NYPA- Israel Innovation Challenge

This is the Official Pre-Bid Conference Presentation

Note:

- A clarification was made to Slide 18 regarding NYPA's sales support. NYPA will support marketing efforts in the form of a demonstration site, as a reference site for perspective customers during the demonstration period, if such a site can be found.

- A typo was corrected on Slide 24 regarding the date by when responses to questions will be posted to the NYPA & Israel Smart Energy Challenge website.

- The timeline for the NYPA & Israel Smart Energy Challenge was updated on Slide 25 to reflect that posted on the official website.

- A typo was corrected on Slide 26 regarding Manuel Hamalian' s email address.

NYPA / Israel Smart Energy Association

NYPA Israel Innovation Hub

שלום

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We will start the WebEx at 8:45AM EST

NYPA / Israel Smart Energy Association

NYPA Israel Innovation Hub

NEW YORK STATE OF OPPORTUNITY. | NY Power Authority

NYPA / Israel Smart Energy Challenge

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, we will respond to questions by

posting responses on the website.

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

https://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

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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

Alan Ettlinger

Doron Gover

Manuel Hamalian

Daniel Samama

Steve Wilkie

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Any questions/requests for clarification asked during the pre-bid conference 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 as addenda. The last date to submit questions/requests for clarification is March 27, 2020, with responses published on the NYPA & Israel Smart Energy Challenge website on April 3, 2020.

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

"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

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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."

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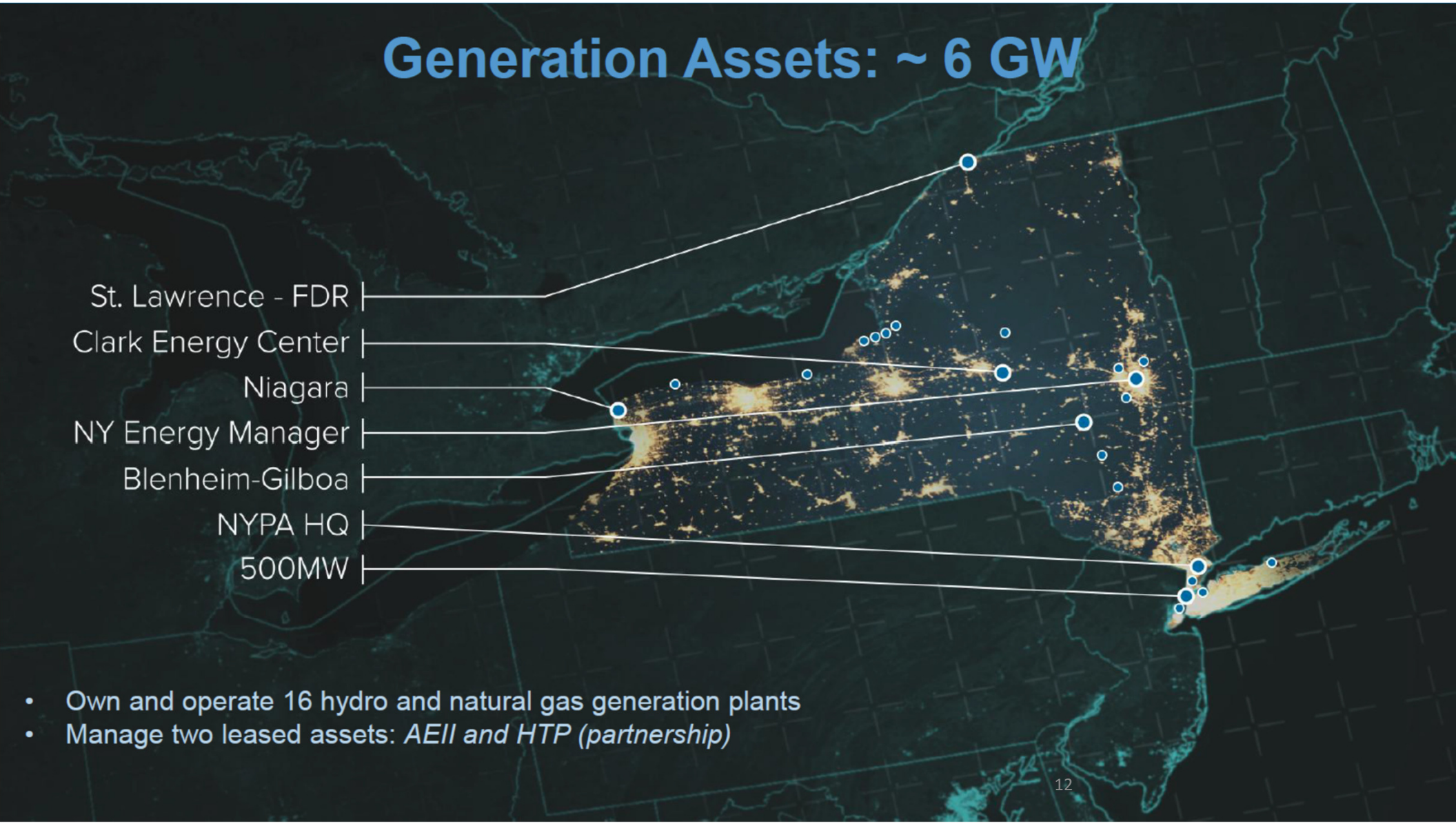
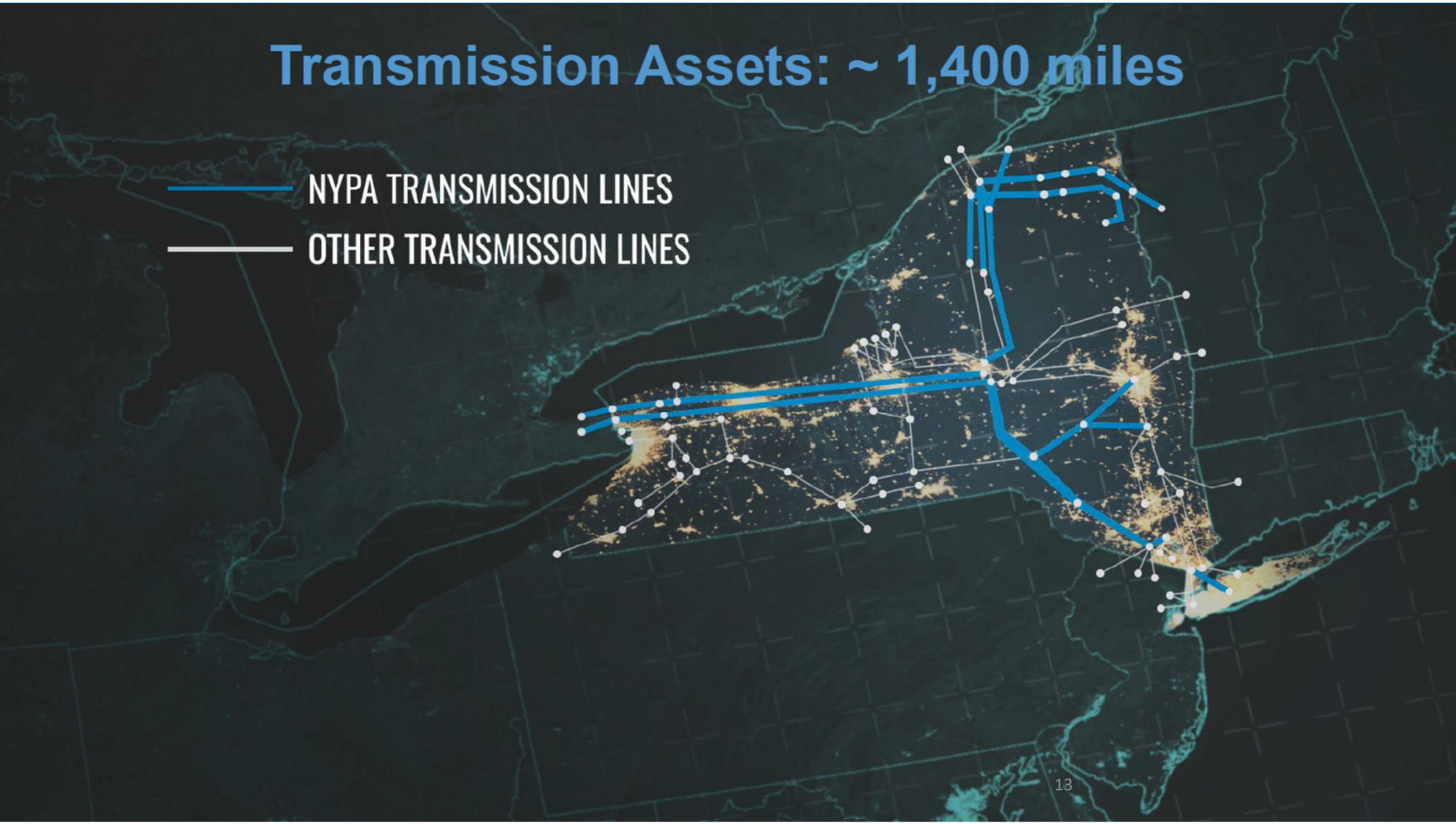
Generation Assets: ~ 6 GW



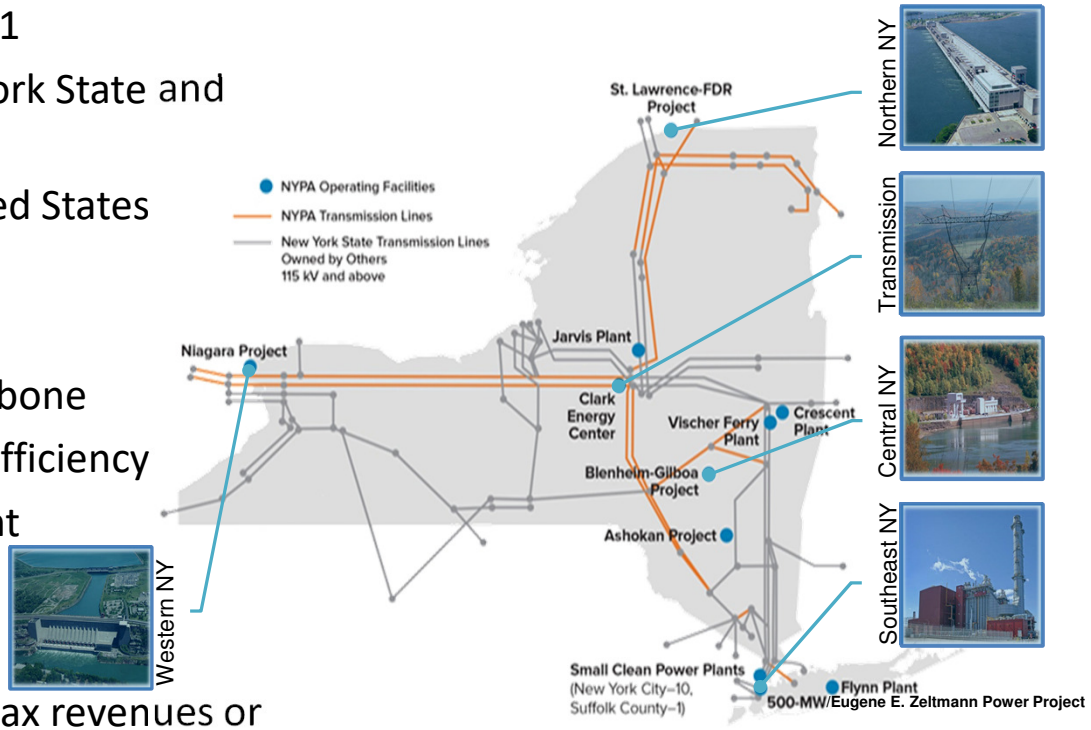
- Own and operate 16 hydro and natural gas generation plants
- Manage two leased assets: *AEII and HTP (partnership)*

Transmission Assets: ~ 1,400 miles



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

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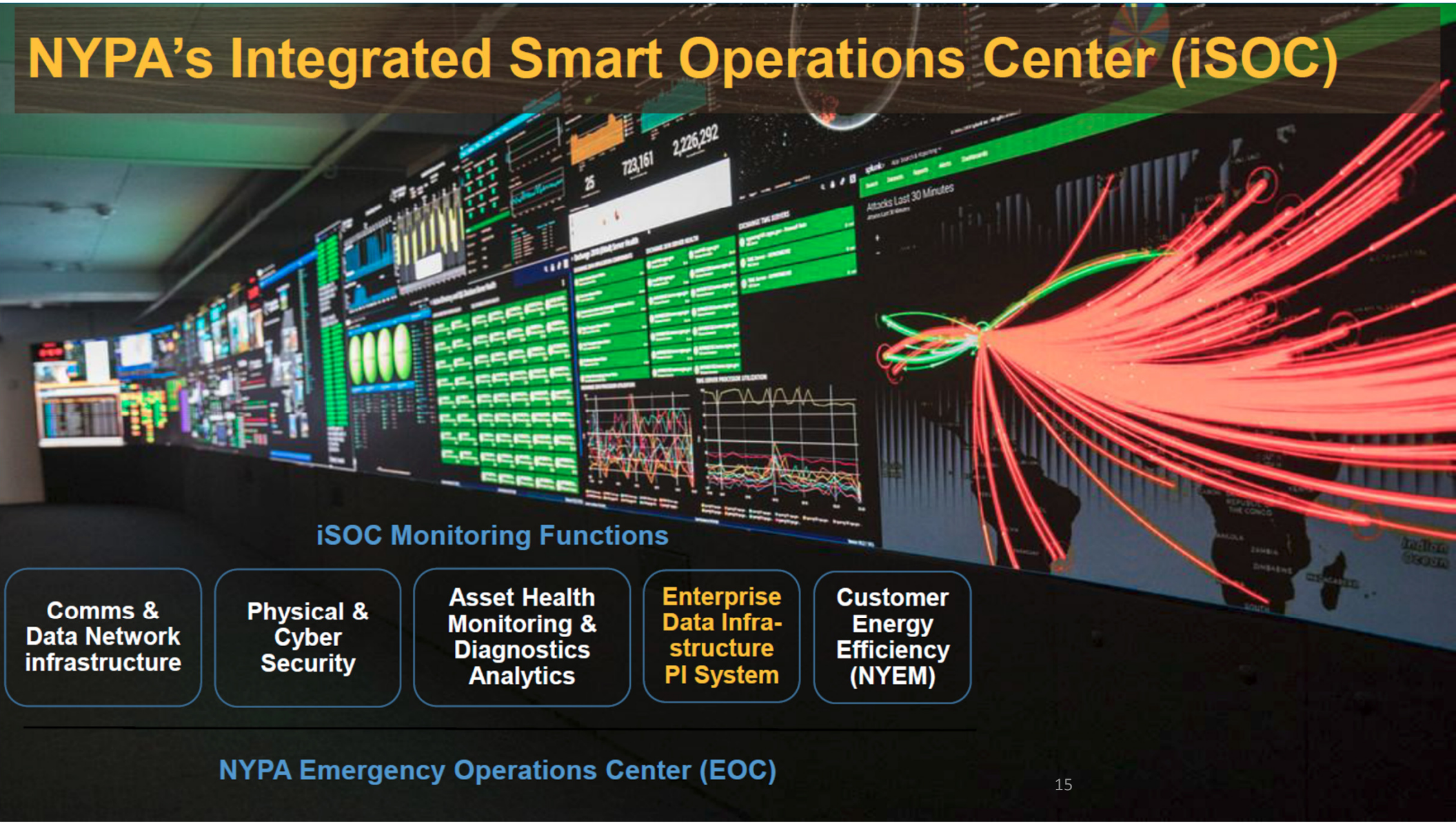
NYPA's Integrated Smart Operations Center (iSOC)



iSOC Monitoring Functions

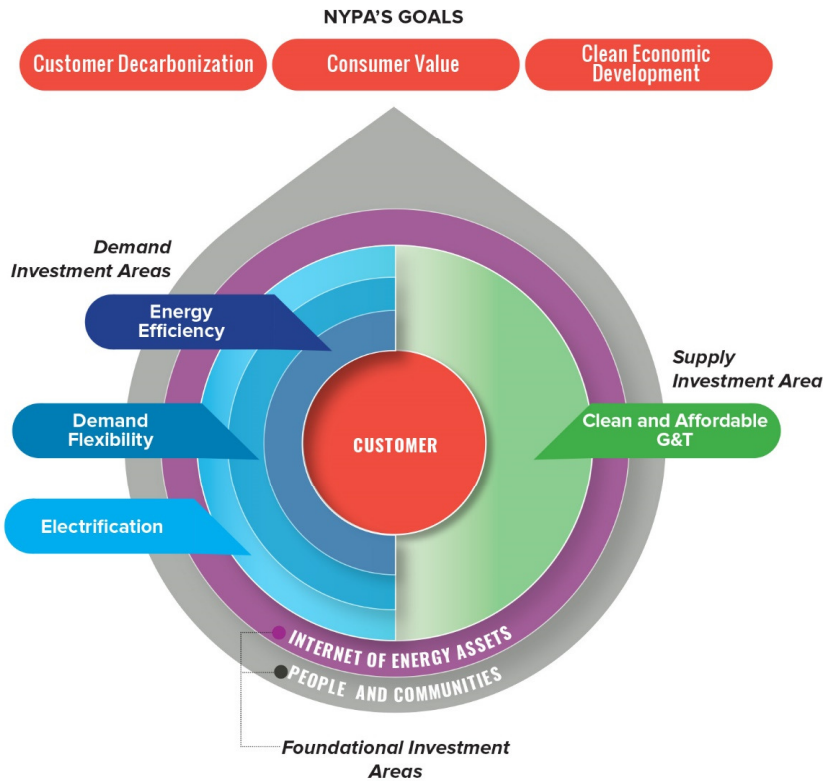
- Comms & Data Network infrastructure
- Physical & Cyber Security
- Asset Health Monitoring & Diagnostics Analytics
- Enterprise Data Infra-structure PI System
- Customer Energy Efficiency (NYEM)

NYPA Emergency Operations Center (EOC)

NYPA Investment Areas

INVESTMENT AREAS MOVING FORWARD

NYPA will prioritize investments to accelerate our customers' transition to a decarbonized economy.



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NYPA Investment Areas

Demand Side

Builds on NYPA Initiatives

Energy Efficiency

Reduce energy demand through deep energy efficiency retrofits at customer sites—the cleanest, least expensive electron is the one not used

- Clean Energy Solutions
- Smart Street Lighting NY
- Energy Master Plans

Demand Flexibility

Enable flexible and resilient electricity use to improve affordability and reliability of clean electricity

- NY Energy Manager
- North Country Storage Project
- Grid Flexibility
- Smart Meters

Electrification

Promote optimized electrification of other areas of the economy—transportation and buildings—with a focus on assets, infrastructure and services

- Public DC Fast Charging for Electric Vehicles
- Customer Bus Electrification
- Airport Ground Service Equipment Electrification

Supply Side

Builds on NYPA Initiatives

Clean and Affordable G&T

Investing in carbon-free generation and resilient transmission to bring low-cost, reliable, clean electricity to customers and the energy marketplace

- Niagara Power Project Life Extention & Modernization, Plus Digitization
- Certified ISO 55001 for Asset Management
- Marcy South Series Compensation Project
- Transmission Life Extention & Modernization

Foundational

Builds on NYPA Initiatives

Internet of Energy Assets

Implement technologies to connect, control and optimize customer and grid assets to deliver system-wide benefit and value to customers

- Integrated Smart Operations Center
- Advanced Grid Innovation Laboratory for Energy
- Customer Digital Experience
- Communications Backbone
- Sensor Deployment

People and Communities

Demonstrating a commitment to our workforce, our customers and the communities in which we operate and serve

- Environmental Justice Weatherization Projects
- STEM Education Programs
- New York State Department of Labor Certified Apprentice Programs
- Digital Utility Worker

NYPA- Israel Innovation 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? Apply & Submit Online Today!

NYPA- Israel Innovation Challenge – Focus Areas

- Blockchain & Energy Trade
- Buildings/Campus & Energy
- Cyber Security
- Distributed Energy Solutions
- Data Analytics, Artificial Intelligence
- Drones and Autonomous Robots
- Energy Storage
- Electric Vehicle Charging, EV to Grid
- Grid Modernization
- Industrial IoT and Cloud Based Services
- Microgrids
- Synchrophasor Applications
- Virtual and Augmented Reality

Are you up to the Challenge? Apply & Submit Online Today!

NYPA- Israel Innovation Challenge – Governance

This competitive challenge will allow NYPA to identify several 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 Innovation Challenge – Governance

Application Submissions: Electronic submission is preferable. NYPA will accept Full Proposals/submissions until 3 pm Eastern Time by April 20, 2020. For ease of identification, all electronic files must be named using the proposer's entity name in the title of the document. Application Submissions may be submitted electronically using the Online Application Form: **http://www.nypa.gov/ISEA** which can be readily found on the NYPA & Israel Smart Energy Challenge webpage.

Communication: During the Restricted Period Applicants must communicate only with the designated contact person (also known herein as the Project Owner) 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 Innovation 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 Innovation 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 location other than as described above. 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.

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

NYPA- Israel Innovation Challenge – Governance

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All questions asked today, must be submitted in writing to Manuel.Hamalian@nypa.gov. Questions and Responses to all questions will be provide in writing to all bidders

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. Any questions/requests for clarification (RFI) asked during the pre-bid conference to become of record, are required to be submitted in writing. RFI and NYPA-Israel-Challenge responses will be published on the NYPA-Israel-Challenge website as addenda. Last date of all question is March 27, 2020. NYPA-Israel-Challenge responses will be published on April 3, 2020.

NYPA- Israel innovation Challenge Timeline

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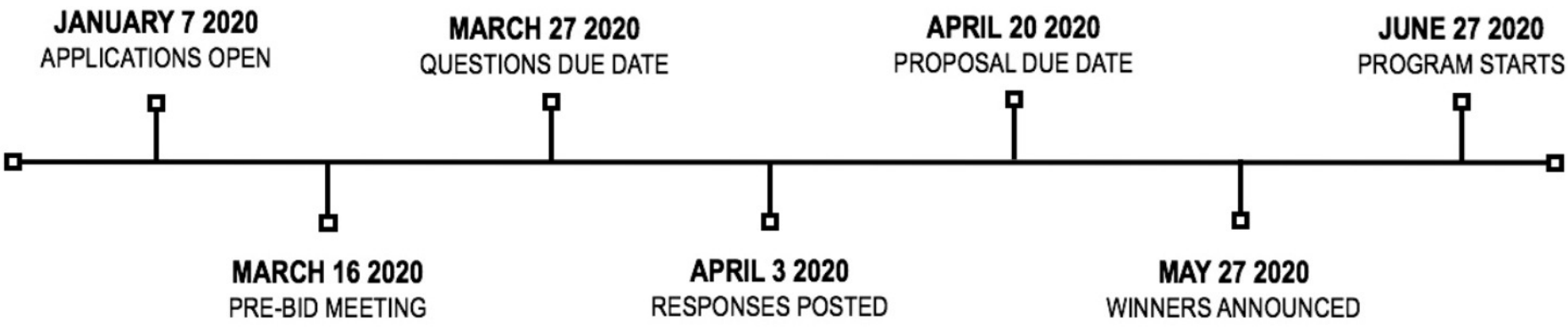

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Thank You

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Thank You

Another reminder

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