My goodness— May already. Where does the time go??

Thanks to the membership for their participation in the MEUA Semi-Annual Conference held April 24th-25th. It was good to see some new faces and also some of retirees that have been called back to help out on a temporary basis in some systems.



Owen McIntee, President

President McIntee addressed the fact that the MEUA Executive Committee is at six members with the retirement of Mayor Nancy Steedman, Churchville. Currently, the Executive Committee is debating if reducing the total number of members from seven to five is in the association's best interests. As this subject is further discussed, there will be updates to the membership for their consideration. Any changes would be voted on at the Annual Meeting in September.

Congratulations to Nancy Steedman for her service to the MEUA Executive Committee and for being the association's 1st woman President. Nancy's involvement and willingness to learn has been positive and her presence will be missed.



Owen McIntee, President; Nancy Steedman

Mike Green, Evans & Bennett CPAs reported on the MEUA finances for 2018. The association's financial position remains strong and he complimented Narin Ly for the fine job she has done in preparing the monthly reports.

Chris Wentlent and Mike Lyons updated the membership on IEEP progress. The 2018 audit is complete and income and expenditures are in line with the budgeted amount.



Mike Lyons, IEEP

Emerging technologies were discussed—as it relates to:

Electric Vehicle DC Fast Chargers Ground Source Heat Pumps Energy Storage Renewable Energy Utility Scale- Transmission & Sub Transmission Voltage Levels Behind the Meter Distribution Off-Shore Wind

Criteria in consideration of these emerging technologies are the Municipal Load Growth, Hydro & Supplemental Power needs profile, and the Municipal IEEP dollars that are available. Personnel availability and administrative capability along with long-term capital considerations also need to be evaluated.

The State Clean Energy Initiative has MEUA/IEEP/NYMPA working more closely together as we move on to these new clean energy proposals.

NYISO carbon pricing proposal was updated and explained. NYISO is trying to manage all the changes in regards to Electric Vehicles and charging, renewable energy resources, energy storage and off-shore wind.

The Long-Term Agreement (LTA) was reviewed by Kevin Brocks. The contract extension addresses the multitude of ongoing state initiatives in the energy field and the municipals pledge to do their part with respect to the clean energy standard.



Kevin Brocks, Read and Laniado

The contract has been extended to September 30, 2040. There will still need to be a public hearing set by NYPA and reviewed by the Governor. As these details emerge and a schedule is set, I will keep you updated.

John Jennings, Harter, Secrest & Emery updated the members on the change in political makeup of the Senate since the last election and what it means moving forward with upcoming legislative issues.

Will Reynolds, BST, presented on the management of a Municipal Utility. Comparisons of the Electric Fund to a General Fund were reviewed as far as regulation & monitoring accounting methods. Planning for capital, maintenance, staffing, compensation, outsourcing & borrowing were also addressed as it relates to rate making and base rates. Rate cases rely on the quality of records and reports for the last three to five years.

The session on Lineman Training and retention created a lot of dialogue amongst members who expressed their concerns and experiences. A lot of good conversations and good information was exchanged. We will do more of this type of open dialogue at future events.



2019 Corporate Member of the Year: Charlotte Galek, Irby

At the dinner, the Corporate Member of the Year Award was presented to Charlotte Galek from Irby Utilities. The MEUA thanks Charlotte and Irby for the many years of supporting the membership. Congratulations Charlotte!

Retirement plaques were given to Dave George, Endicott and Marc Staves, Tupper Lake for their service and support of the MEUA over the many years.



Owen McIntee, President; Dave George, Endicott

The speaker for the evening was Kim Harriman, NYPA Senior Vice President of Regulatory Affairs. Kim presented on off-shore wind, energy storage, energy efficiency and electric vehicle infrastructure.



Regulatory Affairs Presentation: Kimberly Harriman, NYPA

Off-Shore Wind- The goal is to have 2.4 GW of electricity from off-shore wind (OSW) to be generated for consumption by 2040. Hoping to account for 1/3 of the state's emission reduction under 50% by 2030. The first phase of OSW at 800 MW to be procured via solicitations in 2018/2019.

Energy Storage- The PSC adapted a statewide Energy Storage (ES) deployment goal of 1,500 MW by 2025 and up to 3,000 MW by 2030.

Energy Efficiency- In December 2018, the PSC adopted targets and budgets for energy efficiency programs to be implemented by NYS IOUs. We can expect to see a 31 Tbtu of site energy reduction, 3% reduction in electricity sales 2025 and a 5 Tbtu of savings from heat pumps. At least 20% of funding must be dedicated to the low to moderate income sector.

Electric Vehicle Infrastructure- February 7, 2019, the PSC authorized up to \$31.6 million for a

statewide plug in incentive programs to support deployment of approximately 1,074 Direct Current Fast Chargers. New York State's goal is to have 800,000 Zero Emission vehicles in New York by 2025. We thank Kim for presenting to us.

The next morning the following committees reported on activities. Accounting & Finance, Audit & Budget, By-Laws, Energy Conservation, Engineering, Media & Communications, NYISO, Safety & Training, Economic Development, Governmental, and Regional Liaisons.

Nick Parotta, PLM, updated the membership on the latest information relating to NERC/NPCC. It's hard to believe it was almost nine years ago that the NERC/NPCC Compliance Program came into existence. Initial registration criteria include peak loads greater than 25MW and directly connected to bulk power at 100Kv or more. The current seven member systems that are part of this compliance program are Arcade, Fairport, Lake Placid, Massena, Plattsburgh, Salamanca, and Solvay.

NYPA presented on Cyber Security Partnership offerings and Smart LED Streetlighting.

The Cyber Security Partnership offering is designed to improve cyber security access across public power as well as assist public power utilities with limited resources.



Smart Street Lighting Presentation: Kevin Luteran, NYPA

Smart Street Lighting Solutions was also presented by Kevin Luteran, NYPA. The goal is to have 500,000 street light conversions to LED by 2025. This will reduce energy consumption equal to 44,770 NYS households. LED improvements include energy/cost savings, improved light quality, reduced maintenance costs, and environmental impacts. NYPA offers competitive low-cost financing with no repayment to NYPA until the project is 100% complete.



From Left to Right- Eric Bowers, Brent Bodine, Bill Whitfield, Larry Kilburn, Tony Modafferi, Keith Hayes: MEUA LTA Working Group

Keith Hayes, NYPA, then reviewed the LTA document that the Power Authority Trustees approved recently. A public hearing will be set for some time in June by NYPA as part of the approval process.

President McIntee reviewed the Mutual Aid protocol and events the MEUA members have been involved with.

The meeting was closed with a reminder that the Regional Meetings are coming up in June, and the 89th Annual Conference will be September 10-13 at the Woodcliff Hotel & Spa in Fairport, NY.

2019 MEUA Regional Meetings

Central Regional Meeting hosted by Village of Richmondville: June 11, 2019

Northern Regional Meeting hosted by Villages of Philadelphia & Theresa: June 20, 2019

Western Regional Meeting hosted by Village of Springville: June 26, 2019

NYISO Releases 2019 Power Trends Annual State of the Grid & Markets

<u>Report</u> – the report provides information and analysis on how technology, economic forces and public policy are shaping the power grid, and the implications for the state's wholesale electricity markets. New technologies, such as wind, offshore wind, energy storage, aggregation of distributed resources and solar, are beginning to enter the wholesale markets. Simultaneously, new environmental standards could cause the retirement of resources that have been part of the generation fleet for decades. Accelerating these changes are multiple public policy initiatives such as introduction of electric vehicle charging and initial penetration of heating and cooling technologies that are largely intended to address climate change. One fact is for sure – to successfully electrify the transportation, building and heating/cooling sectors will require a carbon free generation portfolio and adequate transmission and distribution systems.

New York's policymakers ultimately envision a power system that will include large amounts of renewable, intermittent resources like solar and wind, as well as energy storage and behind-themeter resources as a replacement for current fossil fuel generation over the next two decades.

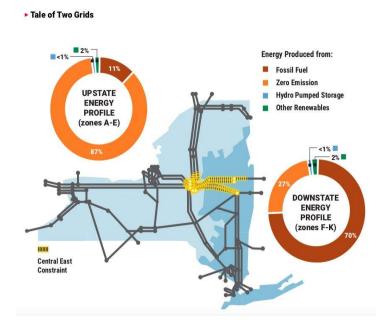
Markets: Achieving Public Policy Goals Requires Market Enhancements

The NYISO intends to adapt to the state's increasingly ambitious environmental goals by leveraging its experience in delivering reliability through markets. Among other initiatives, the NYISO is developing a proposal with stakeholders and policymakers to incorporate the societal costs associated with carbon dioxide emissions into its energy markets to better reflect the state's policy of reducing emissions. Similar to how competitive markets created incentives for generators to improve efficiency, a social cost of carbon priced in the energy market would create stronger incentives for those types of efficiency improvements. Markets would also provide stronger incentives for developing zero-emitting resources like wind and solar in locations where they will have the greatest effect on emissions.

The NYISO has also developed a comprehensive proposal that would allow Distributed Energy Resources (DERs) to participate in NYISO markets and act as supply based on wholesale prices. In addition, in the future, the wholesale market will need to develop a host of other products such as quick generation ramping, additional operating reserves, enhancements to capacity products, and potentially multi-day scheduling to address the changing dynamics of balancing load and supply demands in a more variable system.

Infrastructure: Making Policy Work Requires New Transmission & Distribution

Absent investment to expand the transfer capability of the bulk power transmission system, investment in renewables in upstate load zones runs the risk of bringing diminishing returns in terms of progress toward both renewable energy production and carbon dioxide emissions reduction goals. This is because nearly 90% of the energy produced upstate already is derived from carbon-free resources. See the NYISO's Tale of Two Grid breakdown below:



Without market-based incentives for investment in renewable resources and absent a more robust transmission system to move power to load, state policies could promote a resource mix where new renewable resources increasingly displace the output from existing renewable or other zeroemitting resources. Furthermore, additional upstate renewable resources will place downward pressure on wholesale energy prices, placing upward pressure on the cost of the state's out-of-market incentive payments. This is a very important point for our member systems.

Planning: The Grid of the Future

The NYISO expects evolving environmental regulations and renewable energy goals to accelerate the transition from higher-emitting generation to lower-emitting resources, potentially placing the downstate region at increased risk of fuel and energy supply disruptions. Accordingly, the NYISO has initiated a study to evaluate potential fuel security issues during high intensity, extended winter weather scenarios. The objective is to determine key operating constraints that could evolve during these type of system conditions.

The New York State Department of Environmental Conservation (NYSDEC) recently released its Generation Peaker draft rule that requires NOx emission reductions from approximately 3,300 MW of simple-cycle turbines in New York City and Long Island. The NYISO continues to be involved in the rule-development process and will inform policymakers, market participants, and investors about the implications to bulk and local system reliability. The NYISO has initiated the second phase of its 2018-2019 Reliability Planning Process, the Comprehensive Reliability Plan, which includes a scenario evaluating the reliability impacts of the potential retirement of all 3,300 MW of peaking units impacted by the DEC's proposal.

For nearly twenty years, the NYISO's competitive wholesale markets, bulk power system operations, and comprehensive system planning processes have played a central role in transforming the energy landscape in New York. As policymakers seek a more rapid and widespread change in how energy is produced and consumed, it is expected the NYISO's markets and planning processes will continue to serve as a platform to facilitate this transformation.