NEW YORK STATE | Department of Public Service

KATHY HOCHUL
Governor

RORY M. CHRISTIAN
Chief Executive Officer

October 24, 2025

Hon. Michelle Phillips
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 20-E-0197 – Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act.

Dear Secretary Phillips:

Materials for the Energy Policy Planning Advisory Council (EPPAC) meeting on Monday, October 27, 2025, are enclosed. The agenda and instructions for participating are below.

October 27, 2025 (2:00 p.m. – 4:00 p.m.)
https://meetny-gov.webex.com/meetny-gov/j.php?MTID=me80cb39a2f298a6f0c3efd3dc68fbdb8
Phone-Only Access: +1 (929) 251-9612
Access Code: 2828 388 4367

Agenda

1) Welcome and Process Review (DPS)
2) Conceptual Bulk Transmission Expansion Options (Quanta)
3) Stages 3 and 4 Update and Stage 5 Discussion (JU)
4) Next Steps and Closing (DPS)

As described in the Order Approving a Coordinated Grid Planning Process issued on August 17, 2023, interested stakeholders may attend and listen but only EPPAC members will be speaking and actively participating in the meeting. The meetings will be recorded and links to the recordings will be filed in this proceeding. Questions concerning the EPPAC should be directed to EPPAC@dps.ny.gov.

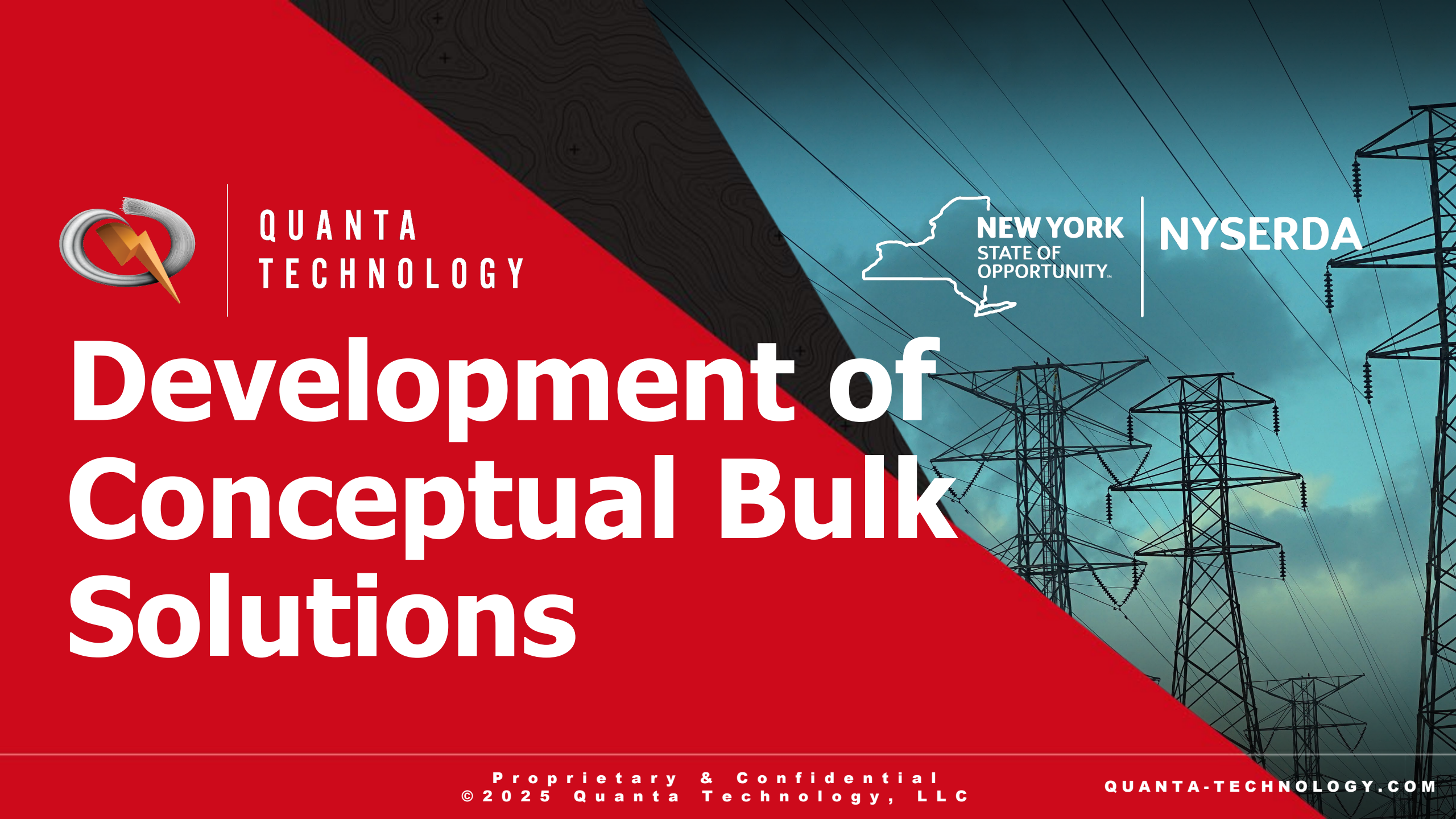
Sincerely,

Jalila Aissi
Assistant Counsel

QUANTA TECHNOLOGY

NEW YORK STATE OF OPPORTUNITY. | NYSERDA

Development of Conceptual Bulk Solutions



Proprietary & Confidential
© 2025 Quanta Technology, LLC

Background and Recap

- This presentation builds upon prior discussions from the September 15th EPPAC meeting surrounding the development of conceptual bulk transmission concepts under the CGPP framework.
- The following sources of information are being considered for the development of conceptual bulk concepts:
  - CGPP Stage 1 capacity expansion results
  - Feedback submitted by EPPAC representatives
  - Submissions to the NYISO's 2024 Solicitation for Transmission Needs Driven by Public Policy Requirements
  - Results from recent studies (e.g., 2023-2042 Outlook)
  - Recent transmission congestion patterns
  - Bulk system expandability analysis

Proprietary & Confidential
© 2025 Quanta Technology, LLC

Purpose and Objective

- This presentation is intended to :
  - Share the potential impact of implementation of proxy conceptual solutions
  - Share cost assumptions and preliminary cost estimates for proxy conceptual solutions

Proprietary & Confidential
© 2025 Quanta Technology, LLC

Bulk Transmission Concepts – Categorization

Three Transmission Concepts:

- **West-to-East Corridor (Zones A–C to Zone G)**
- **Extension of West-to-East Corridor (Zone G to Zone J)**
- **North-to-South Corridor**
  - **Alternative A**: Reinforcements through the Northern NY area of concern (Zones D/E). (ongoing work)
  - **Alternative B**: A new bulk transmission pathway from Zone D to Zone G.
- **Integrated Corridor (Combined solutions of all the above concepts)**

NEW YORK STATE OF OPPORTUNITY. NYSERDA
Proprietary & Confidential
© 2025 Quanta Technology, LLC
QUANTA-TECHNOLOGY.COM

Background

Power Flow Studies under the following assumptions to test solutions.

a) Our goal is to test conceptual solution ideas under representative future system conditions—not to simulate precise future outcomes

b) Steady state power flow analysis, voltage stability analysis, transfer capability studies

c) Monitor all lines 100kV and above

NEW YORK STATE OF OPPORTUNITY. NYSERDA

Proprietary & Confidential
© 2025 Quanta Technology, LLC

QUANTA-TECHNOLOGY.COM

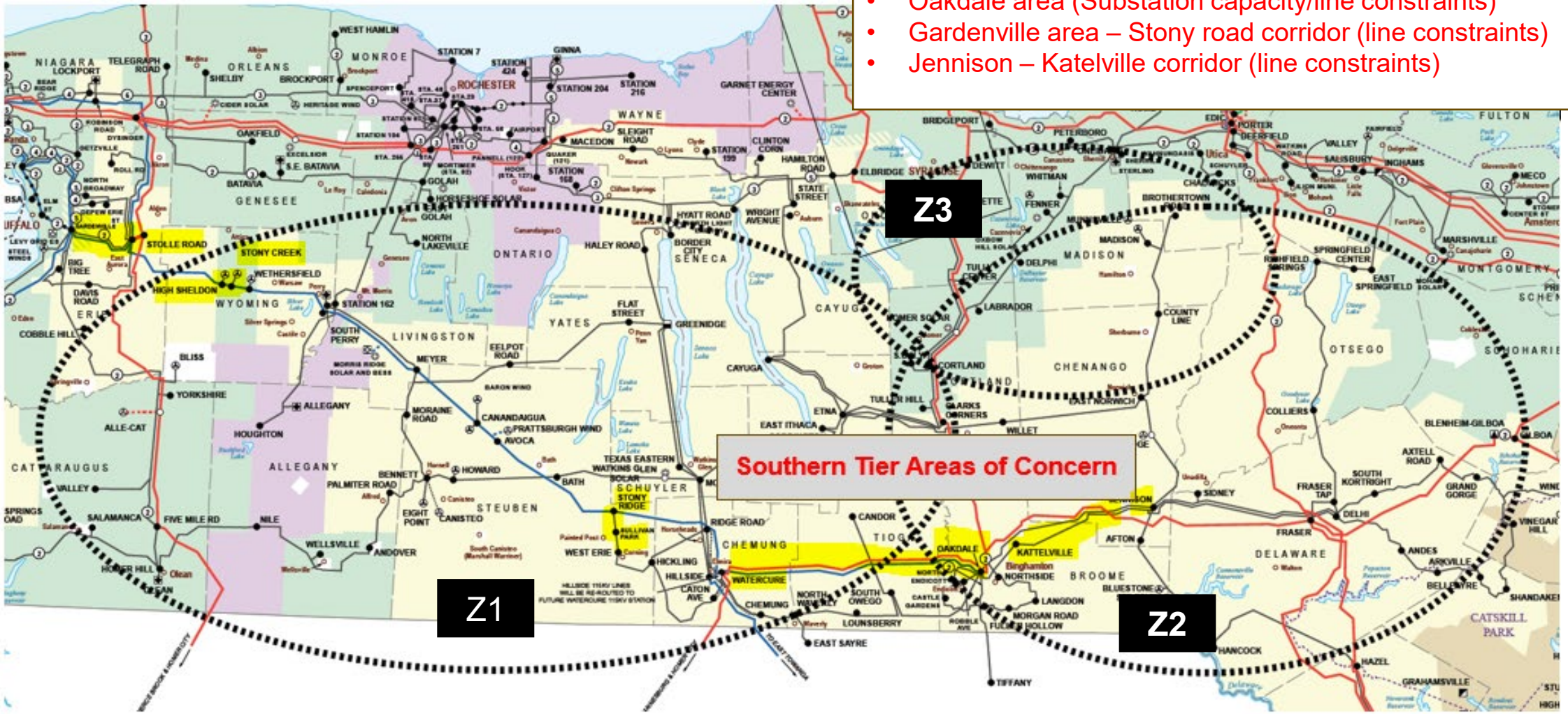
Transmission Concept-West-to-East Corridor (Zones A–C to Zone G)

NEW YORK STATE OF OPPORTUNITY. NYSERDA
Proprietary & Confidential
© 2025 Quanta Technology, LLC
QUANTA-TECHNOLOGY.COM

Transmission Concept-West-to-East Corridor (Zones A–C to Zone G)

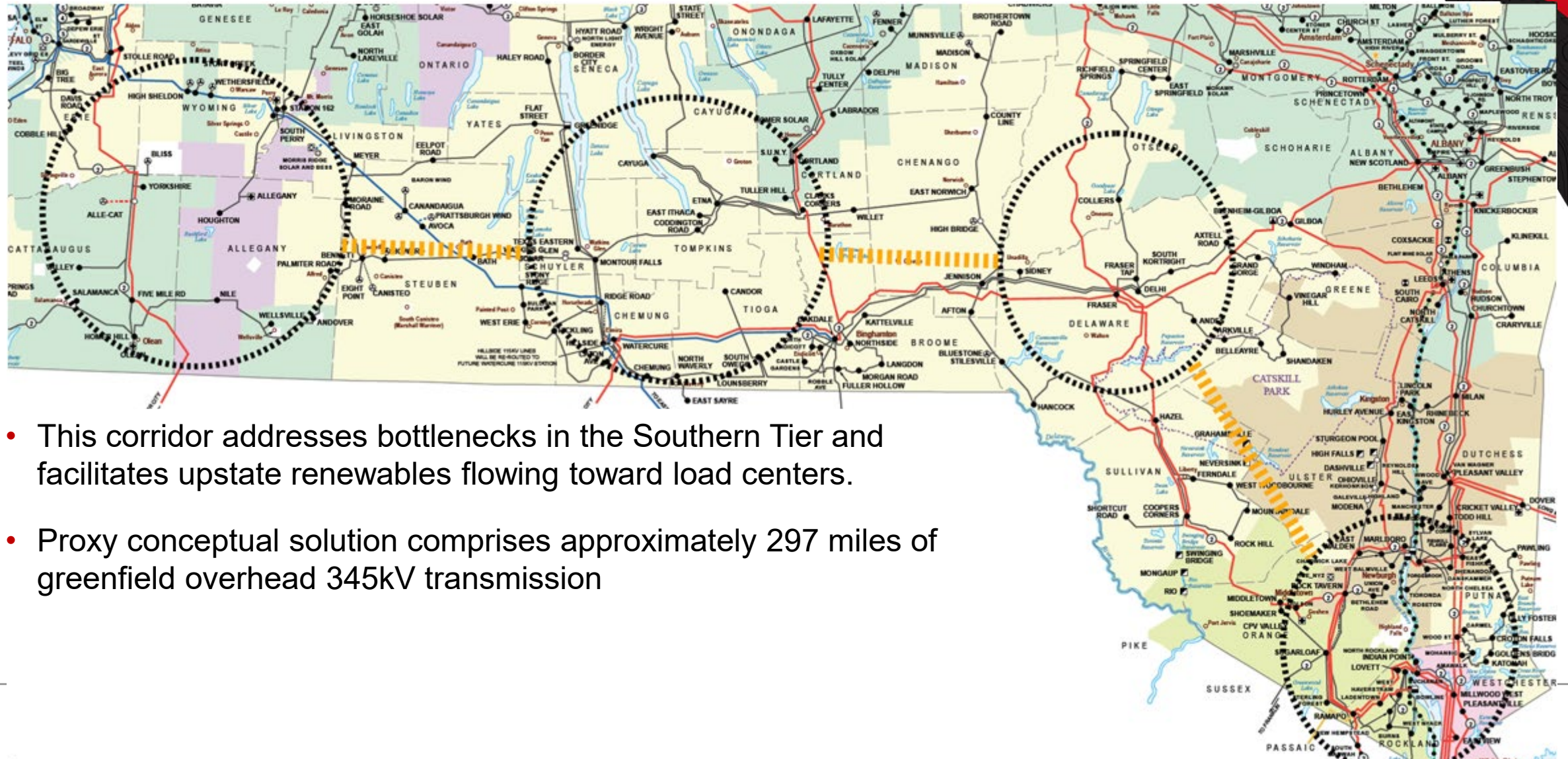
Observed Constraints:

- Oakdale area (Substation capacity/line constraints)
- Gardenville area – Stony road corridor (line constraints)
- Jennison – Katelville corridor (line constraints)



Proprietary & Confidential
© 2025 Quanta Technology, LLC

Proxy Conceptual Solution for West-to-East Corridor (Zones A–C to Zone G)



- This corridor addresses bottlenecks in the Southern Tier and facilitates upstate renewables flowing toward load centers.
- Proxy conceptual solution comprises approximately 297 miles of greenfield overhead 345kV transmission

Transmission Concept: Extension to Zone J (Zone G to Zone J)

NEW YORK STATE OF OPPORTUNITY. NYSERDA
Proprietary & Confidential
© 2025 Quanta Technology, LLC
QUANTA-TECHNOLOGY.COM

Transmission Concept: Extension to Zone J (Zone G to Zone J)

- Reinforcements focused on extending bulk transfer along the West-to-East Corridor beyond Zone G to serve downstate and NYC load.
- Proxy conceptual solution comprises approximately 60 miles of underground 345kV transmission from Zone G to J

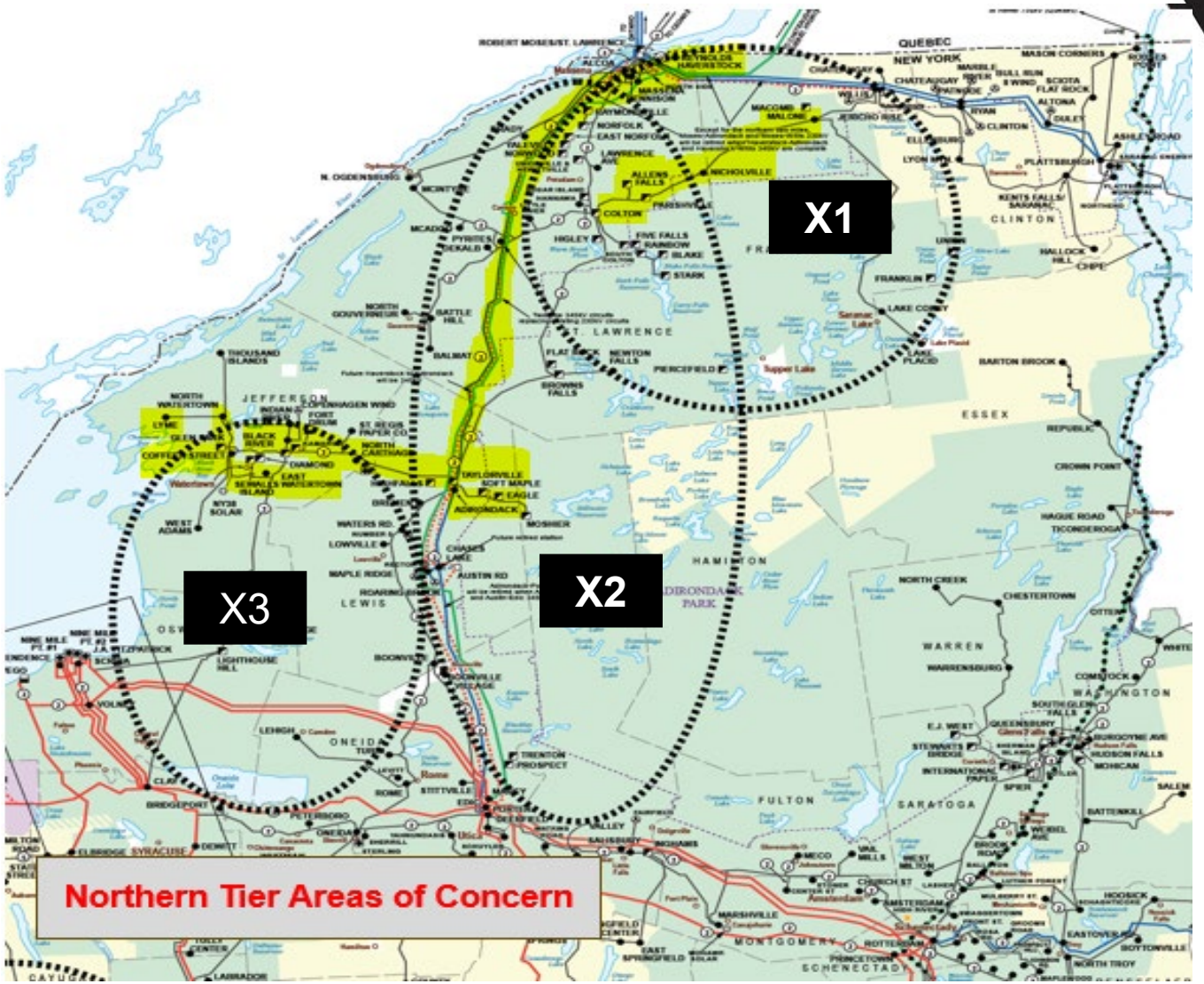
Transmission Concept: North-to-South Corridor

NEW YORK STATE OF OPPORTUNITY. NYSERDA
Proprietary & Confidential
© 2025 Quanta Technology, LLC
QUANTA-TECHNOLOGY.COM

Transmission Concept: North-to-South Corridor

Observed Constraints:

- Coffeen area (Line constraints)
- North Country area (Line constraints)
- Adirondack corridor (Line constraint)



Proprietary & Confidential
© 2025 Quanta Technology, LLC

Alternative B: Proxy Conceptual Solution

- Alternative B focuses on an alternative north-to-south pathway into Zone G.
- Proxy conceptual solution comprises approximately 200 miles of overhead transmission from Zone D to G

Prop
© 2025

Integrated Corridor: Combined

NEW YORK STATE OF OPPORTUNITY. NYSERDA
Proprietary & Confidential
© 2025 Quanta Technology, LLC
QUANTA-TECHNOLOGY.COM

Alternative 2

Integrated Corridor (Combined proxy conceptual solutions of West-to-East Corridor extended into Zone J with Alternative B of North to South Corridor)

Proprietary & Confidential
© 2025 Quanta Technology, LLC

Summary of Proxy Conceptual Solutions, Costs, and potential Benefits

NEW YORK STATE OF OPPORTUNITY. NYSERDA
Proprietary & Confidential
© 2025 Quanta Technology, LLC
QUANTA-TECHNOLOGY.COM

Summary of Potential Costs Assumptions of the Proxy Conceptual Solutions

- Table below shows the estimated costs based on conceptual proxy solutions for the respective corridors.

Bulk Transmission Concepts	Total mileage of Transmission	Greenfield miles	Total Cost/ $Million	$Million/ Mile
West-to-East Corridor (Zones A-C to Zone G)	297	297	1,188	4
Extension of West-to-East Corridor (Zone G to ZoneJ)	60	60	1,200	20
North-to-South Corridor (Alternative B – Zone D to G)	200	200	800	4
Integrated Corridor (Combined solutions of all the above concepts)	557	557	3188	28

- Cost assumptions are derived as an average from publicly available interconnection study reports.

Line Type	Voltage Class/kV	$Million/Mile
Overhead Transmission	345	4
	230	2
Underground	345	20

Proprietary & Confidential
© 2025 Quanta Technology, LLC

Summary of potential Benefits of the Proxy Conceptual Solutions

- Benefits of Proxy Conceptual Solutions with respect to increased MW transfer over respective Interfaces.
- The implementation of the Integrated Corridor (combined solution with Alternative B of Solution 2 as tested) shows over 30% interface transfer limit increment for Moses South; Total East; UPNY-CONED; and Dunwoodie South.

Interfaces	Existing transfer limit (MW)	Potential expanded transfer limit on existing interfaces			
	Maximum limit	MW increase	% increase	New maximum limit (MW)	$Million/ MW Increase
Moses South	2982	1613	54.09	4595	$ 0. 496
Central East	3,937	353	9	4290	$ 3.365
Total East	5957	2565	43.05	8522	$ 0.463
UPNY SENY	6900	1146	16.61	8046	$ 1.036
UPNY CONED	7854	2862	36.44	10716	$ 0.415
Dunwoodie South	4127	2508	60.77	6635	$ 0. 478

Proprietary & Confidential
© 2025 Quanta Technology, LLC

Next Steps

- Further refine bulk solutions based on feedback
- Refine cost estimates
- Finalize solutions for incorporation into Stage 5 analysis

Proprietary & Confidential
© 2025 Quanta Technology, LLC

PARAMETER	DESCRIPTION	SOURCE
Criteria	The criteria for transmission security determination were based on a deterministic approach, which must meet the reliability requirements defined by NERC, NPCC, and NYSRC. The applicable design criteria can be found in the NYSRC Reliability Rules, the NPCC Directory 1, the NERC TPL-001 and other relevant standards (4260 Contingencies tested)	NYISO RPP Manual
Load Forecast	Gold Book publishes the baseline coincident peak load forecasts (2035 summer 50-50 was studied)	2025 Gold Book
Load Model	Rest of NYCA: As per FERC 715 modeling, all loads were modeled as constant power.	2025 FERC 715 filing
System Representation	2025 FERC 715 filing 2035 Cases (2035 Summer 50-50)	2025 FERC 715 filing
Inter-area Interchange Schedules	Consistent with ERAG MMWG interchange schedule	2025 FERC 715 filing, MMWG
Inter-area Controllable Tie Schedules	Consistent with applicable tariffs and known firm contracts or rights	2025 FERC 715 filing
NYC Series Reactors	Consistent with Con Edison series reactor status in their 2021 Local Transmission Plan update presented at the November 19, 2021, ESPWG/TPAS	2025 FERC 715 filing,
	71, 72, M51, M52 are in service	
	41, 42, Y49 are bypassed	
SVCs, FACTS	Set at zero pre-contingency; allowed to adjust post-contingency	NYISO T&D Manual
Transformer & PAR taps	Taps allowed to adjust pre-contingency; fixed post-contingency	2025 FERC 715 filing
Switched Shunts	Allowed to adjust pre-contingency; fixed post-contingency	2025 FERC 715 filing
Existing Generation	Identified as existing in Gold Book (Section III)	2025 Gold Book
Proposed generation	Planned generation in Gold Book (Section IV)	2025 Gold Book
Generation deactivations	All plant deactivations listed in the 2025 Gold Book Sections IV-1, -2, -3, -4, -5 modeled as out-of-service including Gowanus and Astoria GT generators in NYC	2025 Gold Book
Existing transmission facilities	Identified as existing in Gold Book (Section VI)	2025 Gold Book
Firm plans for changes to transmission facilities by TOs	Planned changes of facilities in Gold Book (Section VII): Northern New York Transmission Project; CHPE; CPNY; Joint Utilities Phase 1 & Phase 2 Projects	2025 Gold Book
System Upgrade Facilities and System Deliverability Upgrades	Facilities associated with planned projects (Section VII)	2025 Gold Book
Proposed Local Transmission Owner Plans	All BPTF LTPs listed in the 2025 GB Section VII as “firm"	2025 Gold Book
2035 Generation Buildout	All generation resources were uniformly scaled across technologies to match the total generation levels specified in the state scenario of the CGPP. This scaling ensured consistency across all models	CGPP State Scenario
2035 Load Forecast	All loads were uniformly scaled to match the zonal peak forecasts specified in the state scenario of the CGPP. This scaling ensured consistency across all models	CGPP State Scenario
Tools	Siemens PSS/E and Power Gem TARA	