

NEW TABLE 1

Table 1 Comparative Environmental Parameters

Scenario	Description	OVERALL RANK	Length of Route(s)		New ROW			Expansion of Existing ROW			Total New ROW and Expanded ROW			Structures ^[1]	Major River Corridors				New Substations or Switchyards	Substations or Switchyards with Expanded Footprint	Land Acquisition Needed for Substations or Switchyards	
			Miles	Rank	Miles	Acres	Rank	Miles	Acres	Rank	Miles	Acres	Rank		Mohawk River/Erie Canalway	Rank	Hudson River	Rank			#	#
1 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Leeds - Pleasant Valley	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-LD-PV: Approx 65 miles: 55 miles adjacent to existing 345 kV ROW; 10 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW.	high	145.0	med	18.0	218.2	high	127.0	1231.5	high	145.0	1449.7	high	Vertical Monopole/ Lattice Tower	Overhead Crossing on New ROW with Forest Clearing at Erie Canalway	high	Overhead Crossing Adjacent ROW; Lattice Structures; Athens LWRP; SASS Views	high	0	1	No	low
2 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Leeds - Pleasant Valley Alt 1	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-LD-PV Alt 1: Approx 77 miles: 55 miles entirely within existing I-87 ROW; 14 miles of new 100' ROW; 8 miles of 80' expanded ROW adjacent to existing CSX ROW.	high	157.0	med	22.0	266.7	high	80.0	775.8	med	102.0	1042.5	med	Vertical Monopole/ Lattice Tower	Overhead Crossing on New ROW with Forest Clearing at Erie Canalway	high	Overhead Crossing New ROW; Monopole/ Forest Clearing; SASS; Lloyd LWRP	high	0	1	No	low
3 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Leeds - Pleasant Valley; series comp on Fraser - Gilboa 345 kV; loop existing Marcy - Coopers Corners to Fraser	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-LD-PV: Approx 65 miles: 55 miles adjacent to existing 345 kV ROW; 10 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW.	high	145.0	med	18.0	218.0	high	127.0	1232.0	high	145.0	1450.0	high	Vertical Monopole/ Lattice Tower	Overhead Crossing on New ROW with Forest Clearing at Erie Canalway	high	Overhead Crossing Adjacent ROW; Lattice Structures; Athens LWRP/SASS Views	high	0	2	No	low
4 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Pleasant Valley Alt 2; series comp on Fraser - Gilboa 345 kV; loop existing Marcy - Coopers Corners to Fraser; series comp on Marcy - New Scotland 345 kV; series comp on Edic - New Scotland 345 kV	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-PV Alt 2: Approx 62 miles; 8 miles of 80' expanded ROW adjacent to existing CSX ROW; 54 miles entirely within an existing 115 kV ROW.	high	142.0	med	8.0	96.7	low	80.0	775.8	med	88.0	872.4	med	Vertical Monopole/H-Frame	Overhead Crossing on New ROW with Forest Clearing at Erie Canalway	high	Overhead Crossing Adjacent ROW; Schodack LWRP; SASS Views	high	0	3-4 ^[3]	No	low
5 - NAT^[2] Edic - Fraser w/series comp at Edic; New Scotland - Knickerbocker - Pleasant Valley Alt 2; series comp on Fraser - Gilboa 345 kV; loop existing Marcy - Coopers Corners to Fraser; Edic - Princetown - Knickerbocker (as proposed by others)	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-KN-PV Alt 2: Approx 62 miles; 8 miles of 80' expanded ROW adjacent to existing CSX ROW; 54 miles entirely within an existing 115 kV ROW. New switchyard constructed at Knickerbocker.	high	142.0	med	8.0	96.7	low	80.0	775.8	med	88.0	872.4	med	Vertical Monopole/H-Frame	Overhead Crossing on New ROW with Forest Clearing at Erie Canalway	high	Overhead Crossing Adjacent ROW; Schodack LWRP; SASS Views	high	1	2-3 ^[3]	No	low
6 - NYTO Knickerbocker to Pleasant Valley	KN-PV: Removal of existing 1 or 2 115 kV double circuit lines and construction of new 115/345 kV double circuit monopole structure line.	low	54.2	low	0	0	low	0	0	low	0	0	low	Steel Monopoles/ Replacement of some lattice towers	N/A	low	No Crossing; SASS Area	low	1	2	No	low
7 - NYTO Leeds to Pleasant Valley (Reconductor)	LD-PV(R): Reconductoring of the two existing 345 kV lattice structure lines and replacement of certain structures within an existing ROW.	low	39.8	low	0	0	low	0	0	low	0	0	low	Existing Steel Lattice with Replacement of Certain Structures	N/A	low	Replace River Crossing; Athens LWRP	med	0	0	No	low

[1] - For each NAT scenario, the ED-FR structures will be vertical monopole configuration where parallel to existing ROW and delta formation where not parallel to existing ROW.

[2] - NAT has not provided details regarding the proposed ED-PR-KN (as proposed by others) component of Scenario 5. Therefore Staff omitted this component from its environmental evaluation of Scenario 5.

[3] - NAT states that modifications to existing Churchtown 115 kV substation will be required. However, NAT does not provide details of the modifications or indicate whether modifications will require expanded footprint.

LWRP - Local Waterfront Revitalization Program

SASS - Scenic Area of State-wide Significance

Table 1 Comparative Environmental Parameters

Scenario	Description	OVERALL RANK	Counties	Towns, Villages & Cities	S-NRHP Crossed or Within 1 Mile		Distance Crossing NWI Wetlands		Regulated Streams Crossed by ROW		Distance Crossing 100-YR Floodplains		Length of ROW in Ag Districts		Forested Wetlands		Total Forest		Residences Within 1-250 Feet		Overall Noise Impact	Visual Assessment
			#	#	#	Rank	Miles	Rank	#	Rank	Miles	Rank	Miles	Rank	Acres	Rank	Acres	Rank	#	Rank	Rank	Rank
1 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Leeds - Pleasant Valley	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-LD-PV: Approx 65 miles: 55 miles adjacent to existing 345 kV ROW; 10 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW.	high	8	29	32	med	5.9	high	217	high	9.3	high	41.8	high	84.1	med	866.7	med	98	low	med	high
2 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Leeds - Pleasant Valley Alt 1	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-LD-PV Alt 1: Approx 77 miles: 55 miles entirely within existing I-87 ROW; 14 miles of new 100' ROW; 8 miles of 80' expanded ROW adjacent to existing CSX ROW.	high	8	32	47	med	4.8	med	167	med	9.5	high	28.1	med	82.9	med	804.0	med	232	med	med	high
3 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Leeds - Pleasant Valley; series comp on Fraser - Gilboa 345 kV; loop existing Marcy - Coopers Corners to Fraser	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-LD-PV: Approx 65 miles: 55 miles adjacent to existing 345 kV ROW; 10 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW.	high	8	29	32	med	5.9	high	217	high	9.3	high	41.8	high	84.1	med	866.7	med	98	low	med	high
4 - NAT Edic - Fraser w/series comp at Edic; New Scotland - Pleasant Valley Alt 2; series comp on Fraser - Gilboa 345 kV; loop existing Marcy - Coopers Corners to Fraser; series comp on Marcy - New Scotland 345 kV; series comp on Edic - New Scotland 345 kV	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-PV Alt 2: Approx 62 miles; 8 miles of 80' expanded ROW adjacent to existing CSX ROW; 54 miles entirely within an existing 115 kV ROW.	high	8	32	34	med	4.5	med	183	high	6.8	med	52.5	high	58.0	low	721.5	med	113	med	med	high
5 - NAT^[2] Edic - Fraser w/series comp at Edic; New Scotland - Knickerbocker - Pleasant Valley Alt 2; series comp on Fraser - Gilboa 345 kV; loop existing Marcy - Coopers Corners to Fraser; Edic - Princetown - Knickerbocker (as proposed by others)	ED-FR: Approx 80 miles: 72 miles adjacent to existing 345 kV ROW; 8 miles new ROW. 80' width where adjacent ROW; 100' width where new ROW. NS-KN-PV Alt 2: Approx 62 miles; 8 miles of 80' expanded ROW adjacent to existing CSX ROW; 54 miles entirely within an existing 115 kV ROW. New switchyard constructed at Knickerbocker.	high	8	32	34	med	4.5	med	183	high	6.8	med	52.5	high	58.0	low	721.5	med	113	med	med	high
6 - NYTO Knickerbocker to Pleasant Valley	KN-PV: Removal of existing 1 or 2 115 kV double circuit lines and construction of new 115/345 kV double circuit monopole structure line.	low	3	11	32	med	2.8	low	59	low	2.09	low	55.8	high	44.3	low	257.8	low	121	med	low	med
7 - NYTO Leeds to Pleasant Valley (Reconductor)	LD-PV(R): Reconductoring of the two existing 345 kV lattice structure lines and replacement of certain structures within an existing ROW.	low	3	8	20	low	3.8	low	28	low	3.46	low	9.72	low	83.2	med	182.4	low	33	low	low	low

[1] - For each NAT scenario, the ED-FR structures will be vertical monopole configuration where parallel to existing ROW and delta formation where not parallel to existing ROW.

[2] - NAT has not provided details regarding the proposed ED-PR-KN (as proposed by others) component of Scenario 5. Therefore Staff omitted this component from its environmental evaluation of Scenario 5.

[3] - NAT states that modifications to existing Churchtown 115 kV substation will be required. However, NAT does not provide details of the modifications or indicate whether modifications will require expanded footprint.

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			Miles	Rank	Miles	Acres	Rank	Miles	Acres	Rank	Miles	Acres	Rank		Mohawk River/Erie Canalway	Rank	Hudson River	Rank			#	#
8 - NYTO Hurley Avenue Phase Angle Regulators (PARs)	HA: Installation of three 575 MW PARs, two 135 MVA switched shunt capacitors and three 345 kV circuit breakers at the Hurley Avenue Substation.	low	0	low	0	0	low	0	0	low	0	0	low	N/A	N/A	low	N/A	low	0	1	No	low
9 - NYTO New Scotland to Leeds (Reconductor) and Leeds to Pleasant Valley	NS-LD(R): Reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures. LD-PV: Removal of the existing 115 kV double-circuit lattice structure lines and the construction of a new monopole double-circuit 115/345 kV line; removal of existing 1 or 2 115 kV double circuit lines; construction of a new 115/345 kV double circuit monopole structure line.	low	67.1	low	0	0	low	0	0	low	0	0	low	Steel Monopoles/ Replacement of some lattice towers	N/A	low	Replace Existing Overhead Crossing; Athens LWRP; SASS Views	med	0	3	No	low
10 - NYTO Oakdale to Fraser and Edic to New Scotland and Knickerbocker to Pleasant Valley (Enhanced Oct. 2013 Project)	O-FR: Construction of 57.7 mile 345 kV circuit within existing ROW supported by steel monopoles. ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. KN-PV: Removal of existing 1 or 2 115 kV double circuit lines and construction of new 115/345 kV double circuit monopole structure line.	high	203.4	high	0	0	low	0	0	low	0	0	low	H-Frame and Monopoles	Replace Overhead Crossing No clearing at Erie Canalway	low	No Crossing; ROW in SASS	med	1	6	No	low
11 - NYTO Edic to New Scotland and Knickerbocker to Pleasant Valley	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. KN-PV: Removal of existing 1 or 2 115 kV double circuit lines and construction of new 115/345 kV double circuit monopole structure line.	med	145.6	med	0	0	low	0	0	low	0	0	low	Steel Monopole/H-Frame	Replace Overhead Crossing No clearing at Erie Canalway	low	No Crossing; ROW in SASS	med	1	4	No	low
12 - NYTO Edic to New Scotland and New Scotland to Leeds (Reconductor)	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. NS-LD-PV(R): Reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures.	med	157.1	med	0	0	low	0	0	low	0	0	low	Steel Monopoles/ Replacement of some H-frame & lattice towers	Replace Overhead Crossing No clearing at Erie Canalway	low	Replace Existing Overhead Crossing; Athens LWRP; SASS Views	med	0	4	No	low
13 - NYTO Edic to New Scotland and Hurley Avenue PARs	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. HA: Installation of three 575 MW PARs, two 135 MVA switched shunt capacitors and three 345 kV circuit breakers at the Hurley Avenue Substation.	med	91.4	low	0	0	low	0	0	low	0	0	low	H-Frame and Steel Monopoles	Replace Overhead Crossing No clearing at Erie Canalway	low	N/A	low	0	3	No	low
14 - NYTO Edic to New Scotland and New Scotland to Leeds (Reconductor) and Leeds to Pleasant Valley	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. NS-LD(R): Reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures. LD-PV: Removal of the existing 115 kV double-circuit lattice structure lines and the construction of a new monopole double-circuit 115/345 kV line; removal of existing 1 or 2 115 kV double circuit lines; construction of a new 115/345 kV double circuit monopole structure line.	med	158.5	med	0	0	low	0	0	low	0	0	low	Steel Monopoles/ Replacement of some H-frame & lattice towers	Replace Overhead Crossing No clearing at Erie Canalway	low	Existing Overhead Crossing; replace lattice with monopoles, Athens LWRP; SASS Views	med	0	2	No	low

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			#	#	#	Rank	Miles	Rank	#	Rank	Miles	Rank	Miles	Rank	Acres	Rank	Acres	Rank	#	Rank	Rank	Rank
8 - NYTO Hurley Avenue Phase Angle Regulators (PARs)	HA: Installation of three 575 MW PARs, two 135 MVA switched shunt capacitors and three 345 kV circuit breakers at the Hurley Avenue Substation.	low	1	1	0	low	0	low	0	low	0	low	0	low	0	low	0.21	low	0	low	low	low
9 - NYTO New Scotland to Leeds (Reconductor) and Leeds to Pleasant Valley	NS-LD(R): Reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures. LD-PV: Removal of the existing 115 kV double-circuit lattice structure lines and the construction of a new monopole double-circuit 115/345 kV line; removal of existing 1 or 2 115 kV double circuit lines; construction of a new 115/345 kV double circuit monopole structure line.	low	3	12	61	high	2.8	low	60	low	4.6	med	8.9	low	149.9	med	453.0	med	137	med	med	low
10 - NYTO Oakdale to Fraser and Edic to New Scotland and Knickerbocker to Pleasant Valley (Enhanced Oct. 2013 Project)	O-FR: Construction of 57.7 mile 345 kV circuit within existing ROW supported by steel monopoles. ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. KN-PV: Removal of existing 1 or 2 115 kV double circuit lines and construction of new 115/345 kV double circuit monopole structure line.	high	11	44	50	high	6.1	high	242	high	7.4	med	55.5	high	268.1	high	2966.0	high	169	med	high	med
11 - NYTO Edic to New Scotland and Knickerbocker to Pleasant Valley	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. KN-PV: Removal of existing 1 or 2 115 kV double circuit lines and construction of new 115/345 kV double circuit monopole structure line.	med	8	30	51	high	5.3	med	169	med	5.2	med	28.1	med	258.2	high	1005.0	high	156	med	med	med
12 - NYTO Edic to New Scotland and New Scotland to Leeds (Reconductor)	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. NS-LD-PV(R): Reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures.	med	8	31	62	high	7.8	high	170	med	5.0	med	7.9	low	322.7	high	989.8	high	171	med	med	low
13 - NYTO Edic to New Scotland and Hurley Avenue PARs	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. HA: Installation of three 575 MW PARs, two 135 MVA switched shunt capacitors and three 345 kV circuit breakers at the Hurley Avenue Substation.	med	6	20	16	low	2.5	low	111	med	3.1	low	0.2	low	213.9	high	747.7	med	35	low	low	med
14 - NYTO Edic to New Scotland and New Scotland to Leeds (Reconductor) and Leeds to Pleasant Valley	ED-NS: Removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and installation of one set of 345 kV wires and insulators to one of them; replace two existing 230 kV H-frame structure lines with one new 345 kV line consisting predominately of H-frame structures; intermittent new 345 kV tubular steel monopole structures. NS-LD(R): Reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures. LD-PV: Removal of the existing 115 kV double-circuit lattice structure lines and the construction of a new monopole double-circuit 115/345 kV line; removal of existing 1 or 2 115 kV double circuit lines; construction of a new 115/345 kV double circuit monopole structure line.	med	8	32	37	med	7.1	high	170	med	7.7	med	9.0	low	363.8	high	1198.0	high	171	med	med	med

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Scenario	Description	OVERALL RANK	Length of Route(s)		New ROW			Expansion of Existing ROW			Total New ROW and Expanded ROW			Structures	Major River Corridors			New Substations or Switchyards	Substations or Switchyards with Expanded Footprint	Land Acquisition Needed for Substations or Switchyards		
			Miles	Rank	Miles	Acres	Rank	Miles	Acres	Rank	Miles	Acres	Rank		Mohawk River/Erie Canalway	Rank	Hudson River			Rank	#	#
15 - NextEra Oakdale - Fraser; Edic - Leeds - Pleasant Valley via Thruway and other ROW	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Thruway ED-LD-PV: 345 kV line approximately 180 miles in length; adjacent to existing NYS Thruway ROW for approximately 163 miles requiring expansion of existing NYS Thruway ROW 30-35 feet wide; where not adjacent to NYS Thruway ROW, facility will be entirely within or will require expansion of existing electric transmission ROW and short segments of new ROW.	high	236.0	high	8.5	128	med	166.5	1528	high	175.0	1656.0	high	Spun Concrete Monopoles	New Overhead Adjacent to Existing; Forest Clearing near Erie Canalway	high	River Crossing either Overhead, HDD or bridge, Lloyd LWRP; SASS	high	0	5	No	low
16 - NextEra Oakdale - Fraser; Marcy Southern Route 1: Marcy - Princetown; Princetown - Rotterdam; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Marcy Southern 1 (M-PR, PR-R, GB-KN, KN-CH-PV): Entirely within existing ROW; new PR Substation; M-PR: Replace existing two 230 kV lines with one 345 kV circuit; Approximately 68 miles; 56 miles new 345 kV line; 12 miles 345 kV reconducting; PR-R: Approximately 5 miles; rebuild two existing 230 kV parallel circuits. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	high	197.0	high	0	0	low	0	0	low	0.0	0.0	low	Spun Concrete Monopoles	Replace Overhead Crossing; Forest Clearing near Erie Canalway	med	No Crossing; Line in SASS	med	2	6	Yes	high
17 - NextEra Oakdale-Fraser; Marcy Southern Route 2: Marcy - New Princetown; Princetown - Rotterdam (rebuild); Princetown - New Scotland - Knickerbocker; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Marcy Southern 2 Entirely within existing ROW; replace existing M-NS-KN 765 kV facility; new PR Substation; M-PR: Replace existing two 230 kV lines with one 345 kV circuit; Approximately 68 miles; 56 miles new 345 kV line; 12 miles 345 kV reconducting; PR-R: Approximately 5 miles; rebuild two existing 230 kV parallel circuits; PR-NS: Approximately 20 miles; two parallel 345 kV transmission lines, partial rebuild of existing M-NS 345 kV line and addition of one new PR-KN 345 kV line; NS-KN: Approximately 13 miles; two parallel 345 kV transmission lines; rebuild existing 345 kV NS-Alps line and new PR-KN 345 kV line. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	high	224.0	high	0	0	low	0	0	low	0.0	0.0	low	Spun Concrete Monopoles	Replace Overhead Crossing; Forest Clearing near Erie Canalway	med	1-HDD, or 1-rebuild New Scotland Alps or Bridge Attachment, Schodack LWRP; Line in SASS	high	2	8	Yes	high
18 - NextEra Oakdale - Fraser; Marcy Northern Route: Marcy - Orchard Hill - New Scotland; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Marcy Northern: Approximately 84.5 miles; new OH Switchyard; MA-OH: New 345 kV transmission line on expanded ROW 110 feet wide parallel to existing 345 kV facility; OH-NS: Approximately 0.5 miles; two parallel 345-kV lines on new ROW. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	high	204.0	high	0.5	3.7	low	84.0	1120.0	high	84.5	1123.7	med	Spun Concrete Monopoles	New Overhead Adjacent to Existing; Forest Clearing near Erie Canalway	high	No River Crossing; Line in SASS	med	2	7	Yes	high
19 - NextEra Oakdale - Fraser; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	med	120.0	med	0	0	low	0	0	low	0.0	0.0	low	Spun Concrete Monopoles	N/A	low	No River Crossing; Line in SASS	med	1	5	Yes	high
19A - NextEra/NYISO Knickerbocker to Pleasant Valley	KN-PV: Entirely within existing ROW; new KN Substation; KN-CH: Replace two existing 115 kV lines with one 115/345 kV double circuit facility; approximately 22.2 miles; CH-KN: New 115/345 kV double circuit facility; approximately 31.1 miles.	low	54.2	low	0	0	low	0	0	low	0	0	low	Steel Monopoles/ Replacement of some lattice towers	N/A	low	No River Crossing; Line in SASS	med	1	2	No	low
20 - Boundless Leeds - Hurley Avenue; Athens Generating - Leeds - Pleasant Valley; CPV Tap to Rock Tavern; Roseton - East Fishkill	LD-HA(R), Athens Generating-LD-PV(R), CPV VALLEY-RT(R): Reconducting of approximately 83 miles of existing 345 kV circuits on existing structures using ACCC or ACSR conductor cables; installation of a total of 40% series compensation equipment at the Hurley Ave Substation. RS-EF: Installation of 2 new underground 345 kV lines from RS to EF; approximately 8 miles.	med	92.0	low	0	0	low	8.1	20.0	low	8.1	20.0	low	Monopoles/H-frame/ Lattice/ Underground	N/A	low	HDD Crossing	med	0	7	No	low
21 - Boundless Leeds - Hurley Avenue; CPV Tap to Rock Tavern; Roseton - East Fishkill	LD-HA(R), CPV-RT(R): Reconducting of approximately 44 miles of existing 345 kV circuits on existing structures using ACCC or ACSR conductor cables; installation of a total of 40% series compensation equipment at the Hurley Ave Substation. RS-EF: Installation of 2 new underground 345 kV lines from RS to EF; approximately 8 miles.	low	52.0	low	0	0	low	8.1	20.0	low	8.1	20.0	low	Monopoles/H-frame/ Lattice/ Underground	N/A	low	HDD Crossing	med	0	6	no	low

[A] - This information is from NYTO's application, Table 1.1-5, and only accounts for residences along the Leeds to Pleasant Valley segment of Scenario 20.

[B] - Data listed is Staff's approximation from GIS information

[C] - Information was not provided and the centerline Shape File varied to an extent that was imprecise. Therefore no rank provided.

* Eligible S-NRHP not included

LWRP - Local Waterfront Revitalization Program

SASS - Scenic Area of State-wide Significance

Table 1 Comparative Environmental Parameters

Scenario	Description	OVERALL RANK	Counties	Towns, Villages & Cities	S-NRHP Crossed or Within 1 Mile*		Distance Crossing NWI Wetlands		Regulated Streams Crossed by ROW		Distance Crossing 100-YR Floodplains		Length of ROW in Ag Districts		Forested Wetlands		Total Forest		Residences Within 1-250 Feet		Overall Noise Impact	Visual Assessment
			#	#	#	Rank	Miles	Rank	#	Rank	Miles	Rank	Miles	Rank	Acres	Rank	Acres	Rank	#	Rank	Rank	Rank
15 - NextEra Oakdale - Fraser; Edic - Leeds - Pleasant Valley via Thruway and other ROW	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Thruway ED-LD-PV: 345 kV line approximately 180 miles in length; adjacent to existing NYS Thruway ROW for approximately 163 miles requiring expansion of existing NYS Thruway ROW 30-35 feet wide; where not adjacent to NYS Thruway ROW, facility will be entirely within or will require expansion of existing electric transmission ROW and short segments of new ROW.	high	11	43	135	high	3.9	low	257	high	21.1	high	33.7	med	43.7	low	483.0	med	783.0	high	med	high
16 - NextEra Oakdale - Fraser; Marcy Southern Route 1: Marcy - Princetown; Princetown - Rotterdam; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Marcy Southern 1 (M-PR, PR-R, GB-KN, KN-CH-PV): Entirely within existing ROW; new PR Substation; M-PR: Replace existing two 230 kV lines with one 345 kV circuit; Approximately 68 miles; 56 miles new 345 kV line; 12 miles 345 kV reconductoring; PR-R: Approximately 5 miles; rebuild two existing 230 kV parallel circuits. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	high	10	40	16	low	3.9	low	241	high	4.8	med	33.0	med	53.2	low	807.0	med	214.0	med	high	med
17 - NextEra Oakdale-Fraser; Marcy Southern Route 2: Marcy - New Princetown; Princetown - Rotterdam (rebuild); Princetown - New Scotland - Knickerbocker; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Marcy Southern 2 Entirely within existing ROW; replace existing M-NS-KN 765 kV facility; new PR Substation; M-PR: Replace existing two 230 kV lines with one 345 kV circuit; Approximately 68 miles; 56 miles new 345 kV line; 12 miles 345 kV reconductoring; PR-R: Approximately 5 miles; rebuild two existing 230 kV parallel circuits; PR-NS: Approximately 20 miles; two parallel 345 kV transmission lines, partial rebuild of existing M-NS 345 kV line and addition of one new PR-KN 345 kV line; NS-KN: Approximately 13 miles; two parallel 345 kV transmission lines; rebuild existing 345 kV NS-Alps line and new PR-KN 345 kV line. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	high	11	46	21	low	6.4	high	282	high	11.0	high	34.5	med	160.7	med	1157.0	high	325.0	high	high	med
18 - NextEra Oakdale - Fraser; Marcy Northern Route: Marcy - Orchard Hill - New Scotland; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Marcy Northern: Approximately 84.5 miles; new OH Switchyard; MA-OH: New 345 kV transmission line on expanded ROW 110 feet wide parallel to existing 345 kV facility; OH-NS: Approximately 0.5 miles; two parallel 345-kV lines on new ROW. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	high	10	31	23	med	5.7	high	270	high	6.1	med	62.1	high	111.7	med	1014.0	high	293.0	high	high	high
19 - NextEra Oakdale - Fraser; Knickerbocker Route: Greenbush - Knickerbocker - Churchtown - Pleasant Valley	O-FR: Approximately 57 miles; installation of new 345 kV circuit on spun concrete monopoles entirely within existing ROW. Knickerbocker Route: Entirely within existing ROW; new KN Switchyard; GB-KN: New 115 kV facility approximately 8 miles long; KN-CH-PV: Replace existing KN-PV double circuit 115 kV lines; new 345/115 kV double circuit transmission line approximately 22 miles long KN-CH; new 345 kV transmission line approximately 32 miles long CH-PV.	med	6	25	16	low	3.0	low	153	med	2.1	low	58.7	high	39.7	low	559.0	med	215.0	med	med	med
19A - NextEra/NYISO Knickerbocker to Pleasant Valley	KN-PV: Entirely within existing ROW; new KN Substation; KN-CH: Replace two existing 115 kV lines with one 115/345 kV double circuit facility; approximately 22.2 miles; CH-KN: New 115/345 kV double circuit facility; approximately 31.1 miles.	low	3	11	14	low	2.8	low	59	low	2.09	low	27.9	med	44.3	low	258.0	low	121	med	low	low
20 - Boundless Leeds - Hurley Avenue; Athens Generating - Leeds - Pleasant Valley; CPV Tap to Rock Tavern; Roseton - East Fishkill	LD-HA(R), Athens Generating-LD-PV(R), CPV VALLEY-RT(R): Reconductoring of approximately 83 miles of existing 345 kV circuits on existing structures using ACCC or ACSR conductor cables; installation of a total of 40% series compensation equipment at the Hurley Ave Substation. RS-EF: Installation of 2 new underground 345 kV lines from RS to EF; approximately 8 miles.	med	5	23	18	low	7.7[B]	high	127	med	10.5[B]	high	28.0	med	280.0[B]	high	1160.0[B]	high	33[A]	[C]	low	low
21 - Boundless Leeds - Hurley Avenue; CPV Tap - Rock Tavern; Roseton - East Fishkill	LD-HA(R), CPV-RT(R): Reconductoring of approximately 44 miles of existing 345 kV circuits on existing structures using ACCC or ACSR conductor cables; installation of a total of 40% series compensation equipment at the Hurley Ave Substation. RS-EF: Installation of 2 new underground 345 kV lines from RS to EF; approximately 8 miles.	low	4	16	3	low	3.4[B]	low	91	low	7.0[B]	med	14.0	low	197.0[B]	high	978[B]	high	[C]	[C]	low	low

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