Ready to Go: Setting a State's Energy Vision

- Moderator
  - **Jessica Rackley**, Program Director, NGA
- Speakers:
  - **Jane Cohen**, Policy Advisor, Office of Governor Phil Murphy, New Jersey

New Jersey's Energy Vision

Jane Cohen, Advisor to Governor Phil Murphy

Overarching Goals

- 100% clean energy by 2050
- Stronger and Fairer NJ

Energy Master Plan

- Draft EMP released in June
- More comprehensive than previous plans
- Focus on clean energy goals
- 80x50 GWRA emissions reductions
- Extensive modeling to be incorporated
- Robust stakeholder process

Defining 100% Clean Energy

The Draft 2019 Energy Master Plan (EMP) *defines "100% Clean Energy by 2050" to mean 100% carbon neutral electricity generation and maximum transition to electrification of the transportation and building sectors by 2050, with the goal of meeting or exceeding the 80x50 GWRA requirements.*

Overall Energy Mix

- 42.5% from nuclear
- 51.6% from natural gas

The Seven Strategies

1. Reduce energy consumption and emissions from the transportation sector
2. Accelerate deployment of renewable energy and distributed energy resources
3. Maximize energy efficiency and reduce peak energy demand
4. Reduce energy consumption and emissions from the building sector

The Seven Strategies (cont.)

5. Modernize the grid and utility infrastructure
6. Support community energy planning and action in low- and moderate-income and Environmental Justice communities
7. Expand the clean energy innovation economy

Integrated Energy Plan

- NJBPU and NJDEP are conducting a modeling study of New Jersey's entire energy system
- The Integrated Energy Plan (IEP) will identify the most economically beneficial and least-cost pathways to achieve state goals
- The modeling analysis will help to prioritize the timing, pace, and scale of achieving our objectives

Next Steps

- Developing the Integrated Energy Plan model
- Stakeholder Meetings
- Public Hearings
- Working towards the Final EMP in December

New and Emerging Technology

- Offshore Wind
- Energy Storage
- Microgrids
- Electric Vehicles

Offshore Wind

Summary of New Jersey's Actions

- Current target of 3,500 MW of OSW by 2030
- Awarded the nations largest single offshore wind project, 1,100 MW
- In the process of evaluating options for transmission of OSW generation
- Preparing an OSW Strategic Plan
- Preparing for a second OSW solicitation

Offshore Wind

New Jersey's Leadership

- Promoting significant supply chain opportunities and benefits
- Establishing a procurement schedule for a total of 3,500 MW to develop a pipeline for the supply chain
- Significant inter-agency cooperation (BPU, DEP, EDA, DLWD, OSHE)
- Development of Wind Institute

Offshore Wind

Lessons Learned/Challenges

- Determine the best future transmission options
- Future solicitations developing robust markets
- Continue to work towards lower cost of OSW

Energy Storage

Summary of New Jersey's Actions

- Engaged Rutgers University to conduct an energy storage analysis
- Established energy storage goals
- Process and mechanism for achieving the goals being developed
- Stakeholder engagement

Energy Storage

New Jersey's Leadership

- Firmly established energy storage goals
- Engaged with PJM and State utilities to determine optimal storage locations and use cases
- Promoting research and development activities

Energy Storage

Lessons learned/Challenges

- Pumped hydro and thermal storage are economically feasible
- Battery storage has many beneficial use cases but is still too expensive
- Program for achieving the state's goals will need to balance cost, use cases, existing technology, and new technology

Microgrids

Summary of New Jersey's Actions

- Provided funding to thirteen public entities to conduct feasibility studies for Town Center Distributed Energy Resources (TCDER) Microgrids
- In the process of evaluating the studies
- In the process of developing second phase funding program
- Studying microgrid financing options under a grant from DOE
- Stakeholder engagement

Microgrids

New Jersey's Leadership

- Encouraging TCDER Microgrids for resiliency and cost savings
- Working with state utilities on how best to implement TCDER Microgrids
- Working to provide a clear path for interested parties to implement TCDER microgrids

Microgrids

Lessons Learned/Challenges

- There is significant interest from public entities in New Jersey to implement TCDER Microgrids
- Statutory and regulatory barriers to TCDER implementation exist
- Design and implementation costs are high (the financing study will help to address this)

Electric Vehicles

Summary of New Jersey's Actions

- Established goals for EVs and charging infrastructure
- Established Partnership to Plug-In MOU, a multi-agency collaborative on EVs
- Established It Pay$ To Plug-In charging station reimbursement program with DEP

Electric Vehicles

New Jersey's Leadership

- Established goal: 330,000 Zero Emission Vehicles by 2025
- Participating in Transportation and Climate Initiative
- Formed a multi-agency EV task force
- Established grant program for EV chargers
- Conducting study of EV Ride Sharing/Ride Hailing in disadvantaged communities

Electric Vehicles

Lessons Learned/Challenges

- Range anxiety
- Potential impacts to the electric grid
- Higher initial cost
- Dealer resistance to selling EVs