

ORANGE & ROCKLAND UTILITIES LOCAL TRANSMISSION PLANS (LTP) 2014 - 2023

**NYISO KCC
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PRESENTATION OUTLINE



COMPANY BACKGROUND



**LTP ASSUMPTIONS, TOOLS &
METHODOLOGIES**



DEVELOPMENT OF LTP



**PROPOSED LTP
(UPDATES FROM 2013 LTP)**



QUESTIONS

COMPANY BACKGROUND (Service Territory)



Company Profile:

TO & LSE under NYISO/PJM.
Subsidiary of Con Edison, Inc.

Existing Circuit Miles:

Transmission (69 kV to 345 kV) :
554 miles
Distribution (4 kV to 34.5 kV) :
3,764 miles
UG Distribution (13.2 kV) :
1,696 miles

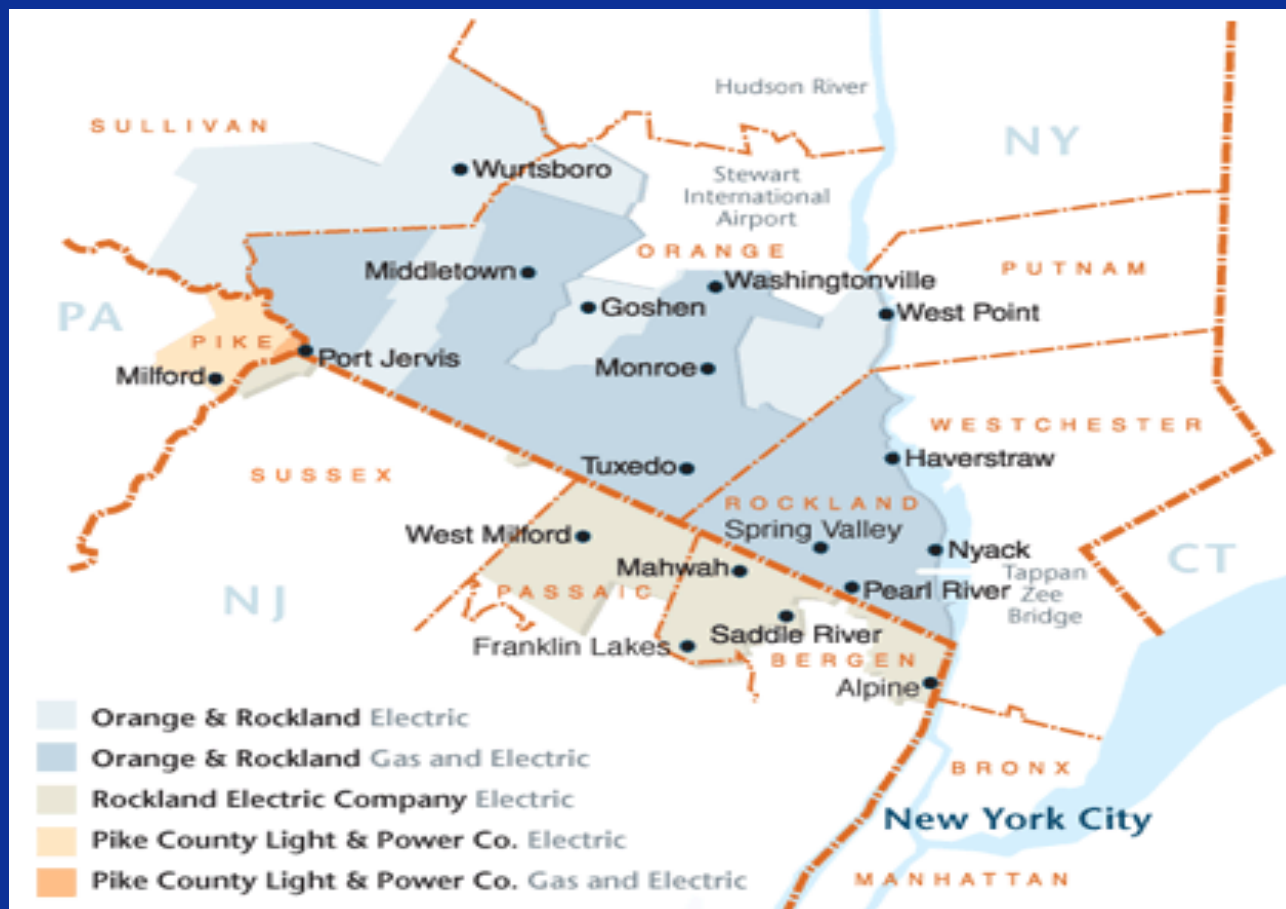
Customer Data:

Electric: 300,700 (NY, NJ, PA)
Gas: 130,000 (NY, PA)

All time Peak Demand for electricity:
1617 MW (8/2/06)

Number of employees ~ 1100

Service Territory ~ 1350 sq. miles



COMPANY BACKGROUND

(Transmission Design Standards)

- **THERMAL**

- Normal Operating Conditions:
 - Below Normal Rating of Equipment
- N-1 Operating Conditions:
 - Below Long-Term Emergency (LTE) Rating of Equipment.

- **VOLTAGE**

- Normal and N-1 Operating Conditions:
 - $0.95 < \text{Nominal Bus voltage} < 1.05$

LTP ASSUMPTIONS

- 2014-2018 Capital Budget
- Load Forecast:
 - 2014 (1615 MW)
 - 2018 (1680 MW)
 - 2023 (1765 MW)
- Factors Affecting LTP:
 - Reliability Requirements
 - Changes in Load Forecast
 - DSM
 - Federal and State Programs
 - New Generation
 - Etc...

LTP TOOLS AND METHODOLOGIES

- Thermal
- Voltage
- Short Circuit
- Equipment Replacements Due to Condition

DEVELOPMENT OF LTP

- Load Flow Studies
- System Violations Identification
- System Solution Proposal and Evaluations
- Preparation of the Long Range Transmission Plan
- LTP Presentations

DEVELOPMENT OF LTP

- **DESIGN CRITERIA REQUIREMENTS**
 - Thermal Overloads and Voltage Violations
 - Short Circuit Violations
 - Equipment Condition

DEVELOPMENT OF LTP

• METHODS FOR DEFICIT RESOLUTIONS

- Load Transfers
- Equipment Upgrades
- New or Reconfiguration of Transmission Lines
- New Switching Stations with new or reconfigured Transmission Lines
- Transmission Station Reconfiguration or Upgrade
- Reactive Power Compensation (Capacitors)
- Short Circuit Remediation/Breaker Upgrade
- DSM

PROPOSED LTP

- EASTERN DIVISION LOCAL PLANS

GEOGRAPHIC COVERAGE : Rockland County (NY),
Portions of Bergen County (NJ)
DESIGN STANDARD: First Contingency

PROJECT DESCRIPTION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
North Rockland 345 kV Station	June 2016	June 2018
Line 702 Upgrade	December 2015	June 2016
Ramapo New Protection System	April 2013*	
Tappan 3-Way Switch (NJ)	-	June 2015

*Ramapo Banks 1300 & 2300 re-classified as non-BPS on NPCC's A-10 List as of May 2013.

PROPOSED LTP

- EASTERN DIVISION LOCAL PLANS

PROPOSED TRANSMISSION CAPACITOR BANK INSTALLATIONS (32 MVARs)		
STATION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Little Tor	2015	2016
New Hempstead	2014	2014
Montvale (NJ)	2020	2021
Pomona	2016	2021
Summit (NJ)	2014	2015
West Nyack	2019	2019

PROPOSED LTP

- EASTERN DIVISION LOCAL PLANS

PROPOSED EQUIPMENT REPLACEMENTS DUE TO CONDITION (138 KV BREAKERS)

STATION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Ramapo	2016	2016
Burns	2018	2019
West Haverstraw	2018	2020

PROPOSED LTP

- CENTRAL DIVISION LOCAL PLANS

GEOGRAPHIC COVERAGE : Portions of Orange County (NY)
Portions of Passaic County (NJ)
DESIGN STANDARD: First Contingency

PROJECT DESCRIPTION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Line 28	June 2014	June 2014
Sterling Forest New 69 KV Source	June 2015	June 2016
Line 24 & 25 138KV Conversion	December 2019	December 2021

PROPOSED LTP

- CENTRAL DIVISION LOCAL PLANS

PROPOSED TRANSMISSION CAPACITOR BANK INSTALLATIONS (32 MVARs)

STATION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Hartley	2014	2014
West Warwick	2017	2018
Woodbury	2019	2022

PROPOSED EQUIPMENT REPLACEMENTS DUE TO CONDITION (138 KV BREAKERS)

STATION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Sugarloaf 138kV	2013	-

PROPOSED LTP

- WESTERN DIVISION LOCAL PLANS

GEOGRAPHIC COVERAGE : Portions of Orange County (NY), Portions of Sullivan County (NY) Portions of Pike County (PA)		
DESIGN STANDARD: First Contingency		
PROJECT DESCRIPTION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
2 nd Middletown Tap (Northern Division 345 kV Station)	Cancelled	-
Sugarloaf 345 kV Station	June 2018	June 2016

PROPOSED LTP

- WESTERN DIVISION LOCAL PLANS

PROPOSED TRANSMISSION CAPACITOR BANK INSTALLATIONS (16 MVARs or 32 MVARs)		
STATION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Pocatello (New - 32)	2018	2021
Fair Oaks (New -16)	2018	2023
Bullville (New – 16)	2019	2021

PROPOSED EQUIPMENT REPLACEMENTS DUE TO CONDITION (69/34.5 KV Bank)		
STATION	IN-SERVICE DATE	
	2013 Plan	2014 Plan
Rio	2020	2025

O & R LTP LINK AND CONTACTS

1. LTP LINK

<http://www.oru.com/aboutoru/tariffsandregulatorydocuments/federal/order890.html>

2. CONTACTS

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