
NYISO Business Issues Committee Meeting Minutes
September 12, 2017
10:00 a.m. - 4:15 p.m.

1. Introductions, Meeting Objectives, and Chairman's Report

Mr. Andrew Antinori (NYPA) called the meeting to order at 10:00 a.m. by welcoming the members of the BIC. The members of the BIC identified themselves and attendance was recorded. A quorum was determined.

2. Approval of BIC Minutes

There were no comments or questions regarding the draft meeting minutes for the July 24, 2017 and August 9, 2017 BIC meetings that were included with the meeting material.

Motion #1:

Motion to approve the July 24, 2017 and August 9, 2017 BIC meeting minutes.

Motion passed unanimously.

3. Market Operations Report and Broader Regional Markets Report

Mr. Rana Mukerji (NYISO) reviewed the Market Operations report posted with the meeting material. There were no questions or comments.

Mr. Mukerji reviewed the Broader Regional Markets report included with the meeting material. Mr. Mark Younger (Hudson Energy Economics) requested an update regarding when the NYISO will provide an update on UDR deliverability requirements. Ms. Debbie Eckels (NYISO) stated this issue would be addressed at the September 18, 2017 ICAPWG meeting.

Ms. Doreen Saia (Greenburg Traurig) requested an update regarding the targeted in-service date for the replacement of the Ramapo 3500 PAR. Ms. Jane Quin (Con Edison) stated that the currently targeted in-service date for the replacement PAR was between September 13, 2017 and September 15, 2017.

4. Western NY Public Policy Transmission Planning Report

Mr. Dawei Fan (NYISO) reviewed the presentation included with the meeting material.

Mr. Howard Fromer (PSEG) requested confirmation of when the process at hand commenced. Mr. Zach Smith (NYISO) stated that the solicitation for public policies that may drive transmission needs, which subsequently gave rise to the New York State Public Service Commission's identification of the Western New York Public Policy Transmission Need in July 2015, was issued in August 2014.

Mr. Fromer stated that, based on the time it has taken to arrive at this step in the process, it is critically important that the NYISO assess ways to more efficiently and expeditiously complete this process going forward. Mr. Smith stated that a lessons learned process will be conducted and would include an assessment of ways to improve the efficient execution of the process. Mr. Smith also noted that a project has been proposed for 2018 to conduct a comprehensive review of the NYISO's reliability, economic and public policy planning processes.

Mr. Carl Patka (NYISO) stated that stakeholders had requested more time for review during this process, that the first time any new transmission planning process is conducted additional time is required, and that given the importance of the decision for the State, the NYISO is taking time needed to make sure that the work is conducted correctly.

Mr. Lawrence Willick (LS Power) raised a concern about operational impacts of the PAR included as part of proposal T014. Mr. Fan stated the System Impact Study (SIS) preliminary results for proposal T014 identified two potential overloads that could be mitigated through operating actions. Mr. Smith added these two potential overloads were only

identified under very specific transfer conditions that involved transfers from NY to Ontario and high levels of transfers from PJM to NY and not under normal conditions of securing the system during peak conditions. Mr. Smith further stated that under those specific conditions it would make sense operationally to utilize the proposed PAR to help reduce flows over the affected facilities.

Mr. Willick also stated he did not agree with the weighting accorded to production cost savings in the comparative assessment of project proposals. Mr. Steve Gibelli (NextEra) replied congestion relief is not part the primary evaluation by other ISOs/RTOs and that T014 results in NYCA load payment reductions. Mr. Fan stated that the comparative evaluation was conducted in accordance with the applicable procedures and tariff requirements.

Mr. Miles Farmer (NRDC) stated the study does not capture the social cost of carbon and recommended that this be accounted for in the future. Mr. Smith stated that this recommendation could be further considered as part of a lessons learned.

Mr. David Clarke (LIPA) stated that the cost allocation method should align with the zonal benefits provided by the project.

Mr. Aaron Breidenbaugh (Consumer Power Advocates) asked to what extent developers were committed to prices if they were selected. Mr. Smith explained that issues related to cost recovery, including any proposed cost containment measures, are determined by FERC and that the NYISO would consider enhancements to its consideration of cost containment as part of the lessons learned process.

Ms. Saia asked for a timeline for the AC Transmission proceeding. Mr. Smith stated Q1 2018. Ms. Saia recommended that a short, succinct presentation be provided to MPs and get that information out sooner.

Ms. Patti Caletka (NYSEG/RG&E) provided the following statement for the minutes:

The NYISO should evaluate the projects as submitted or as modified thru a documented bid clarification process. If the NYISO requires new information to be accounted for in its Request for Solicitation, such as an updated base case or other requirement, the NYISO should issue an addendum to the initial RFSs directing the bidders account for the new information and provide a timeline for participants to resubmit proposals for evaluation. In this way, it would provide all bidders the same opportunity to make adjustments to their submission as well as eliminate the need for the NYISO to blend components of alternative proposals submitted by a developer or re-designing or adding to projects to rectify shortcomings as well as ensure their compliance with applicable environmental and interconnection requirements.

Ms. Quin provided the following statement for the minutes:

Con Edison applauds the NYISO's and the Public Service Commission's efforts to support transmission build out driven by critical public policy requirements. We recognize that under the NYISO's tariff an appropriate cost allocation methodology in the Western New York process is the responsibility of the New York Public Service Commission and/or the developer of the selected project. If a methodology is not proposed by the NY Public Service Commission or developer the cost allocation will default to a load ratio share basis. Based on the NYISO's Draft Report, we note that the majority of the benefits accrue to certain Western and Upstate regions of the New York Control Area. Left unchanged, the Western New York cost allocation will be based on a load ratio share basis, which will inappropriately allocate significant project costs to regions that experience limited benefits from the project. The New York Public Service Commission has not yet issued a proposed cost allocation methodology that may resolve this issue,

but on behalf of our customers we remain focused on a methodology that is commensurate with the beneficiaries pay principles inherent in FERC Order 1000.

Ms. Margaret Janzen (National Grid) provided the following statement for the minutes:

Regarding the NYISO's implementation of its Public Planning Process for transmission needs in WNY, National Grid would like to express constructive feedback regarding the evaluation and comparison process, and the results of the production cost analysis.

Regarding production cost results, the NYISO should provide more detailed information on factors such as flows over internal and external interfaces, changes in generation dispatch and describe the causation of LBMP/production cost changes to give market participants a clearer view on how these projects impact the dynamics of the NY markets.

Regarding the evaluation and selection process, NYISO should clearly identify metrics that are of primary interest relative to other metrics used in selection and before project solicitation. In addition, NYISO procedures should clearly reflect responsibilities of developers and local TO with regards to the non-BPTF system.

Lastly, National Grid agrees with the NYISO conducting a 'Lessons Learned' review of the process, in order to improve it for future public policy projects.

Mr. Michael Mager (Couch White) stated Multiple Intervenors and the City of New York intended to abstain from the vote regarding the draft study, but that their respective votes should not to be construed as an objection to the NYISO's efforts throughout the process. Mr. Mager further stated that Multiple Intervenors and the City of New York understand the need to address the issues in western NY, but were choosing not to endorse any specific project at this time. Mr. Mager also suggested that, as part of a lessons learned, the NYISO assess how best to expedite the process going forward and recommended that further discussions occur with respect to revising the tariff to expressly provide for and take account of cost containment measures proposed by developers.

Mr. Younger requested clarification regarding the purpose of the vote and whether it is intended to provide an indication of agreement that the process was conducted consistent with the applicable tariff requirements or approval of the NYISO's recommendation regarding project selection. Mr. Carl Patka (NYISO) replied it is a tariff-required advisory vote that is intended to inform the Board on party's views on the report, which, as required by the tariff, includes the NYISO staff's recommendation regarding project selection. He also explained there is no ability to appeal an advisory vote as of right. The ISO Agreement, however, affords the NYISO Board of Directors (Baord) the authority to consider certain matters on its own initiative. Therefore, the NYISO is requesting that interested parties submit requests by September 15, 2017 to indicate whether they have an interest in being afforded an opportunity to submit supplemental written comments directly to the Board, as well as provide oral presentations to the Board, regarding the report.

Mr. Fromer requested clarification regarding when the applicable cost allocation methodology for any selected project will be known. Mr. Patka stated that, pursuant to the tariff, cost allocation is a separately determined matter. The tariff provides that the New York State Public Service Commission (NYPSC) may express a preference in their order establishing a Public Policy requirement. The tariff also provides that the developer may propose their own methodology within 30 days after the NYISO has selected the developer's project. If the developer proposes a methodology, the tariff provides for collaboration between the developer and NYPSC to try and establish a mutually agreed to methodology. Absent agreement, both the NYPSC's and the developer's preferred methodologies are submitted to FERC for consideration. Absent proposed methodologies from either the NYPSC or the developer, the tariff provides for application of the default load ratio share cost allocation methodology. Mr. Patka stated that, to date, the NYISO has not received an alternative cost allocation methodology proposal from the NYPSC or any developer regarding the WNY transmission need.

Mr. Breidenbaugh stated Consumer Power Advocates supports the comments of Multiple Intervenors, the City of New York and Con Edison. Mr. Breidenbaugh further stated that cost allocation needs to be aligned with FERC's requirement that beneficiaries pay.

Mr. Thomas Paynter (DPS) stated that the Commission supports the principle of beneficiaries pay in general.

4a . Potomac Economics Review of Western NY Public Policy Transmission Planning Report

Mr. Pallas LeeVanSchaick (Potomac Economics) reviewed the presentation included with the meeting material.

Mr. Paul Gioia (Counsel for the NY TOs) stated since the NYDPS had confirmed the need for building transmission in Western NY twice, and NYISO had conducted the comprehensive analysis for evaluation and selection of the project, there should not be a need for MMU to review and reconfirm that the transmission project would be beneficial to NY.

Motion #2:

WHEREAS, the Electric System Planning Working Group ("ESPWG") and Transmission Planning Advisory Subcommittee ("TPAS") have held a series of meetings with NYISO Staff to discuss and review the studies and analyses underlying the NYISO's findings regarding the Western New York Public Policy Transmission Need; and

WHEREAS, NYISO Staff has posted a draft Western New York Public Policy Transmission Planning Report dated September 5, 2017, including Appendices ("Draft Report"), for the September 12, 2017 Business Issues Committee ("BIC") meeting; and

WHEREAS, NYISO Staff has incorporated modifications to the Draft Report based on comments received at five joint ESPWG-TPAS meetings from July 20, 2017 through August 28, 2017.

NOW, THEREFORE, based on the presentation made by the NYISO at the September 12, 2017 BIC meeting and the posted Draft Report, the BIC hereby recommends that the Management Committee recommend approval of the Draft Report by the NYISO Board of Directors.

Motion passed with 100% affirmative votes.

5. Proposed Transmission Constraint Pricing Manual Changes

Ms. Jennifer Boyle (NYISO) reviewed the presentation included with the meeting material. There were no questions or comments.

Motion #3:

The Business Issues Committee ("BIC") hereby approves the revisions to the Transmission and Dispatching Operations Manual, Day-Ahead Scheduling Manual, and Ancillary Services Manual as more fully described in the presentation entitled "Transmission Constraint Pricing Manual Changes" made to the BIC on September 12, 2017.

Motion passed unanimously.

6. Detailed Overview of the Brattle Study

Dr. Sam Newell (The Brattle Group) provided an in depth review of the study posted with the meeting material.

Mr. Clarke, Mr. Mager and Ms. Hogan request clarification, and provided comments, regarding Brattle's assumptions for load reductions in 2025 resulting from energy efficiency and conservation. Dr. Newell stated that the assumed load reductions were based on conservative assumptions regarding long-term demand elasticity that resulted in an estimated reduction in load of 2.5 terawatt hours (TWh) in 2025 – or approximately 5% of large commercial and industrial load statewide.

Mr. Fromer and Mr. Rich Bolbrock (MEUA/NYMPA) provided comments regarding Brattle's assumptions related to incremental combined cycle capacity in 2025. Dr. Newell stated that the estimate was derived based on an assumption

that investment in combined cycle capacity would be economic and the amount of such investment that could be sustained as economic after accounting for reductions in energy and capacity prices that result from the additional of combined cycle capacity to the system. Dr. Newell further noted that Brattle only included 2/3 of the combined cycle capacity additions it estimated could be economic in 2025 to account for the fact that the estimate of the amount combined cycle investment being economic in 2025 may not come to fruition. Sensitivity analysis was also conducted to provide additional information on potential changes in the estimated customer cost impacts if no incremental combined cycle capacity investment occurs or if the full amount that Brattle estimated could be economic in 2025 were to occur.

Rich Bolbrock and Ms. Kelli Joseph (NRG) provided comments regarding the assumed incremental renewable capacity in 2025 and whether the assumed carbon charge would be sufficient to support such investment. Dr. Newell stated that the additional renewable capacity assumed for 2025 is consistent with the State's Clean Energy Standard goals. Dr. Newell also clarified that the study was not intended to determine whether the assumed carbon charge of \$40/ton in 2025 would be sufficient to support such investment. Rather, the study was intended to assess the impact and effects of implementing a carbon charge in the wholesale market as a complement to the State's initiatives. The \$40/ton carbon charge value was derived based on the value of the social cost of carbon in 2025, less a forecasted cost of RGGI allowances in 2025 based on information produced by RGGI as part of its currently ongoing program review.

Rich Bolbrock requested clarification regarding how Brattle calculated the estimated customer bill impact of implementing a carbon charge in the wholesale market. Dr. Newell stated that the customer bill impacts were calculated assuming an average statewide all-in energy cost (commodity and transmission/delivery) of \$0.20 per kilowatt hour (kWh).

Mr. Mager, Mr. Younger and Mr. Antinori provided comments regarding what, if any, assumptions were made regarding the disposition of any incremental energy revenues that may be attainable by NYPA from the sale of its generation in the wholesale market. Mr. Newell stated that the study and estimated customer impacts do not make any assumptions regarding the disposition of any such revenues.

Ms. Hogan requested clarification regarding the assumptions related to unit retirements in 2025. Dr. Newell stated that the only assumed retirements were the remaining coal capacity in New York and Indian Point.

Mr. Mager, Mr. Matt Schwall (IPPNY) and Ms. Saia provided comments regarding the assumed impacts of implementing a carbon charge in the wholesale market on REC prices and REC contracts in New York. Mr. Newell stated that the study does not assume that agreed to REC prices in existing contracts would be revised. Mr. Newell also noted that the sensitivity analysis does include information regarding the potential impact if all existing Tier 2 renewable facilities were eligible to receive REC payments.

Mr. Joel Yu (Con Edison) requested clarification regarding the going forward stakeholder process related to this initiative. Mr. Mukerji stated that the exact schedule has not yet been finalized, but the process will consist of both ongoing discussions in the NYISO stakeholder process and forums held jointly with the New York State Department of Public Service. Mr. Mike DeSocio (NYISO) stated that the NYISO is currently targeting a follow-up discussion regarding the going forward stakeholder process and schedule at the September 27, 2017 Management Committee meeting.

Working Group Updates

- Billing and Accounting and Credit Working Group – The group met on August 21, 2017 and reviewed the standard accounting/settlement reports. KPMG provided an update on its 2017 SOC 1 audit. It was also reported that the NYISO remains on track to complete a project by the end of 2017 to provide reporting for sub accounts within the Decision Support System (DSS).
- Electric System Planning Working Group –The group met on August 18, 2017 and continued its review of the draft Western New York Public Policy Transmission Planning report. The group also met on August 28, 2017 and further reviewed the draft Western New York Public Policy Transmission Planning report, key study assumptions for the Indian Point retirement reliability assessment, and updates regarding 2017 CARIS Phase 1 study, including benchmark results and fuel price forecasts.

- Installed Capacity Working Group – The group met on August 22, 2017 and reviewed the information related to the annual update for 2018 ICAP demand curves, an update regarding the ongoing capacity market impact assessment being conducted as part of the Integrating Public Policy initiative, probabilistic locality exchange factor analysis and alternative methodologies for determining LCRs.
- Electric Gas Coordination Working Group – The group has not met since the last BIC meeting.
- Load Forecasting Task Force – The group has not met since the last BIC meeting.
- Market Issues Working Group – The group met on August 24, 2017 and reviewed the Potomac Economics' quarterly State of the Market Report for Q2 2017. The group also met on August 25, 2017 and reviewed an update regarding the initial energy market impact assessment being conducted as part of the Integrating Public Policy initiative, a capacity market aggregation proposal for distributed energy resources (DER) presented by the Advanced Energy Management Alliance, proposed manual changes related to transmission constraint pricing, eligibility of inverter-based technology to provide ancillary services, securing 100+ kV transmission facilities in the market model, energy storage integration and optimization and proposed tariff revisions related fuel cost adjustments and the minimum oil burn compensation program.
- Price Responsive Load Working Group – The group met jointly with the MIWG on August 25, 2017 and reviewed the capacity market aggregation proposal for DER presented by the Advanced Energy Management Alliance.

New Business

There was no new business.

Meeting adjourned at 4:15 p.m.

Business Issues Committee Meeting
September 12, 2017
Final Motions

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Motion to approve the Minutes of the July 24, 2017 and August 9, 2017 BIC meetings.

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New York Independent System Operator - Committee Membership

Business Issues Committee - August 09, 2017 - NYISO - Parties Checked in Attendance

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Astoria Energy LLC	Generation Owners	McCall, Chuck	Browne, Scott	Habib, Phillippe	Singer, Leonard						
Bayonne Energy Center, LLC	Generation Owners	✓Allman, Ellen	Yang, Sue							✓Lynch, Jessica	
CPV Valley LLC	Generation Owners	Litchfield, Matt	Rumsey, Tom								
Calpine	Generation Owners	Kruse, Brett	Reitmeyer, Jay	Flumerfelt, John	Schleimer, Steve						
Cricket Valley Energy Center	Generation Owners	De Meyere, Bob	Wallenstein, Arnold	Paryl, Ron							
EDP Renewables North America LLC	Generation Owners	✓Brodbeck, John	Kaplan, Seth	Nemeth, Jeffrey	High, Jeremy						
East Coast Power, LLC	Generation Owners	Shanker, Roy	Fogarty, Thomas	Lee, Tina	Franzetti, Paul						
Entergy Nuclear Northeast	Generation Owners	Dell Orto, Ken	Saia, Doreen	Bergeron, John							
Helix Ravenswood LLC	Generation Owners	✓D'Andrea, James	Kline, Marc	DiBari, Dominic							
Howard Wind LLC	Generation Owners	Merich, Olivia	Rugh, Chris								
Indeck Energy Services, Inc.	Generation Owners	Ferguson, Mike	✓Younger, Mark								
Innovative Energy Systems	Generation Owners	Zeliff, Peter	Henningham, Scott								
Invenergy Energy Management LLC	Generation Owners	✓Ma, Alex	Goldstein, Michael	Orzel, Chris							
National Grid Generation LLC	Generation Owners	Kain, Terrence	McCabe, Brian								
Noble Environmental Power LLC	Generation Owners	Silton, Harry									
Selkirk Cogen Partners, LP	Generation Owners	Biittig, Timothy	Ryan, James								
Somerset Operating Company, LLC	Generation Owners	Evanoski, Dave	Goodenough, Jeery	McManus, John							
BJ Energy LLC	Other Suppliers	Ni, Bing	Lee, George								
BP Energy Company	Other Suppliers	Briscoe, Judy	Magruder, Kathy								
BioUrja Power, LLC	Other Suppliers	Moore, Cody	Ward, Roxie								
BlueRock Energy, Inc.	Other Suppliers	Nichols, Jim	Yeager, Keith	VanHorne, Phil	Graham, Tammy						
Brookfield Energy Marketing L.P.	Other Suppliers	✓LaRoe, Chris	Mitreski, Aleksandar	Mitelman, Rimma	Dallaire, Eric						
CPower	Other Suppliers	Hourihan, Michael	Lawrence, David	Damaskos, Deno	Campbell, Bruce	Markham, Craig					
Castleton Commodities Merchant Trading L.P.	Other Suppliers	Stuss, Gordon	Romine, Brad	Emmett, Robert							
Citigroup Energy Inc.	Other Suppliers	Trayers, Barry									
Con Edison Solutions Inc.	Other Suppliers	Mah, Norman	Dannels, Jeff								
Constellation New Energy	Other Suppliers	Wentlent, Chris	Kirk, Steven								
Cross Sound Cable Company, LLC	Other Suppliers	Reinhart, Brian	Rotger, Jose								
DC Energy	Other Suppliers	Bleiweis, Bruce	Stevens, Andrew	Tate, Matthew	Milberg, Sadao	Jeev, Kumar					
DTE Energy	Other Suppliers	Pakela, Gregory	Wieszczyk, Raymond	German, Robert							
Direct Energy Business Marketing, LLC	Other Suppliers	Philips, Marjorie	Comstock, Read								
Dynegy Marketing and Trade	Other Suppliers	✓Roby, Rick	Ellis, Dean	Ziegler, Pete							
EDF Trading North America, LLC	Other Suppliers	Erbrick, Michael	LeForce, Randall								
Eastern Generation	Other Suppliers	Baker, Liam	Reese, John	✓Younger, Mark	✓Schwall, Matthew	Johnson, David	Wolcott, Tyler				
EnerNoc	Other Suppliers	Brewster, David	Geller, Greg								
Energy Spectrum	Other Suppliers	David, Gary	Ahrens, David	Neiburg, David	Iskowitz, Aron	Brown, Ruben	Pentland, William	Villegas, Cristina	Cinadr, Matt		
Energy Technology Savings	Other Suppliers	Hendler, Jeff	Ross, Valerie								
Exelon Generating Co. LLC	Other Suppliers	Wentlent, Chris	Kirk, Steven								
GDF Suez Energy NA, Inc.	Other Suppliers	Levine, Jeffrey	Hawkins, Darin	Campbell, Chad							
Galt Power	Other Suppliers	Fernands, Rochelle	✓Ackerman, Alan								
HQ Energy Services US	Other Suppliers	Plante, Matthieu	✓Leuthauser, Scott	Guilbault, Louis							
Innoventive Power	Other Suppliers	Gruber, Craig	Halford, Steve								
Integrus Energy Services of New York, Inc	Other Suppliers	Haugh, Michael									
Lyonsdale Biomass, LLC	Other Suppliers	Ralston, William	Hebel, Nathan	Carrigan, Kathleen							
Mercuria Energy America, Inc.	Other Suppliers	Davis, Andrew	✓Younger, Mark								
Morgan Stanley Capital Group, Inc.	Other Suppliers	Murray, Patrick	Kochonies, Karen	Ezickson, Doron							
NRG Power Marketing Inc.	Other Suppliers	Joseph, Kelli	Fuller, Peter	Cona, Lisa							
New York Transco	Other Suppliers	Nachmias, Stuart	Hitti, Nabil	Caso, Rob	Carrigan, Kathleen	Dumais, Paul					
NextEra Energy	Other Suppliers	Applebaum, David	Gardner, Michelle	Gibelli, Stephen							
Noble Americas Gas & Power Corp.	Other Suppliers	Boston, Roy	Kyle, Chris	Sunga, Leonard							
Ontario Power Generation, Inc.	Other Suppliers	Lacivita, Ken	Gell, Richard	Barr, David	Sheinfield, Joel						
PSEG Energy Resource & Trade, LLC	Other Suppliers	Fromer, Howard	DePillo, Raymond	Messmer, Robert	Murawski, James						
Riverbay Corporation	Other Suppliers	Merola, Peter	Ellison, Noel	Ahrens, David	Villegas, Cristina						
SESCO Enterprises, LLC	Other Suppliers	Schubiger, Michael	Thoresen, James								
Shell Energy North America, LLC	Other Suppliers	Picardi, Matt									
Talen Energy	Other Suppliers	Hohenshilt, Jennifer	Labella, Julie	Kershner, Zane	Klicker, Owen						
TransCanada Power Marketing, Ltd.	Other Suppliers	Taylor, William	D'Andrea, James	Congel, Dan	Hachey, Mike						
Viridity Energy, Inc.	Other Suppliers	Freifeld, Allen									
Vitol Inc.	Other Suppliers	Wadsworth, Joe	Viola, Bob	Kam, Kenney							

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
XO Energy NY, LP	Other Suppliers	Drangula , Carey	Thompson , Matthew	Hughes , Adam							
Central Hudson Gas & Electric Corp.	Transmission Owners	Borchert , John	Chan, Ting	May , Jeff	✓Dittmann, David						
Consolidated Edison Co. of NY, Inc.	Transmission Owners	✓Quin , Jane	Nachmias, Stuart	✓Butler , Scott	✓Hargett , Chris	Butterklee, Neil					
National Grid	Transmission Owners	✓Janzen , Margaret	Lodemore , David	✓Carron , Benjamin							
New York State Electric & Gas (NYSEG)	Transmission Owners	Caletka, Patricia	Kinney, Ray	✓Brophy , Richard							
Orange & Rockland Utilities, Inc.	Transmission Owners										
Rochester Gas and Electric Corp.	Transmission Owners	Caletka, Patricia	Kinney, Ray	✓Brophy , Richard							
Alcoa, Inc.	Large Consumer	✓Mager, Michael	Loughney, Robert	Trinsey , Amanda	Lang, Kevin						
IBM Corporation	Large Consumer	✓Mager, Michael	Loughney, Robert	Trinsey , Amanda	Lang, Kevin						
Nucor Steel Auburn, Inc.	Large Consumer	Brew , James	Radigan, Frank	Kopon , Owen							
Occidental Chemical Corp.	Large Consumer	✓Mager, Michael	Loughney, Robert	Trinsey , Amanda	Lang, Kevin						
Wegmans Food Markets	Large Consumer	✓Mager, Michael	Loughney, Robert	Trinsey , Amanda	Lang, Kevin						
Metropolitan Transportation Authority	Large Consumer Government Agency	Keller , David	Chou , Frances								
American Sugar Refining, Inc	Small Consumer	Luthin, Catherine	Breidenbaugh , Aaron	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda					
Association for Energy Affordability	Small Consumer	Morris, Jackson	Hepinstall, David	Strauss , Valerie							
Beth Israel Health Care System	Small Consumer	Luthin, Catherine	Breidenbaugh , Aaron	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda					
Fordham University	Small Consumer	Luthin, Catherine	Breidenbaugh , Aaron	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda					
Memorial Sloan Kettering Cancer Center	Small Consumer	Luthin, Catherine	Breidenbaugh , Aaron	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda					
Mount Sinai Medical Center	Small Consumer	Luthin, Catherine	Breidenbaugh , Aaron	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda					
New York University	Small Consumer	Luthin, Catherine	Breidenbaugh , Aaron	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda					
Utility Intervention Unit, Division of Consumer Protection, NY Dept. of State	Government Statewide Consumer Advocate	✓Hogan , Erin	✓Montalvo , Marc	Kordonis , Dimitrios	Zimmerman , Michael						
City of New York	Government Small Consumer and Retail Aggregate	Lang, Kevin	✓Mager, Michael	Trinsey , Amanda							
NYS Energy Research & Dev. Authority	Government Small Consumer and Retail Aggregate	✓Hall , Christopher	Coup, David	Mas , Carl	Wilcox , James	Matteson , Schuyler					
Long Island Power Authority	State Power Authorities	Clarke, Dave	✓Wilczek , Mariann								
New York Power Authority	State Power Authorities	✓Antinori , Andrew	Boyle, Bob	✓Lundin , Tim	Mahoney , Daniel						
Bath Electric, Gas & Water Systems	Municipalities and Coops	Hallgren , Guy	✓Bolbrock, Richard	Cordeiro, Mark							
Freeport Electric	Municipalities and Coops	Livingston , Al	Kimlingen, Ted	Rudebusch, Tom	Fiore , Chris						
Jamestown Board of Public Utilities	Municipalities and Coops	Gustafson, David	Leathers, David	Kulig, Steve	Rudebusch, Tom	Sellstrom , Kris					
Lake Placid Village	Municipalities and Coops	Kroha, Peter	✓Bolbrock, Richard	Cordeiro, Mark							
Municipal Commission of Boonville	Municipalities and Coops	Stabb, Kenneth	✓Bolbrock, Richard	Cordeiro, Mark							
Plattsburgh Municipal Lighting Dept	Municipalities and Coops	Treacy, William	✓Bolbrock, Richard	Cordeiro, Mark							
Village of Arcade	Municipalities and Coops	Kilburn, Larry	✓Bolbrock, Richard	Cordeiro, Mark							
Village of Fairport	Municipalities and Coops	Hegarty , Matt	✓Bolbrock, Richard	Cordeiro, Mark							
Village of Rockville Centre	Municipalities and Coops	Andreas , Philip	Cardile , Thomas	Rudebusch, Tom							
Village of Solvay	Municipalities and Coops	Hawksby , Joe	✓Bolbrock, Richard	Cordeiro, Mark							
Village of Westfield	Municipalities and Coops	Thompson , Andrew	✓Bolbrock, Richard	Cordeiro, Mark							
American Lung Association	Environmental	Epstein , Roni	Seilback, Michaek	Morris, Jackson							
American Wind Energy Association	Environmental	Reynolds , Anne	Gramlich, Robert	Beck , Betsy	Goggin , Michael	Gohn , Andrew	Grace , Gene			✓Reeder, Mark	
Environmental Advocates	Environmental	Bambrick , Conor	Epstein , Roni	Morris, Jackson							
Environmental Defense Fund	Environmental	Christian , Rory	Stein , Elizabeth								
Natural Resources Defense Council	Environmental	Farmer , Miles	Morris, Jackson	Viswanathan@nrdc.org , Kala						✓Reeder, Mark	
PACE Energy & Climate Center	Environmental	Martin , Nicholas	Valova , Radina	Farmer , Miles							
Riverkeeper	Environmental	Gallay , Paul	Jones , Abigail	Doran , Erin							
AEP On-Site Partners, LLC	Non Voting	Jansen , Joel	Kakodkar , Guatam								
AES ES Holdings LLC	Non Voting	Hillman , Sharon	Kumaraswamy , Kiran								
Acadia Center	Non Voting	Howland , Jamie	Malone , Leslie								
Acadia Energy Corporation	Non Voting	Rappaport , Jason	Bay , John								
Advanced Energy Economy, Inc.	Non Voting	Katofsky , Ryan	Waggoner , Danny								
Advanced Migrogrid Solutions, Inc.	Non Voting	Jackson , Mike	Yamout , Manal								
Alliance for Clean Energy New York	Non Voting	Reynolds , Anne	Dufresne , Zach								
Anbaric Northeast Transmission Development Co.	Non Voting	Sanderson , Barry									
Appian Way Energy Partners East, LLC	Non Voting	Levy , Tal	Klein , Abram	Shen , Dong	Westlund , John	Laich , Marcus					
Ardor Energy LLC	Non Voting	Breen , Erika									
Boston Energy Marketing & Trading	Non Voting	Kramek , Mike									
Bruce Power	Non Voting	Viswanathan , Samira	Meyer , Sandra								
Caithness Energy LLC	Non Voting	Keevill , Gary	Alvarez , Asavari	Garber, Mitchell							
Calpine Energy Solutions	Non Voting	Sun , Jungsuk	Nakhonthap , Jade	Sunga , Leonard							
Canandaigua Power Partners, LLC	Non Voting	Keene , John	Gaddes , Caleb								
Chesapeake Trading Group, LLC	Non Voting	Staska , Stephanie	Hocker , Geoff								
Cubit Power One Inc.	Non Voting	Powell , Alan	Powell , Leighton	Singer, Leonard							

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Customized Energy Solutions	Non Voting	Mancini, Rick	Fernands, Stephen	Rexrode, Caryn	✓Ackerman, Alan						
Demand Energy Networks	Non Voting	Staker , Doug	Cook-Coyle , Jeff								
Earth Networks	Non Voting	Crawford , Jaden									
Energya VM	Non Voting	Garcia , Francisco	Maeso , Manual	Lopez , Ana	Silveira , Juan						
Fluent Energy	Non Voting	Acampora , Peter	Doll , Ed								
Hudson River Energy Group	Non Voting	Radigan, Frank	Canfield, Richard								
Hydro-Quebec TransEnergie	Non Voting	Prevost , Michel									
ITC Mid-Atlantic Development LLC	Non Voting	Wrenbeck , Tom	Benedict , Nathan								
Iberdrola Renewables Inc	Non Voting	Allen, Thresa									
Innovari, Inc.	Non Voting	Lunt , Robin	Hodges , Brent								
Institute for Policy Integrity at NYU School of Law	Non Voting	Unel , Burcin	Noll , Bethany								
Key Capture Energy	Non Voting	Fitzgerald , Dan	Bishop , Jeff								
MAG Energy Solutions, Inc.	Non Voting	Pelletier , Simon	Vezina, Alexandre								
NRG Curtailment Solutions, Inc.	Non Voting	Popova , Julia	Ainspan , Malcolm	Pieniazek, Marie							
NY-BEST Consortium	Non Voting	Acker , William	Sheehan , Denise								
NYS Department of Public Service	Non Voting	✓Paynter , Thomas	✓Evans , Adam								
National Fuel Gas Distribution Corporation	Non Voting	Novak , Michael	Eck , Robert								
New Athens Generating Co. LLC	Non Voting	DeVinney, Dan									
Northeast Clean Heat & Power Initiative	Non Voting	Venkataraman , Sree	Lilian , Jon	Dwyer , Herb	Brown, Ruben	Cinadr , Matt	Martin , Nicholas	Villegas , Cristina			
Northline Utilities LLC	Non Voting	McKinney , Jeff	Danskin , Susan								
NuEnergen	Non Voting	Hamilton , Sandy	Korczykowski , Ryan								
Power Supply Services LLC	Non Voting	Phillips , Gabriel	Abend , Erik								
RBC Energy Services, LP	Non Voting	Burnham , Steve	Fraiture , Christian	Doolittle , Robin							
RENEW Northeast	Non Voting	Pullaro , Francis	Krich , Abigail								
RES Americas, Inc.	Non Voting	Fernandes , John	Boyd , Dan								
Red Wolf Energy Trading, LLC	Non Voting	Sharma , Rishi									
Richard P. Felak	Non Voting	Felak, Rich									
STEM, Inc.	Non Voting	Ko , Ted									
Saracen Energy East LP	Non Voting	Peebles , Andy									
Siemens Energy, Inc.	Non Voting	Feltes , James									
SolarCity Corporation	Non Voting	Watson , Betty	Khan , Jamil	Reinhardt , Jessica							
Stephentown Spindle, LLC	Non Voting	Hebert , Chris									
Taylor Biomass Energy, LLC	Non Voting	Taylor , Jim	Page , Allan								
Tesla Motors, Inc.	Non Voting	Burson , Kate	Van Cleve , Sarah								
TransAlta Energy Marketing (U.S.) Inc.	Non Voting	Nivolianitis , Ted									
Transmission Developers Inc.	Non Voting	Jessome , Donald	Helmer , William	✓Dave , Suresh							
Transource New York, LLC	Non Voting	Burkholder , Joshua									
William P. Short	Non Voting	Short, William	Schaefer, Marc		Savage, Paul	Verna, Jim					

NYISO Employees

Hodgdon, Brian

Niazi, Tariq

Bissell, Garrett

Kavanah, Gloria

Seirup, Lorenzo

Williams, Greg

Keegan, Sara

Nguyen, Thinh

Bouchez, Nicole

Dixon, Kirk

Eckels, Debbie

New York Independent System Operator
Business Issues Committee - September 12, 2017

Motion: Motion #2

Result: Motion Passed

Sector with base percent	%	Active	Quorum	Adj. Percent	For	Against	Abstain	% For	% Against
Generation Owners	21.50	✓	X	5.73	4.00	0.00	0.00	5.73	0.00
Other Suppliers	21.50	✓	✓	21.50	6.00	0.00	7.00	21.50	0.00
Transmission Owners	20.00	✓	✓	20.00	2.00	0.00	2.00	20.00	0.00
End Use Consumer			✓						
Large Consumer	9.00	✓		9.00	0.00	0.00	4.00	0.00	0.00
Large Cons. Gov. Agency	2.00	✓		2.00	0.00	0.00	0.00	0.00	0.00
Small Consumer	4.50	✓	✓	4.50	6.00	0.00	1.00	15.50	0.00
Gov. State-wide Cons. Advocate	2.70	✓		2.70	0.00	0.00	1.00	0.00	0.00
Gov. Sm. Cons. & Retail Aggr.	1.80	✓		1.80	1.00	0.00	1.00	4.50	0.00
Public Power			✓						
State Power Authorities	8.00	✓		8.00	0.00	0.00	2.00	0.00	0.00
Munis & Co-ops	7.00	✓		7.00	11.00	0.00	0.00	15.00	0.00
Environmental	2.00	✓		2.00	1.00	0.00	3.00	2.00	0.00
			4	84.23	31.00	0.00	21.00	84.23	0.00
				84.23	Normalize to 100% :			100.0	0.0

New York Independent System Operator
Business Issues Committee - September 12, 2017

Motion: Motion #2

Result: Motion Passed

Sector	Organization	Representative	Affiliate	Present	For	Against
Generation Owners	Indeck Energy Services, Inc.	Younger, Mark	N	Y	1.00	0.00
Generation Owners	Astoria Energy LLC		N	N	0.00	0.00
Generation Owners	Calpine	Applebaum, David	N	Y	1.00	0.00
Generation Owners	CPV Valley LLC		N	N	0.00	0.00
Generation Owners	East Coast Power, LLC		N	N	0.00	0.00
Generation Owners	Entergy Nuclear Northeast	Saia, Doreen	N	Y	1.00	0.00
Generation Owners	Innovative Energy Systems		Y	N	0.00	0.00
Generation Owners	Noble Environmental Power LLC		N	N	0.00	0.00
Generation Owners	Selkirk Cogen Partners, LP		N	N	0.00	0.00
Generation Owners	EDP Renewables North America LLC		N	N	0.00	0.00
Generation Owners	Cricket Valley Energy Center		N	N	0.00	0.00
Generation Owners	Invenergy Energy Management LLC	Ma, Alex	N	Y	1.00	0.00
Generation Owners	National Grid Generation LLC		Y	N	0.00	0.00
Generation Owners	Somerset Operating Company, LLC		N	N	0.00	0.00
Generation Owners	Howard Wind LLC		N	N	0.00	0.00
Generation Owners	Bayonne Energy Center, LLC		N	N	0.00	0.00
Generation Owners	Helix Ravenswood LLC		N	N	0.00	0.00
Other Suppliers	Integrays Energy Services of New York, Inc		Y	N	0.00	0.00
Other Suppliers	Noble Americas Gas & Power Corp.	Sunga, Leonard	Y	Y	0.00	0.00
Other Suppliers	BJ Energy LLC		N	N	0.00	0.00
Other Suppliers	Citigroup Energy Inc.	Trayers, Barry	N	Y	0.00	0.00
Other Suppliers	Con Edison Solutions Inc.		Y	N	0.00	0.00
Other Suppliers	Constellation New Energy		Y	N	0.00	0.00
Other Suppliers	Cross Sound Cable Company, LLC		N	N	0.00	0.00
Other Suppliers	DC Energy		N	N	0.00	0.00
Other Suppliers	DTE Energy		N	N	0.00	0.00
Other Suppliers	Energy Spectrum		N	N	0.00	0.00
Other Suppliers	EnerNoc	Geller, Greg	N	Y	1.00	0.00
Other Suppliers	Galt Power	Ackerman, Alan	N	Y	0.00	0.00
Other Suppliers	HQ Energy Services US	Plante, Matthieu	N	Y	1.00	0.00
Other Suppliers	Morgan Stanley Capital Group, Inc.		N	N	0.00	0.00
Other Suppliers	NRG Power Marketing Inc.	Joseph, Kelli	N	Y	0.00	0.00
Other Suppliers	Ontario Power Generation, Inc.		N	N	0.00	0.00
Other Suppliers	Exelon Generating Co. LLC	Wentlent, Chris	N	Y	0.00	0.00
Other Suppliers	PSEG Energy Resource & Trade, LLC	Fromer, Howard	N	Y	0.00	0.00
Other Suppliers	SESCO Enterprises, LLC		N	N	0.00	0.00
Other Suppliers	Shell Energy North America, LLC		N	N	0.00	0.00
Other Suppliers	TransCanada Power Marketing, Ltd.		N	N	0.00	0.00
Other Suppliers	BP Energy Company		N	N	0.00	0.00
Other Suppliers	EDF Trading North America, LLC		N	N	0.00	0.00
Other Suppliers	NextEra Energy	Applebaum, David	N	Y	1.00	0.00
Other Suppliers	Innoventive Power		N	N	0.00	0.00
Other Suppliers	Vitol Inc.	Wadsworth, Joe	N	Y	0.00	0.00
Other Suppliers	GDF Suez Energy NA, Inc.		Y	N	0.00	0.00
Other Suppliers	Viridity Energy, Inc.		N	N	0.00	0.00
Other Suppliers	Riverbay Corporation		N	N	0.00	0.00
Other Suppliers	Castleton Commodities Merchant Trading L.P.		N	N	0.00	0.00
Other Suppliers	BlueRock Energy, Inc.		N	N	0.00	0.00

Sector	Organization	Representative	Affiliate	Present	For	Against
Other Suppliers	Lyonsdale Biomass, LLC		Y	N	0.00	0.00
Other Suppliers	Direct Energy Business Marketing, LLC		N	N	0.00	0.00
Other Suppliers	Energy Technology Savings		N	N	0.00	0.00
Other Suppliers	Mercuria Energy America, Inc.	Younger, Mark	N	Y	1.00	0.00
Other Suppliers	New York Transco		Y	N	0.00	0.00
Other Suppliers	Talen Energy		N	N	0.00	0.00
Other Suppliers	CPower		N	N	0.00	0.00
Other Suppliers	XO Energy NY, LP		N	N	0.00	0.00
Other Suppliers	Dynergy Marketing and Trade		N	N	0.00	0.00
Other Suppliers	Brookfield Energy Marketing L.P.	LaRoe, Chris	N	Y	1.00	0.00
Other Suppliers	Eastern Generation	Baker, Liam	N	Y	1.00	0.00
Other Suppliers	BioUrja Power, LLC		N	N	0.00	0.00
Transmission Owners	New York State Electric & Gas (NYSEG)	Caletka, Patricia	N	Y	0.00	0.00
Transmission Owners	Central Hudson Gas & Electric Corp.	Borchert, John	N	Y	1.00	0.00
Transmission Owners	Consolidated Edison Co. of NY, Inc.	Quin, Jane	N	Y	1.00	0.00
Transmission Owners	National Grid	Janzen, Margaret	N	Y	0.00	0.00
Transmission Owners	Orange & Rockland Utilities, Inc.		Y	N	0.00	0.00
Transmission Owners	Rochester Gas and Electric Corp.		Y	N	0.00	0.00
End Use - Large Consumer	Alcoa, Inc.	Mager, Michael	N	Y	0.00	0.00
End Use - Large Consumer	IBM Corporation	Mager, Michael	N	Y	0.00	0.00
End Use - Large Consumer	Occidental Chemical Corp.	Mager, Michael	N	Y	0.00	0.00
End Use - Large Consumer	Wegmans Food Markets	Mager, Michael	N	Y	0.00	0.00
End Use - Large Consumer	Nucor Steel Auburn, Inc.		N	N	0.00	0.00
End Use - Large Cons. Gov. Agency	Metropolitan Transportation Authority		N	N	0.00	0.00
End Use - Small Consumer	American Sugar Refining, Inc	Breidenbaugh, Aaron	N	Y	1.00	0.00
End Use - Small Consumer	Beth Israel Health Care System	Breidenbaugh, Aaron	N	Y	1.00	0.00
End Use - Small Consumer	Fordham University	Breidenbaugh, Aaron	N	Y	1.00	0.00
End Use - Small Consumer	Memorial Sloan Kettering Cancer Center	Breidenbaugh, Aaron	N	Y	1.00	0.00
End Use - Small Consumer	Mount Sinai Medical Center	Breidenbaugh, Aaron	N	Y	1.00	0.00
End Use - Small Consumer	New York University	Breidenbaugh, Aaron	N	Y	1.00	0.00
End Use - Small Consumer	Association for Energy Affordability	Morris, Jackson	N	Y	0.00	0.00
End Use - Gov. State-wide Cons. Advocate	Utility Intervention Unit, Division of Consumer Protection, NY Dept. of State	Hogan, Erin	N	Y	0.00	0.00
End Use - Gov. Sm. Cons. & Retail Aggr.	NYS Energy Research & Dev. Authority	Hall, Christopher	N	Y	1.00	0.00
End Use - Gov. Sm. Cons. & Retail Aggr.	City of New York	Mager, Michael	N	Y	0.00	0.00
Public Power - State Power Authorities	Long Island Power Authority	Clarke, Dave	N	Y	0.00	0.00
Public Power - State Power Authorities	New York Power Authority	Antinori, Andrew	N	Y	0.00	0.00
Public Power - Munis & Co-ops	Bath Electric, Gas & Water Systems	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Freeport Electric	Rudebusch, Tom	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Jamestown Board of Public Utilities	Rudebusch, Tom	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Lake Placid Village	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Municipal Commission of Boonville	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Plattsburgh Municipal Lighting Dept	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Village of Westfield	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Village of Solvay	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Village of Arcade	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Village of Fairport	Bolbrock, Richard	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Village of Rockville Centre	Rudebusch, Tom	N	Y	1.00	0.00
Public Power - Environmental	American Lung Association	Morris, Jackson	N	Y	0.00	0.00
Public Power - Environmental	American Wind Energy Association		N	N	0.00	0.00
Public Power - Environmental	Environmental Advocates	Morris, Jackson	N	Y	0.00	0.00
Public Power - Environmental	Natural Resources Defense Council	Farmer, Miles	N	Y	1.00	0.00

Sector	Organization	Representative	Affiliate	Present	For	Against
Public Power - Environmental	PACE Energy & Climate Center	Farmer, Miles	N	Y	0.00	0.00
Public Power - Environmental	Riverkeeper		N	N	0.00	0.00
Public Power - Environmental	Environmental Defense Fund		N	N	0.00	0.00