



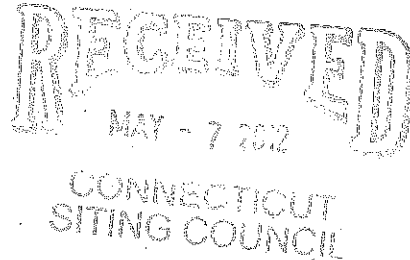
**Northeast
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May 4, 2012

Mr. Robert Stein
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051



Re: Docket No. CSC 424 - Interstate Reliability Project

Dear Mr. Stein:

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

Response to CIVIE-01 Interrogatories dated 04/09/2012
CIVIE-001, 002, 003, 004, 005, 006, 007

Very truly yours,

Robert Carberry /tr

Robert Carberry
Manager
Siting and Permitting
NUSCO
As Agent for CL&P

cc: Service List

Witness: CL&P Panel
Request from: Vlictor Civie

Question:

In reference to the 345kv line between Lake Road and Card Street provide the following:

- a. Manufacturer and specifications of the 345kv power cables.
- b. The last 12-month history containing weekly peak values of power (in Watts) transmitted through the line.
- c. If not included above, provide the time, date and value of the highest power recorded including daily peak values 15 days prior to and after.

Response:

a. The existing 345-kV transmission line between the Lake Road Switching Station and the Card Street Substation utilizes 2-conductor bundles of 954-kcmil 45/7 Aluminum Conductor Steel Reinforced (ACSR) "power cables" in its of its three phases. This means that each of the three phases of the overhead line consists of 2 conductors that are electrically connected in parallel. Each of the conductors has a core of 7 strands of steel wire, surrounded by 45 strands of aluminum wire to create a conductor with 954,000-circular mils of conductive cross sectional area.

The existing line was constructed approximately 40 years ago, and a record of the actual supplier of the conductor is not available. Because CL&P specifies (then and now) that ACSR conductors be manufactured to all applicable American Society for Testing and Materials (ASTM) standards specific to ACSR, the actual manufacturer of the overhead conductors is irrelevant to its size, shape or performance.

b. Pages 2 and 3 of 4 tabulate the last 12-month history of weekly peak values in megawatts (MW) on the existing 345-kV line between Lake Road and Card Street.

c. Checking power-flow records back through 2008 the highest peak (MW) flow on the Lake Road to Card Street 330 line was 1,360 MW, occurring on July 16, 2009. Page 4 of 4 tabulates the daily peaks for each day in July 2009.

WEEK ENDING PEAK (MW) FLOW April 2011 through March
2012 for the Lake Road to Card 330 345-kV line

DURATION – WEEK ENDING	LAKE ROAD CARD PEAK FLOW IN (MW)
April 9, 2011	1049
April 16, 2011	813
April 23, 2011	757
April 30, 2011	922
May 7, 2011	545
May 14, 2011	481
May 21, 2011	547
May 28, 2011	866
June 4, 2011	1119
June 11, 2011	1157
June 18, 2011	829
June 25, 2011	1294
July 2, 2011	797
July 9, 2011	977
July 16, 2011	961
July 23, 2011	989
July 30, 2011	1086
August 6, 2011	1045
August 13, 2011	1134
August 20, 2011	824
August 27, 2011	712
September 3, 2011	821
September 10, 2011	908
September 17, 2011	1029
September 24, 2011	389
October 1, 2011	654
October 8, 2011	707
October 15, 2011	714
October 22, 2011	887
October 29, 2011	851
November 5, 2011	775
November 12, 2011	1054
November 19, 2011	1242
November 26, 2011	878
December 3, 2011	601
December 10, 2011	522
December 17, 2011	530
December 24, 2011	527
December 31, 2011	410
January 7, 2012	778
January 14, 2012	453
January 21, 2012	542
January 28, 2012	396

WEEK ENDING PEAK (MW) FLOW April 2011 through March
2012 for the Lake Road to Card 330 345-kV line

Duration – WEEK ENDING	LAKE ROAD CARD PEAK FLOW IN (MW)
February 4, 2012	462 (1)
February 11, 2012	475 (1)
February 18, 2012	456 (1)
February 25, 2012	474
March 3, 2012	526
March 10, 2012	395
March 17, 2012	360
March 24, 2012	544
March 31, 2012	619

Note (1) Peak flow in opposite direction

Daily Peak (MW) Flows on the Lake Road to Card Street 330 Line in July 2009

DURATION – JULY 1, 2009 THRU July 31, 2009	LAKE ROAD CARD DAILY PEAK FLOW IN (MW)
July 1, 2009	920
July 2, 2009	771
July 3, 2009	651
July 4, 2009	572
July 5, 2009	641
July 6, 2009	1163
July 7, 2009	1265
July 8, 2009	1148
July 9, 2009	911
July 10, 2009	1032
July 11, 2009	966
July 12, 2009	933
July 13, 2009	1079
July 14, 2009	1147
July 15, 2009	1217
July 16, 2009	1360
July 17, 2009	1281
July 18, 2009	1139
July 19, 2009	830
July 20, 2009	1037
July 21, 2009	909
July 22, 2009	1278
July 23, 2009	1318
July 24, 2009	1193
July 25, 2009	1101
July 26, 2009	1044
July 27, 2009	1020
July 28, 2009	992
July 29, 2009	1047
July 30, 2009	878
July 31, 2009	1052

The Connecticut Light and Power Company
Docket No. CSC 424

Data Request CIVIE-01
Dated: 04/09/2012
Q-CIVIE-002
Page 1 of 1

Witness: CL&P Panel
Request from: Victor Civie

Question:

What evidence if any in addition to the information filed for Docket 424 will be presented on the reliability of 345kv power lines.

Response:

CL&P does not anticipate presenting any direct evidence concerning the reliability of 345-kV power lines other than that contained in its Application and in documents of which the Council has taken administrative notice. However, CL&P's engineering witnesses will respond to any questions on this subject from the Council members and staff, as well as from parties and intervenors. The scope of that evidence will depend on the scope of the questions.

The Connecticut Light and Power Company
Docket No. CSC 424

Data Request CIVIE-01
Dated: 04/09/2012
Q-CIVIE-003
Page 1 of 1

Witness: CL&P Panel
Request from: Vliктор Civie

Question:
Provide the repair records of the Hoyts Hill Transition station in Bethel.

Response:

CL&P's repair records for the Hoyts Hill Transition station are provided in Q-CIVIE-003 Attachment 1. This is a record of all repair activities, but not routine maintenance and inspection activities, that have taken place at the Hoyts Hill station from the time the station was first energized in Fall 2006, through April 2012.

This station transitions a 2.1-mile-long underground 345-kV line section from Plumtree Substation to an overhead line segment. The underground line consists of two 1750-kcmil copper cross-linked polyethylene (XLPE) cables per phase, so there are six (6) cable risers within the transition station. There is no ability at Hoyts Hill Transition station to remotely switch or de-energize the overhead or underground line, and this station is not indicative of the layout, area or design of any transition station that would be required for an underground line segment on the Interstate Reliability Project. The Interstate Reliability Project would require a total of nine (9) cables, each 3000-kcmil copper XLPE, and thus 9 cable-riser locations in each transition station, along with the ability to remotely switch the cables in or out of service.

Date	Comments	Equipment
02/02/2007	install timer on yard lighting	SubstationYard
03/16/2007	respond to battery ground alarm.alarm reset.battery charger alarm came in called test.	LeadAcidBattery
08/09/2007	call out for battery trouble alarm,alarm cleared itself by the time I arrived at the station,no apparent problem	BatteryCharger
10/22/2007	P3 - Trees or Branches Overhanging Fence	SubstationYard
12/10/2007	P2 - Escort Fence Contractor to make repairs identified during 10/07 SS Safety Inspections	SubstationYard
01/15/2008	P3 - Install fence grounds on gates in yard	SubstationYard
02/11/2008	called out,loss of AC power due to distribution outage,cleared alarm	BatteryCharger
06/11/2008	Add battery water	LeadAcidBattery
10/27/2008	Responded to battery charger alarm. Found no A.C. power from street and no A.T.S.	LeadAcidBattery
10/28/2008	Respond to Loss of Station Power on 10/28/08. Acknowledged and reset. Result of loss of power from street.	ControlHouse
11/07/2008	battery charger fail alarm	BatteryCharger
12/01/2008	Found & Replaced blown fuse within alarm system cabinet during WW0903.	ControlHouse
05/22/2009	Respond to los of power/ battery failure.	LeadAcidBattery
07/14/2009	P3 - Replace missing and/or degraded Sub Station ID signs.	SubstationYard
08/24/2009	33J - add battery water	LeadAcidBattery
10/01/2010	Loss of Station Service. Ack & reset.	ControlHouse
11/30/2010	Repaired on 12/3/10.	ControlHouse
03/28/2011	P2 Low gas alarm on a phase	Pothead
04/13/2011	Added 2lbs. Purity 100%, Moisture 56ppm.	Pothead
10/30/2011	station lost power due to storm,had to get the generator,gas and other materials gathered for temporarily refeeding the battery charger till power restoration to the area is completed.	BatteryCharger

The Connecticut Light and Power Company
Docket No. CSC 424

Data Request CIVIE-01
Dated: 04/09/2012
Q-CIVIE-004
Page 1 of 1

Witness: CL&P Panel
Request from: Victor Civie

Question:

Provide the repair records of the 345kv underground line between Archers Lane Transition Station and the Norwalk Junction Transition Station.

Response:

CL&P's repair records for the Archers Lane to Norwalk Junction section of underground 345-kV line are provided in Q-CIVIE-004, Attachment 1. The provided records include repair activities, but not routine maintenance and inspection activities, that have taken place at the two transition stations from the time the 345-kV line was first energized in the Fall of 2006 through April 2012.

Not included on the attachment is a dig-in event that occurred during a road construction project after line construction was completed, but prior to first energizing the line in 2006. In that case, the protective coating on the pipe was damaged and subsequently repaired. Also not included are the repairs to and relocation of equipment within the Norwalk Junction Transition Station that was damaged during the April 2007 flood

Note that this underground section of 345-kV line employs two high-pressure fluid filled (HPFF) cable systems, a technology that is not proposed for use on the Interstate Reliability Project.

Date	Comments / Issue	Equipment
	2007 Underground foot patrol	
11/16/2007		TransmissionLineUnderground
	2007 Underground foot patrol	
11/16/2007		TransmissionLineUnderground
	P3 - 2009 Transmission Line Foot Patrol	
05/20/2009		TransmissionLineUnderground
	P3 - 2009 Transmission Line Foot Patrol	
05/20/2009		TransmissionLineUnderground
	P3 - 2010 Transmission Line Foot Patrol	
06/02/2009		TransmissionLineUnderground
	P3 - 2010 Transmission Line Foot Patrol	
06/02/2009		TransmissionLineUnderground
	2011 Trans UG Line Foot Patrol	
01/01/2011		TransmissionLineUnderground
	2011 Trans UG Line Foot Patrol	
01/01/2011		TransmissionLineUnderground
	12/21/2009 this CT-DOT vault was structurally inspected by CHA (a contracted engineering firm). The inspections were completed in accordance with ConnDOT's Bridge Inspection Manual (particularly the Culvert section of the manual). The detailed inspection report is available in the RIM (Records Information Management) system. The vault was given a	
02/28/2011		SCUG
	12/21/2009 this CT-DOT vault was structurally inspected by CHA (a contracted engineering firm). The inspections were completed in accordance with ConnDOT's Bridge Inspection Manual (particularly the Culvert section of the manual). The detailed inspection report is available in the RIM (Records Information Management) system. The vault was given a	
02/28/2011		SCUG
	12/21/2009 this CT-DOT vault was structurally inspected by CHA (a contracted engineering firm). The inspections were completed in accordance with ConnDOT's Bridge Inspection Manual (particularly the Culvert section of the manual). The detailed inspection report is available in the RIM (Records Information Management) system. The vault was given a	
02/28/2011		SCUG
	P4* Pump water out of this vault & associated handholes.	
12/20/2011		SCUG
	Requires vendor Clean Harbor & police for traffic control.	

Date	Comments / Issue	Equipment
08/15/2006		LeadAcidBattery
09/12/2006	Install 1desk, 1 table and 4 chairs as required.	CablePumpHouse
10/05/2006	Perform DTT on low low oil pressure	TransmissionRelayPackages
10/05/2006	Apply Final Setting	TransmissionRelayPackages
10/05/2006	Perform DTT on low low oil pressure	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Apply Final Setting	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages.
11/09/2006	Pump house critical alarm. Reset alarm, checked cable pressure. Station checked normal.	CablePumpHouse
11/13/2006	Alarm investigation pump failure A & B, loss of A.C. supply, loss of ups A.C. supply.Reset alarm.	CablePumpHouse
12/21/2006	Updated DNS and WINS entries after Techsupp IP Address change.	HMbxxHumanMachineInterface
01/01/2007		LeadAcidBattery
01/01/2007		SF6CircuitBreaker
01/01/2007		SF6CircuitBreaker
01/01/2007		RTUxRemoteTerminalUnit
01/24/2007	Install 6 hour timer and 2-pole contactor for yard lights.....	SubstationYard
02/07/2007	Low levels. Add water.	LeadAcidBattery
02/13/2007		LeadAcidBattery
02/13/2007		Eyewash
03/05/2007	Remove receptacle too close to the batteries.	ControlHouse
03/13/2007	Repair broken gate	SubstationYard
03/23/2007	Pump water reset high fluid moat	CablePumpHouse
03/26/2007	Performed Daylight Savings Time update and reboot of PC.	HMbxxHumanMachineInterface
04/02/2007	Investigated pump house alarm.Found loss of AC supply,loss of UPS AC supply,pump A failure 3404-L1D and pump B failure	CablePumpHouse
04/23/2007	Alarm investigation pump house critical alarm...Loss of ac power...Alarm reset and cleared....	CablePumpHouse
05/03/2007	Replace low Nitrogen bottle, install backup bottle, raise press to 3.4 psi.	CablePumpHouse
05/06/2007	Check yard lights and contactor.....	SubstationYard
05/09/2007	Install timer on exterior lights. (response to neighborhood complaints)	CablePumpHouse
05/09/2007	Install timers for exterior lights. (response to neighborhood complaints)	ControlHouse
05/17/2007	Alarm invest. 35P. Loss of AC supply in P.H. Reset. Cleared. Drove away. 5 min. later new alarm came in. Tree fell blocking	CablePumpHouse
06/04/2007	Alarm invest. Loss of AC supply. Reset alarm.	CablePumpHouse
06/07/2007	Loss of ups ac supply in pump house.Alarm reset.	CablePumpHouse
06/29/2007	upon alaram investigation i found loss of ac supply to a&b cables.	CablePumpHouse
07/05/2007	Alarm investigation.....Loss of AC power...critical alarm.....alarm reset and cleared.....Station normal....	CablePumpHouse
07/13/2007	P1 - Alarm callout for Loss of Station Pwr.	CablePumpHouse
07/16/2007	Critical alarm in pumphouse.Loss of UPS AC supply and pump A failure 3403-L1D and pump B failure 3403-L1C	CablePumpHouse
08/08/2007	P2 - Implementation of cyber security measures in compliance with ES-ISAC guidelines	ControlHouse
08/09/2007	Remove large bees nest from control cabinet.	CouplingCapacitorVoltageTrans
08/10/2007	FRAD down. AT&T repaired.	CommunicationInterfaces
08/13/2007	PH Critical Alarm - Reset	CablePumpHouse
08/23/2007	Loss of ac power.....Alarm reset and cleared...	CablePumpHouse
08/29/2007	Install quick-disconnect fittings on all 6 compressors.	SF6CircuitBreaker
09/06/2007	P3 - "The alarms for 3403C High Voltage, 3403D High Voltage, and 345KV Bus High Voltage come in and out frequently even	TransmissionRelayPackages
10/01/2007	Called out for critical pumphouse alarm. Low nitrogen tank pressure.Changed nitrogen bottle and cleared alarm.	CablePumpHouse
10/17/2007	All signs as required in TD189, rev 2 have been installed.	SubstationYard
10/25/2007	Change eyewash solution.	Eyewash
11/08/2007	Dispatched to Station to investigate emergency generator alarm./ Found low coolant temperature alarm./ Generator is	StationaryEmergencyGenerator
11/30/2007	Loss of AC in C.H. & P.H. Pumps A & B failure alarms. Primary battery trouble. Power was abruptly restored while	ControlHouse
12/07/2007	Critical pump house alarm / nitrogen bottle empty /pressure at 190 lbs / retrieved bottle from 6J and replaced....	CablePumpHouse
12/11/2007	Replace nitrogen bottle at Archers Lane	CablePumpHouse
12/11/2007	Dispatched by Convex (John) to Archers Lane 35P for "Critical Pump House Alarm". Upon investigation we noted that the	CablePumpHouse
12/21/2007	P2 - Emergency generator inoper. Yell tagged at Convex about 1 week. Power interrupted causing Loss of AC alarms in C.H.	StationaryEmergencyGenerator
01/01/2008		RTUxRemoteTerminalUnit
01/01/2008		LeadAcidBattery
01/01/2008		SF6CircuitBreaker
01/01/2008		SF6CircuitBreaker
01/04/2008	P3 - Install setting changes per P&C request.	TransmissionRelayPackages
01/04/2008	P3 - Install setting changes per P&C request.	TransmissionRelayPackages
02/06/2008	Updated HMI Alarms and Analogs files to correspond with RTU download changes. Also updated HMI software to version	HMbxxHumanMachineInterface
05/09/2008	Change out eyewash solution...Expires on Nov. 9th 2008..	Eyewash
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
07/29/2008		Eyewash
08/08/2008	SW 3403 Line back into service following lightening strike & disturbance on 8/7/08.	ControlHouse
08/18/2008	P1 - Eradicate bees from switchyard.	SubstationYard
12/17/2008	No trouble found. Screen was up and working on 12/16/08.	CablePumpHouse

Date	Comments / Issue	Equipment
12/30/2008	35P Battery Water addition.	LeadAcidBattery
12/30/2008	Completed repairs on 1/2/09.	ControlHouse
12/30/2008	P1 - MxO created to document work to clear a fallen tree from access road and permit vehicle entry to SS on 12/30/08.	SubstationYard
01/01/2009	2009 Annual Work	SF6CircuitBreaker
01/01/2009	2009 Annual Work	SF6CircuitBreaker
01/01/2009	2009 Annual Work	LeadAcidBattery
01/01/2009	2009 Annual Work	RTUxRemoteTerminalUnit
01/08/2009	2009 Elective ST-2 Battery Testing as requested by AWC Supervisor.	LeadAcidBattery
01/09/2009	2009 -- 1st set of IR Inspections	SubstationYard
01/26/2009	Investigated during WW0904 and found loss of potential on out of service cable. Requires Engineering to issue wiring or	TransmissionRelayPackages
02/09/2009	Paged by convex to Archers Lane 35P, upon arrival found low gas alarm on the 3403D-35P-2 breaker. Informed convex they	SF6CircuitBreaker
02/09/2009	P2 - Low gas alarm over February 7/8, 2009 week end. Unit OOS 2/9/2009. DR to get permission from Convex and add gas	SF6CircuitBreaker
03/17/2009	2009 work	SubstationYard
03/18/2009	P3 - Replace missing/faded warning signs as required.	SubstationYard
04/02/2009		Eyewash
07/20/2009	P3 - MxOrder created to document fabrication & installation of new handrails (by contracted vendor) at Archers Lane 51R	CablePumpHouse
07/27/2009		SubstationYard
09/02/2009	Sent to Archer's Lane 35P to kill all the bee nest's.	SubstationYard
10/16/2009	2009 work	Eyewash
01/01/2010	2010 work	SubstationYard
01/01/2010	2010 work	SF6CircuitBreaker
01/01/2010	2010 work	LeadAcidBattery
01/01/2010	2010 work	SubstationYard
01/01/2010	2010 work	RTUxRemoteTerminalUnit
01/01/2010	2010 work	SF6CircuitBreaker
01/25/2010	P2 - Escort USI to make HMI repairs	CablePumpHouse
01/28/2010	Norwalk AWC - Elective ST2 Test	LeadAcidBattery
02/26/2010	2010 Non-NPCC Work	TransmissionRelayPackages
02/26/2010	2010 Non-NPCC Work	TransmissionRelayPackages
05/24/2010	Replace fire detection system battery.	ControlHouse
07/01/2010		SubstationYard
09/27/2010	Change eyewash solution for batteries.	ControlHouse
10/30/2010	24 volt dc alarm / cleared from Norwalk junction...	ControlHouse
12/29/2010	2011 Annual	TransmissionRelayPackages
01/01/2011	2011 work	LeadAcidBattery
01/01/2011	2011 work	SubstationYard
01/01/2011	2011 work	SF6CircuitBreaker
01/01/2011	2011 work	SF6CircuitBreaker
01/01/2011	2011 work	SubstationYard
01/01/2011	2011 1st-Infrared inspection	RTUxRemoteTerminalUnit
01/01/2011	2011 work	LeadAcidBattery
01/10/2011		TransmissionRelayPackages
03/24/2011	Completed by Dan & Dave F - Opportunity during cable outage	SubstationYard
07/01/2011	2011 - 2nd IR Survey.	SubstationYard
07/23/2011	pump house trouble alarm	CablePumpHouse
12/19/2011	Low sf6 gas on 3403D breaker.gauges normal	SF6CircuitBreaker
12/23/2011	Alarm investigation generator trouble. Low water temp.. Ran generator for about 35min alarm reset and cleared.....	StationaryEmergencyGenerator
12/31/2011	2012 annual work	SubstationYard
01/01/2012	Duplicate 2012 annual work	SF6CircuitBreaker
01/01/2012	2012 annual work	RTUxRemoteTerminalUnit
01/01/2012	Duplicate 2012 annual work	SF6CircuitBreaker
01/01/2012	2012 annual work	TransmissionRelayPackages
01/01/2012	2012 annual work	LeadAcidBattery
01/01/2012	2012 annual work	LeadAcidBattery
01/03/2012		Eyewash
01/03/2012		LeadAcidBattery
01/20/2012	Alarm investigation.....Emer.Gen. Trouble....Low water temp. Ran gen. for 30 mins. Alarm reset and cleared. Notified Carl	StationaryEmergencyGenerator
01/20/2012	Alarm investigation.....Emer.Gen. Trouble....Low water temp. Ran gen. for 30 mins. Alarm reset and cleared. Notified Carl	StationaryEmergencyGenerator
02/13/2012	2012 Non-NPCC added relay test scope. MB.	TransmissionRelayPackages
02/13/2012	2012 Non-NPCC added relay test scope. MB.	TransmissionRelayPackages
09/24/2012	2012 NonNPCC work	TransmissionRelayPackages
09/24/2012	2012 NonNPCC work	TransmissionRelayPackages

Date	Comments / Issue	Equipment
08/14/2006		LeadAcidBattery
08/14/2006		LeadAcidBattery
09/12/2006	Install 1 desk, 1 table and 4 chairs as required.	BatteryCharger
10/05/2006	Carry out End to End and Trip Testing	TransmissionRelayPackages
10/05/2006	Apply final settings	TransmissionRelayPackages
10/05/2006	Apply final settings	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Perform DTT	TransmissionRelayPackages
10/05/2006	Apply final settings	TransmissionRelayPackages
10/05/2006	Perform DTT	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Perform DTT on low low oil pressure	TransmissionRelayPackages
10/05/2006	Perform DTT on low low oil pressure	TransmissionRelayPackages
10/05/2006	Apply Final Settings	TransmissionRelayPackages
10/05/2006	Apply final settings and trip test	TransmissionRelayPackages
10/05/2006	Apply final settings	TransmissionRelayPackages
10/05/2006	Carry out End to End and Trip Testing	TransmissionRelayPackages
12/21/2006	Updated DNS and WINS entries after Techsupp IP Address change.	HMbxHumanMachineInterface
12/29/2006	Label/number cells appropriately.	LeadAcidBattery
12/29/2006	Label/number cells appropriately.	LeadAcidBattery
01/01/2007		LTCTransformer
01/01/2007		LeadAcidBattery
01/01/2007		SF6CircuitBreaker
01/01/2007		LTCTransformer
01/01/2007		LeadAcidBattery
01/01/2007		RTUxRemoteTerminalUnit
01/01/2007		SF6CircuitBreaker
01/19/2007	Supv/Local position inadvertently placed in local (bumped into). Per CONVEX placed back in supv control. Reset alarm and	MotorOperatedSwitch
01/24/2007	Install 6 hour timer and 2-pole contactor for yard lights.....	SubstationYard
01/25/2007	Replace control card with upgraded card from OEM, (send old card back to OEM)	BatteryCharger
01/25/2007	Replace control card with upgraded card from OEM, (send old card back to OEM)	BatteryCharger
02/08/2007		LeadAcidBattery
02/08/2007		LeadAcidBattery
02/23/2007		CablePumpHouse
02/23/2007	change nitrogen bottle	CablePumpHouse
03/02/2007	solution expires in 6 months.	Eyewash
03/08/2007	change eyewash	Eyewash
03/16/2007	Cleaned unit and replaced solution in eyewash.Unit is for Backup batteries.	Eyewash
03/26/2007	Performed Daylight Savings Time update and reboot of PC.	HMbxHumanMachineInterface
04/17/2007	P1 - MxOrder created to capture work caused by flood waters and high winds ssoicated with April 15, 2007 Nor'easter.	SubstationYard
04/26/2007	P3 Investigate Convex Trouble Ticket # 5389, "Pri and BU Battery Trouble alarm in on SCADA but no alarms in at station."	ControlHouse
05/01/2007		TransmissionRelayPackages
05/01/2007		TransmissionRelayPackages
05/02/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/02/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/02/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/02/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/02/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/02/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/17/2007	Alarm invest. 3403 32M and 35P Backup Emergency Isolation System Armed. Alarm came in on 4-28-07 under Test Dept.	TransmissionRelayPackages
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
05/25/2007	P4 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/11/2007	Changed relay headings to 'IEDs' on home page.	HMbxHumanMachineInterface
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
06/22/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
07/30/2007	Alarm invest. P.H. Pumps A & B Failure. Loss of UPS AC Supply. Reset.	CablePumpHouse
08/03/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
08/03/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
08/03/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch

Date	Comments / Issue	Equipment
08/03/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
08/03/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
08/03/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
08/08/2007	P2 - Implementation of cyber security measures in compliance with ES-ISAC guidelines	ControlHouse
08/29/2007	Install quick-disconnect fittings on all 6 compressors.	SF6CircuitBreaker
09/05/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
09/05/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
09/05/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
09/05/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
09/05/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
09/05/2007	P3 Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
09/14/2007	P3 - Investigate over heating problem and resolve per report below:	LTCTransformer
10/01/2007	Change out eyewash solution	Eyewash
10/02/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/02/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/02/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/02/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/02/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/02/2007	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/17/2007	All signs as required in TD189, rev 2 have been installed.	SubstationYard
10/25/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/25/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/25/2007	P2 - Implementation of cyber security measures in compliance with ES-ISAC guidelines	ControlHouse
10/25/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/25/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/25/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
10/25/2007	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
11/02/2007	for Commissioning History	TransmissionRelayPackages
12/06/2007	Support 3403 line re-energization following dig up by contractor - defeat low pressure trips "D" HPFF	TransmissionRelayPackages
12/14/2007	Invest. critical pump house alarm. Found high nitrogen press at 15 psi. Tried to vent out excess to no avail. After acknow.	CablePumpHouse
01/01/2008		SF6CircuitBreaker
01/01/2008		LeadAcidBattery
01/01/2008		RTUxRemoteTerminalUnit
01/01/2008		LeadAcidBattery
01/01/2008		SF6CircuitBreaker
01/07/2008	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
01/07/2008	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
01/07/2008	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
01/07/2008	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
01/07/2008	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
01/07/2008	P3 - Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
02/06/2008	Updated HMI Alarms and Analogs files to correspond with RTU download changes. Also updated HMI software to version	HMIxHumanMachineInterface
02/11/2008	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
02/11/2008	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
02/11/2008	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
02/11/2008	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
02/11/2008	Perform the following CM as per manufacturers recommendations; "(1). make sure that the heaters are running, so it	MotorOperatedSwitch
03/06/2008	Install DTS on W Phase of 3203C Cable - Work w/USI	SubstationYard
03/24/2008	2008 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
03/24/2008	2008 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
03/24/2008	2008 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
03/24/2008	2008 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
03/24/2008	2008 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
03/27/2008	Change Eyewash Solution @ 32M	Eyewash
04/11/2008		LTCTransformer
04/11/2008		LTCTransformer
05/27/2008	Alarm investigation.... Critical pump hse alarm... Loss of AC power... Alarm reset and cleared...Station Normal...	CablePumpHouse
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages

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06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent function/trip test of this relay package. (now called "Protection	TransmissionRelayPackages
06/05/2008	Establish Maintenance History based on the most recent calibration of this relay package.	TransmissionRelayPackages
07/03/2008	Install oil sample fittings on "T" owned equipment in Yard.	SubstationYard
07/07/2008	called out for cable pumphouse critical alarm & generator running,loss of station service alarm.alarms reset & cleared.	CablePumpHouse
07/20/2008	Dispatched by convex to Norwalk Junction 32M for pump house critical alarm,upon arrival found frequent pump operations	CablePumpHouse
08/09/2008		Eyewash
09/01/2008		LTCTransformer
09/01/2008		LTCTransformer
09/11/2008		LeadAcidBattery
09/11/2008		LeadAcidBattery
09/11/2008	P3 - Replace broken "A" Phase air/water drain valve. Reported by Steve Guerrero on 8/29/08.	SF6CircuitBreaker
10/13/2008	Sent by convex /low gen fuel alarm / fuel was at 70 / reset alarm in generator and cleared.	StationaryEmergencyGenerator
10/22/2008	Repaired by Kinsley Power on 11/7/08.	StationaryEmergencyGenerator
10/24/2008	3403 line primary & back up critical alarm	TransmissionRelayPackages
10/30/2008	P3 - Assist Chuck Ballotte w/wiring mods to 32M reactor on 11/3/08.	LTCTransformer
12/14/2008	Alarm invest. Loss of UPS AC supply. Reset. Cleared.	CablePumpHouse
12/29/2008	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
12/29/2008	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
12/29/2008	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
12/29/2008	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
12/29/2008	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
01/01/2009	2009 Annual Work	LeadAcidBattery
01/01/2009	2009 Annual Work	LeadAcidBattery
01/01/2009	2009 Annual Work	RTUxRemoteTerminalUnit
01/01/2009	2009 Annual Work	SF6CircuitBreaker
01/01/2009	2009 Annual Work	SF6CircuitBreaker
01/08/2009	2009 Elective ST-2 Battery Testing as requested by AWC Supervisor.	LeadAcidBattery
01/08/2009	2009 Elective ST-2 Battery Testing as requested by AWC Supervisor.	LeadAcidBattery
01/09/2009	2009 -- 1st set of IR Inspections	SubstationYard
01/24/2009		Eyewash
03/01/2009		LTCTransformer
03/01/2009		LTCTransformer
03/16/2009	Called out to Norwalk Junction 32M for pump house trouble alarm, upon arrival found frequent pump operations on pump	CablePumpHouse
03/17/2009	2009 work	SubstationYard
03/18/2009	Alarm investigation Pump hse critical..Freq. Pump Operations 3403-L1C..Checked pump hse looked normal..Alarm reset and	CablePumpHouse
03/22/2009	Alarm investigation Freq. pump operation of pump A 3403-L1C. Alarm reset and cleared. Will advise Carl Vitale alarm has	CablePumpHouse
03/27/2009		CablePumpHouse
04/30/2009	P3 - Add H2O as necessary and place 32M Primary Batts on equilibize. Reported as having low Spec. Gravity by Janet Baker	LeadAcidBattery
05/01/2009	Repairs completed, also replaced battery.	ControlHouse
06/04/2009	emergency generator trouble alarm, low water temp. Block heater needs to be replaced.Started generator for a few	StationaryEmergencyGenerator
06/08/2009	pumphouse critical alarm, frequent pump operation - pump A 3403-L1C. alarm reset.	CablePumpHouse
06/17/2009	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
06/17/2009	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
06/17/2009	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
06/17/2009	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
06/17/2009	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
06/17/2009	2009 Monthly PM: As per manufacturers recommendations, perform the following; "(1). make sure that the heaters are	MotorOperatedSwitch
06/29/2009	pump house critical alarm loss of power reset alarm and cleared	CablePumpHouse
07/06/2009	pump house critical loss of ac power to ups system	CablePumpHouse
07/24/2009		Eyewash
07/25/2009	Dispatched to Nor Junc, emergency gen running/ loss of ac power / reset/storm briefly knocked out power/notified convex	StationaryEmergencyGenerator
07/27/2009		SubstationYard
08/13/2009	Paged by convex to Norwalk Junction 32M for pump house critical alarm, upon arrival found frequent pump operation	CablePumpHouse
08/17/2009	Pump house critical alarm,loss of UPS A.C. supply, reset and cleared.	CablePumpHouse
09/01/2009		LTCTransformer
09/01/2009		LTCTransformer
09/04/2009	Dispatched by Convex / pump house trouble /frequent pump A\operations \ reset	CablePumpHouse
09/05/2009	Pump house critical alarm / too many operations pump A / reset notified convex	CablePumpHouse
09/17/2009	Jim Boris confirmed that this alarm has been in for several years. Engineering was requested in 2008 to make necessary	TransmissionRelayPackages
09/17/2009	Jim Boris confirmed that this alarm has been in for several years. Engineering was requested in 2008 to make necessary	TransmissionRelayPackages
11/14/2009	loss of ups ac supply alarm. reset.	CablePumpHouse
11/16/2009	CONVEX got a 3403C-1W BU Relay Trouble Critical alarm. The backup relay is a GE B-30; firmware version 4.80. Found	TransmissionRelayPackages
12/07/2009	pump house critical alarm reset and cleared	CablePumpHouse
12/15/2009	pumphouse critical alarm, frequent pump operation on pump A 3403-L1C, reset alarm.	CablePumpHouse
01/01/2010	2010 work	LeadAcidBattery

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01/01/2010	2010 work	LeadAcidBattery
01/01/2010	2010 work	RTUxRemoteTerminalUnit
01/01/2010	2010 work	SubstationYard
01/01/2010	2010 work	SubstationYard
01/01/2010	2010 work	SF6CircuitBreaker
01/01/2010	2010 work	SF6CircuitBreaker
01/09/2010	Paged by convex for pump house critical alarm at Norwalk Junction 32M, upon arrival found frequent pump operation pump	CablePumpHouse
01/13/2010	pumphouse critical alarm, frequent pump operation pump B 3403-L1D, alarm reset.	CablePumpHouse
01/14/2010	pumphouse critical alarm, frequent pump operation pump B, 3403-L1D, reset	CablePumpHouse
01/21/2010		Eyewash
01/22/2010	Called by Carl Vitale for pump house critical alarm at Norwalk Junction 32M when I arrived found HMI not working tried to	CablePumpHouse
01/25/2010	P2 - Escort USI to make HMI repairs	CablePumpHouse
01/28/2010	Norwalk AWC - Elective ST2 Test	LeadAcidBattery
01/28/2010	Norwalk AWC - Elective ST2 Test	LeadAcidBattery
01/29/2010	pump house critical alarm excessive pump operations reset and cleared	CablePumpHouse
02/04/2010		CablePumpHouse
02/26/2010	2011 Non-NPCC work	TransmissionRelayPackages
03/01/2010		LTCTransformer
03/01/2010		LTCTransformer
03/11/2010	pumphouse critical alarm, frequent pump operation pump B 3403-L1D. reset	CablePumpHouse
03/19/2010	Pumphouse critical alarm.....Frequent pump operation pump B 3403-L1D.... Alarm reset and cleared...Station normal..	CablePumpHouse
04/06/2010	pump house critical alarm frequent operations pump B	CablePumpHouse
04/07/2010	pumphouse critical alarm , frequent pump operation pump B 3403-L1D. alarm reset and cleared. came back in a 2nd time,	CablePumpHouse
04/08/2010	pumphouse critical alarm, frequent pump operation alarm, pump B 3403-L1D alarm reset.	CablePumpHouse
04/08/2010	Pump house critical alarm...Freq. pump op. Pump B 3403-L1D... Alarm reset and Cleared...	CablePumpHouse
04/08/2010	3403D-1W reactor trouble alarm, high oil temperature, temp was @ 80 degrees C which is the alarm point. Test will look	LTCTransformer
04/12/2010	Perform calibration on both the top oil and winding temperature Qualitrol gauge. Verify that the set points for the top oil	LTCTransformer
04/12/2010	Work completed during WW1018.	ControlHouse
04/15/2010	Respond to convex call out for pump house critical alarm. Pressure skid annunciator had frequent pump operation pump B	Pothead
04/15/2010	Convex call out for pump house critical alarm. Pressure skid annunciator has a frequent operation alarm on 3403-L1B pump	Pothead
04/19/2010	P3 Reset frequent pump operation alarm.	Pothead
05/04/2010	Change out back-up battery eyewash. New change out date 11-03-2010.	Eyewash
05/27/2010	3403D-1W reactor trouble alarm, high oil temp. temp was @ 80 degrees which is alarm point. very hot day in the 90's.will	LTCTransformer
05/28/2010	Alarm investigation pump hse critical...Freq. pump op...pump B.. 3403-L-1D...Alarm reset and cleared....	CablePumpHouse
06/30/2010	Completed on 9/21/10.	LTCTransformer
07/01/2010		SubstationYard
08/02/2010	Alarm investigation, freq pump ops.on pump B 3403-L1D.. Alarm reset and cleared.	CablePumpHouse
08/04/2010	pump house critical alarm	CablePumpHouse
09/01/2010	2010 2nd oil sample	LTCTransformer
09/01/2010	*	Eyewash
09/01/2010	2010 2nd oil sample	LTCTransformer
09/03/2010	Pump house critical alarm, found frequent pump operation pump B the alarm reset and cleared.	CablePumpHouse
09/27/2010	pump house trouble alarm / reset and cleared	CablePumpHouse
11/04/2010	Paged by convex to Norwalk Junction 32m for pump house trouble, upon arrival found frequent pump operations pump A	CablePumpHouse
11/05/2010	Called by convex to Norwalk Junction 32M for pump house critical alarm, when I arrived found frequent pump operaton	CablePumpHouse
11/07/2010	Paged by convex to Norwalk Junction 32M for pump house critical alarm, frequent pump operations pump A 3403-L1C,	CablePumpHouse
11/10/2010	Alarm investigation.. Frequent pump operations on 3403-L1C pump A.. Alarm timed out reset and cleared.	CablePumpHouse
11/12/2010	Alarm investigation; Pump house trouble; Freq. pump op, pump A... Timed out, reset and cleared.	CablePumpHouse
11/12/2010	Alarm investigation; Pump house trouble; Freq. pump op, pump A... Timed out, reset and cleared.	CablePumpHouse
11/14/2010	Alarm; Pump House Trb; Freq pup op pump A. Alarm reset and cleared.	CablePumpHouse
11/14/2010	Alarm; Pump House Trb; Freq pup op pump A. Alarm reset and cleared.	CablePumpHouse
11/16/2010	change eyewash solution on back up batteries.	Eyewash
12/03/2010	3403 line trip from 3SP Test Dept error. Reset rolled 86s and 87s on Mike Gerken auth.	TransmissionRelayPackages
12/08/2010	Paged by convex to Norwalk Junction 32M for pump house critical alarm, upon arrival found frequent pump operations	CablePumpHouse
12/09/2010	Paged by convex to Norwalk Junction 32M for pump house critical alarm, upon arrival found frequent pump operations	CablePumpHouse
12/12/2010	Paged by convex to Norwalk Junction 32M for loss of station service & generator running, upon arrival found generator	StationaryEmergencyGenerator
12/18/2010	pumphouse critical alarm. frequent pump operation pump A. 3403-L1C. alarm cleared.	CablePumpHouse
12/29/2010	2011 Annual	TransmissionRelayPackages
01/01/2011	2011 work. ST-1 Cellcorder PDF is attached.	LeadAcidBattery
01/01/2011	2011 work	SubstationYard
01/01/2011	2011 1st-Infrared inspection	SubstationYard
01/01/2011	2011 work. Attached ST-1 Cellcorder PDF. ST-1 inspection was done on 3/15/11.	LeadAcidBattery
01/01/2011	2011 work	RTUxRemoteTerminalUnit
01/01/2011	2011 work	SF6CircuitBreaker
01/01/2011	2011 work	SF6CircuitBreaker
01/05/2011	Requested by oil lab to take a second sample.	LTCTransformer
01/07/2011	2011 Elective ST2 Test	LeadAcidBattery
01/07/2011	2011 Elective ST2 Test. ST-2 Test PDF is attached.	LeadAcidBattery
01/24/2011	Alarm Investigation... 3403C-32M-1W DRMCC Trouble... Low clock battery...Will call Chuck Ballotte to repair....	LTCTransformer
01/31/2011	pump house critical fire alarm trouble reset and cleared	CablePumpHouse

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02/06/2011	fire alarm keeps activating for no apparent reason/...driveway is EXTREMELY dangerous, a solid sheet of ice	CablePumpHouse
02/18/2011	Paged by convex to Norwalk Junction 32M for 3403C-1W DRMCC trouble alarm, upon arrival found low clock battery, alarm	LTCTransformer
02/19/2011	Paged by convex to Norwalk Junction 32M for 3403C-32M-1W DRMCC trouble alarm, upon arrival found low clock battery	LTCTransformer
02/22/2011	Upgrade to Firmware 5.81	TransmissionRelayPackages
02/22/2011	Upgrade to Firmware 5.81	TransmissionRelayPackages
02/24/2011	Alarm investigation. DRMCC trouble. Low clock battery. Alarm cleared as I was removing front panel cover to DRMCC. Will	LTCTransformer
03/01/2011		LTCTransformer
03/01/2011		LTCTransformer
03/18/2011		Eyewash
05/04/2011	Alarm investigation DRMCC Trouble.. DRMCC 3403C-32M-2 Monitor Trouble...Low Clock Battery...Alarm cleared for now..	LTCTransformer
06/10/2011	Alarm investigation... Freq. pump op. pump B 3403-32M-L1D. Alarm reset and cleared.	CablePumpHouse
07/01/2011		SubstationYard
07/12/2011	Paged by convex to Norwalk Junction 32M for 3403C-32M-1W DRMCC trouble alarm, upon arrival found low clock battery	LTCTransformer
07/13/2011	Pump house critical alarm at Norwalk Junction 32M, loss ac supply alarm. Trouble stot VSR1 relay & alarm reset & cleared.	CablePumpHouse
07/14/2011	Repair battery problem on DRMCC.	LTCTransformer
07/22/2011	Perform protection group DC circuit test, procedure 3 after firmware install.	TransmissionRelayPackages
07/22/2011	Verify CT & PT integrity in protection circuit procedure 2 after firmware install.	TransmissionRelayPackages
07/22/2011	Calibrate Relay, procedure 1 after firmware update	TransmissionRelayPackages
07/22/2011	Perform protection group DC circuit test-procedure 3 after firmware upgrade	TransmissionRelayPackages
07/22/2011	Verify CT & PT integrity in protection circuit after firmware upgade. Procedure 2	TransmissionRelayPackages
07/22/2011	Perform relay calibration- procedure 1 after firmware upgrade	TransmissionRelayPackages
08/13/2011		Eyewash
08/18/2011	DRMCC ALARM / WONT RESET / TO NOTIFY CHUCK IN A.M.	LTCTransformer
08/29/2011	Paged by convex to Norwalk Junction 32M for pump house critical alarm, upon arrival found frequent operation pump B	CablePumpHouse
09/01/2011		LTCTransformer
09/01/2011		LTCTransformer
10/23/2011	Paged by convex to Norwalk Junction 32M for DRMCC major alarm, upon arrival found gas alarm. The alarm reset & cleared	LTCTransformer
12/31/2011	2012 annual work	LeadAcidBattery
12/31/2011	2012 annual work	LeadAcidBattery
01/01/2012	2012 annual work	TransmissionRelayPackages
01/01/2012	2012 annual work	LeadAcidBattery
01/01/2012	2012 annual work	LeadAcidBattery
01/01/2012	2012 annual work	SubstationYard
01/04/2012		LeadAcidBattery
01/04/2012		LeadAcidBattery
01/04/2012		Eyewash
01/04/2012		LTCTransformer
02/12/2012	Paged by convex to Norwalk Junction 32M for DRMCC trouble, upon arrival found 3403D-1W DRMCC trouble alarm. At the	LTCTransformer
02/16/2012	Install ice alert signs in substation driveways	SubstationYard
02/19/2012	2012 Non-NPCC added scope, MB.	TransmissionRelayPackages
02/19/2012	2012 Non-NPCC added scope, MB.	TransmissionRelayPackages
04/02/2012	Brought forward - Extra	TransmissionRelayPackages
04/02/2012	Brought forward - Extra	TransmissionRelayPackages
08/30/2012	2012 NonNPCC work	TransmissionRelayPackages
08/30/2012	2012 NonNPCC work	TransmissionRelayPackages
09/24/2012	2012 NonNPCC work	TransmissionRelayPackages
09/24/2012	2012 NonNPCC work	TransmissionRelayPackages

Witness: CL&P Panel
Request from: Vlictor Civie

Question:

What projects if any has ISO-NE determined to be not eligible for regionalization.

Response:

Based upon a March 16, 2012 status on the ISO-NE web site of 149 Transmission Cost Allocation Applications, ISO-NE has determined that portions of the following eight New England pool-transmission-facility projects included costs not eligible for regionalization. The percentage of each of these project's pool-transmission-facility cost that was not regionalized is provided within parentheses.

- CL&P's Bethel to Norwalk Project (33%)
- CL&P's Glenbrook Cables Project (13%)
- CL&P's Middletown-Norwalk Project (5%)
- NSTAR's 345-kV Reliability Project (3%)
- UI's Highway Relocation Project for "Q-Bridge" (20%)
- National Grid's E-183 Line Relocation Project (60%)
- National Grid's Bloomingdale - Vernon Hill Cable Project (0.8%)
- UI's Trumbull Substation (23%)

Witness: CL&P Panel
Request from: Victor Civie

Question:

What is the location and name of the stations found on page 15A-21 15A-22 and 15A-23 of the application.

Response:

As stated on page 15A-18 of CL&P's Application, the transition station depicted on page 15A-21 (Fig. 15A-1) is a conceptual representation of what would be required to accommodate a transition from 345-kV underground cables to overhead line on the Interstate Reliability Project. This station would require the electrical connections, along with required switching capability for rising and connecting the nine (9) XLPE underground cables (3 sets of 3 cables) to an overhead line. CL&P has not installed a transition station of this magnitude on its system, and therefore does not have an actual photographic example of such a transition station. Note that this conceptual representation does not include space provisions for shunt reactors, which could be required to compensate for the capacitive charging currents associated with longer sections of underground cables.

The transition station shown on page 15A-22 (Fig 15A-2) is the Norwalk Junction station located in Wilton, CT. The transition station shown on page 15A-23 (Fig 15A-3) is the Archers Lane station located in Redding, CT. Both stations are examples of transitioning two three-phase, 345-kV high-pressure, fluid-filled (HPFF) cables to an overhead line.

Witness: CL&P Panel
Request from: Victor Civie

Question:

Page 15-60 lists estimates of \$5.4 million for overhead and \$65 million for underground cable configurations. Provide details if any on how these figures were estimated.

Response:

The estimates provided on page 15-60 of CL&P's Application for the Mount Hope underground variation were developed using the same methodology as all other project estimates. Project estimates were developed using a historical cost estimating methodology, which references actual project costs from recently completed and ongoing projects, including the Greater Springfield Reliability Project and the Middletown - Norwalk Project. For the underground cable-system cost estimates, additional information was obtained from suppliers and contractors who have additional experience that may be relevant for the various estimate components.

To prepare a cost estimate for underground cables, engineers and construction personnel first review the potential routes for cable installation and potential transition station locations, and they determine the most practical and feasible route. Once the route is established a cost estimating team looks at the specifics for that particular route to generate an estimate to complete the installation. Some assumptions based on judgment and experience must be made, e.g., on rock quantities that could be encountered during construction, because at this stage little is known about the subsurface conditions along the route.

The cost estimate for the section of overhead line that would not be built if this underground variation were to be ordered was made in a similar way. The project team considered the specific overhead line design that was proposed, and using the same basis for estimating the cost to construct the overall line, subtracted out the section of the line that would no longer be required if the Mount Hope underground variation was ordered.