

NYPA - Israel Smart Energy Challenge Restart – January 2021

ברוכים הבאים לכולם



We will start the WebEx at 8:00AM EST



Welcome

The Webex is starting and invitations to this Webex are now ended

Everyone has been placed on mute


Please switch off your video streaming to save bandwidth

Do not use the Chat feature to ask questions

If you have a question at any time during this call

send an e-mail in English to

Manuel.Hamalian@nypa.gov



Because our office is closed due to COVID, we will respond to questions by posting responses on the website. The website is

<https://www.nypa.gov/innovation/rd-insights/nypa-israel-smart-energy-challenge>

These slides and a video recording will also be posted on the website

As of now, the schedule on the website will apply.

We ask everyone to monitor the website for updates



All questions/requests for clarification are required to be submitted in writing to Manuel Hamalian at Manuel.Hamalian@nypa.gov

**Questions/requests for clarification and associated responses will be published on the NYPA & Israel Smart Energy Challenge website.
The last date to submit questions/requests for clarification is
March 2, 2021**

Responses to all questions will be posted at:

<https://nypa.gov/innovation/rd-insights/nypa-israel-smart-energy-challenge>

This website is the only official website

**Governor Andrew M. Cuomo
announced a wide ranging series of
economic development partnerships
between New York State and Israel**

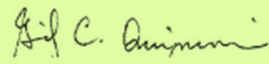


**Reforming the
Energy Vision**

**Transmission + Generation
Infrastructure**



“The New York-Israel Innovation Challenge is a natural extension of our previous collaborations and will allow New York and Israel-two of the world’s leading technology hubs-to generate greater innovation and yield considerable benefits for both parties and for utilities around the world. The Power Authority’s partnerships with Israeli firms in the energy industry have been invaluable during NYPA’s digital transformation and we expect that this competition will yield far-reaching benefits as well.”


— Gil C. Quiniones
January 2020

GIL C. QUINIONES
CEO, New York Power Authority



History of NYPA

- ▮ Founded by Franklin D. Roosevelt in 1931 - *Power Authority Act*
 - ▮ 2000+ employees
 - ▮ Governance
 - ▮ 7 member board
 - ▮ Revenue sources
 - ▮ Power contracts
 - ▮ Generation
 - ▮ Energy Efficiency Projects (\$200-300M annually)
- ▮ NYS Canals transferred from the NYS Thruway Authority in 2017
 - ▮ 524 miles across NYS



NYPA Mission

"Power the economic growth and competitiveness of New York State by providing customers with low-cost, clean, reliable power and the innovative energy infrastructure and services they value."



**NY Power
Authority**

Generation Assets: ~ 6 GW

St. Lawrence - FDR |
Clark Energy Center |
Niagara |
NY Energy Manager |
Blenheim-Gilboa |
NYPA HQ |
500MW |

- Own and operate 16 hydro and natural gas generation plants
- Manage two leased assets: *AEII* and *HTP* (partnership)

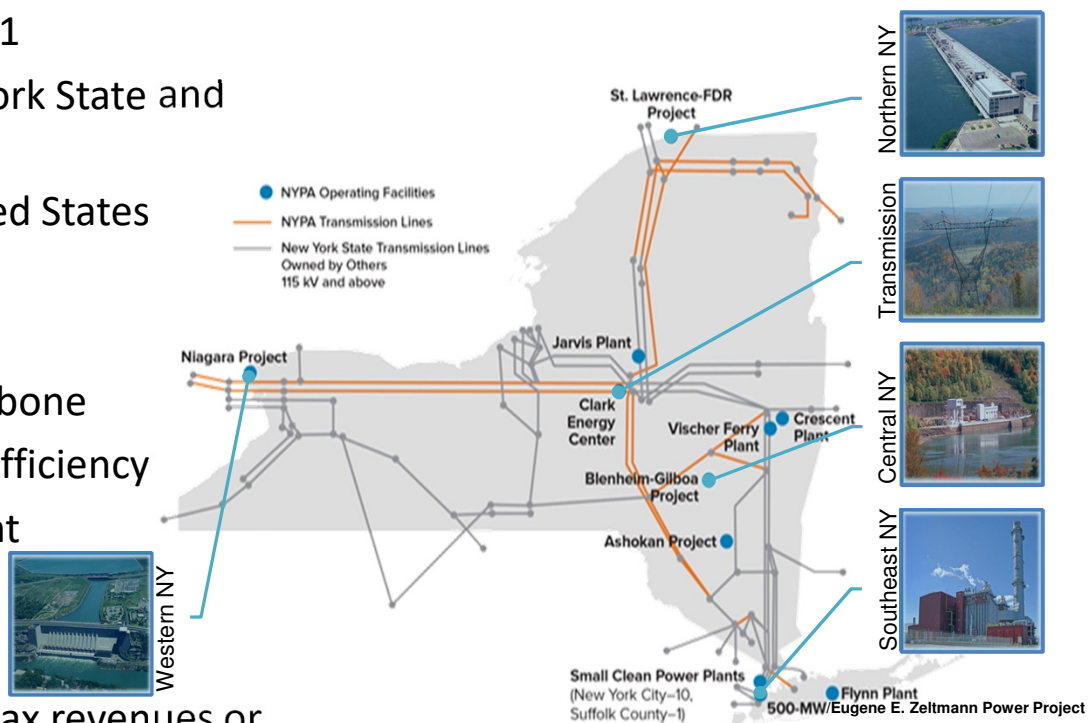
Transmission Assets: ~ 1,400 miles

- NYPA TRANSMISSION LINES
- OTHER TRANSMISSION LINES



About NYPA

- 6,000+ MW
- Established by the NY State Legislature in 1931
- Wholesale power supplier throughout New York State and neighboring states as required by law
- Largest state public electric utility in the United States
- 83% of generation is renewable (hydro)
- Cleanest conventional fleet in NY State
- 1,400+ miles of transmission – ⅓ of NY's backbone
- \$250M energy services business focused on efficiency
- Low-cost power drives economic development
- AA credit rating from agencies
- NY Canal System part of NYPA
- Non-profit energy corporation, does not use tax revenues or state credits, finances projects through bond sales and cash from operations



Recognized and Awarded Innovation and Digitization Leader

NYPA's Integrated Smart Operations Center (iSOC)

iSOC Monitoring Functions

Comms &
Data Network
Infrastructure

Physical &
Cyber
Security

Asset Health
Monitoring &
Diagnostics
Analytics

Enterprise
Data Infra-
structure
PI System

Customer
Energy
Efficiency
(NYEM)

NYPA Emergency Operations Center (EOC)



NY Power Authority

VISION 2030



A Strategic Plan Built Around the People of New York State



NYPA VISION 2030

STRATEGIC PRIORITIES



Preserve and enhance the value of our hydropower assets as a core source of carbon-free power and of flexibility and resilience as the state's grid evolves



Be the leading transmission developer, owner, and operator for New York State and its changing needs



Pioneer the path to decarbonization by acting as a test-bed for innovation while ensuring reliability, resilience, and affordability of the state's energy grid



Partner with our customers and the state to meet their energy goals in alignment with CLCPA¹ by providing clean and affordable energy along with innovative customer solutions



Repurpose the New York Canal System for the economic and recreational benefit of New Yorkers while driving operational efficiency

FOUNDATIONAL PILLARS

Digitization



Environment, Social, and Governance



Diversity, Equity, and Inclusion



Enterprise Resilience



Resource Alignment



¹ Climate Leadership and Community Protection Act



Hydropower

OUR VISION

Preserve and enhance the value of our hydropower assets as a core source of carbon-free power in New York State, and as a source of flexibility and resilience as the state's grid evolves.



A Double down on advocacy for policy and market rules recognizing hydro benefits to the grid



B Retain our assets in a state of good repair, including the life extension and modernization of the Robert Moses Niagara Plant



C Improve the competitiveness of our hydro plants in the market



D Evaluate alternative contracting or offtake arrangements



Transmission

OUR VISION

Be the leading transmission developer, owner, and operator for New York State and its changing needs.



A Invest \$200-400M annually to grow NYPA's transmission asset base 3-5x by 2030



B Focus our transmission portfolio on the right projects balancing system needs, returns, and wider state objectives



C Accelerate New York State's most critical transmission projects in support of the Climate Leadership and Community Protection Act goals



D Increase our focus on transmission as a core business within NYPA, with leading capabilities in planning and development, project delivery, and asset management



Natural Gas

OUR VISION

Pioneer the path to decarbonization by acting as a test-bed for innovation while ensuring reliability, resilience, and affordability of New York State's energy grid.



A Act as a test-bed for innovation, developing and demonstrating new low-to-zero carbon technologies



B Evaluate the economic performance of our gas fleet, and advocate for market rules and policies that recognize its value



C Partner to reinforce our own capabilities, educate the public, and set a clear direction to get from pilot to scale



Customer and the State

OUR VISION

Partner with our customers and the state to meet their energy goals in alignment with the Climate Leadership and Community Protection Act by providing clean and affordable energy along with innovative customer solutions.



A Grow our electricity supply business by pursuing the right opportunities with existing customers and under our expanded authority



B Support our customers and the state by providing 70% renewable energy supply in a cost-effective manner



C Empower our customers to decarbonize by serving as a trusted energy advisor providing integrated energy solutions



D Ensure the business is financially sustainable to serve our customers and the state



E Expand our capabilities to be able to competitively offer integrated solutions



Reimagine the Canals

OUR VISION

Repurpose the New York Canal System for the economic and recreational benefit of New Yorkers while driving operational efficiency.



A Demonstrate the recreational and economic value of the Canal System by investing in projects that provide tangible civic benefits and drive operational efficiency



B Establish and work with technical and regional councils to ensure local engagement



C Source new capital from a broader set of public and private investors



D Drive more efficient ways of working within NYPA and Canal Corp through a refined operating model



Foundational pillars to execute our mission

DIGITIZATION



Leverage connectivity, analytics, and cutting-edge digital infrastructure to optimize our physical and data assets, enable our workforce, and empower our customers

ENVIRONMENT, SOCIAL, AND GOVERNANCE (ESG)



Deliver on a best-in-class sustainability strategy to meet the present and future needs of our stakeholders and ensure long-term environmental, social, governance, and economic performance

DIVERSITY, EQUITY, AND INCLUSION (DEI)



Establish NYPA as a leader in DEI by developing an internal culture of inclusion, a diverse supplier base, and a commitment to environmental justice

ENTERPRISE RESILIENCE



Prepare for a more distributed and uncertain operating environment by rapidly embedding resilience into NYPA's culture

RESOURCE ALIGNMENT



Ensure we can provide the clean energy environment the people of New York deserve by making our workforce as skilled and flexible as possible, improve access to information and knowledge that enable effective delivery, and optimize our core business processes

NYPA- Israel Smart Energy Challenge

The Next Step in the Energy Evolution

The New York Power Authority (NYPA) is launching a competition among innovative Israeli firms to support next-generation of the energy evolution. The challenge will allow NYPA to identify several innovative companies. The winners will work with NYPA on a pilot applications that after success will be deployed in NYPA and other large utilities.

NYPA will provide:

- Advanced Grid Innovation Lab (AGILE) – for testing and simulation
- Extensive Domain knowledge and requirement definitions
- Support marketing efforts in the form of a demonstration site, if one can be found

Are you up to the Challenge? Submit online at:

<https://www.nypa.gov/innovation/rd-insights/nypa-israel-smart-energy-challenge>

NYPA- Israel Smart Energy Challenge – Focus Areas

The Challenge will support the New York's clean energy transition and NYPA's strategic priorities. These priorities and a sample of technology targets are as follows:

- Partner with our customers and the state to meet their energy goals by providing clean and affordable energy along with innovative customer solutions. Technologies of interest include but are not limited to:
 - Distributed energy storage, including batteries, thermal or mechanical energy storage
 - Building electrification, including heat pumps
 - Decarbonization of customer fuel use, including natural gas alternatives
 - Electric transportation charging and related infrastructure
 - Building energy metering and clean energy data analytics
 - Building disinfection technologies
 - Technologies that enable virtual, remote, or touchless site assessments, construction management and asset management, including drones, robots, cameras, and related software tools
- Pioneer the path to decarbonization by acting as a testbed for innovation while ensuring reliability, resilience, and affordability of the state's energy grid. Technologies of interest include but are not limited to grid scale energy storage, including batteries, thermal or mechanical energy storage and decarbonization of power plant fuel use, including natural gas alternatives.
- Preserve and enhance the value of our hydropower assets as a core source of carbon-free power and of flexibility and resilience as the state's grid evolves. Technologies of interest include those related to hydropower plant improvements and condition monitoring.
- Be the leading transmission developer, owner and operator for New York State and its changing needs. Technologies of interest include those related to transmission line improvements and condition monitoring.
- Repurpose the New York Canal System for the economic and recreational benefit of New Yorkers while driving operational efficiency. Technologies of interest include those related to canal operations, including locks, diversion systems, embankments, and their condition monitoring systems.

NYPA- Israel Smart Energy Challenge – Governance

This competitive challenge will allow NYPA to identify innovative companies and give winners the opportunity to work with large utilities to help create significant advances in grid reliability, storage, sustainability and affordability, all of which benefit ratepayers, utilities and the environment.

The specific criteria to be used in determining the winner(s) are:

1. Innovation: of the product/solution or technology
2. Feasibility: feasibility for deployment in NYPA environment
3. Technical Advantages
4. Team: skills and background to execute
5. Competition: viability and added value of the solution compared to current competition
6. Business Model/business plan: clear value to NYPA and ability to replicate and scale for other utilities
7. Alignment of the technology and solution with NYPA's strategic goals
8. Financial Viability
9. Maturity (TRL)
10. Legal (ease to do business with)

NYPA- Israel Smart Energy Challenge – Governance

Application Submissions: Electronic submission is required. NYPA will accept Full Proposals/submissions until 3 pm Eastern Time on March 9, 2021. For ease of identification, all electronic files must be named using the proposer's entity name in the title of the document. Application Submissions must be submitted using the Online Application Form found on the NYPA & Israel Smart Energy Challenge webpage.

Applications that were submitted previously before the Challenge went into “pause” in March 2020 will be purged but may be resubmitted. A company can apply at any time between the Application Open and the Application Close dates as found on the website, but a company can not edit or revise their application once submitted. A company can submit (or re-submit) a new and completed application but should clearly note if the application is a re-submittal of a previous application.

Communication: During the Restricted Period Applicants must communicate only with the designated contact (Designated Contact) Manuel Hamalian by email: Manuel.Hamalian@nypa.gov. No other Authority personnel are authorized to receive, initiate, or communicate any information of any kind regarding Application Submissions during the Restricted Period. Failure of the Applicant to fully comply may result in the rejection of its Application Submissions.

NYPA- Israel Smart Energy Challenge – Governance

The "**Restricted Period**" is defined as the period of time commencing with the earliest written notice, advertisement or solicitation of an Application and ending with the final contract to award.

Confidentiality: All documents submitted by the Applicant are subject to disclosure under the New York State Freedom of Information Law (also known as FOIL) (Public Officers Law, Article 6). Accordingly, confidential information, trade secrets, proprietary materials or other information, the disclosure of which would cause a substantial injury to the competitive position of your organization must be clearly marked and identified as such in your Proposal, it being understood that marking or otherwise identifying any submitted documents will not guarantee protection against disclosure.

NYPA- Israel Smart Energy Challenge – Governance

Late Application Submissions will not be accepted. Incomplete Application Submissions may be subject to disqualification. It is the Applicant's responsibility to ensure that all questions have been answered in the Application. Faxed or emailed Applications will not be accepted. Applications will not be accepted at any NYPA locations. If changes are made to this solicitation, notification will be posted on the NYPA & Israel Smart Energy Challenge webpage. NYPA reserves the rights to extend, cancel and/or adjust funding to this solicitation.

All expenses incurred in the preparation of the proposal will be at Applicant's sole cost and expense. The New York Power Authority will not reimburse any such costs and/or expenses. In addition: the Authority does not participate in public bid openings; the Authority reserves the right to award multiple Contracts; and the Authority reserves the right to reject any and all proposals.

NYPA- Israel Smart Energy Challenge – Governance

The NYPA & Israel Smart Energy Challenge is open to all companies with headquarters located in the State of Israel.

All questions asked today or prior to the end of the question period are to become of record and must be submitted in writing to Manuel.Hamalian@nypa.gov. Questions and responses to all questions will be provide on the Challenge website. Last date to submit question is March 2, 2021.

The attendance/sign-in sheet and this presentation power point deck will be published on the NYPA-Israel-Challenge website immediately after the pre-bid conference.

NYPA- Israel innovation Challenge Timeline

Are you up to the Challenge? Submit online at:

<https://www.nypa.gov/innovation/rd-insights/nypa-israel-smart-energy-challenge>

Pre-Bidders Webex	January 28, 2021
Applications Open	January 29, 2021
Question Period Open	January 29, 2021
Question Period Close	March 2, 2021
Applications Close	March 9, 2021
Winners Announced	May 18, 2021
Program Begins	May 31, 2021



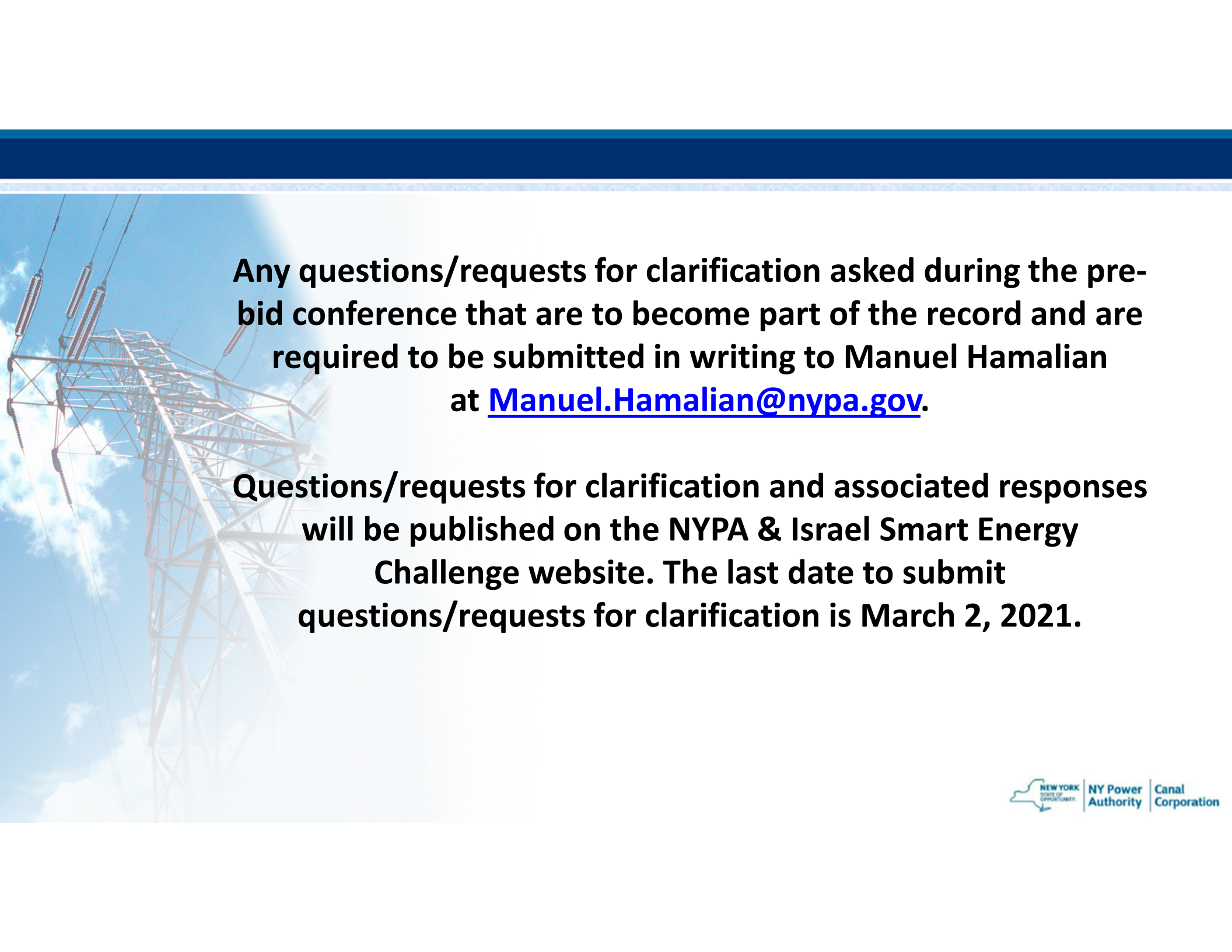
Thank You

All Inquires should only be addressed to

Manuel.Hamalian@nypa.gov

Responses to ALL questions will be posted at:

<https://www.nypa.gov/innovation/rd-insights/nypa-israel-smart-energy-challenge>



Any questions/requests for clarification asked during the pre-bid conference that are to become part of the record and are required to be submitted in writing to Manuel Hamalian at Manuel.Hamalian@nypa.gov.

Questions/requests for clarification and associated responses will be published on the NYPA & Israel Smart Energy Challenge website. The last date to submit questions/requests for clarification is March 2, 2021.



Thank You

Another reminder

**ALL inquires should only be addressed to
Manuel.Hamalian@nypa.gov**