1991	1640	Unknown	5/30/91 20:54	5/30/91 20:54	0:00	
1991	1650	Inadvertent Trip	5/31/91 18:46	5/31/91 18:46	0:00	
1991	1655	Inadvertent Trip	1/16/91 10:35	1/16/91 10:35	0:00	
1991	1668	cable	7/23/91 16:56	7/23/91 16:56	0:00	
1991	1685	Bad Relay	12/17/91 14:41	12/17/91 14:41	0:00	
1991	1690	Inadvertent Trip	10/16/91 14:05	10/16/91 14:30	0:25	
1991	1690	CCPD	10/15/91 17:07	10/15/91 17:21	0:14	
1991	1690	Lightning	5/30/91 20:26	5/30/91 20:26	0:00	
1991	1690	Lightning	5/30/91 19:57	5/30/91 19:57	0:00	
1991	1710	Lightning	7/23/91 16:56	7/23/91 16:56	0:00	
1991	1721	cable	7/24/91 16:51	7/24/91 16:51	0:00	
1991	1730	Lightning	7/23/91 16:56	7/23/91 16:56	0:00	
1991	1730	Lightning	7/23/91 16:42	7/23/91 16:47	0:05	
1991	1730	Lightning	7/23/91 15:32	7/23/91 15:32	0:00	
1991	1730	Overtrip	5/30/91 20:26	5/30/91 20:26	0:00	
1991	1740	xfmr failure	3/31/91 7:47	3/31/91 7:47	0:00	
1991	1770	relay problem	4/4/91 15:42	4/4/91 15:42	0:00	
1991	1813	Lightning	7/23/91 16:49	7/23/91 16:49	0:00	
1991	1867	Lightning	8/20/91 17:42	8/20/91 17:42	0:00	
1991	1887	Overtrip	8/23/91 10:24	8/23/91 11:38	1:14	
1991	1887	Lightning	7/26/91 15:37	7/26/91 15:41	0:04	
1991	1890	Lightning	8/20/91 17:42	8/20/91 17:42	0:00	
1991	1925	Conductor	8/23/91 10:24	8/23/91 13:25	3:01	
1991	1925	Lightning	7/26/91 15:37	7/26/91 15:41	0:04	
1991	1977	Lightning	8/20/91 17:42	8/20/91 17:42	0:00	
1991	8100	Overtrip	8/6/91 8:22	8/6/91 8:22	0:00	
1991	8100	Inadvertent Trip	3/2/91 7:53	3/2/91 7:58	0:05	
1991	8200	Overtrip	8/6/91 8:22	8/6/91 8:22	0:00	
1991	8300	Overtrip	8/6/91 8:22	8/6/91 8:22	0:00	
1991	8301	Xfmr Tap Mis	9/7/91 8:37	9/7/91 8:37	0:00	
1991	8400	Inadvertent Trip	8/29/91 11:20	8/29/01 11:20	0:00	
1991	8400	Lightning	5/30/91 20:11	5/30/91 20:11	0:00	
1991	8500	Overtrip	8/6/91 8:22	8/6/91 8:22	0:00	
1991	8600	Unknown	8/27/91 0:00	8/27/91 0:00	0:00	
1991	8600	Unknown	7/22/91 4:56	7/22/91 4:56	0:00	
1991	91001	line contact	3/17/91 17:16	3/17/91 17:16	0:00	
1991	91001	line contact	3/17/91 17:14	3/17/91 17:14	0:00	
1991	91001	xfmr failure	2/23/91 9:35	2/23/91 9:35	0:00	
1991	88003A	Inadvertent Trip	9/23/91 16:06	9/23/91 16:06	0:00	
1991	88003A	Tree	8/19/91 11:32	8/19/91 11:32	0:00	
1991	88003A	Overtrip	8/6/91 8:22	8/6/91 8:22	0:00	
1991	88005A	Tree	8/19/91 13:28	8/19/91 13:28	0:00	
1991	88005A	Tree	8/19/91 13:21	8/19/91 13:21	0:00	
1991	88005A	Tree	8/19/91 13:19	8/19/91 13:19	0:00	
1991	88005A	Lightning	6/12/91 16:32	6/12/91 16:35	0:03	
1991	88006A	Lightning	6/12/91 16:32	6/12/91 16:38	0:06	
1991	8809A	Inadvertent Trip	6/29/91 9:52	6/29/91 10:30	0:38	
1991	89006B	Mntc Grnd	9/21/91 14:11	9/21/91 14:11	0:00	
1991	8909A	Unknown	3/17/91 17:16	3/17/91 20:59	3:43	
1991	8909B	animal contact	6/13/91 3:03	6/13/91 6:36	3:33	
1992	1130	Unknown	03/14/1992 0:10	03/14/1992 0:10	0:00	

1992	1163	insulator	03/07/1992 2:51	03/07/1992 2:51	0:00	
1992	1272	Lightning	03/27/1992 17:56	03/27/1992 17:56	0:00	
1992	1445	Lightning	03/27/1992 17:56	03/27/1992 17:56	0:00	
1992	1470	animal contact	9/7/92 6:11	9/7/92 6:11	0:00	
1992	1508	Lightning	7/6/92 0:18	7/6/92 0:18	0:00	
1992	1508	animal contact	03/28/1992 7:02	03/28/1992 7:02	0:00	
1992	1555	Overtrip	5/3/92 4:37	no data	no data	
1992	1555	Lightning	5/2/92 22:15	5/2/92 22:35	0:20	
1992	1565	Lightning	8/11/92 15:54	8/11/92 15:54	0:00	
1992	1565	Lightning	8/11/92 15:47	8/11/92 15:47	0:00	
1992	1570	Inadvertent Trip	05/02/1992 10:12	05/02/1992 10:12	0:00	
1992	1583	Lightning	7/29/92 18:37	7/29/92 18:37	0:00	
1992	1583	Inadvertent Trip	05/02/1992 10:12	05/02/1992 10:12	0:00	
1992	1585	Lightning	03/27/1992 17:56	03/27/1992 17:56	0:00	
1992	1594	Lightning	7/29/92 18:37	7/29/92 18:37	0:00	
1992	1610	static wire	6/4/92 20:38	6/4/92 20:43	0:05	
1992	1630	Conductor	8/27/92 5:26	8/27/92 5:26	0:00	
1992	1630	Conductor	8/27/92 5:11	8/27/92 5:11	0:00	
1992	1668	Inadvertent Trip	03/12/1992 10:16	03/12/1992 10:16	0:00	
1992	1685	Unknown	8/7/92 9:35	8/7/92 9:35	0:00	
1992	1685	Unknown	02/05/1992 15:30	02/05/1992 15:30	0:00	
1992	1690	relay failure	12/11/92 13:16	12/11/92 13:16	0:00	
1992	1690	Lightning	03/27/1992 18:40	03/27/1992 18:40	0:00	
1992	1710	Inadvertent Trip	6/30/92 9:21	6/30/92 9:21	0:00	
1992	1730	Unknown	02/19/1992 8:15	02/19/1992 8:25	0:10	
1992	1753	xfmr failure	10/10/92 15:22	10/10/92 17:37	2:15	
1992	1760	Lightning	8/11/92 15:54	8/11/92 15:54	0:00	
1992	1760	Lightning	8/11/92 15:47	8/11/92 15:47	0:00	
1992	1760	blown fuse	02/14/1991 16:20	02/14/1991 16:23	0:03	
1992	1813	Overtrip	12/11/92 14:19	12/11/92 14:19	0:00	
1992	1876	Lightning	8/11/92 15:54	8/11/92 15:54	0:00	
1992	1876	Lightning	8/11/92 15:47	8/11/92 15:47	0:00	
1992	1910	insulator	03/07/1992 2:51	03/07/1992 2:51	0:00	
1992	1925	Unknown	12/11/92 12:22	12/11/92 12:22	0:00	
1992	1990	Unknown	12/11/92 12:22	12/11/92 12:22	0:00	
1992	1990	Unknown	6/27/92 16:06	6/27/92 16:06	0:00	
1992	8100	Lightning	8/11/92 15:49	8/11/92 15:49	0:00	
1992	8200	Lightning	8/11/92 15:59	8/11/92 15:59	0:00	
1992	8400	dist. fault	12/12/92 11:03	12/12/92 11:03	0:00	
1992	91001	relay misoper.	8/10/92 11:07	8/10/92 12:01	0:54	
1992	91001	Unknown	8/7/92 9:34	8/7/92 9:34	0:00	
1992	91001	Overtrip	5/21/92 12:58	5/21/92 14:46	1:48	
1992	91001	metal oxide valve	02/25/1992 11:12	02/25/1992 11:12	0:00	
1992	91001	fire	02/19/1992 16:43	02/19/1992 17:05	0:22	
1992	91001	Inadvertent Trip	02/19/1992 16:02	02/19/1992 16:40	0:38	
1992	91001	Inadvertent Trip	02/19/1992 14:43	02/19/1992 15:01	0:18	
1992	86006A	Lightning	8/11/92 16:51	8/11/92 16:51	0:00	
1992	8809A	Lightning	03/27/1992 18:40	03/27/1992 21:01	2:21	
1992	8809A	Overtrip	02/25/1992 11:12	02/25/1992 11:37	0:25	
1992	89003B	Inadvertent Trip	03/05/1992 13:02	03/05/1992 14:34	1:32	
1992	89003B	Inadvertent Trip	03/05/1992 11:45	03/05/1992 12:38	0:53	
1992	89005B	relay misoper.	9/15/92 15:45	9/15/92 16:45	1:00	
1992	89005B	Overtrip	7/19/92 10:49	7/19/92 10:49	0:00	
1992	89005B	Unknown	6/19/92 7:22	6/19/92 7:30	0:08	
1993	1060	Cause Undetermined	4/22/93 11:20	4/22/93 11:20	0:00	
1993	1238	Lightning	8/16/93 5:39	8/16/93 5:39	0:00	
1993	1238	Lightning	8/28/93 15:33	8/28/93 15:33	0:00	

1993	1238	Lightning	9/3/93 22:39	9/3/93 22:39	0:00	
1993	1238	Lightning	9/3/93 22:17	9/3/93 22:17	0:00	
1993	1272	Cause Undetermined	8/28/93 22:50	8/28/93 22:50	0:00	
1993	1450	Squirrel	6/27/93 12:35	6/27/93 12:35	0:00	
1993	1460	Lightning	7/8/93 23:29	7/8/93 23:29	0:00	
1993	1460	Cause Undetermined	9/5/93 13:16	no data	no data	
1993	1508	Lightning	8/16/93 16:44	8/16/93 16:44	0:00	
1993	1508	Lightning	8/28/93 17:31	8/28/93 17:31	0:00	
1993	1508	Lightning	10/12/93 19:29	10/12/93 19:29	0:00	
1993	1508	Misoperation	5/25/93 16:05	5/25/93 16:20	0:15	
1993	1555	Lightning	9/10/93 5:27	9/10/93 5:27	0:00	
1993	1575	Breaker	3/14/93 17:28	3/14/93 17:28	0:00	
1993	1575	Lightning	8/16/93 15:03	8/16/93 15:03	0:00	
1993	1610	Bad Relay	11/20/93 22:48	11/20/93 22:48	0:00	
1993	1630	Lightning	7/7/93 20:08	7/7/93 20:08	0:00	
1993	1637	Overtrip	11/28/93 6:18	11/28/93 6:20	0:02	
1993	1640	Lightning	8/28/93 16:14	8/28/93 16:14	0:00	
1993	1655	Overtrip	3/13/93 16:22	3/13/93 16:22	0:00	
1993	1668	Lightning	8/28/93 16:09	8/28/93 16:09	0:00	
1993	1685	Cause Undetermined	5/2/93 6:06	5/2/93 6:06	0:00	
1993	1685	Transfer Trip	7/19/93 16:00	7/19/93 16:00	0:00	
1993	1685	Cause Undetermined	7/22/93 12:13	7/22/93 12:13	0:00	
1993	1685	Lightning	8/28/93 16:14	8/28/93 16:14	0:00	
1993	1685	Tree	10/12/93 14:18	10/12/93 14:18	0:00	
1993	1690	Lightning	7/7/93 21:08	7/7/93 21:08	0:00	
1993	1690	Lightning	8/28/93 16:14	8/28/93 16:14	0:00	
1993	1690	Lightning	8/28/93 16:36	8/28/93 16:36	0:00	
1993	1690	Conductor	9/8/93 2:07	9/8/93 2:07	0:00	
1993	1690	Conductor	9/9/93 12:16	9/9/93 12:16	0:00	
1993	1690	Static Wire	2/17/93 5:25	no data	no data	
1993	1710	Transformer	3/31/93 9:40	3/31/93 9:40	0:00	
1993	1710	Cause Undetermined	5/2/93 23:00	5/2/93 23:00	0:00	
1993	1720	Lightning	6/9/93 15:35	6/9/93 15:35	0:00	
1993	1721	Lightning	8/28/93 16:09	8/28/93 16:09	0:00	
1993	1730	Overtrip	2/12/93 20:07	2/12/93 20:07	0:00	
1993	1730	Transfer Trip	6/25/93 10:16	6/25/93 10:16	0:00	
1993	1730	Insulator	11/28/93 6:18	11/28/93 6:20	0:02	
1993	1730	Insulator	6/9/93 16:29	6/9/93 16:34	0:05	
1993	1730	Lightning	6/9/93 15:35	no data	no data	
1993	1753	Misoperation	6/15/93 8:56	6/15/93 8:56	0:00	
1993	1813	Lightning	8/16/93 5:39	8/16/93 5:39	0:00	
1993	1813	Lightning	8/28/93 15:33	8/28/93 15:33	0:00	
1993	1813	Lightning	9/3/93 22:39	9/3/93 22:39	0:00	
1993	1813	Lightning	9/3/93 22:17	9/3/93 22:17	0:00	
1993	1876	Relay Testing	3/16/93 11:59	3/16/93 11:59	0:00	
1993	1890	Cause Undetermined	12/19/93 22:02	12/19/93 22:02	0:00	
1993	8300	Lightning Arrestor	3/15/93 18:38	3/15/93 18:38	0:00	
1993	8300	Incorrect Settings	7/27/93 3:07	7/27/93 3:07	0:00	
1993	8400	Cause Undetermined	2/12/93 22:35	2/12/93 22:35	0:00	
1993	8500	Cause Undetermined	2/5/93 9:29	2/5/93 9:29	0:00	
1993	8700	Relay Misop	5/24/93 14:18	no data	no data	
1993	88005A	Incorrect Sequence	4/16/93 6:31	4/16/93 6:31	0:00	
1993	88006A	Galloping Conductors	2/12/93 22:01	2/12/93 22:01	0:00	
1993	8809A	Broken Anchor	11/21/93 12:58	no data	no data	
1993	89005B	Overtrip	3/31/93 9:34	3/31/93 9:34	0:00	
1994	1060	Lightning	5/1/94 11:17	5/1/94 11:17	0:00	

1994	1238	Lightning	6/14/94 20:33	6/14/94 20:33	0:00	
1994	1238	Cause Undetermined	9/27/94 8:26	9/27/94 8:26	0:00	
1994	1272	Lightning	6/14/94 21:16	6/14/94 21:16	0:00	
1994	1272	Lightning	6/15/94 0:29	6/15/94 0:29	0:00	
1994	1272	Overtrip	10/16/94 0:32	10/16/94 0:32	0:00	
1994	1430	Accidental Contact	3/31/94 11:39	no data	no data	
1994	1445	Lightning	6/14/94 21:16	6/14/94 21:16	0:00	
1994	1445	Lightning	6/15/94 0:29	6/15/94 0:29	0:00	
1994	1460	Accidental Contact	6/30/94 18:45	6/30/94 18:45	0:00	
1994	1545	Incorrect Sequence	5/14/94 20:18	5/14/94 20:18	0:00	
1994	1545	Cause Undetermined	7/8/94 16:08	7/8/94 16:08	0:00	
1994	1545	Cause Undetermined	7/8/94 16:17	7/8/94 16:17	0:00	
1994	1545	Cause Undetermined	7/26/94 18:31	7/26/94 18:31	0:00	
1994	1555	Ground	3/22/94 13:49	no data	no data	
1994	1560	Lightning	7/8/94 16:06	7/8/94 16:06	0:00	
1994	1560	Lightning	6/15/94 0:29	6/15/94 0:41	0:12	
1994	1565	Raccoon	8/5/94 2:50	8/5/94 2:50	0:00	
1994	1570	Lightning	6/14/94 21:16	6/14/94 21:16	0:00	
1994	1570	Lightning	6/15/94 0:29	6/15/94 0:29	0:00	
1994	1570	Lightning	7/8/94 16:06	7/8/94 16:06	0:00	
1994	1570	Conductor	7/8/94 16:08	7/8/94 16:08	0:00	
1994	1575	Lightning	6/14/94 21:03	6/14/94 21:03	0:00	
1994	1580	Cause Undetermined	1/17/94 14:02	1/17/94 14:02	0:00	
1994	1580	Lightning	6/14/94 21:16	6/14/94 21:16	0:00	
1994	1580	Cause Undetermined	7/8/94 16:08	7/8/94 16:08	0:00	
1994	1580	Cause Undetermined	7/8/94 16:17	7/8/94 16:17	0:00	
1994	1580	Cause Undetermined	7/8/94 16:19	7/8/94 16:19	0:00	
1994	1580	Cause Undetermined	7/8/94 16:25	7/8/94 16:25	0:00	
1994	1610	Breaker	2/25/94 16:52	no data	no data	
1994	1618	Cause Undetermined	9/26/94 13:33	9/26/94 13:33	0:00	
1994	1630	Type Not Recorded	6/13/94 9:25	6/13/94 9:25	0:00	
1994	1630	Cause Undetermined	6/28/94 5:41	no data	no data	
1994	1637	Transfer Trip	4/22/94 1:48	4/22/94 1:48	0:00	
1994	1637	Cause Undetermined	7/8/94 16:08	7/8/94 16:08	0:00	
1994	1637	Cause Undetermined	8/14/94 12:13	8/14/94 12:13	0:00	
1994	1637	Transfer Trip	4/16/94 8:06	no data	no data	
1994	1640	Overtrip	9/27/94 8:53	9/27/94 8:53	0:00	
1994	1655	Type Not Recorded	6/13/94 9:25	6/13/94 9:25	0:00	
1994	1655	Cause Undetermined	6/28/94 5:41	no data	no data	
1994	1685	Cause Undetermined	7/26/94 18:31	7/26/94 18:31	0:00	
1994	1690	Overtrip	2/25/94 16:52	2/25/94 16:52	0:00	
1994	1690	Conductor	6/18/94 16:52	6/18/94 16:52	0:00	
1994	1690	Cause Undetermined	7/26/94 18:31	7/26/94 18:31	0:00	
1994	1690	Cause Undetermined	9/27/94 8:53	no data	no data	
1994	1730	Overtrip	1/17/94 14:02	1/17/94 14:02	0:00	
1994	1730	Lightning	7/8/94 16:08	7/8/94 16:08	0:00	
1994	1730	Cause Undetermined	7/8/94 16:10	7/8/94 16:10	0:00	
1994	1730	Incorrect Sequence	10/31/94 8:22	10/31/94 8:22	0:00	
1994	1730	Galloping Conductors	3/3/94 5:12	no data	no data	
1994	1792	Cause Undetermined	8/26/94 14:52	8/26/94 14:52	0:00	
1994	1813	Lightning	6/14/94 20:33	6/14/94 20:33	0:00	
1994	1813	Overtrip	8/21/94 16:31	8/21/94 16:31	0:00	
1994	1813	Cause Undetermined	9/27/94 8:26	9/27/94 8:26	0:00	
1994	1867	Type Not Recorded	11/14/94 9:37	no data	no data	
1994	1880	Lightning	6/15/94 0:51	6/15/94 0:51	0:00	
1994	1890	Cause Undetermined	1/12/94 21:57	1/12/94 21:57	0:00	

1994	1890	Relay Misop	2/2/94 11:35	2/2/94 11:35	0:00	
1994	1890	Incorrect Test Seq	3/29/94 13:07	3/29/94 13:07	0:00	
1994	1990	Lightning	6/14/94 21:03	6/14/94 21:03	0:00	
1994	91001	Lightning Arrestor	1/17/94 14:02	no data	no data	
1994	91001	Galloping Conductors	3/3/94 5:12	no data	no data	
1994	88006A	Lightning	3/10/94 1:15	3/10/94 1:15	0:00	
1994	88006A	Cause Undetermined	7/26/94 18:27	7/26/94 18:27	0:00	
1994	88006A	Tree	12/17/94 14:57	12/17/94 14:57	0:00	
1994	88006A	Tree	12/17/94 15:05	12/17/94 15:05	0:00	
1994	8809A	Lightning	3/10/94 1:15	3/10/94 1:15	0:00	
1994	89005B	Cause Undetermined	5/29/94 17:58	5/29/94 17:58	0:00	
1994	89005B	Tree	7/16/94 15:13	7/16/94 15:13	0:00	
1994	89005B	Misoperation	10/26/94 16:08	10/26/94 16:08	0:00	
1995	1130	Foreign Material	11/10/95 13:01	11/10/95 13:01	0:00	
1995	1165	CCVT	12/5/95 14:15	12/5/95 14:15	0:00	
1995	1238	Lightning	5/29/95 21:59	5/29/95 21:59	0:00	
1995	1238	Lightning	5/29/95 23:02	5/29/95 23:02	0:00	
1995	1238	Lightning	8/2/95 17:06	8/2/95 17:06	0:00	
1995	1238	Lightning	8/2/95 17:14	8/2/95 17:14	0:00	
1995	1238	Lightning	8/2/95 17:15	8/2/95 17:15	0:00	
1995	1238	Lightning	8/2/95 17:29	8/2/95 17:29	0:00	
1995	1440	Tree	6/16/95 12:48	no data	no data	
1995	1450	Squirrel	1/7/95 12:02	1/7/95 12:02	0:00	
1995	1545	Transfer Trip	8/27/95 10:03	no data	no data	
1995	1545	Cause Undetermined	8/27/95 10:03	no data	no data	
1995	1560	Incorrect Sequence	1/6/95 13:46	1/6/95 13:46	0:00	
1995	1560	Lightning	4/19/95 11:00	4/19/95 11:00	0:00	
1995	1560	Lightning	7/27/95 16:20	7/27/95 16:20	0:00	
1995	1560	Lightning	7/29/95 2:02	7/29/95 2:02	0:00	
1995	1560	Overtrip	12/17/95 9:29	no data	no data	
1995	1565	Lightning Arrestor	6/27/95 8:42	6/27/95 8:42	0:00	
1995	1565	Lightning	8/2/95 17:16	8/2/95 17:16	0:00	
1995	1570	Lightning	4/19/95 11:00	4/19/95 11:00	0:00	
1995	1570	Other	5/28/95 3:38	5/28/95 3:38	0:00	
1995	1570	Lightning	7/27/95 16:20	7/27/95 16:20	0:00	
1995	1570	Overtrip	6/11/95 6:51	no data	no data	
1995	1580	Cause Undetermined	9/5/95 13:30	9/5/95 13:30	0:00	
1995	1580	Cross-Arm	10/23/95 11:23	10/23/95 11:23	0:00	
1995	1610	Tree	11/12/95 2:20	11/12/95 2:20	0:00	
1995	1618	Cause Undetermined	3/17/95 3:28	3/17/95 3:28	0:00	
1995	1618	Overtrip	4/19/95 11:00	4/19/95 11:00	0:00	
1995	1618	Under Investigation	4/19/95 16:15	4/19/95 16:15	0:00	
1995	1618	Cause Undetermined	4/30/95 16:41	4/30/95 16:41	0:00	
1995	1630	Raccoon	7/18/95 8:25	no data	no data	
1995	1630	Bird	8/9/95 7:17	no data	no data	
1995	1637	Lightning	4/4/95 14:16	4/4/95 14:16	0:00	
1995	1640	Overtrip	2/13/95 13:32	2/13/95 13:32	0:00	
1995	1640	Cause Undetermined	11/12/95 2:20	11/12/95 2:20	0:00	
1995	1640	Cause Undetermined	7/26/95 12:29	no data	no data	
1995	1640	Cause Undetermined	7/26/95 13:40	no data	no data	
1995	1685	Tree	5/25/95 11:09	5/25/95 11:09	0:00	
1995	1685	Overtrip	7/26/95 12:29	7/26/95 12:29	0:00	
1995	1685	Cause Undetermined	7/27/95 16:20	7/27/95 16:20	0:00	
1995	1685	Cross-Arm	12/17/95 9:29	12/17/95 9:29	0:00	
1995	1690	Cause Undetermined	7/29/95 2:24	7/29/95 2:24	0:00	
1995	1690	Breaker	2/13/95 13:32	no data	no data	

1995	1730	Cause Undetermined	7/27/95 16:20	7/27/95 16:20	0:00	
1995	1730	Cause Undetermined	7/27/95 16:20	7/27/95 16:20	0:00	
1995	1730	Conductor	8/27/95 10:03	8/27/95 10:03	0:00	
1995	1750	Overtrip	6/16/95 12:48	6/16/95 12:48	0:00	
1995	1760	Lightning	7/11/95 2:37	7/11/95 2:37	0:00	
1995	1813	Lightning	5/29/95 21:59	5/29/95 21:59	0:00	
1995	1813	Lightning	5/29/95 23:02	5/29/95 23:02	0:00	
1995	1813	Lightning	8/2/95 17:06	8/2/95 17:06	0:00	
1995	1813	Lightning	8/2/95 17:14	8/2/95 17:14	0:00	
1995	1813	Lightning	8/2/95 17:15	8/2/95 17:15	0:00	
1995	1813	Lightning	8/2/95 17:29	8/2/95 17:29	0:00	
1995	1867	Bird	3/15/95 9:35	3/15/95 9:35	0:00	
1995	1887	Overtrip	5/29/95 23:02	5/29/95 23:02	0:00	
1995	1890	Cause Undetermined	3/14/95 19:49	3/14/95 19:49	0:00	
1995	1890	Cause Undetermined	3/15/95 8:32	3/15/95 8:32	0:00	
1995	1890	Overtrip	5/14/95 18:17	5/14/95 18:17	0:00	
1995	1890	Cause Undetermined	10/16/95 20:24	10/16/95 20:24	0:00	
1995	1990	Lightning	4/4/95 14:10	4/4/95 14:10	0:00	
1995	8400	Cause Undetermined	8/23/95 1:20	no data	no data	
1995	9500	Lightning	11/12/95 2:31	11/12/95 2:31	0:00	
1995	9500	Incorrect Sequence	2/17/95 7:36	2/17/95 7:41	0:05	
1995	9500	Incorrect Sequence	2/17/95 7:36	2/17/95 7:41	0:05	
1995	91001	Bad Relay	10/2/95 13:01	no data	no data	
1995	91001	Foreign Material	11/10/95 13:16	no data	no data	
1995	88006A	Cause Undetermined	7/27/95 16:20	7/27/95 16:20	0:00	
1995	89003B	Lightning	7/18/95 0:07	7/18/95 0:07	0:00	
1995	89003B	Overtrip	7/27/95 16:20	7/27/95 16:20	0:00	
1995	8904B	Other	3/9/95 2:40	3/9/95 2:40	0:00	
1996	1238	Line Equipment	4/26/96 1:59	4/26/96 3:19	1:20	
1996	1238	Lightning	7/9/96 18:59	7/9/96 18:59	0:00	
1996	1238	Lightning	8/27/96 15:55	8/27/96 15:55	0:00	
1996	1238	System Protection	11/22/96 22:29	11/22/96 22:29	0:00	
1996	1389	Line Equipment	3/25/96 14:29	3/25/96 17:27	2:58	
1996	1430	Other	5/7/96 11:46	5/7/96 11:46	0:00	
1996	1460	Substation Equipment	6/8/96 23:48	6/10/96 13:13	13:25	
1996	1555	System Protection	6/12/96 21:36	6/12/96 21:36	0:00	
1996	1555	System Protection	6/14/96 9:58	6/14/96 9:58	0:00	
1996	1560	System Protection	5/21/96 14:59	5/21/96 14:59	0:00	
1996	1570	Lightning	12/6/96 5:02	12/6/96 5:02	0:00	
1996	1575	Lightning	8/4/96 16:49	8/4/96 16:49	0:00	
1996	1575	Unknown	12/6/96 11:56	12/6/96 11:56	0:00	
1996	1575	Line Equipment	3/9/96 11:30	3/9/96 11:30	0:00	
1996	1580	Weather	5/21/96 14:59	5/21/96 14:59	0:00	
1996	1618	Lightning	7/9/96 18:43	7/9/96 18:43	0:00	
1996	1618	System Protection	4/26/96 1:59	4/26/96 1:59	0:00	
1996	1630	Unknown	2/25/96 8:57	2/25/96 8:57	0:00	
1996	1630	Line Equipment	4/10/96 6:03	4/10/96 12:52	6:49	
1996	1637	Line Equipment	9/17/96 20:49	9/17/96 20:49	0:00	
1996	1637	Lightning	9/22/96 18:21	no data	no data	
1996	1637	System Protection	3/25/96 15:22	3/25/96 15:22	0:00	
1996	1637	Unknown	4/10/96 7:38	4/10/96 7:38	0:00	
1996	1640	Other	11/15/96 10:34	11/15/96 10:34	0:00	
1996	1640	Unknown	12/6/96 12:33	12/6/96 12:33	0:00	
1996	1640	Line Equipment	4/10/96 6:03	4/10/96 13:22	7:19	
1996	1640	Unknown	6/7/96 14:51	6/7/96 21:17	6:26	
1996	1655	External	3/18/96 8:13	3/18/96 9:08	0:55	

1996	1668	Other	9/7/96 7:16	no data	no data	
1996	1690	Unknown	12/6/96 12:54	12/6/96 12:54	0:00	
1996	1690	Weather	12/7/96 23:42	12/7/96 23:42	0:00	
1996	1690	Weather	12/7/96 23:50	12/7/96 23:50	0:00	
1996	1690	Vegetation	2/25/96 9:10	2/25/96 11:11	2:01	
1996	1710	Lightning	9/17/96 20:49	9/17/96 20:49	0:00	
1996	1720	Lightning	9/22/96 18:21	9/22/96 18:21	0:00	
1996	1730	Line Equipment	9/17/96 20:49	9/17/96 20:49	0:00	
1996	1730	Lightning	9/22/96 18:21	no data	no data	
1996	1730	Line Equipment	4/10/96 3:31	4/10/96 16:19	12:48	
1996	1760	Lightning	7/9/96 18:53	7/9/96 18:53	0:00	
1996	1760	Lightning	8/4/96 16:49	8/4/96 16:49	0:00	
1996	1760	System Protection	5/21/96 14:59	5/21/96 14:59	0:00	
1996	1792	Other	10/13/96 8:38	10/13/96 8:38	0:00	
1996	1813	Line Equipment	4/26/96 1:59	4/26/96 3:19	1:20	
1996	1813	Lightning	7/9/96 18:59	7/9/96 18:59	0:00	
1996	1813	Lightning	8/27/96 15:55	8/27/96 15:55	0:00	
1996	1813	System Protection	11/22/96 22:29	11/22/96 22:29	0:00	
1996	1876	Lightning	7/9/96 18:53	7/9/96 18:53	0:00	
1996	1876	Lightning	8/4/96 16:49	8/4/96 16:49	0:00	
1996	1880	Lightning	9/22/96 18:21	9/22/96 18:21	0:00	
1996	1887	System Protection	4/26/96 1:59	no data	no data	
1996	1890	Substation Equipment	6/6/96 15:04	6/6/96 16:55	1:51	
1996	1990	Lightning	8/4/96 16:49	8/4/96 17:31	0:42	
1996	1990	Line Equipment	5/21/96 14:59	5/22/96 17:01	2:02	
1996	8200	Line Equipment	5/25/96 20:25	5/25/96 20:25	0:00	
1996	8200	System Protection	9/30/96 9:36	9/30/96 9:36	0:00	
1996	8300	System Protection	2/16/96 20:14	2/16/96 20:14	0:00	
1996	8400	System Protection	1/30/96 12:54	1/30/96 12:54	0:00	
1996	8400	System Protection	2/16/96 20:14	2/16/96 23:15	3:01	
1996	9500	Other	11/7/96 13:12	11/7/96 13:12	0:00	
1996	81001	System Protection	2/16/96 20:14	2/16/96 21:57	1:43	
1996	85005	System Protection	2/16/96 20:14	2/16/96 21:31	1:17	
1996	88003A	Other	9/30/96 9:39	9/30/96 9:39	0:00	
1996	88003A	Substation Equipment	10/8/96 23:46	10/9/96 6:12	6:26	
1996	89003B	Other	2/5/96 13:37	2/5/96 13:50	0:13	
1997	1270	System Protection	4/11/97 10:45	4/11/97 12:22	1:37	
1997	1272	Line Equipment	9/22/97 9:18	9/22/97 10:25	1:07	
1997	1389	Lightning	6/22/97 15:02	6/22/97 15:02	0:00	
1997	1416	System Protection	10/31/97 14:16	10/31/97 14:16	0:00	
1997	1430	System Protection	6/8/97 19:04	6/8/97 19:10	0:06	
1997	1560	System Protection	5/2/97 20:38	5/2/97 20:38	0:00	
1997	1560	Lightning	8/29/97 9:57	8/29/97 9:57	0:00	
1997	1565	Lightning	6/13/97 15:22	6/13/97 15:22	0:00	
1997	1565	Lightning	8/16/97 18:17	8/16/97 18:17	0:00	
1997	1570	Lightning	8/29/97 9:57	8/29/97 9:57	0:00	
1997	1585	Substation Equipment	2/10/97 20:07	2/10/97 22:33	2:26	
1997	1622	Lightning	7/15/97 17:55	7/15/97 17:55	0:00	
1997	1637	Lightning	6/13/97 14:51	6/13/97 14:51	0:00	
1997	1640	Lightning	7/15/97 19:22	7/15/97 19:22	0:00	
1997	1685	Lightning	7/16/97 19:22	7/16/97 19:22	0:00	
1997	1690	External	5/29/97 21:05	5/29/97 21:05	0:00	
1997	1690	Lightning	7/15/97 19:22	7/15/97 19:22	0:00	
1997	1710	Lightning	6/13/97 14:51	6/13/97 14:51	0:00	

1997	1730	System Protection	10/24/97 9:51	10/24/97 9:55	0:04	
1997	1740	Unknown	5/21/97 12:48	5/21/97 12:48	0:00	
1997	1740	Other	6/13/97 10:56	6/13/97 10:59	0:03	
1997	1750	Lightning	6/22/97 15:02	6/22/97 15:02	0:00	
1997	1867	External	6/2/97 10:21	6/2/97 11:37	1:16	
1997	1867	Lightning	6/22/97 15:02	6/22/97 15:02	0:00	
1997	1887	Lightning	7/15/97 17:55	7/15/97 17:55	0:00	
1997	1890	System Protection	3/31/97 19:12	3/31/97 19:12	0:00	
1997	1890	Unknown	4/26/97 4:31	no data	no data	
1997	1890	Unknown	6/8/97 19:04	6/8/97 19:06	0:02	
1997	8300	Line Equipment	1/28/97 11:22	1/28/97 11:22	0:00	
1997	88003A	System Protection	1/28/97 11:23	1/28/97 11:23	0:00	
1997	88005A	Vegetation	10/22/97 13:10	10/22/97 13:10	0:00	
1998	1130	Lightning	7/23/98 13:57	7/23/98 13:57	0:00	
1998	1130	Substation Equipment	1/2/98 13:33	1/2/98 13:33	0:00	
1998	1238	Line Equipment	7/1/98 8:43	7/1/98 8:43	0:00	
1998	1238	Line Equipment	1/16/98 2:36	1/16/98 13:06	10:30	
1998	1238	Unknown	2/7/98 17:17	2/7/98 17:19	0:02	
1998	1238	Lightning	7/17/98 21:09	7/17/98 21:09	0:00	
1998	1238	Lightning	10/1/98 2:03	no data	no data	
1998	1389	Line Equipment	1/23/98 7:55	1/23/98 18:50	10:55	
1998	1389	Unknown	9/4/98 17:11	9/4/98 18:49	1:38	
1998	1416	Lightning	7/23/98 13:57	7/23/98 13:57	0:00	
1998	1450	External	10/10/98 8:50	10/10/98 10:55	2:05	
1998	1460	External	12/8/98 10:09	12/19/98 15:41	5:32	
1998	1508	System Protection	12/8/98 10:09	no data	no data	
1998	1545	Lightning	6/1/98 1:04	6/1/98 1:04	0:00	
1998	1565	Lightning	5/31/98 22:47	5/31/98 22:47	0:00	
1998	1565	Lightning	7/23/98 17:28	7/23/98 17:28	0:00	
1998	1580	Line Equipment	2/5/98 10:40	2/5/98 19:24	8:44	
1998	1580	Lightning	9/27/98 20:50	9/27/98 20:50	0:00	
1998	1585	Line Equipment	2/5/98 10:40	2/5/98 19:24	8:44	
1998	1585	System Protection	9/27/98 2:23	9/27/98 2:23	0:00	
1998	1585	Unknown	10/17/98 8:00	10/17/98 8:00	0:00	
1998	1610	Line Equipment	5/30/98 5:04	5/30/98 15:01	9:57	
1998	1610	Lightning	6/3/98 0:26	no data	no data	
1998	1610	Lightning	8/26/98 2:07	no data	no data	
1998	1610	Lightning	9/27/98 2:23	no data	no data	
1998	1622	System Protection	8/11/98 18:33	8/11/98 18:33	0:00	
1998	1630	Weather	2/5/98 13:12	2/5/98 13:14	0:02	
1998	1637	Unknown	5/2/98 8:16	5/2/98 8:16	0:00	
1998	1637	Lightning	5/31/98 22:56	5/31/98 22:56	0:00	
1998	1637	System Protection	9/4/98 17:11	9/4/98 17:11	0:00	
1998	1640	Line Equipment	9/22/98 9:54	10/2/98 19:47	9:53	
1998	1668	Lightning	7/20/98 18:58	7/20/98 18:58	0:00	
1998	1685	System Protection	5/31/98 23:09	5/31/98 23:09	0:00	
1998	1685	Lightning	6/1/98 1:04	6/1/98 1:04	0:00	
1998	1685	System Protection	6/3/98 0:26	6/3/98 0:26	0:00	
1998	1685	System Protection	6/3/98 0:31	6/3/98 0:31	0:00	
1998	1685	Lightning	8/26/98 2:08	8/26/98 2:08	0:00	
1998	1690	Line Equipment	1/16/98 5:53	1/16/98 13:07	7:14	
1998	1690	Unknown	1/16/98 13:18	1/16/98 13:53	0:35	
1998	1710	Lightning	5/31/98 23:09	5/31/98 23:09	0:00	
1998	1710	System Protection	12/18/98 7:26	12/18/98 15:17	7:51	
1998	1720	Lightning	5/31/98 22:56	no data	no data	
1998	1721	Lightning	7/20/98 18:58	no data	no data	

1998	1730	Lightning	5/31/98 22:56	5/31/98 22:56	0:00	
1998	1813	Line Equipment	1/16/98 2:36	1/16/98 13:06	10:30	
1998	1813	Unknown	2/7/98 17:17	2/7/98 17:19	0:02	
1998	1813	Unknown	2/7/98 17:17	2/7/98 17:19	0:02	
1998	1813	Line Equipment	7/1/98 8:43	no data	no data	
1998	1813	Lightning	7/17/98 21:09	7/17/98 21:09	0:00	
1998	1813	Lightning	10/1/98 2:03	10/1/98 2:03	0:00	
1998	1867	System Protection	12/5/98 4:23	12/5/98 4:58	0:35	
1998	1880	Lightning	9/7/98 14:47	9/7/98 14:47	0:00	
1998	1990	Line Equipment	10/17/98 8:00	10/19/98 16:40	8:40	
1998	8100	Lightning	2/18/98 3:19	2/18/98 3:19	0:00	
1998	88006A	Lightning	5/31/98 23:11	6/1/98 4:38	5:27	
1998	88006A	External	6/13/98 12:29	6/13/98 12:29	0:00	
1998	8809A	External	6/13/98 12:29	6/13/98 12:29	0:00	
1999	1165	System Protection	8/24/99 5:11	8/24/99 5:11	0:00	
1999	1165	System Protection	12/8/99 18:22	12/8/99 18:22	0:00	
1999	1238	Lightning	6/29/99 15:22	no data	no data	
1999	1272	System Protection	11/2/99 12:51	11/2/99 13:25	0:34	
1999	1430	Substation Equipment	9/18/99 18:35	9/18/99 18:35	0:00	
1999	1440	System Protection	9/13/99 12:43	9/13/99 17:02	4:19	
1999	1450	Substation Equipment	9/13/99 13:02	9/13/99 15:11	2:09	
1999	1560	Lightning	3/15/99 9:03	3/15/99 15:05	6:02	
1999	1565	System Protection	1/25/99 18:56	1/25/00 19:57	1:01	
1999	1565	System Protection	7/18/99 21:30	7/18/99 21:30	0:00	
1999	1565	System Protection	8/24/99 5:11	8/24/99 6:15	1:04	
1999	1565	Line Equipment	10/24/99 11:53	10/24/99 11:53	0:00	
1999	1565	System Protection	12/8/99 18:22	12/8/99 18:22	0:00	
1999	1585	Lightning	7/24/99 16:55	7/24/99 16:55	0:00	
1999	1585	External	9/7/99 13:18	9/7/99 19:53	6:35	
1999	1618	Lightning	3/15/99 2:06	3/15/99 2:09	0:03	
1999	1630	External	2/28/99 18:09	2/28/99 19:30	1:21	
1999	1637	System Protection	7/18/99 21:29	7/18/99 22:49	1:20	
1999	1637	System Protection	9/13/99 12:43	9/13/99 12:53	0:10	
1999	1637	System Protection	10/21/99 7:13	10/21/99 7:27	0:14	
1999	1640	External	9/7/99 13:18	9/7/99 22:56	9:38	
1999	1655	Vegetation	6/13/99 9:40	6/13/99 14:15	4:35	
1999	1685	Vegetation	3/15/99 4:59	3/15/99 15:46	10:47	
1999	1760	Line Equipment	10/24/99 11:53	10/24/99 11:53	0:00	
1999	1770	Weather	3/15/99 2:06	3/15/99 19:13	17:07	
1999	1792	External	9/13/99 12:43	11/1/99 12:56	0:13	
1999	1813	Lightning	6/29/99 15:22	6/29/99 15:22	0:00	
1999	1876	Line Equipment	10/24/99 11:53	no data	no data	
1999	1880	System Protection	2/26/99 0:01	2/26/99 0:28	0:27	
1999	1880	System Protection	9/6/99 22:05	9/6/99 22:36	0:31	
1999	1887	Lightning	3/15/99 2:06	3/15/99 2:09	0:03	
1999	1890	Substation Equipment	10/14/99 12:02	10/14/99 13:42	1:40	
1999	1990	System Protection	10/24/99 11:53	no data	no data	
2000	1222	Unknown	8/10/00 9:21	8/10/00 12:00	2:39	
2000	1238	Lightning	5/13/00 5:23	5/13/00 5:23	0:00	
2000	1238	Lightning	5/24/00 18:46	5/24/00 18:46	0:00	
2000	1238	Lightning	6/2/00 19:53	no data	no data	
2000	1238	Weather	12/17/00 9:41	12/17/00 9:41	0:00	
2000	1270	Substation Equipment	8/1/00 2:06	8/1/00 9:07	7:01	

2000	1389	Unknown	8/10/00 9:21	8/10/00 16:06	6.45	
2000	1416	Weather	12/12/00 12:25	12/12/00 12:25	0.00	
2000	1440	Unknown	6/8/00 13:16	6/8/00 13:16	0.00	
2000	1440	System Protection	8/10/00 9:21	8/10/00 9:21	0.00	
2000	1440	System Protection	9/26/00 13:13	9/26/00 13:13	0.00	
2000	1508	Lightning	6/11/00 16:56	6/11/00 16:56	0.00	
2000	1545	System Protection	12/3/00 5:42	12/3/00 5:42	0.00	
2000	1555	Unknown	9/2/00 4:22	9/2/00 4:22	0.00	
2000	1560	System Protection	3/5/00 2:25	3/5/00 2:25	0.00	
2000	1560	Lightning	6/11/00 16:50	6/11/00 16:50	0.00	
2000	1565	System Protection	1/25/00 15:50	1/25/00 15:52	0.02	
2000	1565	System Protection	5/8/00 16:29	no data	no data	
2000	1565	Lightning	5/9/00 22:51	5/9/00 22:51	0.00	
2000	1565	Lightning	5/10/00 18:22	5/10/00 20:39	2.17	
2000	1575	Lightning	6/11/00 16:26	6/11/00 16:26	0.00	
2000	1575	Lightning	6/11/00 16:32	6/11/00 16:32	0.00	
2000	1585	Lightning	6/11/00 16:26	6/11/00 20:35	4.09	
2000	1630	Lightning	6/2/00 20:06	6/2/00 20:06	0.00	
2000	1630	Unknown	8/25/00 3:00	8/25/00 8:27	5.27	
2000	1640	System Protection	1/19/00 15:10	1/19/00 15:10	0.00	
2000	1640	External	2/3/00 12:06	2/3/00 16:44	4.38	
2000	1668	Substation Equipment	5/5/00 10:50	5/22/00 10:42	23.52	
2000	1685	System Protection	6/30/00 7:04	6/30/00 7:04	0.00	
2000	1685	External	10/19/00 14:18	10/19/00 17:09	2.51	
2000	1690	Unknown	8/25/00 3:00	8/25/00 3:00	0.00	
2000	1710	System Protection	3/1/00 10:05	3/1/00 10:05	0.00	
2000	1710	Lightning	6/11/00 16:50	6/11/00 16:50	0.00	
2000	1730	Lightning	6/11/00 16:50	6/11/00 16:50	0.00	
2000	1730	Lightning	8/11/00 20:09	8/11/00 20:09	0.00	
2000	1760	Lightning	5/8/00 16:29	5/8/00 16:29	0.00	
2000	1770	System Protection	5/8/00 16:29	5/8/00 16:29	0.00	
2000	1813	Lightning	5/13/00 5:23	5/13/00 5:23	0.00	
2000	1813	Lightning	5/24/00 18:46	5/24/00 18:46	0.00	
2000	1813	Lightning	6/2/00 19:53	no data	no data	
2000	1813	Weather	12/17/00 9:41	12/17/00 9:41	0.00	
2000	1887	Substation Equipment	3/23/00 20:48	3/23/00 23:54	3.06	
2000	1890	Weather	1/25/00 15:50	1/25/00 18:02	2.12	
2000	1890	Weather	1/25/00 18:55	1/25/00 19:02	0.07	
2000	1990	Lightning	9/2/00 14:46	9/2/00 14:46	0.00	
2000	8100	System Protection	3/9/00 10:43	3/9/00 10:47	0.04	
2000	8100	System Protection	7/26/00 9:13	7/26/00 9:23	0.10	
2000	8100	System Protection	12/3/00 5:44	12/3/00 9:48	4.04	
2000	8300	Lightning	6/3/00 20:06	6/3/00 20:06	0.00	
2000	88005A	Unknown	7/7/00 16:45	7/7/00 21:06	4.21	
2000	88006A	Weather	1/25/00 15:48	1/26/00 15:52	0.04	
2000	88006A	Weather	1/25/00 18:55	1/25/00 21:00	2.05	
2000	88006A	System Protection	5/20/00 12:40	5/20/00 14:06	1.26	
2000	89003B	Vegetation	6/30/00 7:05	6/30/00 7:05	0.00	
2000	89003B	Unknown	7/18/00 20:16	7/18/00 20:16	0.00	
2000	89005B	Vegetation	7/15/00 13:45	7/15/00 20:36	6.51	
2000	89006B	Weather	1/25/00 15:48	1/26/00 15:52	0.04	
2000	89006B	Unknown	12/3/00 5:44	12/3/00 5:44	0.00	
2000	8904B	Unknown	3/5/00 2:23	3/5/00 2:23	0.00	
2001	1060	External	10/21/01 10:15	10/21/01 10:15	0.00	
2001	1222	System Protection	5/30/01 17:15	5/30/01 20:44	3.29	

2001	1222	Unknown	6/24/01 7:13	6/24/01 10:23	3.10	
2001	1222	System Protection	6/30/01 5:09	6/30/01 5:14	0.05	
2001	1222	System Protection	8/29/01 9:18	8/29/01 9:18	0.00	
2001	1272	Line Equipment	6/11/01 20:30	6/11/01 20:56	0.26	
2001	1389	System Protection	2/25/01 11:01	2/25/01 11:27	0.26	
2001	1389	Unknown	6/30/01 5:10	6/30/01 5:10	0.00	
2001	1430	Substation Equipment	5/27/01 12:48	5/27/01 15:57	3.09	
2001	1440	Unknown	5/30/01 17:15	5/30/01 17:15	0.00	
2001	1445	Line Equipment	6/11/01 20:30	6/11/01 20:56	0.26	
2001	1450	System Protection	2/3/01 13:26	2/3/01 13:26	0.00	
2001	1450	Unknown	2/26/01 15:55	2/26/01 21:29	5.34	
2001	1450	External	7/25/01 11:51	7/25/01 11:51	0.00	
2001	1460	Unknown	6/8/01 11:49	6/8/01 12:19	0.30	
2001	1460	Unknown	7/22/01 14:34	7/22/01 15:10	0.36	
2001	1508	Substation Equipment	7/26/01 7:04	7/26/01 21:44	14.40	
2001	1537	Line Equipment	7/26/01 8:35	7/26/01 8:57	0.22	
2001	1555	Substation Equipment	6/11/01 20:28	6/11/01 20:28	0.00	
2001	1555	Substation Equipment	7/29/01 5:33	7/29/01 5:33	0.00	
2001	1560	Lightning	8/10/01 13:47	8/10/01 13:47	0.00	
2001	1560	Lightning	8/10/01 13:55	8/10/01 13:55	0.00	
2001	1565	System Protection	6/11/01 6:28	6/11/01 11:26	4.58	
2001	1565	Lightning	8/10/01 13:01	8/10/01 13:01	0.00	
2001	1570	System Protection	3/2/01 10:45	no data	no data	
2001	1570	Unknown	8/10/01 13:47	8/10/01 13:48	0.01	
2001	1570	Lightning	8/10/01 13:55	8/10/01 13:55	0.00	
2001	1580	Unknown	8/10/01 13:53	8/10/01 17:41	3.48	
2001	1585	Lightning	6/11/01 20:30	6/12/01 2:48	6.18	
2001	1585	System Protection	8/27/01 19:48	8/27/01 19:48	0.00	
2001	1610	Unknown	3/30/01 0:33	3/30/01 0:33	0.00	
2001	1610	Unknown	4/27/01 17:05	4/27/01 17:05	0.00	
2001	1618	Lightning	6/17/01 6:50	6/17/01 6:50	0.00	
2001	1618	Lightning	7/1/01 15:19	7/1/01 15:19	0.00	
2001	1622	Lightning	7/1/01 15:19	7/1/01 16:25	1.06	
2001	1630	Unknown	4/18/01 13:33	4/18/01 13:33	0.00	
2001	1630	Line Equipment	7/26/01 8:35	7/26/01 8:57	0.22	
2001	1640	System Protection	3/2/01 10:45	3/2/01 11:22	0.37	
2001	1655	Line Equipment	7/26/01 8:35	7/26/01 8:57	0.22	
2001	1668	Lightning	6/11/01 20:26	6/11/01 20:26	0.00	
2001	1668	Lightning	6/11/01 20:28	6/11/01 22:21	1.53	
2001	1668	Lightning	6/11/01 20:30	6/11/01 21:03	0.33	
2001	1668	Lightning	8/12/01 22:41	8/12/01 22:41	0.00	
2001	1685	Unknown	7/22/01 14:34	7/22/01 14:42	0.08	
2001	1685	Lightning	8/20/01 15:11	8/20/01 15:11	0.00	
2001	1690	Lightning	8/10/01 12:45	8/10/01 12:45	0.00	
2001	1710	Lightning	8/10/01 13:53	8/10/01 15:48	1.55	
2001	1710	System Protection	8/29/01 9:18	8/29/01 9:18	0.00	
2001	1710	Line Equipment	8/31/01 11:44	8/31/01 11:44	0.00	
2001	1721	Lightning	6/11/01 20:26	6/11/01 21:04	0.38	
2001	1721	Lightning	6/11/01 20:26	6/11/01 21:04	0.38	
2001	1721	External	7/21/01 22:43	7/22/01 9:48	11.05	
2001	1721	Lightning	8/12/01 22:41	8/12/01 22:41	0.00	
2001	1730	Vegetation	8/7/01 18:00	8/7/01 18:08	0.08	
2001	1730	Lightning	8/10/01 13:53	8/10/01 13:57	0.04	

2001	1730	Line Equipment	8/31/01 11:44	8/31/01 11:44	0:00	
2001	1740	Line Equipment	2/25/01 11:01	2/25/01 11:11	0:10	
2001	1750	Line Equipment	2/25/01 11:01	2/25/01 11:11	0:10	
2001	1750	Unknown	2/26/01 15:55	2/26/01 16:03	0:08	
2001	1760	Lightning	6/30/01 18:34	6/30/01 18:34	0:00	
2001	1760	Lightning	6/30/01 18:37	6/30/01 18:37	0:00	
2001	1760	Lightning	6/30/01 18:39	6/30/01 18:40	0:01	
2001	1760	Lightning	8/10/01 12:58	8/10/01 13:02	0:04	
2001	1813	Unknown	6/28/01 2:22	6/28/01 2:25	0:03	
2001	1867	System Protection	5/30/01 17:15	5/30/01 17:15	0:00	
2001	1876	Lightning	6/30/01 18:34	6/30/01 18:34	0:00	
2001	1876	Lightning	6/30/01 18:37	6/30/01 18:37	0:00	
2001	1876	Lightning	6/30/01 18:39	6/30/01 18:40	0:01	
2001	1880	Unknown	6/24/01 7:13	6/24/01 7:13	0:00	
2001	1880	System Protection	7/25/01 11:51	7/25/01 11:51	0:00	
2001	1880	Lightning	8/27/01 16:15	8/27/01 16:15	0:00	
2001	1890	Lightning	6/11/01 22:41	6/11/01 22:41	0:00	
2001	1890	External	8/9/01 12:41	8/9/01 23:14	10:33	
2001	1890	Lightning	8/27/01 16:15	8/27/01 16:15	0:00	
2001	1990	Line Equipment	6/29/01 1:21	6/29/01 14:45	13:24	
2001	88006A	Substation Equipment	5/18/01 1:33	5/18/01 3:09	1:36	
2001	8804A	Unknown	7/9/01 9:43	7/9/01 9:43	0:00	
2001	89005B	Vegetation	7/5/01 20:47	7/5/01 20:48	0:01	
2001	89006B	Substation Equipment	5/18/01 1:33	5/18/01 3:09	1:36	
2001	89009B	System Protection	7/22/01 11:26	7/22/01 11:26	0:00	
2002	1060	Unknown	5/16/02 2:15	5/16/02 2:15	0:00:00	
2002	1238	Lightning	4/30/02 18:49	4/30/02 18:49	0:00:00	
2002	1238	Lightning	7/19/02 21:27	7/19/02 21:27	0:00:00	
2002	1238	Lightning	8/2/02 17:12	8/2/02 17:12	0:00:00	
2002	1238	Lightning	8/2/02 17:36	8/2/02 17:36	0:00:00	
2002	1389	Substation Equipment	4/16/02 17:19	4/16/02 17:19	0:00:00	
2002	1389	Substation Equipment	6/24/02 2:51	6/24/02 2:51	0:00:00	
2002	1470	Lightning	5/31/02 20:01	6/1/02 8:41	12:40:00	
2002	1470	Lightning	7/19/02 18:16	7/19/02 18:16	0:00:00	
2002	1470	Lightning	8/2/02 18:39	8/2/02 18:39	0:00:00	
2002	1508	Lightning	9/4/02 4:49	9/4/02 4:54	0:05:00	
2002	1555	System Protection	1/15/02 13:03	1/15/02 13:03	0:00:00	
2002	1555	Vegetation	7/1/02 13:26	7/1/02 20:45	7:19:00	
2002	1565	Lightning	4/30/02 19:31	4/30/02 19:31	0:00:00	
2002	1565	Lightning	5/31/02 20:01	5/31/02 20:25	0:24:00	
2002	1565	Lightning	7/19/02 18:08	7/19/02 18:08	0:00:00	
2002	1565	Lightning	7/19/02 18:14	7/19/02 18:14	0:00:00	
2002	1565	Lightning	7/19/02 18:21	7/19/02 18:21	0:00:00	
2002	1565	Lightning	8/2/02 18:39	8/2/02 18:39	0:00:00	
2002	1575	Unknown	4/29/02 13:15	4/29/02 13:15	0:00:00	
2002	1575	Unknown	8/5/02 13:41	8/5/02 13:41	0:00:00	
2002	1575	Unknown	8/6/02 15:08	8/6/02 15:08	0:00:00	
2002	1575	Line Equipment	9/24/02 23:06	9/25/02 19:12	20:06:00	
2002	1580	Lightning	7/19/02 18:42	7/19/02 19:35	0:53:00	
2002	1580	Unknown	10/11/02 2:47	10/11/02 2:47	0:00:00	
2002	1610	Unknown	7/4/02 14:17	7/4/02 14:17	0:00:00	
2002	1622	Lightning	8/2/02 17:53	8/2/02 17:53	0:00:00	
2002	1640	Line Equipment	10/2/02 21:05	10/3/02 14:18	17:13:00	
2002	1685	Unknown	3/12/02 10:54	3/12/02 10:54	0:00:00	
2002	1690	Vegetation	6/22/02 15:12	6/23/02 0:19	9:07:00	

2002	1690	Weather	9/11/02 14:04	9/11/02 19:26	5:22:00	
2002	1730	System Protection	8/18/02 5:03	8/18/02 5:03	0:00:00	
2002	1730	System Protection	11/22/02 22:14	11/22/02 22:50	0:36:00	
2002	1730	Weather	12/25/02 20:08	12/25/02 20:08	0:00:00	
2002	1740	Unknown	11/11/02 10:13	11/11/02 17:06	6:53:00	
2002	1813	Lightning	4/30/02 18:49	4/30/02 18:49	0:00:00	
2002	1813	Lightning	7/19/02 21:27	7/19/02 21:27	0:00:00	
2002	1813	Lightning	8/2/02 17:12	8/2/02 17:12	0:00:00	
2002	1813	Lightning	8/2/02 17:36	8/2/02 17:36	0:00:00	
2002	1867	Other	6/19/02 12:10	6/19/02 13:23	1:13:00	
2002	1867	Other	7/8/02 14:33	7/8/02 14:52	0:19:00	
2002	1880	System Protection	9/15/02 16:59	9/15/02 16:59	0:00:00	
2002	1887	Other	2/15/02 14:02	2/15/02 14:02	0:00:00	
2002	1887	Substation Equipment	8/26/02 9:47	8/26/02 9:47	0:00:00	
2002	1887	Vegetation	9/11/02 17:10	9/12/02 15:40	22:30:00	
2002	1977	Other	8/18/02 5:03	8/18/02 5:03	0:00:00	
2002	1990	Lightning	9/4/02 6:18	9/4/02 6:18	0:00:00	
2002	1990	Lineeq	9/4/02 18:27	9/5/02 17:39	23:12:00	
2002	1990	Line Equipment	11/17/02 4:09	11/17/02 19:29	15:20:00	
2002	1130/1416	Other	8/18/02 5:03	8/18/02 5:03	0:00:00	
2002	1130/1416	Weather	9/11/02 16:03	9/11/02 17:21	1:18:00	
2003	1460	Unknown	8/20/03 17:52	8/20/03 17:52	0:00:00	
2003	1555	Unknown	2/25/03 12:28	2/25/03 14:44	2:16:00	
2003	1560	External	9/2/03 3:34	9/2/03 3:34	0:00:00	
2003	1560	External	9/2/03 4:13	9/2/03 4:13	0:00:00	
2003	1560	External	9/2/03 4:20	9/2/03 4:20	0:00:00	
2003	1560	External	9/2/03 7:13	9/2/03 7:13	0:00:00	
2003	1560	External	9/2/03 7:30	9/2/03 9:15	1:45:00	
2003	1560	External	9/19/03 6:21	9/19/03 6:21	0:00:00	
2003	1560	Unknown	10/29/03 10:45	10/29/03 10:45	0:00:00	
2003	1560	Line Equipment	10/30/03 19:43	10/31/03 18:18	22:35:00	
2003	1570	External	9/2/03 3:34	9/2/03 3:34	0:00:00	
2003	1570	External	9/2/03 4:13	9/2/03 4:13	0:00:00	
2003	1570	External	9/2/03 4:20	9/2/03 4:20	0:00:00	
2003	1570	External	9/2/03 7:13	9/2/03 7:13	0:00:00	
2003	1570	External	9/2/03 7:30	9/2/03 8:58	1:28:00	
2003	1570	External	9/19/03 6:21	9/19/03 6:26	0:05:00	
2003	1575	Other	7/5/03 8:10	7/5/03 9:04	0:54:00	
2003	1575	Weather	10/15/03 15:03	10/15/03 15:08	0:05:00	
2003	1580	Lightning	8/16/03 18:45	8/16/03 18:48	0:03:00	
2003	1585	Other	5/3/03 1:09	5/3/03 2:19	1:10:00	
2003	1585	Lightning	8/16/03 18:45	8/16/03 18:45	0:00:00	
2003	1622	Other	6/30/03 7:39	6/30/03 7:39	0:00:00	
2003	1668	Unknown	9/19/03 2:11	9/19/03 2:11	0:00:00	
2003	1685	External	7/15/03 1:50	7/15/03 1:50	0:00:00	
2003	1685	External	8/2/03 3:37	8/2/03 3:37	0:00:00	
2003	1730	System Protection	3/29/03 19:00	3/29/03 19:00	0:00:00	
2003	1730	External	7/22/03 13:51	7/22/03 13:53	0:02:00	
2003	1867	Unknown	9/9/03 16:20	9/9/03 16:20	0:00:00	
2003	1887	Substation Equipment	6/28/03 11:46	6/28/03 11:46	0:00:00	
2003	1890	Line Equipment	3/29/03 19:00	3/30/03 11:21	16:21:00	
2003	1890	Other	8/13/03 12:41	8/13/03 14:25	1:44:00	
2003	1238/1813	Lightning	8/3/03 14:22	8/3/03 14:22	0:00:00	
2003	1238/1813	Lightning	8/22/03 15:24	8/22/03 15:26	0:02:00	

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-006
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

How would the proposed project recover its costs? Have any costs (\$/kWh) been calculated?

Response:

The revenue requirements associated with this project would be recovered through FERC-approved transmission rates, including the Regional Network Service (RNS) rate, and NU's Local Network Service (LNS) rate (NU Tariff #10). As a representative estimate, the electric bill of CL&P residential customer who consumes 500 kWh/month may increase about 0.02 cents/kwh or \$1.40 per year to support the capital cost of the Glenbrook Cables Project, ignoring the potential cost benefit of providing improved access to the generation market.

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-007
Page 1 of 1

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Would the proposed project be impacted if any changes were made to the proposed Middletown to Norwalk 345-kV line?

Response:

The design of the Middletown to Norwalk 345-kV Project (overhead versus underground) will not impact the need for additional transmission lines between Norwalk and Glenbrook substations. However, if the Middletown to Norwalk 345-kV Project were altered such that it no longer terminates at Norwalk Substation, additional transmission projects may be required to move power into the Stamford area.

Where the underground portions of the two projects would be in close proximity (e.g., where the Middletown to Norwalk and Glenbrook to Norwalk transmission lines would be next to each other under a road) a change in the routing or design of the Middletown to Norwalk line could necessitate a change in the routing or design of the Glenbrook to Norwalk underground cable system due to physical space constraints or due to mutual heating of each cable system on the adjacent cable systems. Mutual heating can limit the continuous and emergency ratings of the cable systems.

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-008
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Why would distributed generation have to be in place prior to the in-service date of Middletown to Norwalk line?

Response:

In order to serve as an alternative to the proposed Glenbrook to Norwalk cables, approximately 400MW (minimum) of distributed generation would have to be in place prior to the in-service date of the Middletown to Norwalk line. The Middletown to Norwalk line provides a low impedance path between the strong source at Beseck Substation, the Milford and Bridgeport Energy generating units, and the Norwalk-Stamford load center. If the Glenbrook to Norwalk cables are not in place or additional generation is not in service in the Stamford area, the existing 115-kV overhead lines between Norwalk and Stamford (1389, 1867, and 1880 lines) will overload during medium to high load periods.

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-009
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Would the proposed project be impacted if the 1385 line had to be taken out of service?

Response:

The design of the 115-kV project would not change if the 1385 line is permanently removed from service. The removal of the 1385 line from service could extend the time before additional system changes are required including the replacement of the 115-kV cable system with a 345-kV cable system.

The Connecticut Light and Power Company
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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-010
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
Has ISO-NE commented on the proposed project?

Response:
ISO-NE has worked with the applicant throughout the design stages of this project. ISO-NE is fully aware of CL&P's project as submitted and supports the use of the construction techniques which will allow for the future conversion to 345 kV. ISO-NE has listed the Project in the 2003 and draft 2004 Regional Transmission Plans, respectively RTEP03 and draft RTEP04. ISO-NE has not provided additional comment on its support for the project since the independent system operator expressed its concern with the natural system resonance calculated on the Middletown to Norwalk 345-kV Project to the Connecticut Siting Council. The Glenbrook Cables Project has been included in all resonance calculations performed for the Middletown to Norwalk 345-kV Project.

The Connecticut Light and Power Company
Docket No. CSC 292

Data Request CSC-01
Dated: 08/19/2004
Q- CSC-011
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

What is the projected life of the proposed cable system? When does CL&P expect the need to install a 345-kV line?

Response:

The Project is expected to be sufficient to serve the area for approximately 20 years. As the system changes over time, CL&P will continue to monitor the need to install a 345-kV line. There may be opportunities to add additional substation equipment which could defer the need to install a 345-kV line. If substation upgrades are not available, construction of the 345-kV line could begin in about 20 years.

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-014
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Would post-construction monitoring of magnetic field levels be performed?

Response:

Yes, post-construction monitoring of magnetic field levels will be performed as recommended by the CSC's Best Management Practices.

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-015
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

Has the Connecticut Department of Environmental Protection, or any appropriate agency, established limitations for construction of the proposed project across waterbodies?

Response:

CL&P continues to consult with both CT DEP and the U.S. Army Corps of Engineers (ACOE) about the Project. Neither agency has established any formal limitations on the construction of the proposed project across waterbodies. Consultations with the DEP Inland Fisheries Division indicated that the only seasonal restriction that might apply would be to prohibit work from April 1 to June 30 in the Noroton River to protect a possible small spawning run of alewife.

CL&P will continue to consult with both the DEP and ACOE as the project progresses through the siting and permitting process into the design and D&M stages, particularly in conjunction with the submission of permit applications to such agencies.

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Data Request CSC-01
Dated: 08/19/2004
Q- CSC-016
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Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:

What measures would be employed to control any undesirable invasive plants which may become established along areas that are disturbed during construction?

Response:

As presently proposed, the Project would be located primarily within paved road ROWs in developed urban areas. Along the proposed ROW, the existing paved areas that would be disturbed by construction would be repaved before project completion.

At a few locations, such as non-paved upland staging areas for watercourse crossings, or equipment / materials construction sites, existing vegetation and soils would be disturbed. Such locations, which are expected to be relatively small, are the only areas where undesirable invasive plants (e.g., multiflora rose) could potentially become established after the completion of construction and site restoration. The Project is not expected to disturb or to require construction work in wetland soils; as a result, Project construction activities would not provide the means for invasive wetland species (e.g., purple loosestrife, Phragmites) to become established.

In any event, CL&P would monitor the restoration of the cable system ROW, in accordance with standard construction practices and in conformance with the conditions of the Siting Council certificate. In the unlikely case that construction activities disturb a non-paved site on which invasive species subsequently become established, the monitoring would identify the presence of such species.

The measures that would then be taken to control invasive species would be based on site-specific conditions and on the prevalence of the invasive species in adjacent (non-Project) areas. It should be noted that in many cases, the density of an invasive species in adjacent, off ROW areas, often precludes effective control of the species on the ROW. Typical control measures might include hand pulling, mechanical removal methods, or the selective use of herbicides.