

# Updates on NYISO's Comprehensive System Planning Process

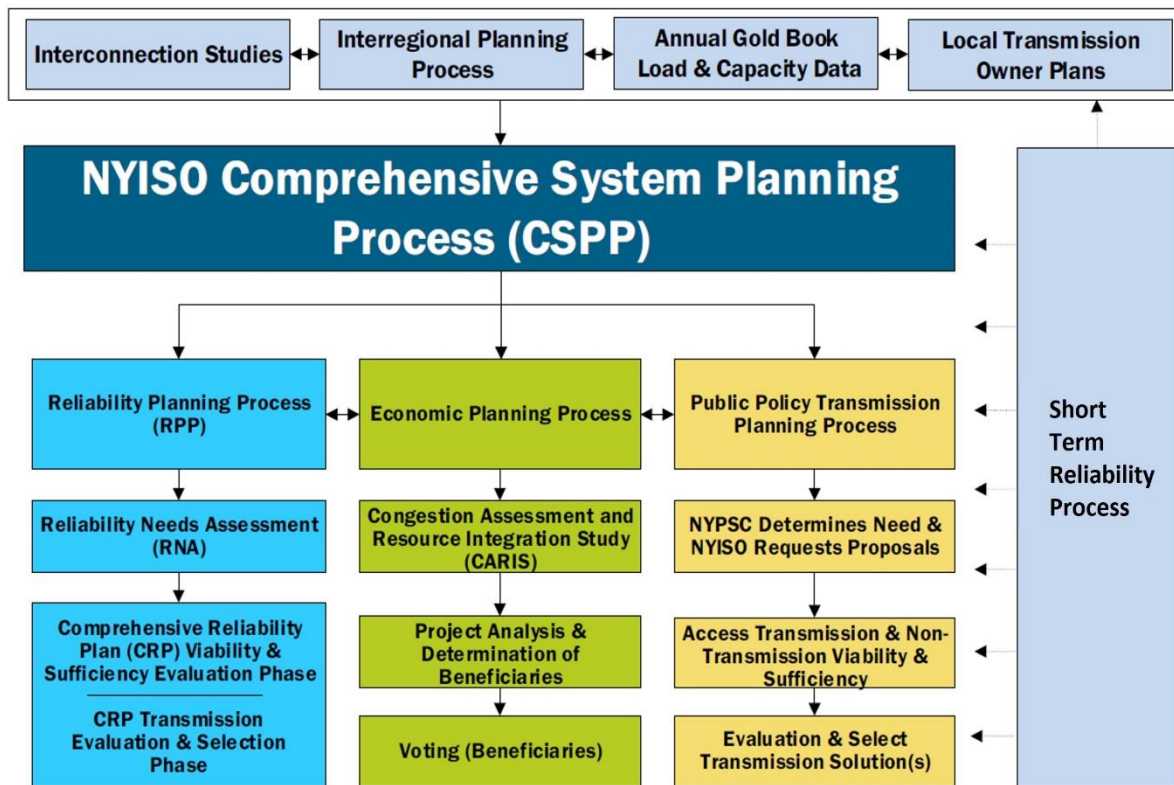
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**Interregional Planning Stakeholder Advisory Committee (IPSAC) Meeting**

May 15, 2020



# Reliability Planning Process

- **Two-year process starting in even years**
- **Reliability Needs Assessment (RNA)**
  - Evaluates the adequacy and security of the Bulk Power Transmission Facilities over a seven-year Study Period (years four through ten of the next ten years), and identifies Reliability Needs
  - Reliability Needs are defined as violations of Reliability Criteria (*i.e.*, NERC, NPCC and NYSRC)
- **Comprehensive Reliability Plan (CRP)**
  - Develops a plan to satisfy the Reliability Needs identified in RNA, if any
- **An updated Reliability Planning Process Manual (Manual 26) was approved on December, 2019, with certain changes related with the inclusion rules**

# 2020 Reliability Needs Assessment

- **Will incorporate impacts of Peaker Rule into base case reliability analysis.**
  - New York State Department of Environmental Conservation (DEC) adopted a regulation to limit nitrogen oxides (NOx) emissions from simple-cycle combustion turbines (“Peaking Units”) (referred to as the “Peaker Rule”)
  - The Peaker Rule required all impacted plant owners to file compliance plans by March 2, 2020
- **Will include a scenario evaluating the impacts of 70 percent of energy produced from renewable resources by 2030 (“70 by 30”) for both Transmission Security and Resource Adequacy.**
- **1<sup>st</sup> pass RNA results are planned to be presented in June 2020.**

# Proposed Projects Included in the 2020 RNA Base Case

also included in the 2018-2019 RPP Base Cases				
Project Types	Queue #	Project Name	SP MW	Interconnection Status
Large Gens	387	Cassadaga Wind	126.5	CY17
	396	Baron Winds	238.4	CY17
	422	Eight Point Wind Energy Center	101.8	CY17
	505	Ball Hill Wind	100.0	CY17
	546	Roaring Brook Wind	79.7	CY19
	678	Calverton Solar Energy Center	22.9	CY19
Regulated Transmission Solutions	Q545A	Empire State Line	n/a	completed TIP Facility Study (Western NY PPTPP)
	556	Segment A Double Circuit		TIP Facility Study in progress (AC PPTPP)
	543	Segment B Knickerbocker-Pleasant Valley 345 kV		TIP Facility Study in progress (AC PPTPP)
	430	Cedar Rapids Transmission Upgrade		CY17
System Deliverability Upgrades (SDUs)		Leeds-Hurley SDU	n/a	SDU triggered for construction in CY11

Acronyms:

CYxx: (Interconnection) Class Year (Facilities Studies) + last 2 digits of the year

TIP: Transmission Interconnection Process

AC PPTPP: Alternative Current Public Policy Transmission Planning Process

# Generator Status Update

Generator Status Updates from March 1, 2019 through April 1, 2020

<i>Generating Unit</i>	<i>Zone</i>	<i>Current Generator Status</i>	<i>Date of Generator Status Change, if applicable</i>	<i>Initial Testing Date, if applicable</i>	<i>Generator Deactivation Assessment Start Date, if applicable</i>	<i>Generator Deactivation Assessment Completion Date, if applicable</i>	<i>PSC Retirement/Mothball Notice Date, if applicable</i>	<i>Proposed Retirement/Mothball Date, if applicable</i>	<i>Rescinded Notice Date, if applicable</i>	<i>Notes</i>
Lyonsdale	E	Retired	07/18/2019		04/18/2019	06/12/2019	03/28/2019	*4/15/2019		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 7/18/19.
GILBOA__1	F	In Service	06/01/2019		01/01/2019	03/04/2019				After entering an ICAP Ineligible Forced Outage, GILBOA__1 has returned to service as of June 1, 2019.
KCE_NY_1	F	In Service	03/13/2019	03/13/2019						
HUDSON AVE_GT_4	J	Retired	IIFO-4/1/2019 Retirement-9/10/2019		IIFO-4/1/2019 Retirement-5/29/2019	IIFO-6/12/2019 Retirement-8/1/2019	05/28/2019	*8/25/19		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 8/28/19.
Auburn-State St.	C	Retired	10/01/2019		05/10/2019	08/01/2019	04/09/2019	*5/1/2019		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 8/9/19.
Monroe Livingston	B	Retired	09/01/2019		05/10/2019	08/01/2019		*6/30/2019		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 8/9/19.
Steuben County LF	C	Retired	09/01/2019		05/10/2019	08/01/2019		*5/1/2019		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 8/9/19.

# Generator Status Update (continued)

Generator Status Updates from March 1, 2019 through April 1, 2020

Generating Unit	Zone	Current Generator Status	Date of Generator Status Change, if applicable	Initial Testing Date, if applicable	Generator Deactivation Assessment Start Date, if applicable	Generator Deactivation Assessment Completion Date, if applicable	PSC Retirement/Mothball Notice Date, if applicable	Proposed Retirement/Mothball Date, if applicable	Rescinded Notice Date, if applicable	Notes
Cayuga 1	C	Mothball Outage	11/01/2019		Mothball-8/1/2019 Retirement - 03/02/2020	Mothball-10/28/2019	Mothball-6/29/2019 Retirement-2/17/2020	Mothball-*10/1/2019 Retirement-*5/17/2020		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might mothball is 10/31/19. **Pending PSC approval Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might mothball is 06/01/20.
Albany LFGE	F	In Service			07/12/2019	09/20/2019		*9/18/2019		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 10/11/19.
CRICKET__VALLEY_CC1	G	In Service	10/25/2019							
HUDSON AVE_GT_3	J	ICAP Ineligible Forced Outage	11/01/2019		11/01/2019	01/13/2020				
INDIAN POINT__2	H	In Service			11/13/2017	12/13/2017	10/30/2019	04/30/2020		
INDIAN POINT__3	H	In Service			11/13/2017	12/13/2017	10/30/2019	04/30/2021		
KINTIGH____	A	Retired	03/31/2020		12/12/2019	03/04/2020	11/15/2019	02/15/2020*		*Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 03/12/2020.
GREENIDGE__4	C	In Service	01/31/2020							Transitioned from Generator to BTM:NG Resource

# Generator Status Update (continued)

Generator Status Updates from March 1, 2019 through April 1, 2020

<i>Generating Unit</i>	<i>Zone</i>	<i>Current Generator Status</i>	<i>Date of Generator Status Change, if applicable</i>	<i>Initial Testing Date, if applicable</i>	<i>Generator Deactivation Assessment Start Date, if applicable</i>	<i>Generator Deactivation Assessment Completion Date, if applicable</i>	<i>PSC Retirement/Mothball Notice Date, if applicable</i>	<i>Proposed Retirement/Mothball Date, if applicable</i>	<i>Rescinded Notice Date, if applicable</i>	<i>Notes</i>
CRICKET__VALLEY_CC2	G	In Service	01/03/2020							
CRICKET__VALLEY_CC3	G	In Service	01/17/2020							
LYONS_FALL_HYD	E	In Service	02/24/2020							Transitioned from Generator to BTM:NG Resource
Cayuga 2	C	ICAP Ineligible Forced Outage	07/01/2018		IIFO-7/1/2018 Retirement - 03/02/2020	IIFO-9/10/2018	IIFO-6/20/2018 Retirement-2/17/2020	*5/17/2020		*Pending PSC Approval Per the NYISO's Generator Deactivation Process, the earliest date on which the Generator might retire is 06/01/2020.
WEST BABYLON__IC	K	In Service					01/23/2020	12/11/2020		
GLENWOOD_IC_1_G5	K	In Service					03/18/2020	02/28/2021		



# Local Transmission Owner Plans (LTP)

- The NYISO's Comprehensive System Planning Process (CSPP) begins with the Local Transmission Owner Planning Process (LTPP). The LTPP allows interested parties to examine the transmission system plans of each of the New York Transmission Owners individually.
- **Local Transmission Owner Planning Process (LTPP) link:**
  - <https://www.nyiso.com/documents/20142/3632262/Local-Transmission-Owner-Planning-Process-LTPP.pdf>
- **2020 Load and Capacity Data Report (Gold Book) containing BPTF LTPs and firm non-BPTF LTPs (Section VII)**
  - <https://www.nyiso.com/documents/20142/2226333/2020-Gold-Book-Final-Public.pdf>

# Existing transmission facilities modeled out-of-service

- Con Edison's B3402 and C3403 345 kV cables with no return date
- Moses-St. Lawrence L33P through winter 2022

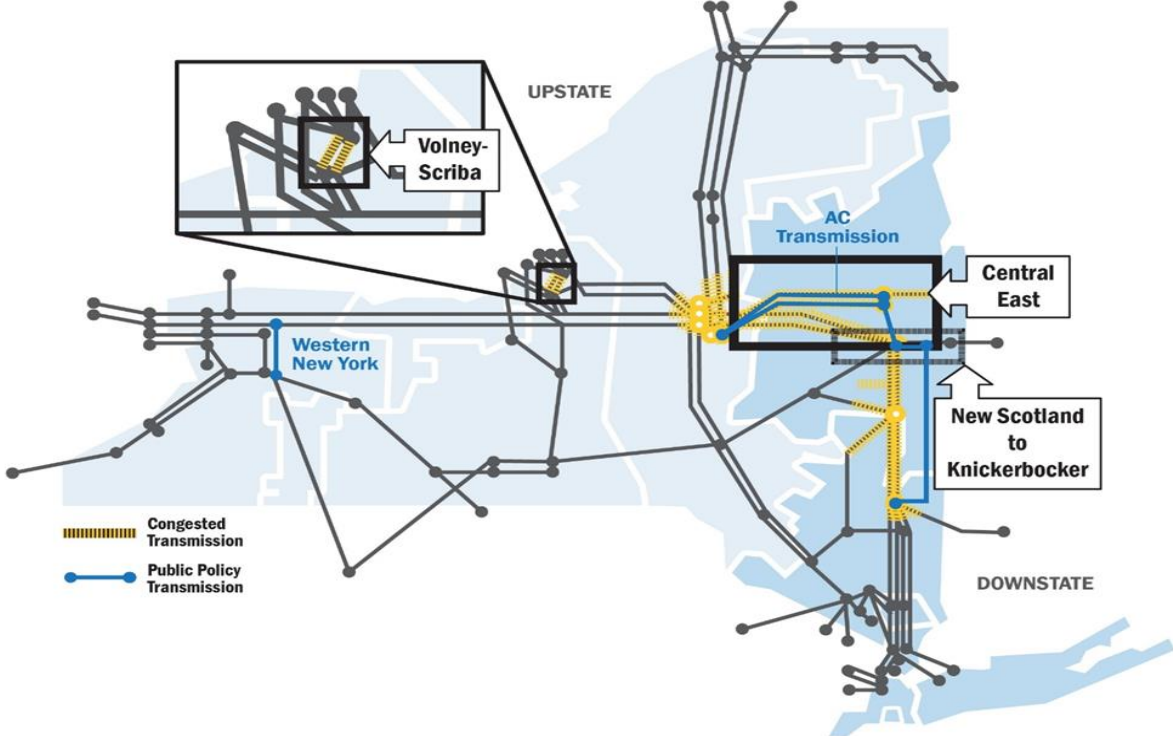
# Short-Term Reliability Process

- Accepted by FERC for a May 1st, 2020 effective date
- Combines the Generator Deactivation Process along with analyzing other impacts on the Bulk system that could impact reliability.
- Quarterly reliability assessments of needs arising in next five years, focusing on the next three years.
- Reliability Planning Process addresses years four through ten.

# Economic Planning Process

- **Two-year process: Congestion Assessment and Resource Integration Study (CARIS)**
  - **Phase I: Study Phase**
    - Performed in alternate years to the RNA
    - Determine three top congested locations in NYCA
    - Develop generic solutions – transmission, generation, demand response, and energy efficiency
    - Provide information to developers and marketplace
  - **Phase II:**
    - **Specific Projects**
      - Transmission projects seeking regulated cost recovery under NYISO Tariff
      - Eligibility threshold: Cost over \$25M, benefit/cost ratio over 1.0, load payment saving over cost, 80% beneficiary vote
    - **Additional CARIS Studies**
      - Assumptions and scenarios customizable
      - Confidential except for basic information

# 2019 CARIS Phase 1: Congestion Groupings



# Status of CARIS

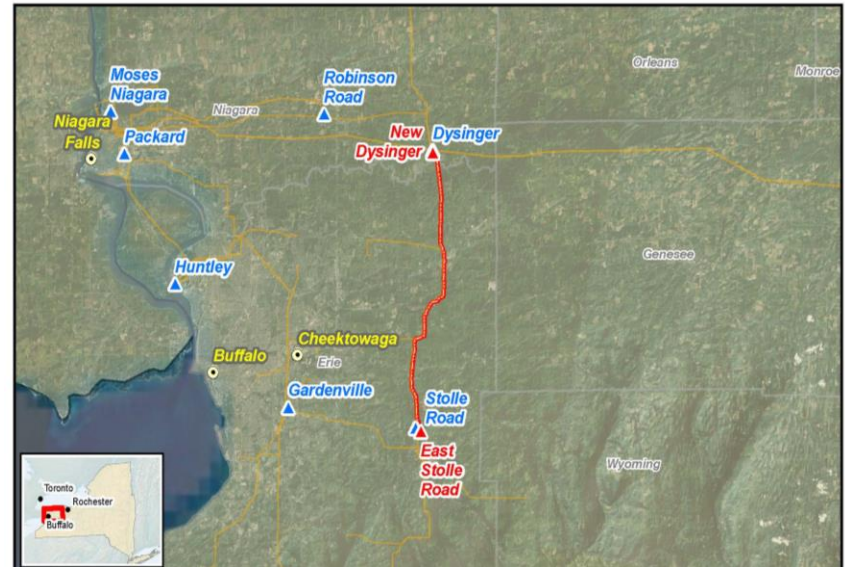
- **The 2019 CARIS Phase 1 Draft Report**
  - Presented at the April 23, 2020 Electric System Planning Working Group (ESPWG)  
[https://www.nyiso.com/documents/20142/12126107/03%202019\\_CARIS\\_DraftReport.pdf](https://www.nyiso.com/documents/20142/12126107/03%202019_CARIS_DraftReport.pdf)
  - Final draft scheduled for July 2020 pending NYISO Board of Directors approval
- **Includes Base Case assumptions and results**
- **Top three congested groupings:**
  - Central East
  - Central East – New Scotland – Knickerbocker
  - Volney – Scriba
- **A scenario studying 70% of NY energy consumption from renewables by 2030 (70x30) will be included in a updated version of the report.**

# Public Policy Transmission Planning Process (PPTPP)

- **Two-year process performed in parallel with RNA/CRP**
- **Phase I: Identify Needs and Assess Solutions**
  - NYISO solicits transmission needs driven by Public Policy Requirements
  - PSC identifies transmission needs and defines additional evaluation criteria
  - NYISO holds Technical Conference and solicits solutions (transmission, generation, or EE/DR)
  - NYISO performs Viability and Sufficiency Assessment (VSA)
- **Phase II: Transmission Evaluation and Selection**
  - NYISO staff evaluates viable and sufficient transmission solutions and recommends the more efficient or cost-effective solution
  - Stakeholder review and advisory votes at BIC and MC
  - NYISO Board may select a transmission solution for purposes of cost allocation and recovery under the NYISO Tariff

# Western NY Project Selection

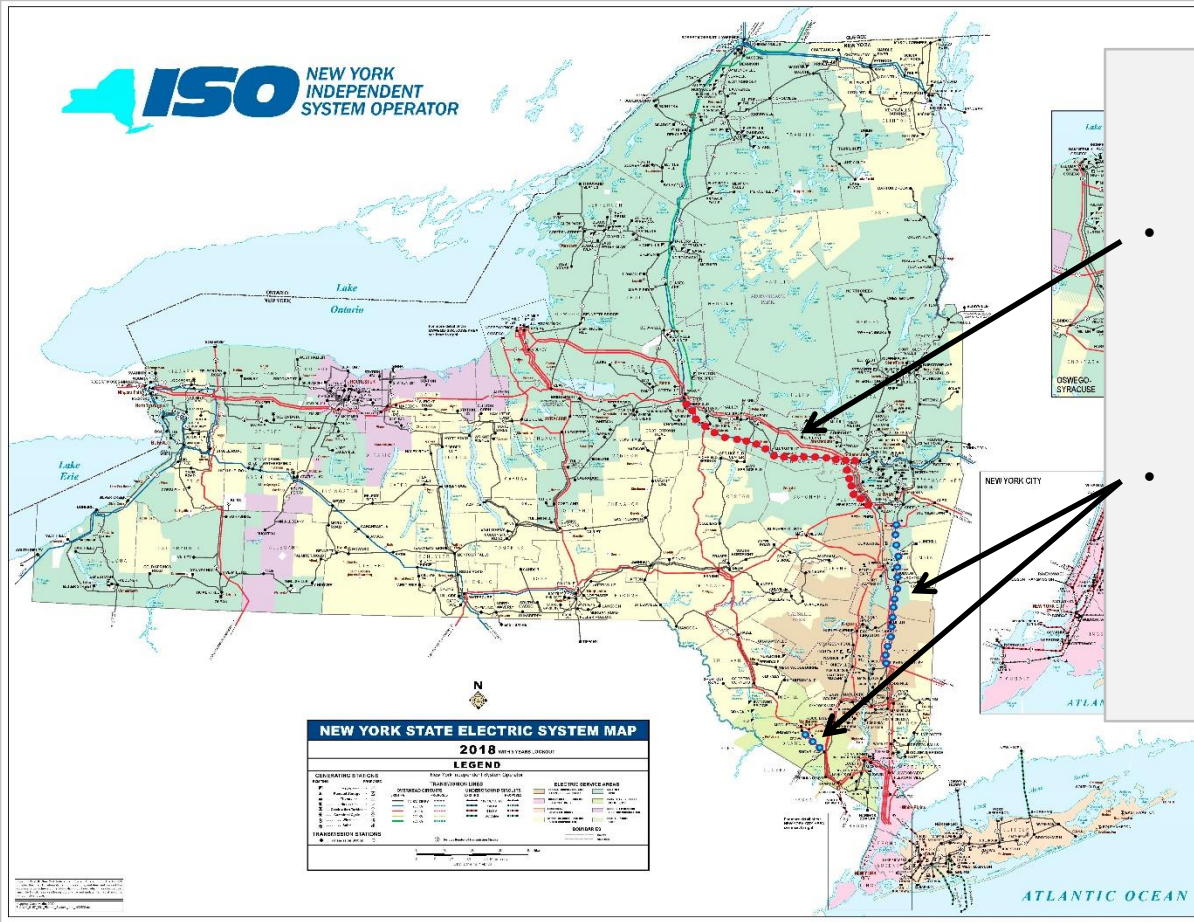
- NYISO staff recommended Empire State Line Proposal 1 (T014), proposed by NextEra Energy Transmission New York, as the more efficient and cost effective solution.
- In October 2017, the NYISO Board of Directors selected the NextEra project.
- Final Western NY report is posted at:  
<https://www.nyiso.com/documents/20142/1396391/Western%20New%20York%20Public%20Policy%20Transmission%20Planning%20Report.pdf>





# AC Transmission Project Selection

- In April 2019, the NYISO Board of Directors selected the Segment A Double-Circuit (T027) project, proposed jointly by North American Transmission (“NAT”) and the New York Power Authority (“NYPA”), as the more efficient or cost effective solution for Segment A. The Board also concluded that for Segment B, the more efficient or cost effective solution is the New York Energy Solution (YES) Segment B (T019) project, which was jointly proposed by the Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid”) and the New York Transco, LLC (“Transco”).
- Final AC Transmission report is posted at:  
<https://www.nyiso.com/documents/20142/5990681/AC-Transmission-Public-Policy-Transmission-Plan-2019-04-08.pdf>



## AC TRANSMISSION PROJECT SELECTION

- Segment A: T027 (Central East)
  - New double-circuit Edic to New Scotland 345 kV line
  - Decommission Porter to Rotterdam 230 kV lines
  - 115/230/345 kV connection to Rotterdam
- Segment B: T019 (UPNY/SENY)
  - New Knickerbocker to Pleasant Valley 345 kV line
  - Rock Tavern substation terminal upgrades
  - Shoemaker – Sugarloaf 138 kV line

# Interregional Coordination

- **Through the NYISO's Transmission Interconnection Procedures, the NYISO also coordinates with neighboring regions to identify the impact, if any, of the Public Policy Transmission Projects on the neighboring regions.**
  - System Impact Studies have been completed for the selected Western NY and AC Transmission projects.
  - Facilities Study has been completed for the selected Western NY project.
  - Facilities Studies are being performed for the selected AC Transmission projects to finalize the Network Upgrade Facilities including the upgrades to address New York-New England transfer degradation.

# Future Public Policy Transmission Needs

- ◆ **The NYISO initiated the 2018-2019 PPTPP cycle in August 2018 by issuing a solicitation for proposed transmission needs driven by Public Policy Requirements. There have been no transmission needs identified in this cycle.**
- ◆ **The NYISO will initiate the 2020-2021 PPTPP cycle in August 2020 by issuing a solicitation for proposed transmission needs driven by Public Policy Requirements.**

# Stakeholder Material

- **The NYISO Comprehensive System Planning Process is regularly discussed at the Electric System Planning Working Group (ESPWG) and Transmission Planning Advisory Subcommittee (TPAS).**
  - <https://www.nyiso.com/espwg>
  - <https://www.nyiso.com/tpas>
- **Study documentation is available at:**
  - <https://www.nyiso.com/cspp>

# Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

