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**VIA ELECTRONIC FILING**

April 9, 2010

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: Power Authority of the State of New York, FERC Project No. 2685-___; Submission of Non-Capacity Related Amendment Application**

Dear Secretary Bose:

In accordance with Section 4.200 of the regulations of the Federal Energy Regulatory Commission (Commission or FERC),[1] the Power Authority of the State of New York (NYPA) hereby submits a non-capacity related amendment application for its Blenheim Gilboa Power Project, FERC Project No. 2685 (Project). As set forth in the application, NYPA seeks to remove certain transmission lines from the Project license, on the basis that these lines no longer qualify as "primary lines" under the Federal Power Act.[2]

In describing the configuration and operation of the Project and transmission system, the application contains a diagram relating to the "production, generation, transportation, transmission, or distribution of energy."[3] NYPA believes that this information qualifies as Critical Energy Infrastructure Information (CEII). In accordance with the Commission's regulations[4] and guidelines for electronic filings, therefore, NYPA has filed this information in a separate volume, which has been clearly marked as CEII. NYPA respectfully requests that this information be accorded privileged treatment as CEII and placed in the Commission's non-public file.[5]

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[1] 18 C.F.R. § 4.200.

[2] 16 U.S.C. § 796(11).

[3] 18 C.F.R. § 388.113(c)(1)(i).

[4] *See* 18 C.F.R. § 388.112(b)(2).

[5] 18 C.F.R. §§ 388.107, 388.112(b)(1).

NYPA looks forward to working with the Commission in this amendment proceeding for the Project. If you have any questions, please do not hesitate to contact me. Thank you for your assistance in this matter.

Respectfully submitted,

Charles R. Sensiba
Counsel to the Power Authority
of the State of New York

Enclosures

**UNITED STATES OF AMERICA**
**BEFORE THE**
**FEDERAL ENERGY REGULATORY COMMISSION**

| | | |
|---|---|---|
| **Power Authority of the State of New York** | **)**<br>**)** | **Project No. 2685-___**<br>**Blenheim Gilboa Power Project** |

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# APPLICATION FOR NON-CAPACITY RELATED AMENDMENT OF LICENSE TO REMOVE CERTAIN NON-JURISDICTIONAL TRANSMISSION LINES FROM LICENSE

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Pursuant to Section 4.200 of the Federal Energy Regulatory Commission's (Commission or FERC) regulations,[1] the Power Authority of the State of New York (NYPA) hereby submits this non-capacity related license amendment application[2] for the Blenheim Gilboa Power Project, FERC Project No. 2685 (Project), which seeks to remove three transmission lines from the Project's license. As discussed below, these transmission lines are under the direct operational control of the New York Independent System Operator (NYISO), are integral parts of the high voltage interconnected transmission network, and continually provide transmission service to non-Project suppliers and customer loads throughout the region regardless of Project operation. Consequently, these lines do not meet the definition of "primary" transmission lines under Section 3(11) of the Federal Power Act (FPA),[3] and should be removed from the license for the Project.

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[1] 18 C.F.R. § 4.200.

[2] The Initial Statement required by Section 4.201 of the Commission's regulations, 18 C.F.R. § 4.201, is provided in Attachment A.

[3] 16 U.S.C. § 796(11).

## I. Communications

All notices and communications on this matter should be addressed to:

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## II. Background

On June 6, 1969, the Federal Power Commission (FPC) issued NYPA an original license for the Project.[4] As currently licensed, the Project includes four pump-turbine motor-generator units with a total generating capacity of 1,160 MW (290 MW each).[5] At the substation located at the Project's switchyard,[6] these four units interconnect with three 345 kv transmission lines: the Fraser-Gilboa line (33.6 miles), the Gilboa-New Scotland line (31.8 miles), and the Gilboa-Leeds line (36.4 miles). The substation at the Project is a robust breaker and a half configuration with five occupied stations and one station available for future use. Each of these transmission lines occupies a station. The Project's units are paired through isolation switches, and each pair occupies a station on

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[4] *Power Auth. of the State of N.Y.*, 41 F.P.C. 712 (1969).

[5] *Power Auth. of the State of N.Y.*, 115 FERC ¶ 62,109 at p. 64,507 (2006).

[6] *See Power Auth. of the State of N.Y.*, 41 F.P.C. at 716 (including as a Project work "a switchyard, located adjacent to the pumping generating plant").

the bus system. A one-line diagram of the Project substation is provided in Attachment B. The FPC included all three transmission lines in the license. Ordering Paragraph(B)(ii)(7) includes as Project works under the license "three 345 kv transmission lines; one to Delhi; one to New Scotland and one to Catskill (Leeds)."[7] At the time of original licensing, these three lines were included as Project works because they were to be "used as primary project lines to connect to the existing interconnected primary transmission systems" of New York State Electric & Gas Corporation and Niagara Mohawk Power Corporation.[8] These three lines, together with the surrounding interconnected transmission system, are depicted in the maps provided in Attachment C.

## II. Discussion

While these three transmission lines, at the time of original licensing and construction of the Project, were intended to provide the substantial electric capacity necessary to support the Project, these lines have long been recognized as integral components of the regional interconnected transmission system. These transmission lines for many years have provided transmission service to the region's suppliers and loads. They are a major component of the Total East Interface within the New York operating region.

In fact, as part of the Commission's conditional acceptance, with modifications, of the proposed NYISO Tariff and the proposed market rules of the NYISO in 1999,[9] all three lines were placed under the direct operational control of the NYISO. Under the

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[7] *Id.* at 716.

[8] *Id.* at 714.

[9] *Cent. Hudson Gas & Elec. Co.*, 86 FERC ¶ 61,062 (1999), *on reh'g*, 88 FERC ¶ 61,138 (1999). The Commission conditionally authorized the establishment of the NYISO in *Central Hudson Gas & Electric Co.*, 83 FERC ¶ 61,352 (1998), *on reh'g*, 87 FERC ¶ 61,135 (1999). *See also Cent. Hudson Gas & Elec. Co.*, 90 FERC ¶ 61,045 (2000).

"Agreement Between New York Independent System Operator and Transmission Owners," the three lines were designated as "A-1 Facilities."[10] As such, these lines are subject to NYISO dispatching and are available for non-discriminatory access under the terms and conditions of the NYISO open access transmission tariff. These lines, moreover, are subject to NYISO security and control.[11] Consistent with the NYISO's direct operation and control of these three lines, NYISO documentation identifies the high-voltage bus at the Project's switchyard as the injection point of Project power and energy into the NYISO operated grid.[12]

The NYISO's identification of these three transmission lines as A-1 Facilities under its direct operational control is not surprising, given that these lines interconnect the generation rich western and northern reaches of New York State with the high loads located in the eastern and south eastern regions of the State. In fulfilling this role, substantial amounts of electricity pass through these lines providing transmission service to sources and loads that are unrelated to the Project. To illustrate this, transmission system modeling was performed under a variety of conditions. The figures provided in Attachment G (marked as Figures 3-12) provide modeled results of the energy flow on these lines under a matrix of conditions – summer and winter, high and low loads, and

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[10] Agreement Between New York Independent System Operator and Transmission Owners (1999), Appendix A-1, at 1 (included at Attachment D). The three lines at issue here are identified as GF5-35, GL3, and GNS-1.

[11] *See e.g.*, NYISO Transmission Dispatching and Operating Manual (2008), Appendix A, at A-2 (showing all three lines as subject to NYISO security and control) (included at Attachment E). This document is available at http://www.nyiso.com/public/webdocs/documents/manuals/operations/trans_disp.pdf.

[12] *See* Transmission Congestion Contracts Manual Attachments, Attachment E, Points of Injection and Withdrawal at E-4 (July 16, 2009) (included at Attachment F). This document is available at http://www.nyiso.com/public/webdocs/products/tcc/tcc_manual/att_e_poi_pow_init_reconfig_tcc_auctions_AUT2009_07-16-2009_CLEAN.pdf.

with the Project generating, off line and pumping.[13] These results show that these transmission lines in all cases serve load on the interconnected system south of Leeds Substation. Indeed, in all cases – including light load cases with the Project at maximum generation – there remains a steady transfer of non-Project power from Fraser through the Project substation bus to Leeds.

## III. Analysis

Section 3(11) of the FPA defines a "project" as including:

> the primary line or lines transmitting power [from the hydroelectric project] to the point of junction with the distribution system or with the interconnected primary transmission system.[14]

The Commission has held that "primary" transmission lines are narrowly limited to "those necessary to ensure the 'viability' of the project in the event of Federal takeover."[15] In determining whether a transmission line qualifies as a "primary" line, the Commission applies a "two-pronged technical test"[16]:

> whether it is used solely to transmit power from a Commission licensed project to the interconnected distribution system, and whether without it there would be no way to market the full capacity of the project.[17]

"Under this test, the line leading from a project ceases to be a primary line at the point it is no longer used solely to transmit power from the project to the interconnected grid."[18]

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[13] These scenarios were modeled using the Siemens Power Technologies International's PSS/E modeling tool. The generic base cases for seasonal load and supply conditions are those developed and used by NYISO.

[14] 16 U.S.C. § 796(11).

[15] *Pac. Gas & Elec. Co.*, 85 FERC ¶ 61,411 at p. 62,559 (1998).

[16] *City of Tacoma v. S. Columbia Basin Irrigation Dist.*, 118 FERC ¶ 61,202 at P 39 (2007).

[17] *Id.* (citing *Pac. Gas & Elec. Co.*, 85 FERC at p. 62,559).

[18] *N.Y. Power Auth.*, 98 FERC ¶ 61,033 at p. 61,095 (2002).

Thus, "[a] primary line is the line that is essential for and used solely to transmit power from the licensed project to a load center,"[19] and the relevant inquiry is "whether the line carries only project power or other power as well."[20] In cases where a transmission line carries both project and non-project power, the Commission has held that the line is not "primary" for the purposes of FPA Section 3(11).[21] Similarly, the Commission has held that transmission lines functioning as an integral part of a regional transmission system do not qualify as "primary" lines.[22]

Applying this test to the Fraser-Gilboa line, Gilboa-New Scotland line, and Gilboa-Leeds line, none of these three transmission lines meets the Commission's test for identifying "primary" lines under FPA Section 3(11). As described above, none of these lines is used exclusively to transmit Project energy and capacity. To the contrary, all three lines carry energy and capacity from both the Project and non-Project sources to remote customer loads, as demonstrated by the modeling shown at Attachment G. Even under a wide range of pumping, generating, and static conditions, these three transmission lines are continuously transmitting electricity from non-Project sources. Further, the regulatory treatment of these lines as integral elements of the regional transmission system and under the direct operational control of the NYISO is consistent

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[19] *N. Hartland, LLC*, 105 FERC ¶ 61,403 at P 3 (2003) (citing *Vt. Elec. Generation & Transmission Coop.*, 104 FERC ¶ 61,151 at P 8 (2003)).

[20] *City of Tacoma*, 118 FERC ¶ 61,202 at P 45.

[21] *E.g.*, *Puget Sound Hydro LLC*, 109 FERC ¶ 61,039 at PP 37-42 (2004); *Pac. Gas. & Elec. Co.*, 85 FERC ¶ 61,411 at p. 62,559 (1998) (finding that "documents indicate that the lines proposed to be removed from the project descriptions are not used solely to transmit power from the projects to load centers, but rather are essential parts of PG&E's transmission and distribution system, carrying power from both project and non-project sources").

[22] *E.g.*, *N.Y. Power Auth.*, 97 FERC ¶ 61,051 (2001), *reh'g denied*, 98 FERC ¶ 61,033 (2002) (holding that NYPA's Cross-State Line should be removed from the license for the Niagara Power Project, noting that the line is under the operational control of the NYISO); *Pac. Gas & Elec. Co.*, 85 FERC ¶ 61,411 (1998); *Mont. Power Co.*, 89 FERC ¶ 62,182 (1999); *New Eng. Power Co.*, 85 FERC ¶ 62,113 (1998).

with their uses by non-Project generators and loads. Thus, none of the three lines is "essential for and used solely to transmit power from the licensed project to a load center";[23] the lines, therefore, do not qualify as "primary" lines.

For these reasons, the only Project facilities that meet the definition of "primary" transmission lines at the Project are the connecting circuits from the motor-generators to the high voltage bus. Once the Project's energy reaches the high-voltage substation bus, it has entered the interconnected transmission grid.

## IV. Conclusion

WHEREFORE, for the foregoing reasons, NYPA respectfully requests that the Commission approve this non-capacity related amendment application to remove the Fraser-Gilboa line, Gilboa-New Scotland line, and Gilboa-Leeds line from the Project license. Once the Commission approves this application, NYPA will prepare and file any exhibits that may require changes to conform with the Commission's orders in this proceeding.

Respectfully submitted,

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Counsel to the Power Authority
of the State of New York

DATED: April 9, 2010

[23] *N. Hartland, LLC*, 105 FERC ¶ 61,403 at P 3 (2003).

# ATTACHMENT A

**<u>Initial Statement Under 18 C.F.R. § 4.201</u>**

**BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION**

***Application for Amendment of License***

(1) The Power Authority of the State of New York (NYPA) applies to the Federal Energy Regulatory Commission for an amendment of license for the Blenheim Gilboa Power Project, Project No. 2685 (Project).

(2) The exact name, business address, and telephone number of the applicant are:

Power Authority of the State of New York
123 Main Street
White Plains, NY 10601

Attn: Mark Slade, BG Licensing Manager
(914) 681-6659

(3) NYPA is a corporate municipal instrumentality of the State of New York, and the licensee for the Project, designated as Project No. 2685 in the records of the Federal Energy Regulatory Commission, issued on the 6th day of June, 1969.

(4) The amendments of license proposed and the reason(s) why the proposed changes are necessary, are: This amendment seeks to remove three transmission lines from the Project license. Because these lines do not qualify as "primary" transmission lines under Section 3(11) of the Federal Power Act, 16 U.S.C. § 796(11), they should no longer be included in the license.

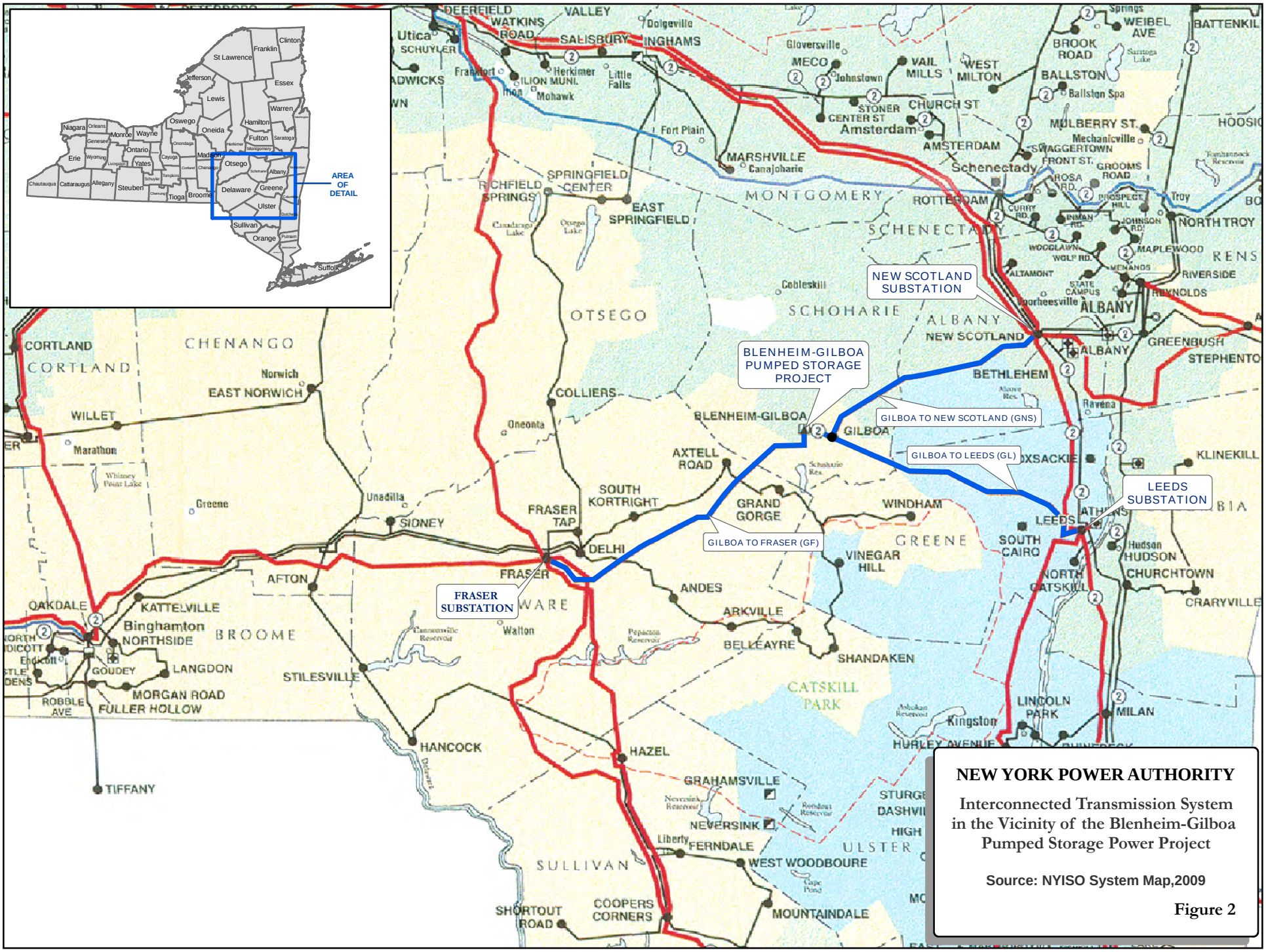
(5) (i) The statutory or regulatory requirements of the state(s) in which the project would be located that affect the project as proposed with respect to bed and banks and to the appropriation, diversion, and use f water for power purposes are: As this amendment is limited only to the administrative act of removing transmission lines from the license that are no longer appropriately included within the license, there are no New York state laws or regulations triggered that would affect the proposed amendment as to bed and banks or the appropriation, diversion and use of water.

(ii) The steps which the applicant has taken or plans to take to comply with each of the laws cited above are: Not applicable.

# ATTACHMENT B

**Attachment B consists of Critical Energy Infrastructure Information, which has been removed from this public filing.**

# ATTACHMENT C


AREA OF DETAIL
NEW SCOTLAND SUBSTATION
BLENHEIM-GILBOA PUMPED STORAGE PROJECT
GILBOA TO NEW SCOTLAND (GNS)
GILBOA TO LEEDS (GL)
LEEDS SUBSTATION
GILBOA TO FRASER (GF)
FRASER SUBSTATION
MONTGOMERY
SCHENECTADY
OTSEGO
SCHOHARIE
ALBANY
CHENANGO
CORTLAND
BROOME
DELAWARE
GREENE
ULSTER
SULLIVAN
CATSKILL PARK
Utica
Schenectady
Amsterdam
Johnstown
Gloversville
Ballston Spa
Saratoga Lake
Troy
Albany
Hudson
Kingston
Binghamton
Oneonta
Cooperstown
Delhi
Walton
Norwich
Cobleskill
Ravena
Catskill
Greenville
Lake Ontario
Lake Erie
Finger Lakes
Hudson River
Delaware River
Susquehanna River
Mohawk River
Schoharie Creek
Catskill Creek
Esopus Creek
Rondout Creek
Neversink Reservoir
Pepacton Reservoir
Cannonsville Reservoir
Ashokan Reservoir
Schoharie Res.
Gilboa Res.
Cayuga Lake
Seneca Lake
Otsego Lake
Canadarago Lake
Oneida Lake
Saratoga Lake
Tomhannock Reservoir
Cape Pond
Rondout Reservoir
Whitney Point Lake
Alcove Res.
Hoosic River
Mohawk River
Hudson River
Delaware River
Susquehanna

# ATTACHMENT D

# Appendix A
# TRANSMISSION FACILITIES

- Appendix A-1 presents a listing of Transmission Facilities Under NYISO Operational Control.
- Appendix A-2 presents a listing of Transmission Facilities Requiring NYISO Notification.
- Appendix A-3 lists Bus Voltage Limits.

## Listing of Transmission Facilities under ISO Operational Control

| CIRCUIT ID | FROM | KV | TO | KV |
|---|---|---|---|---|
| 7040 | CHATEAUGUAY | 765 | MASSENA | 765 |
| BK 1 | MARCY | 765 | MARCY | 345 |
| BK 2 | MARCY | 765 | MARCY | 345 |
| MSU1 | MASSENA | 765 | MARCY | 765 |
| BK 1 | MASSENA | 765 | MASSENA A | 230 |
| BK 2 | MASSENA | 765 | MASSENA B | 230 |
| 5018 | BRANCHBURG | 500 | RAMAPO | 500 |
| BK 1500 | RAMAPO | 500 | RAMAPO S. | 345 |
| 393 | ALPS | 345 | BERKSHIRE | 345 |
| PA301 | BECK A | 345 | NIAGARA | 345 |
| PA302 | BECK B | 345 | NIAGARA | 345 |
| 67-1 | BOWLINE 1 | 345 | W.HAVERSTRAW | 345 |
| W93 | BUCHANAN N. | 345 | EASTVIEW 2N | 345 |
| W97 | BUCHANAN S. | 345 | MILLWOOD | 345 |
| W98 | BUCHANAN S. | 345 | MILLWOOD | 345 |
| 13 | CLAY | 345 | DEWITT | 345 |
| 1-16 | CLAY | 345 | EDIC | 345 |
| 2-15 | CLAY | 345 | EDIC | 345 |
| BK 2 | COOPERS CRNS | 345 | COOPERS CRNS | 115 |
| BK 3 | COOPERS CRNS | 345 | COOPERS CRNS | 115 |
| CRT-34 | COOPERS CRNS | 345 | ROCK TAVERN | 345 |
| CRT-42 | COOPERS CRNS | 345 | ROCK TAVERN | 345 |
| 22 | DEWITT | 345 | LAFAYETTE | 345 |
| F38 | E.FISHKIL CE | 345 | WOOD ST | 345 |
| F39 | E.FISHKIL CE | 345 | WOOD ST | 345 |
| W64 | EASTVIEW 1N | 345 | SPRAINBROOK | 345 |
| W78 | EASTVIEW 1S | 345 | SPRAINBROOK | 345 |
| W79 | EASTVIEW 2N | 345 | SPRAINBROOK | 345 |
| W65 | EASTVIEW 2S | 345 | SPRAINBROOK | 345 |
| EF24-40 | EDIC | 345 | FRASER | 345 |
| 14 | EDIC | 345 | NEW SCOTLAND | 345 |
| FE-1 | FITZPATRICK | 345 | EDIC | 345 |
| FS-10 | FITZPATRICK | 345 | SCRIBA | 345 |
| 33 | FRASER | 345 | COOPERS CRNS | 345 |
| BK 2 | FRASER | 345 | FRASER | 115 |
| GF5-35 | FRASER | 345 | GILBOA | 345 |
| GL3 | GILBOA | 345 | LEEDS | 345 |
| GNS-1 | GILBOA | 345 | NEW SCOTLAND | 345 |
| 37 | HOMER CITY | 345 | STOLLE RD | 345 |
| 30 | HOMER CITY | 345 | WATERCURE | 345 |
| 303 | HURLEY AVE | 345 | ROSETON | 345 |
| 26 | INDEPENDENCE | 345 | CLAY | 345 |
| 25 | INDEPENDENCE | 345 | SCRIBA | 345 |
| SR1-39 | KINTIGH | 345 | ROCHESTER | 345 |
| 68 | LADENTOWN | 345 | BOWLINE 2 | 345 |

## Listing of Transmission Facilities under ISO Operational Control

| CIRCUIT ID | FROM | KV | TO | KV |
|---|---|---|---|---|
| Y88 | LADENTOWN | 345 | BUCHANAN S. | 345 |
| 67-2 | LADENTOWN | 345 | W.HAVERSTRAW | 345 |
| 4-36 | LAFAYETTE | 345 | OAKDALE | 345 |
| 301 | LEEDS | 345 | HURLEY AVE | 345 |
| 91 | LEEDS | 345 | PLEASANT VALLEY | 345 |
| 92 | LEEDS | 345 | PLEASANT VALLEY | 345 |
| 398 | LONG MT | 345 | PLEASANT VALLEY | 345 |
| UCC2-41 | MARCY | 345 | COOPERS CRNS | 345 |
| UE1-7 | MARCY | 345 | EDIC | 345 |
| 18 | MARCY | 345 | NEW SCOTLAND | 345 |
| W99 | MILLWOOD | 345 | EASTVIEW 1N | 345 |
| W85 | MILLWOOD | 345 | EASTVIEW 1S | 345 |
| W82 | MILLWOOD | 345 | EASTVIEW 2S | 345 |
| 2 | NEW SCOTLAND | 345 | ALPS | 345 |
| 93 | NEW SCOTLAND | 345 | LEEDS | 345 |
| 94 | NEW SCOTLAND | 345 | LEEDS | 345 |
| NS1-38 | NIAGARA | 345 | KINTIGH | 345 |
| BK 3 | NIAGARA | 345 | NIAGARA | 230 |
| BK 4 | NIAGARA | 345 | NIAGARA | 230 |
| BK 5 | NIAGARA | 345 | NIAGARA | 230 |
| NR2 | NIAGARA | 345 | ROCHESTER | 345 |
| 8 | NINE MILE PT 1 | 345 | CLAY | 345 |
| 9 | NINE MILE PT 1 | 345 | SCRIBA | 345 |
| 32 | OAKDALE | 345 | FRASER | 345 |
| BK 2 | OAKDALE | 345 | OAKDALE | 115 |
| BK 3 | OAKDALE | 345 | OAKDALE | 115 |
| 17 | OSWEGO | 345 | LAFAYETTE | 345 |
| 11 | OSWEGO | 345 | VOLNEY | 345 |
| 12 | OSWEGO | 345 | VOLNEY | 345 |
| 1 | PANNELL RD | 345 | CLAY | 345 |
| 2 | PANNELL RD | 345 | CLAY | 345 |
| F36 | PLEASANT VLY | 345 | E.FISHKIL CE | 345 |
| F37 | PLEASANT VLY | 345 | E.FISHKIL CE | 345 |
| F30 | PLEASANT VLY | 345 | WOOD ST | 345 |
| F31 | PLEASANT VLY | 345 | WOOD ST | 345 |
| W90 | PLEASNTVL E. | 345 | DUNWOODIE | 345 |
| W89 | PLEASNTVL W. | 345 | DUNWOODIE | 345 |
| Q35L | POLETTI | 345 | E.13TH ST C | 345 |
| Q35M | POLETTI | 345 | E.13TH ST D | 345 |
| Y94 | RAMAPO | 345 | BUCHANAN N. | 345 |
| W72 | RAMAPO | 345 | LADENTOWN | 345 |
| PAR3500 | RAMAPO S. | 345 | RAMAPO | 345 |
| PAR4500 | RAMAPO S. | 345 | RAMAPO | 345 |
| RP1 | ROCHESTER | 345 | PANNELL RD | 345 |
| RP2 | ROCHESTER | 345 | PANNELL RD | 345 |

## Listing of Transmission Facilities under ISO Operational Control

| CIRCUIT ID | FROM | KV | TO | KV |
|---|---|---|---|---|
| 77 | ROCK TAVERN | 345 | RAMAPO | 345 |
| 305 | ROSETON | 345 | E.FISHKIL CE | 345 |
| 311 | ROSETON | 345 | ROCK TAVERN | 345 |
| 69 | S.MAHWAH A | 345 | RAMAPO | 345 |
| 70 | S.MAHWAH B | 345 | RAMAPO | 345 |
| 20 | SCRIBA | 345 | VOLNEY | 345 |
| 21 | SCRIBA | 345 | VOLNEY | 345 |
| W75 | SPRAINBROOK | 345 | DUNWOODIE | 345 |
| BK 3 | STOLLE RD | 345 | STOLLE RD | 115 |
| BK 4 | STOLLE RD | 345 | STOLLE RD | 115 |
| 6 | VOLNEY | 345 | CLAY | 345 |
| 19 | VOLNEY | 345 | MARCY | 345 |
| J3410 | WALDWICK | 345 | S.MAHWAH A | 345 |
| K3411 | WALDWICK | 345 | S.MAHWAH B | 345 |
| 31 | WATERCURE | 345 | OAKDALE | 345 |
| BK 1 | WATERCURE | 345 | WATERCURE | 230 |
| W80 | WOOD ST | 345 | MILLWOOD | 345 |
| W81 | WOOD ST | 345 | MILLWOOD | 345 |
| Y87 | WOOD ST | 345 | PLEASNTVL E. | 345 |
| Y86 | WOOD ST | 345 | PLEASNTVL W. | 345 |
| BK 1 | WOOD ST | 345 | WOOD ST | 115 |
| BK 2 | WOOD ST | 345 | WOOD ST | 115 |
| 11 | ADIRONDACK | 230 | PORTER | 230 |
| 12 | ADIRONDACK | 230 | PORTER | 230 |
| PA27 | BECK | 230 | NIAGARA | 230 |
| BP76 | BECK | 230 | PACKARD | 230 |
| 68 | DUNKIRK | 230 | S.RIPLEY | 230 |
| 70 | E.TOWANDA | 230 | HILLSIDE | 230 |
| 73 | GARDENVILLE | 230 | DUNKIRK | 230 |
| 74 | GARDENVILLE | 230 | DUNKIRK | 230 |
| T8-12 | GARDENVILLE | 230 | GARDENVILLE | 230 |
| BK 6 | GARDENVILLE | 230 | GARDENVILLE | 115 |
| BK 7 | GARDENVILLE | 230 | GARDENVILLE | 115 |
| 66 | GARDENVILLE | 230 | STOLLE RD | 230 |
| BK 3 | HILLSIDE | 230 | HILLSIDE | 115 |
| BK 4 | HILLSIDE | 230 | HILLSIDE | 115 |
| 69 | HILLSIDE | 230 | WATERCURE | 230 |
| 79 | HUNTLEY | 230 | GARDENVILLE | 230 |
| 80 | HUNTLEY | 230 | GARDENVILLE | 230 |
| 68 | MEYER | 230 | HILLSIDE | 230 |
| BK 4 | MEYER | 230 | MEYER | 115 |
| MA1 | MOSES | 230 | ADIRONDACK | 230 |
| MA2 | MOSES | 230 | ADIRONDACK | 230 |
| MMS1 | MOSES | 230 | MASSENA A | 230 |
| MMS2 | MOSES | 230 | MASSENA B | 230 |

## Listing of Transmission Facilities under ISO Operational Control

| CIRCUIT ID | FROM | KV | TO | KV |
|---|---|---|---|---|
| BK 1 | MOSES | 230 | MOSES | 115 |
| BK 2 | MOSES | 230 | MOSES | 115 |
| BK 3 | MOSES | 230 | MOSES | 115 |
| BK 4 | MOSES | 230 | MOSES | 115 |
| MW1 | MOSES | 230 | WILLIS | 230 |
| MW2 | MOSES | 230 | WILLIS | 230 |
| N BUS TIE | NIAGARA | 230 | NIAGARA | 230 |
| S BUS TIE | NIAGARA | 230 | NIAGARA | 230 |
| BK T1 | NIAGARA | 230 | NIAGARA | 115 |
| BK T2 | NIAGARA | 230 | NIAGARA | 115 |
| 61 | NIAGARA | 230 | PACKARD | 230 |
| 62 | NIAGARA | 230 | PACKARD | 230 |
| 64 | NIAGARA | 230 | ROBINSON RD | 230 |
| BK 1 | OAKDALE | 230 | OAKDALE | 115 |
| 77 | PACKARD | 230 | HUNTLEY | 230 |
| 78 | PACKARD | 230 | HUNTLEY | 230 |
| BK 4 | PLATTSBURGH A | 230 | PLATTSBURGH | 115 |
| BK 1 | PLATTSBURGH B | 230 | PLATTSBURGH | 115 |
| 30 | PORTER | 230 | ROTTERDAM | 230 |
| 31 | PORTER | 230 | ROTTERDAM | 230 |
| BK 1 | ROBINSON RD | 230 | ROBINSON RD | 115 |
| 65 | ROBINSON RD | 230 | STOLLE RD | 230 |
| E205W | ROTTERDAM | 230 | BEAR SWAMP | 230 |
| 69 | S.RIPLEY | 230 | ERIE E. | 230 |
| L33P | ST.LAW L33P | 230 | MOSES | 230 |
| L34P | ST.LAW L34P | 230 | MOSES | 230 |
| 67 | STOLLE RD | 230 | MEYER | 230 |
| 71 | WATERCURE | 230 | OAKDALE | 230 |
| WP2 | WILLIS | 230 | PLATTSBURGH A | 230 |
| WP1 | WILLIS | 230 | PLATTSBURGH B | 230 |
| BK 1 | WILLIS | 230 | WILLIS | 115 |
| BK 2 | WILLIS | 230 | WILLIS | 115 |
| 998 | CODDINGTN RD | 115 | ETNA | 115 |
| 907 | HARRISON RAD | 115 | ROBINSON RD | 115 |
| 964 | HICKLING | 115 | RIDGE RD | 115 |
| 963 | HILLSIDE | 115 | RIDGE RD | 115 |
| 943 | JENNISON | 115 | KATTELVILLE | 115 |
| 966 | MEYER | 115 | BENNETT | 115 |
| 968 | MEYER | 115 | GREENIDGE | 115 |
| 974 | MILLIKEN | 115 | ETNA | 115 |
| 975 | MILLIKEN | 115 | ETNA | 115 |
| 982 | MONTOUR FLS | 115 | CODDINGTN RD | 115 |
| 701 | NORTH END | 115 | PLATTSBURGH | 115 |
| 939 | OAKDALE | 115 | GOUDEY | 115 |
| 943 | OAKDALE | 115 | KATTELVILLE | 115 |

## Listing of Transmission Facilities under ISO Operational Control

| CIRCUIT ID | FROM | KV | TO | KV |
|---|---|---|---|---|
| PAR3 | PLATTSBURGH | 115 | PLATTSBURGH | 115 |
| PV20 | PLATTSBURGH | 115 | S.HERO, VT | 115 |
| 934 | S.PERRY | 115 | MEYER | 115 |
| 906- 7X | STA 162 | 115 | S.PERRY | 115 |
| 976 | STATE ST | 115 | WRIGHT AVE | 115 |
| BK 1 | W.WOODBOURNE | 115 | W.WOODBOURNE | 69 |
| 973 | WRIGHT AVE | 115 | MILLIKEN | 115 |
| REA #1 | MARCY | 765 | | |
| REA #1 | MASSENA | 765 | | |
| REA #2 | MASSENA | 765 | | |
| CAP A | COOPERS CRNS | 345 | | |
| CAP B | COOPERS CRNS | 345 | | |
| CAP #1 | E.FISHKIL CE | 345 | | |
| CAP #2 | E.FISHKIL CE | 345 | | |
| CAP #1 | FRASER | 345 | | |
| CAP #2 | FRASER | 345 | | |
| SVC | FRASER | 345 | | |
| CAP #1 | GILBOA | 345 | | |
| CAP #1 | MARCY | 345 | | |
| CAP #2 | MARCY | 345 | | |
| CAP #1 | ROCHESTER | 345 | | |
| CAP #1 | ROCK TAVERN | 345 | | |
| CAP #2 | ROCK TAVERN | 345 | | |

# ATTACHMENT E

NEW YORK INDEPENDENT SYSTEM OPERATOR

MANUAL 12

# Transmission and Dispatching Operation Manual

September 2008

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**TRANSMISSION FACILITIES UNDER ISO CONTROL AND REQUIRING ISO NOTIFICATION**

**APPENDIX A**
**9/10/2004**
**Page 1**

| | | | | | iso secured | iso control | notif time | PA | NM | RG | NY | CH | OR | CE | LI | OH | PJ | NE | QH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7040 | CHATEAUGUAY | 765 | MASSENA | 765 | Y | Y | 30 | S | I | I | _ | _ | _ | I | _ | I | I | I | O |
| BK 1 | MARCY | 765 | MARCY | 345 | Y | Y | 30 | O | I | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| BK 2 | MARCY | 765 | MARCY | 345 | Y | Y | 30 | O | I | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| MSU1 | MASSENA | 765 | MARCY | 765 | Y | Y | 30 | S | I | I | _ | _ | _ | I | _ | I | I | I | I |
| BK 1 | MASSENA | 765 | MASSENA A | 230 | Y | Y | 5 | O | I | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| BK 2 | MASSENA | 765 | MASSENA B | 230 | Y | Y | 5 | O | I | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| 5018 | BRANCHBURG | 500 | RAMAPO | 500 | Y | Y | 30 | I | I | _ | I | I | I | S | _ | I | O | I | _ |
| BK 1500 | RAMAPO | 500 | RAMAPO S. | 345 | Y | Y | 30 | _ | _ | _ | _ | I | I | O | _ | I | I | I | _ |
| 393 | ALPS | 345 | BERKSHIRE | 345 | Y | Y | 30 | I | S | _ | _ | I | _ | I | I | _ | _ | O | _ |
| 91 | ATHENS | 345 | PLEASANT VLY | 345 | Y | Y | 30 | I | S | _ | I | I | _ | O | _ | I | I | I | I |
| PA301 | BECK A | 345 | NIAGARA | 345 | Y | Y | 30 | S | I | _ | _ | _ | _ | _ | _ | O | I | _ | _ |
| PA302 | BECK B | 345 | NIAGARA | 345 | Y | Y | 30 | S | I | _ | _ | _ | _ | _ | _ | O | I | _ | _ |
| 67-1 | BOWLINE 1 | 345 | W.HAVERSTRAW | 345 | Y | Y | 5 | _ | _ | _ | _ | _ | S | O | _ | _ | _ | _ | _ |
| W93 | BUCHANAN N | 345 | EASTVIEW 2N | 345 | Y | Y | 30 | I | _ | _ | _ | _ | I | S | _ | _ | I | _ | _ |
| W97 | BUCHANAN S. | 345 | MILLWOOD | 345 | Y | Y | 5 | I | _ | _ | _ | _ | I | S | _ | _ | I | _ | _ |
| W98 | BUCHANAN S. | 345 | MILLWOOD | 345 | Y | Y | 5 | I | _ | _ | _ | _ | I | S | _ | _ | I | _ | _ |
| 13 | CLAY | 345 | DEWITT | 345 | Y | Y | 5 | _ | S | _ | I | _ | _ | _ | _ | _ | I | _ | _ |
| 1-16 | CLAY | 345 | EDIC | 345 | Y | Y | 30 | O | S | _ | _ | _ | _ | _ | _ | I | I | _ | _ |
| 2-15 | CLAY | 345 | EDIC | 345 | Y | Y | 30 | O | S | _ | _ | _ | _ | _ | _ | I | I | _ | _ |
| BK 2 | COOPERS CRNS | 345 | COOPERS CRNS | 115 | Y | Y | 5 | _ | _ | _ | O | I | _ | _ | _ | _ | _ | _ | _ |
| BK 3 | COOPERS CRNS | 345 | COOPERS CRNS | 115 | Y | Y | 5 | _ | _ | _ | O | I | _ | _ | _ | _ | _ | _ | _ |
| CMT-34 | COOPERS CRNS | 345 | MIDDLETWNTP | 345 | Y | Y | 30 | O | I | _ | S | O | I | I | _ | I | I | I | I |
| CRT-42 | COOPERS CRNS | 345 | ROCK TAVERN | 345 | Y | Y | 30 | O | I | _ | S | O | I | I | _ | I | I | I | I |
| 22 | DEWITT | 345 | LAFAYETTE | 345 | Y | Y | 5 | I | S | _ | I | _ | _ | _ | _ | _ | I | _ | _ |
| BK 17 | E.13TH ST C | 345 | E.RIVER | 69 | Y | Y | 5 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| F38 | E.FISHKIL CE | 345 | WOOD ST | 345 | Y | Y | 30 | I | _ | _ | I | I | _ | S | _ | _ | I | _ | _ |
| F39 | E.FISHKIL CE | 345 | WOOD ST | 345 | Y | Y | 30 | I | _ | _ | I | I | _ | S | _ | _ | I | _ | _ |
| W64 | EASTVIEW 1N | 345 | SPRAINBROOK | 345 | Y | Y | 30 | _ | _ | _ | _ | _ | _ | S | _ | _ | I | _ | _ |
| W78 | EASTVIEW 1S | 345 | SPRAINBROOK | 345 | Y | Y | 30 | _ | _ | _ | _ | _ | _ | S | _ | _ | _ | _ | _ |
| W79 | EASTVIEW 2N | 345 | SPRAINBROOK | 345 | Y | Y | 30 | _ | _ | _ | _ | _ | _ | S | _ | _ | I | _ | _ |
| W65 | EASTVIEW 2S | 345 | SPRAINBROOK | 345 | Y | Y | 30 | _ | _ | _ | _ | _ | _ | S | _ | _ | I | _ | _ |
| EF24-40 | EDIC | 345 | FRASER | 345 | Y | Y | 30 | O | S | _ | O | _ | _ | I | _ | I | I | I | I |
| 14 | EDIC | 345 | NEW SCOTLAND | 345 | Y | Y | 30 | I | S | _ | I | _ | _ | I | _ | I | I | I | I |
| FE-1 | FITZPATRICK | 345 | EDIC | 345 | Y | Y | 30 | O | O | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| FS-10 | FITZPATRICK | 345 | SCRIBA | 345 | Y | Y | 5 | O | S | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| 33 | FRASER | 345 | COOPERS CRNS | 345 | Y | Y | 30 | I | I | _ | S | I | I | I | _ | I | I | I | I |
| BK 2 | FRASER | 345 | FRASER | 115 | Y | Y | 5 | _ | I | _ | O | _ | _ | _ | _ | _ | _ | _ | _ |
| GF5-35 | FRASER | 345 | GILBOA | 345 | Y | Y | 30 | S | I | _ | O | _ | _ | I | _ | I | I | I | I |
| GL3 | GILBOA | 345 | LEEDS | 345 | Y | Y | 30 | S | O | _ | I | I | _ | I | _ | I | I | I | I |
| GNS-1 | GILBOA | 345 | NEW SCOTLAND | 345 | Y | Y | 30 | S | O | _ | I | _ | _ | I | _ | I | I | I | I |
| 37 | HOMER CITY | 345 | STOLLE RD | 345 | Y | Y | 30 | I | I | _ | O | _ | _ | _ | _ | I | O | _ | _ |
| 30 | HOMER CITY | 345 | WATERCURE | 345 | Y | Y | 30 | I | I | _ | S | _ | _ | _ | _ | I | O | _ | _ |
| 303 | HURLEY AVE | 345 | ROSETON | 345 | Y | Y | 30 | I | I | _ | _ | S | _ | I | _ | I | I | I | I |
| 26 | INDEPENDENCE | 345 | CLAY | 345 | Y | Y | 30 | I | O | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| 25 | INDEPENDENCE | 345 | SCRIBA | 345 | Y | Y | 5 | I | O | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |

# ATTACHMENT F

NEW YORK INDEPENDENT SYSTEM OPERATOR

# Transmission Congestion Contracts Manual Attachments

**Attachment E** **Points of Injection and Withdrawal (POI and POW) Autumn 2009 Initial TCC Auction and Winter 2009-2010 TCC Reconfiguration Auctions**

*07/16/2009*

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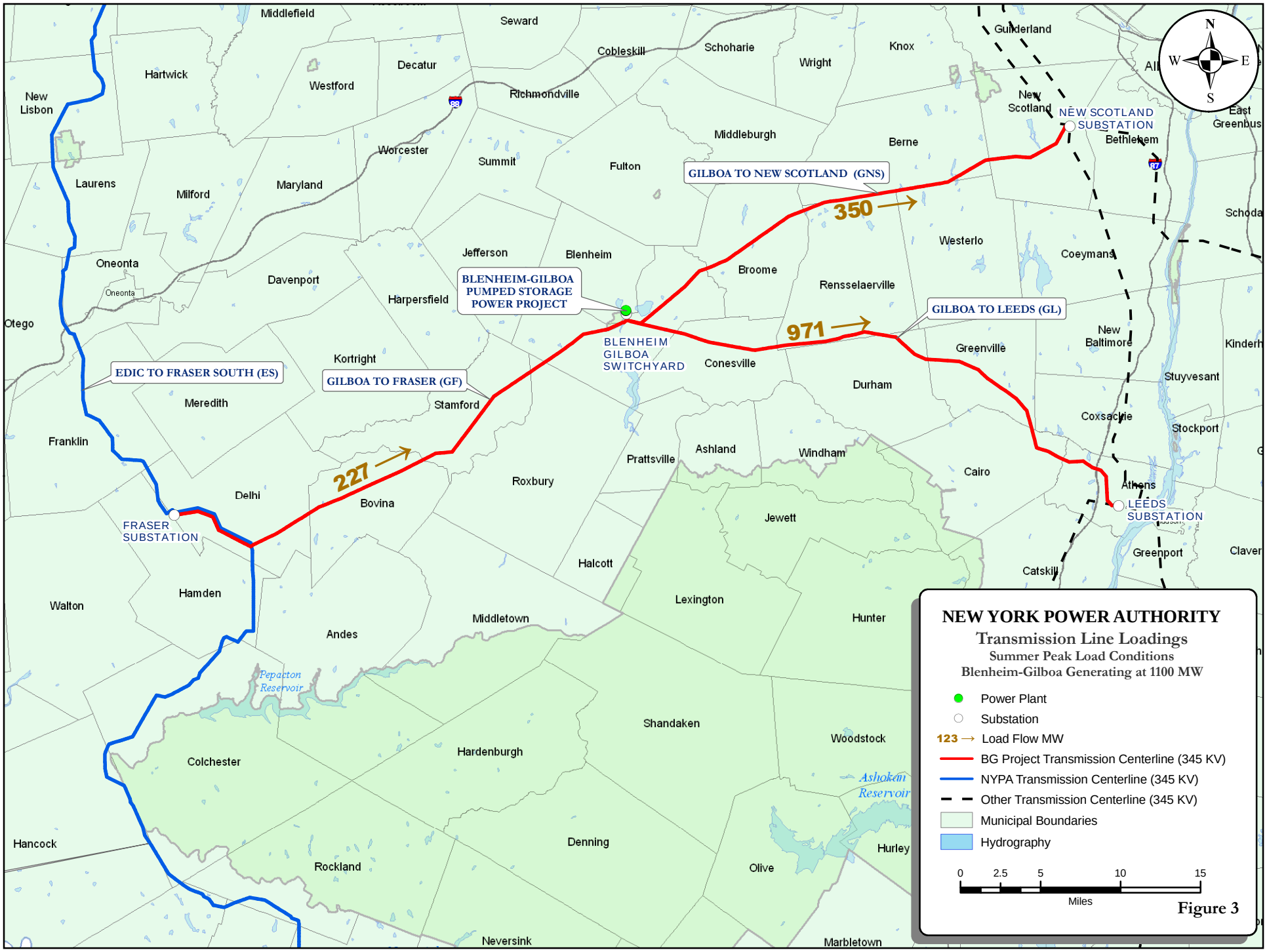
# Attachment E. Points of Injection and Withdrawal (POI and POW) Autumn 2009 Initial TCC Auction and Winter 2009-2010 TCC Reconfiguration Auctions

| PTID Name | PTID | Zone |
|---|---|---|
| 59TH STREET_GT_1 | 24138 | N.Y.C. |
| 74TH STREET_GT_1 | 24260 | N.Y.C. |
| 74TH STREET_GT_2 | 24261 | N.Y.C. |
| ADK HUDSON___FALLS | 24011 | CAPITL |
| ADK_NYS___DAM | 23527 | CAPITL |
| ALBANY___LFGE | 323615 | CAPITL |
| ALLEGHENY___COGEN | 23514 | GENESE |
| ALTONA_WT_PWR | 323606 | NORTH |
| AMERICAN_REF_FUEL | 24010 | WEST |
| ARTHUR KILL_GT_1 | 23520 | N.Y.C. |
| ARTHUR_KILL_2 | 23512 | N.Y.C. |
| ARTHUR_KILL_3 | 23513 | N.Y.C. |
| ASHOKAN____ | 23654 | HUD VL |
| ASTORIA_EAST_ENERGY_CC1 | 323581 | N.Y.C. |
| ASTORIA_EAST_ENERGY_CC2 | 323582 | N.Y.C. |
| ASTORIA_GT2_1 | 24094 | N.Y.C. |
| ASTORIA_GT2_2 | 24095 | N.Y.C. |
| ASTORIA_GT2_3 | 24096 | N.Y.C. |
| ASTORIA_GT2_4 | 24097 | N.Y.C. |
| ASTORIA_GT3_1 | 24098 | N.Y.C. |
| ASTORIA_GT3_2 | 24099 | N.Y.C. |
| ASTORIA_GT3_3 | 24100 | N.Y.C. |
| ASTORIA_GT3_4 | 24101 | N.Y.C. |
| ASTORIA_GT4_1 | 24102 | N.Y.C. |
| ASTORIA_GT4_2 | 24103 | N.Y.C. |
| ASTORIA_GT4_3 | 24104 | N.Y.C. |
| ASTORIA_GT4_4 | 24105 | N.Y.C. |
| ASTORIA_GT_1 | 23523 | N.Y.C. |
| ASTORIA_GT_10 | 24110 | N.Y.C. |
| ASTORIA_GT_11 | 24225 | N.Y.C. |
| ASTORIA_GT_12 | 24226 | N.Y.C. |
| ASTORIA_GT_13 | 24227 | N.Y.C. |

| PTID Name | PTID | Zone |
|---|---|---|
| EAST_RIVER___2 | 323559 | N.Y.C. |
| EAST___DELAWARE_HYD | 23607 | HUD VL |
| ELLENBURG_WT_PWR | 323604 | NORTH |
| E_CANADA_CAP_HY | 24051 | CAPITL |
| E_CANADA_MHWK_HY | 24050 | MHK VL |
| E_FISHKILL___LBMP | 23776 | MILLWD |
| FAR ROCKAWAY___4 | 23548 | LONGIL |
| FENNER___WINDPWR | 24204 | CENTRL |
| FITZPATRICK____ | 23598 | CENTRL |
| FORT ORANGE____ | 23900 | CAPITL |
| FORT_DRUM_COGEN | 23780 | MHK VL |
| FPL FAR_ROCK_GT1 | 24212 | LONGIL |
| FPL FAR_ROCK_GT2 | 23815 | LONGIL |
| FREEPORT_EQUS_GT1 | 23764 | LONGIL |
| FREEPORT___CT2 | 23818 | LONGIL |
| GARDENVILLE___LBMP | 24039 | WEST |
| GILBOA___1 | 23756 | CAPITL |
| GILBOA___2 | 23757 | CAPITL |
| GILBOA___3 | 23758 | CAPITL |
| GILBOA___4 | 23759 | CAPITL |
| GINNA____ | 23603 | GENESE |
| GLEN PARK____ | 23778 | MHK VL |
| GLENWOOD_IC_1_G5 | 23712 | LONGIL |
| GLENWOOD_IC_2_G1 | 23688 | LONGIL |
| GLENWOOD_IC_3_G1 | 23689 | LONGIL |
| GLENWOOD___4 | 23550 | LONGIL |
| GLENWOOD___5 | 23614 | LONGIL |
| GLOBAL GREEN_PORT_GT1 | 23814 | LONGIL |
| **GOUDEY___7** | **23579*** | **CENTRL** |
| GOUDEY___8 | 23580 | CENTRL |
| GOWANUS_GT1_1 | 24077 | N.Y.C. |
| GOWANUS_GT1_2 | 24078 | N.Y.C. |
| GOWANUS_GT1_3 | 24079 | N.Y.C. |

* Valid for the Six Month Rounds of the Autumn 2009 Initial TCC Auction and the Winter 2009-2010 TCC Reconfiguration Auctions only. Not a valid bidding point in the One Year Rounds of the Autumn 2009 Initial TCC Auction.

# ATTACHMENT G


NEW YORK POWER AUTHORITY
Transmission Line Loadings
Summer Peak Load Conditions
Blenheim-Gilboa Generating at 1100 MW
Power Plant
Substation
123 → Load Flow MW
BG Project Transmission Centerline (345 KV)
NYPA Transmission Centerline (345 KV)
Other Transmission Centerline (345 KV)
Municipal Boundaries
Hydrography
0 2.5 5 10 15
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GILBOA TO NEW SCOTLAND (GNS)
GILBOA TO LEEDS (GL)
GILBOA TO FRASER (GF)
EDIC TO FRASER SOUTH (ES)
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
NEW SCOTLAND SUBSTATION
LEEDS SUBSTATION
FRASER SUBSTATION
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971
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Middlefield
Seward
Cobleskill
Schoharie
Wright
Knox
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Westford
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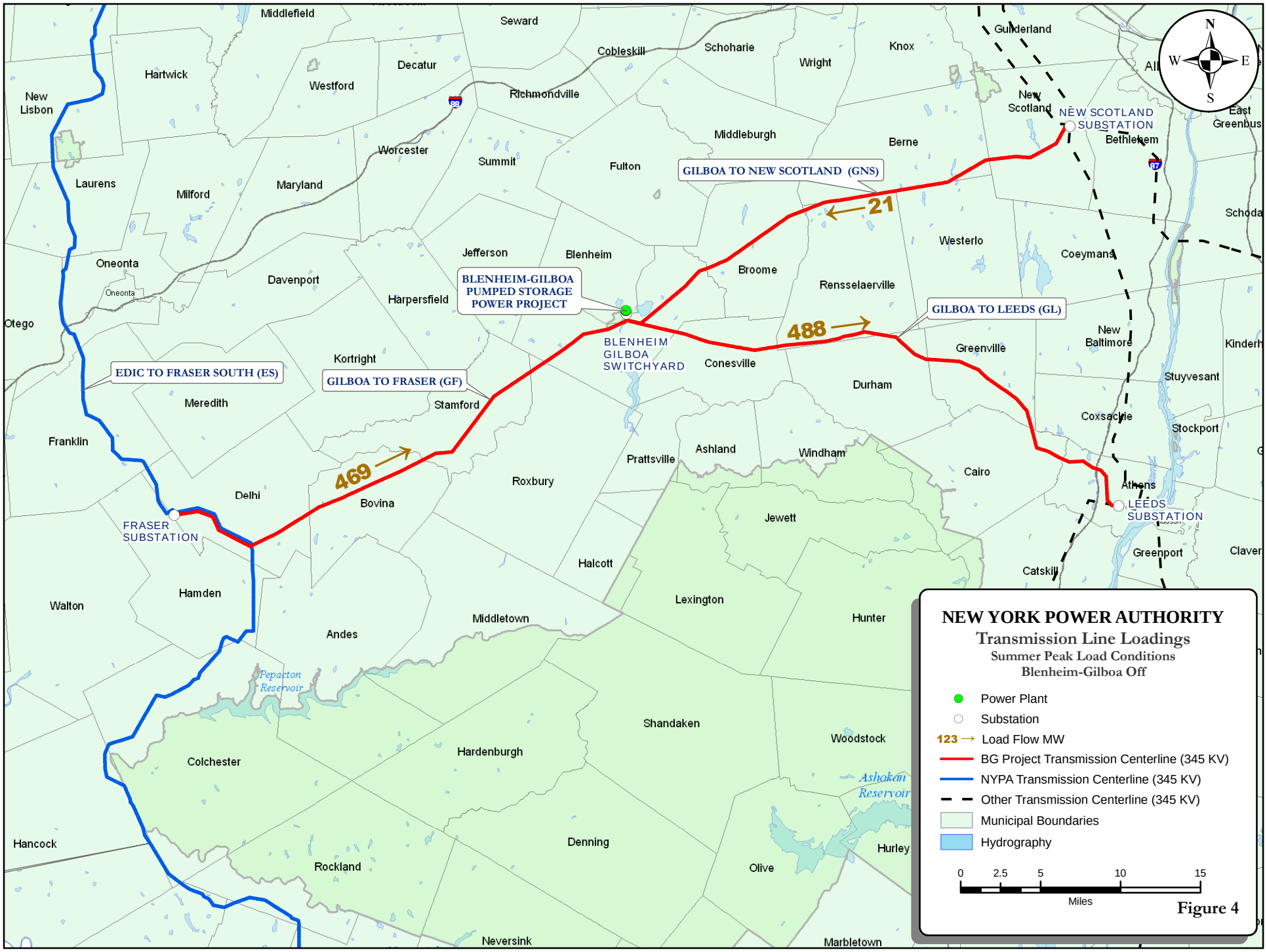
Catskill
Halcott
Walton
Hamden
Lexington
Hunter
Andes
Middletown
Pepacton Reservoir
Shandaken
Woodstock
Colchester
Hardenburgh
Ashokan Reservoir
Hancock
Denning
Hurley
Rockland
Olive
Neversink
Marbletown

Figure 3


NEW YORK POWER AUTHORITY
Transmission Line Loadings
Summer Peak Load Conditions
Blenheim-Gilboa Off
Power Plant
Substation
123 → Load Flow MW
BG Project Transmission Centerline (345 KV)
NYPA Transmission Centerline (345 KV)
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Hydrography
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GILBOA TO NEW SCOTLAND (GNS)
GILBOA TO LEEDS (GL)
GILBOA TO FRASER (GF)
EDIC TO FRASER SOUTH (ES)
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
NEW SCOTLAND SUBSTATION
LEEDS SUBSTATION
FRASER SUBSTATION
21
488
469
Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
Schoharie
Wright
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Westford
Richmondville
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Colchester
Hardenburgh
Hancock
Rockland
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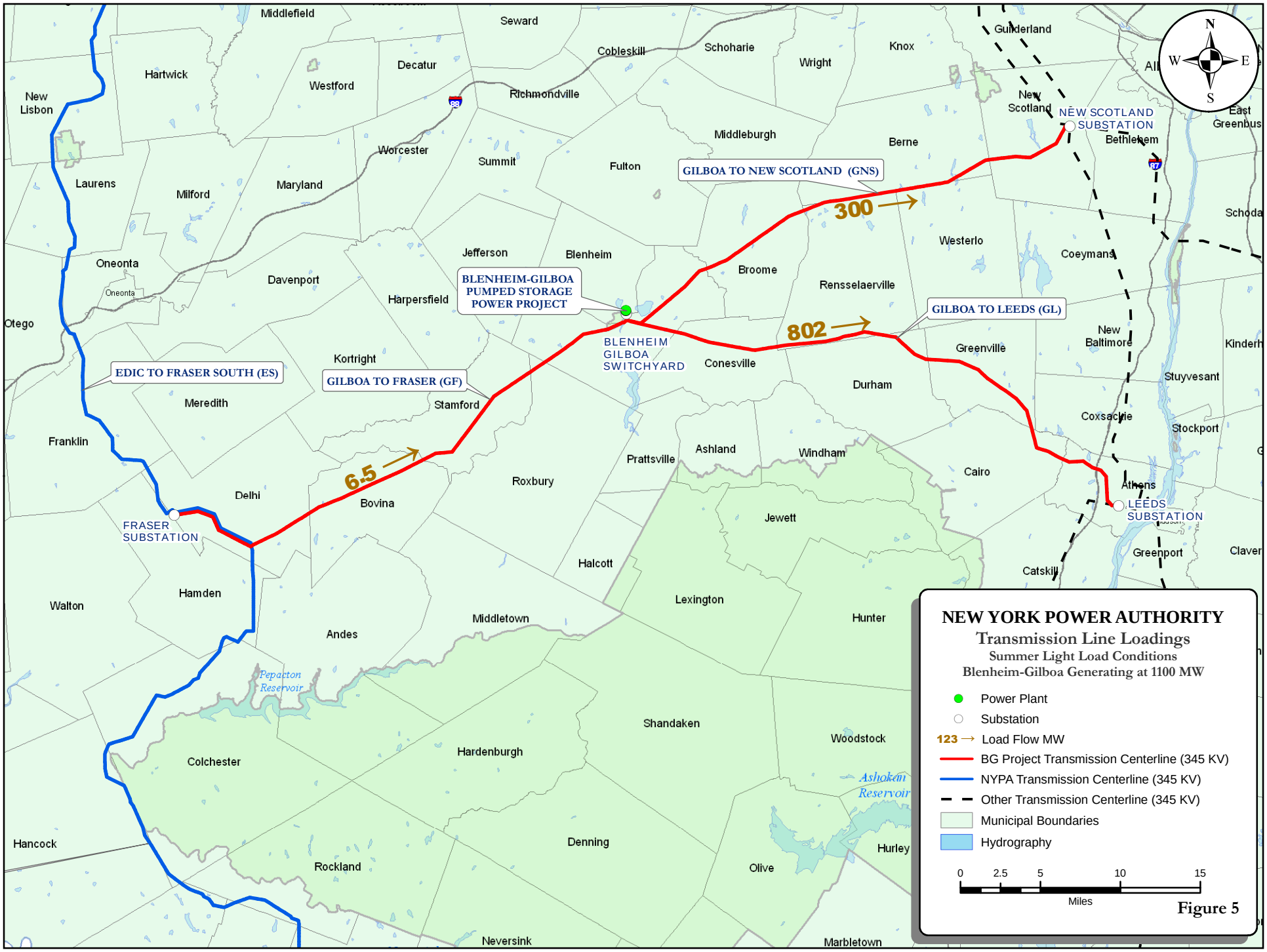
Olive
Hurley
Neversink
Marbletown

Figure 4


NEW YORK POWER AUTHORITY
Transmission Line Loadings
Summer Light Load Conditions
Blenheim-Gilboa Generating at 1100 MW
Power Plant
Substation
123 → Load Flow MW
BG Project Transmission Centerline (345 KV)
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Municipal Boundaries
Hydrography
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GILBOA TO NEW SCOTLAND (GNS)
GILBOA TO LEEDS (GL)
GILBOA TO FRASER (GF)
EDIC TO FRASER SOUTH (ES)
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
NEW SCOTLAND SUBSTATION
LEEDS SUBSTATION
FRASER SUBSTATION
300
802
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Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
Schoharie
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Guilderland
Hartwick
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Hunter
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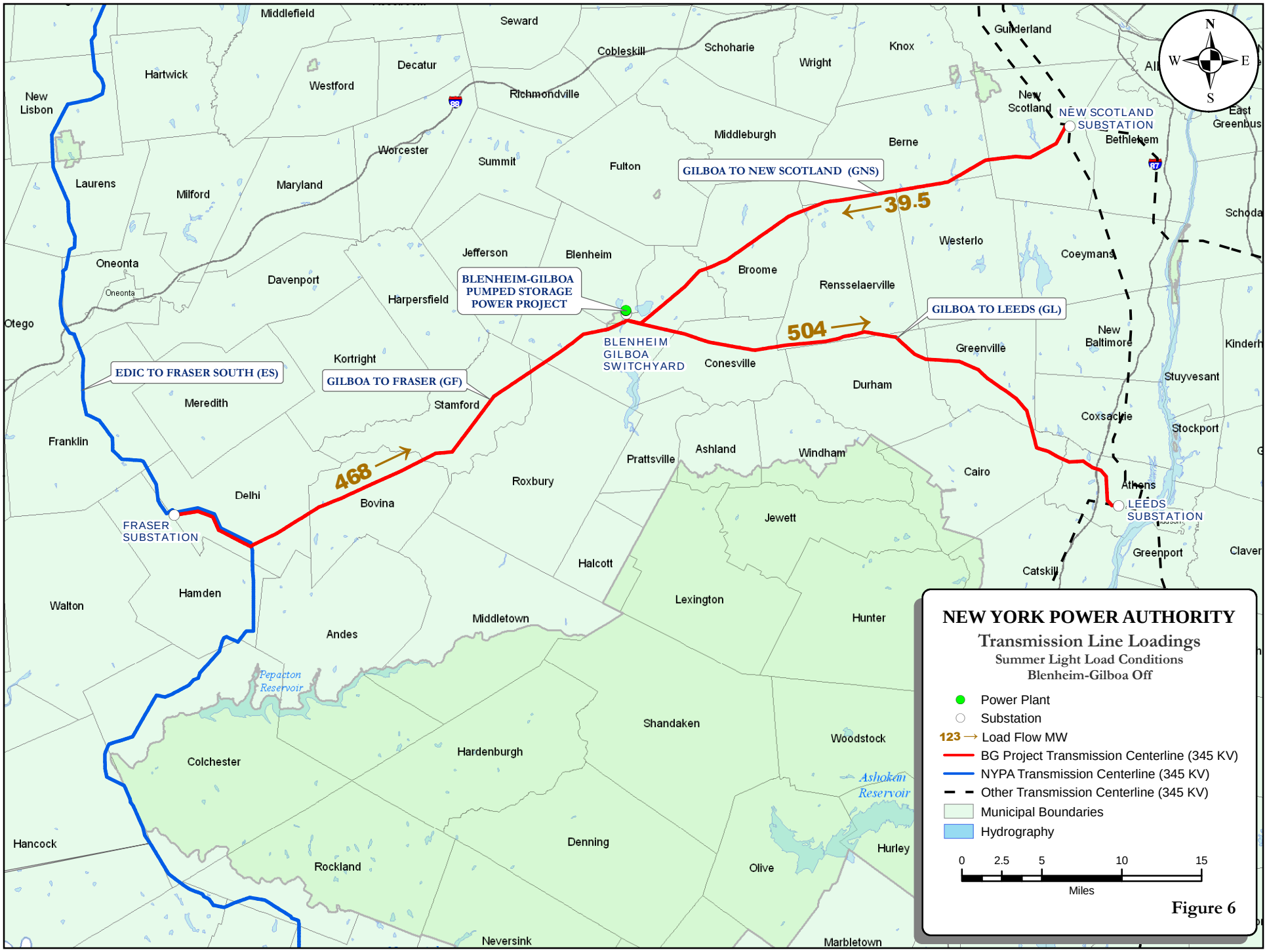
Shandaken
Woodstock
Colchester
Hardenburgh
Hancock
Rockland
Denning
Olive
Hurley
Neversink
Marbletown

Figure 5


NEW YORK POWER AUTHORITY
Transmission Line Loadings
Summer Light Load Conditions
Blenheim-Gilboa Off
Power Plant
Substation
123 → Load Flow MW
BG Project Transmission Centerline (345 KV)
NYPA Transmission Centerline (345 KV)
Other Transmission Centerline (345 KV)
Municipal Boundaries
Hydrography
0 2.5 5 10 15
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GILBOA TO NEW SCOTLAND (GNS)
39.5
NEW SCOTLAND SUBSTATION
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
GILBOA TO LEEDS (GL)
504
EDIC TO FRASER SOUTH (ES)
GILBOA TO FRASER (GF)
468
FRASER SUBSTATION
LEEDS SUBSTATION
Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
Schoharie
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Guilderland
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Hunter
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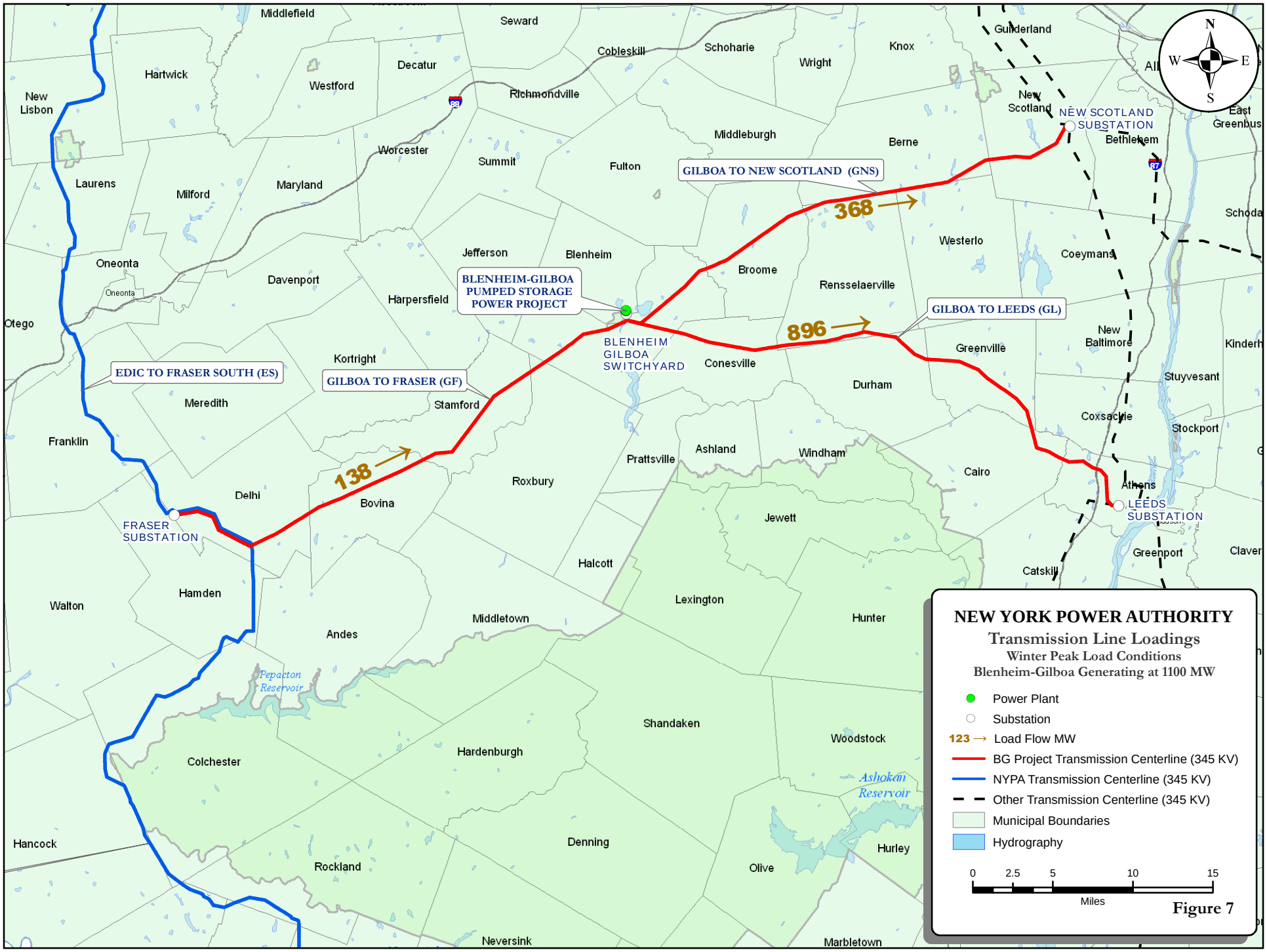
Colchester
Hardenburgh
Hancock
Denning
Hurley
Rockland
Olive
Neversink
Marbletown

Figure 6


NEW YORK POWER AUTHORITY
Transmission Line Loadings
Winter Peak Load Conditions
Blenheim-Gilboa Generating at 1100 MW
Power Plant
Substation
123 → Load Flow MW
BG Project Transmission Centerline (345 KV)
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GILBOA TO NEW SCOTLAND (GNS)
GILBOA TO LEEDS (GL)
GILBOA TO FRASER (GF)
EDIC TO FRASER SOUTH (ES)
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
NEW SCOTLAND SUBSTATION
LEEDS SUBSTATION
FRASER SUBSTATION
368
896
138
Middlefield
Seward
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Ashokan Reservoir
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Denning
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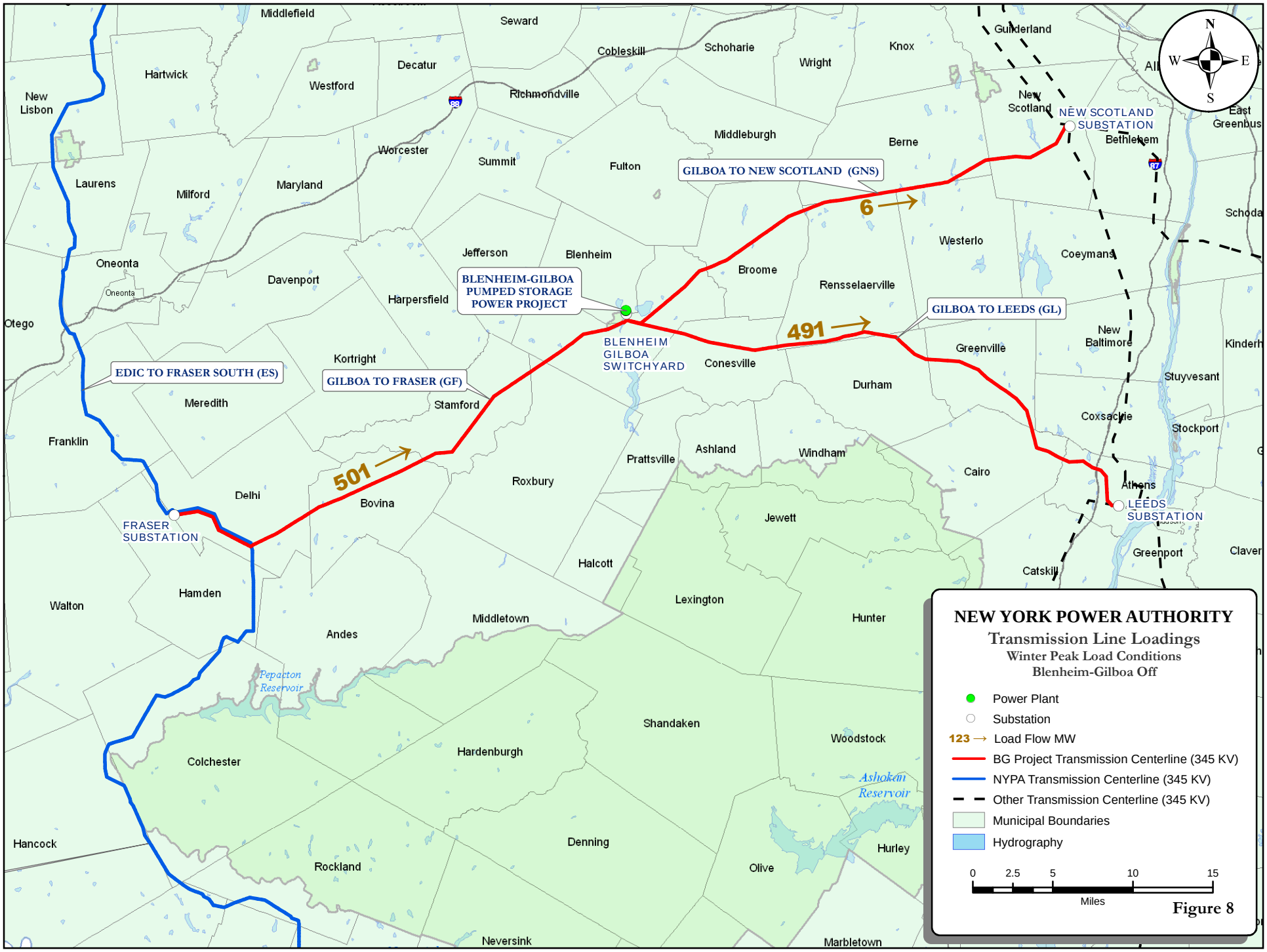
Rockland
Olive
Neversink
Marbletown

Figure 7


NEW YORK POWER AUTHORITY
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Winter Peak Load Conditions
Blenheim-Gilboa Off
Power Plant
Substation
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GILBOA TO NEW SCOTLAND (GNS)
GILBOA TO LEEDS (GL)
GILBOA TO FRASER (GF)
EDIC TO FRASER SOUTH (ES)
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
NEW SCOTLAND SUBSTATION
LEEDS SUBSTATION
FRASER SUBSTATION
6
491
501
Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
Schoharie
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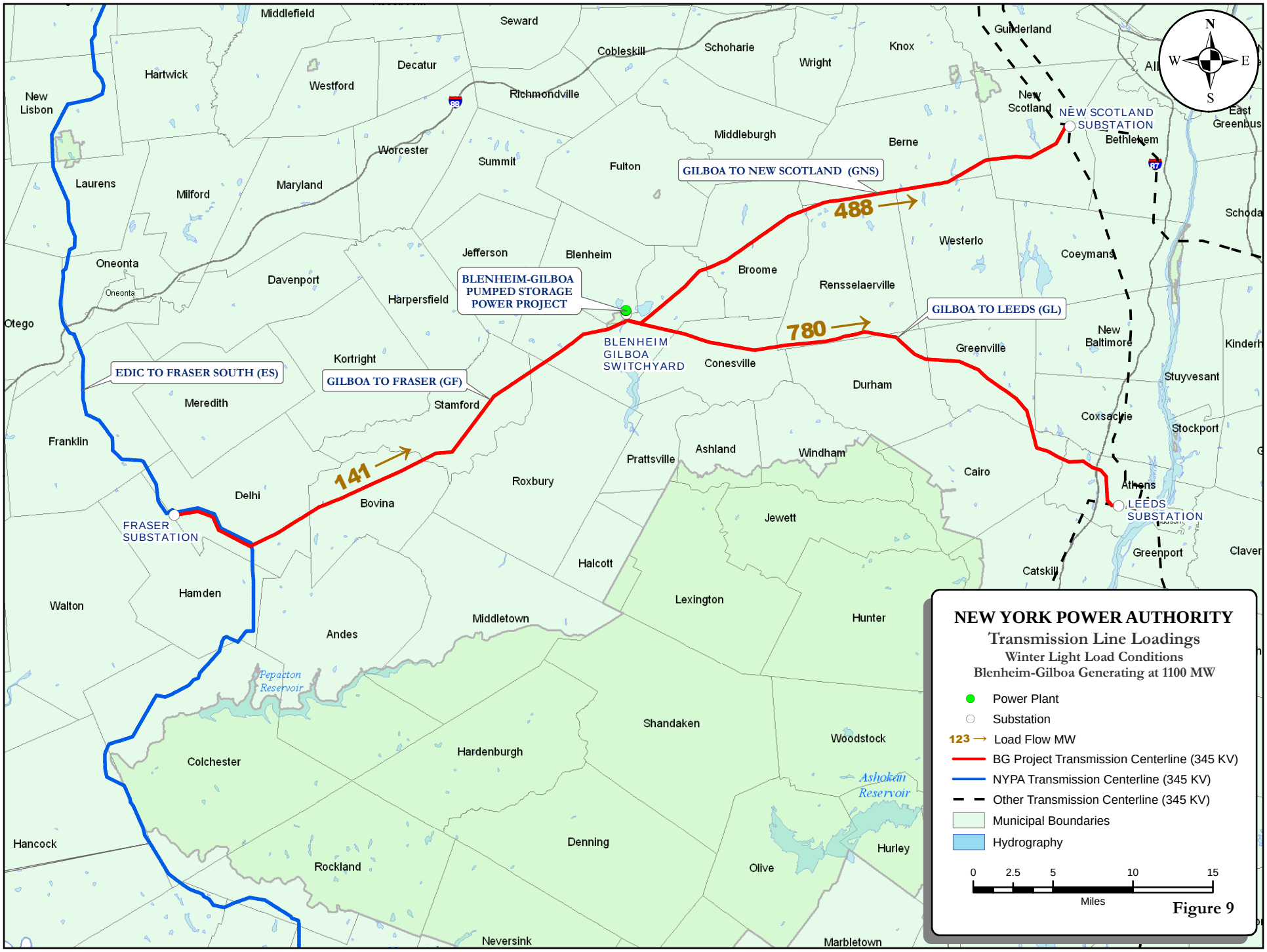
Figure 8


NEW YORK POWER AUTHORITY
Transmission Line Loadings
Winter Light Load Conditions
Blenheim-Gilboa Generating at 1100 MW
Power Plant
Substation
123 Load Flow MW
BG Project Transmission Centerline (345 KV)
NYPA Transmission Centerline (345 KV)
Other Transmission Centerline (345 KV)
Municipal Boundaries
Hydrography
0 2.5 5 10 15
Miles
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GILBOA TO NEW SCOTLAND (GNS)
488
NEW SCOTLAND SUBSTATION
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
GILBOA TO LEEDS (GL)
780
LEEDS SUBSTATION
EDIC TO FRASER SOUTH (ES)
GILBOA TO FRASER (GF)
141
FRASER SUBSTATION
Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
Schoharie
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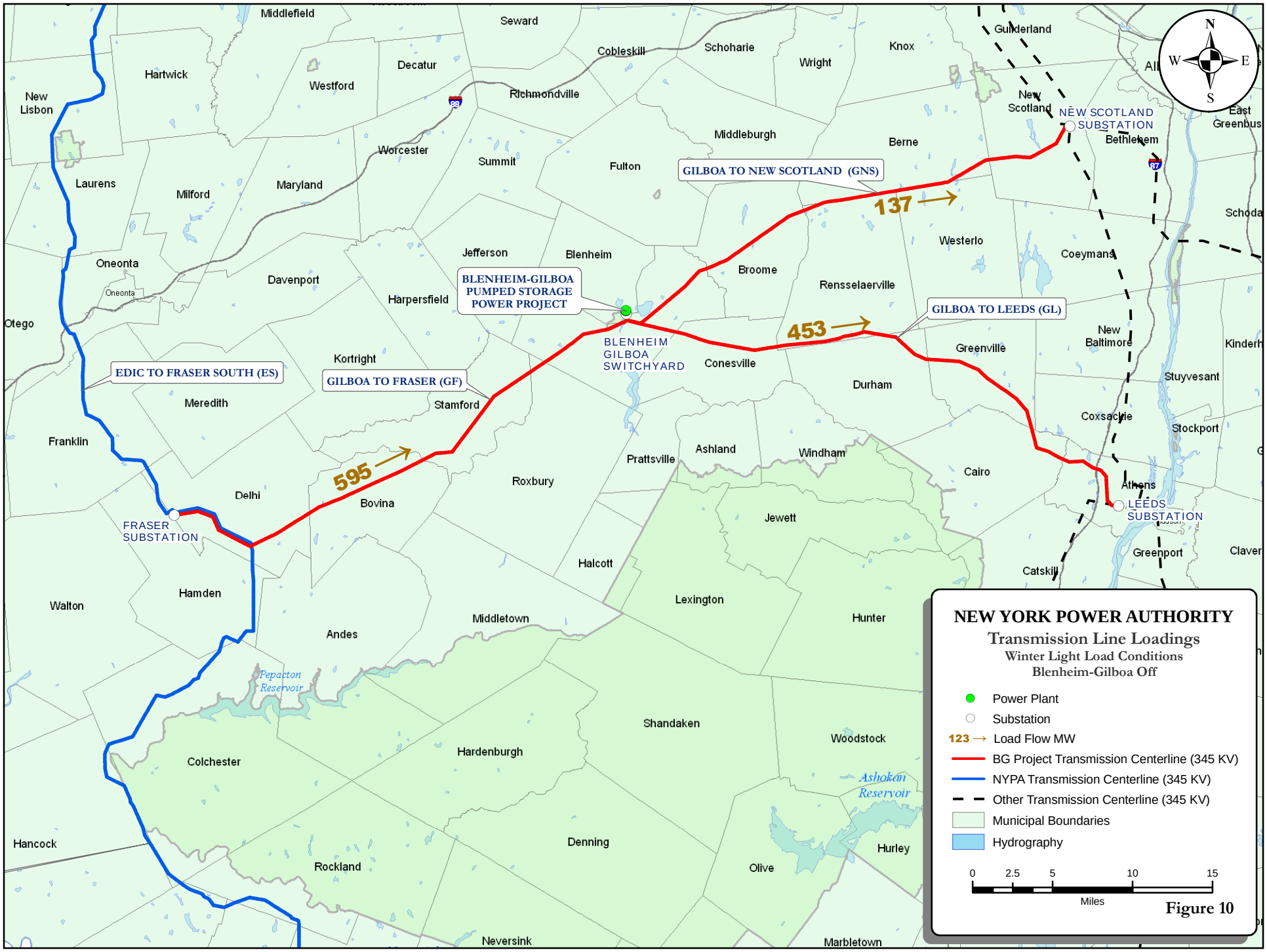
Olive
Neversink
Marbletown

Figure 9


NEW YORK POWER AUTHORITY
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Winter Light Load Conditions
Blenheim-Gilboa Off
Power Plant
Substation
123 → Load Flow MW
BG Project Transmission Centerline (345 KV)
NYPA Transmission Centerline (345 KV)
Other Transmission Centerline (345 KV)
Municipal Boundaries
Hydrography
0 2.5 5 10 15
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GILBOA TO NEW SCOTLAND (GNS)
137
NEW SCOTLAND SUBSTATION
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
GILBOA TO LEEDS (GL)
453
EDIC TO FRASER SOUTH (ES)
GILBOA TO FRASER (GF)
595
FRASER SUBSTATION
LEEDS SUBSTATION
Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
Schoharie
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Knox
Guilderland
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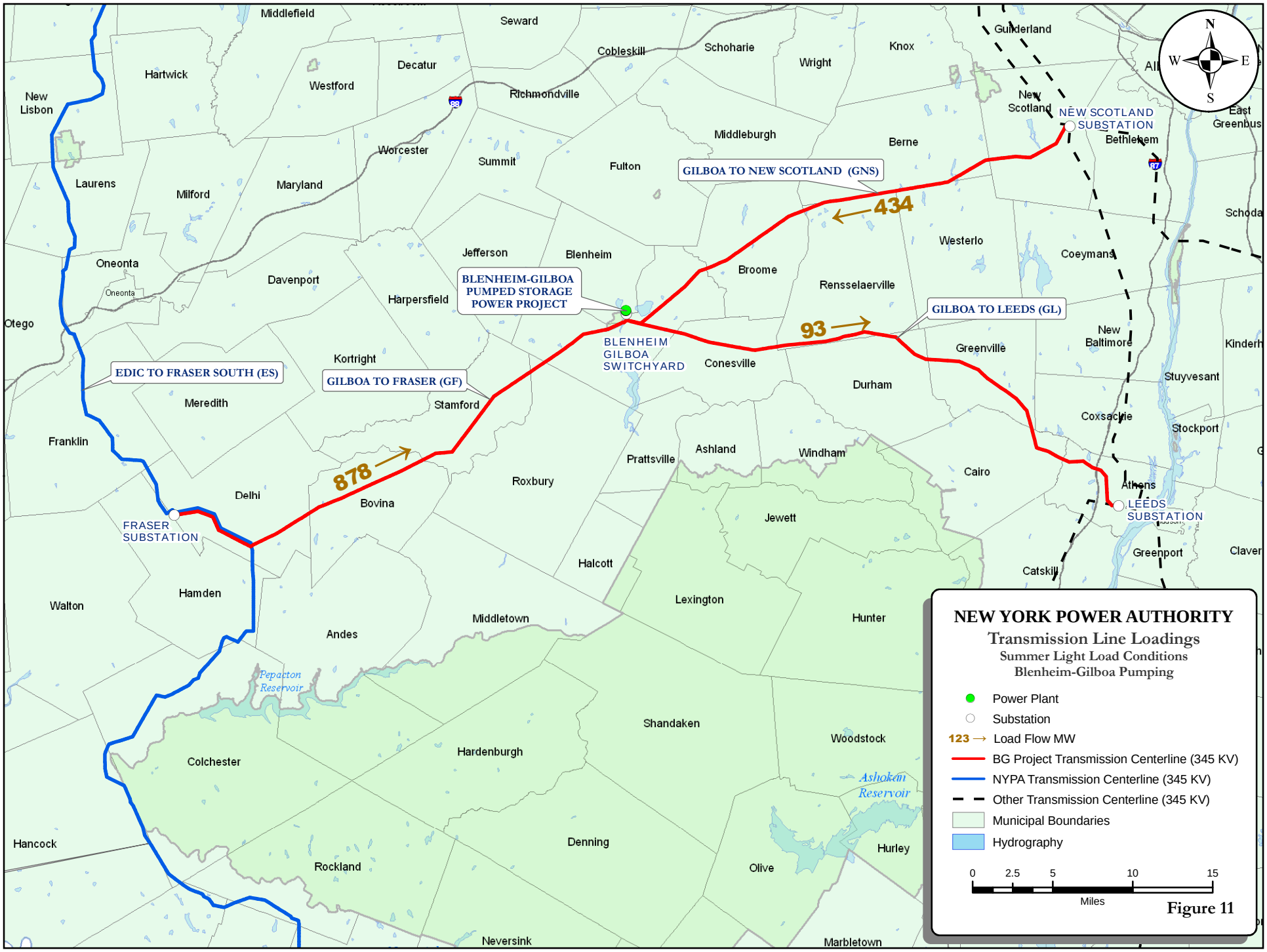
Marbletown

Figure 10


NEW YORK POWER AUTHORITY
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Power Plant
Substation
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NYPA Transmission Centerline (345 KV)
Other Transmission Centerline (345 KV)
Municipal Boundaries
Hydrography
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GILBOA TO NEW SCOTLAND (GNS)
434
NEW SCOTLAND SUBSTATION
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
GILBOA TO LEEDS (GL)
93
EDIC TO FRASER SOUTH (ES)
GILBOA TO FRASER (GF)
878
FRASER SUBSTATION
LEEDS SUBSTATION
Pepacton Reservoir
Ashokan Reservoir
Middlefield
Seward
Cobleskill
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Guilderland
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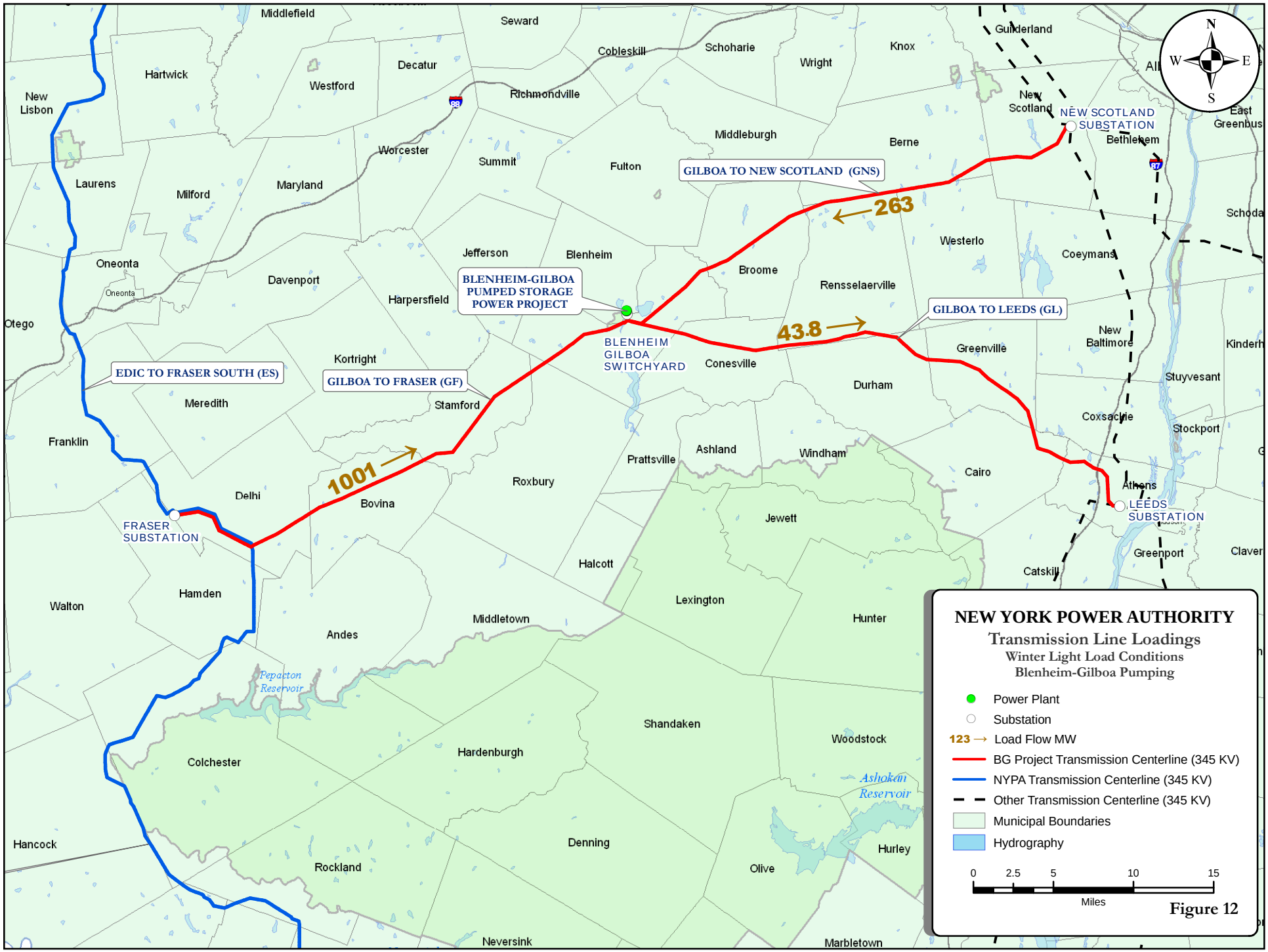
Figure 11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Power Plant
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NYPA Transmission Centerline (345 KV)
Other Transmission Centerline (345 KV)
Municipal Boundaries
Hydrography
0 2.5 5 10 15
Miles
Figure 12
GILBOA TO NEW SCOTLAND (GNS)
263
NEW SCOTLAND SUBSTATION
BLENHEIM-GILBOA PUMPED STORAGE POWER PROJECT
BLENHEIM GILBOA SWITCHYARD
43.8
GILBOA TO LEEDS (GL)
LEEDS SUBSTATION
EDIC TO FRASER SOUTH (ES)
GILBOA TO FRASER (GF)
1001
FRASER SUBSTATION
Pepacton Reservoir
Ashokan Reservoir
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