NYISO Business Issues Committee Meeting Minutes May 17, 2017 10:00 a.m. – 3:30 p.m.

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

Mr. Scott Butler (Con Edison) 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 minutes for the April 12, 2017 meeting that were included with the meeting material.

<u>Motion #1:</u> Motion to approve the April 12, 2017 BIC meeting minutes. *Motion passed unanimously.*

3. Market Operations Report and Broader Regional Markets Report

Mr. Rana Mukerji (NYISO) reviewed the Market Performance Highlights included with the meeting material. There were no questions or comments.

Mr. Mukerji reviewed the Broader Regional Markets report included with the meeting material. There were no questions or comments.

4. Proposal to Eliminate Bond Funds from MP Cash Collateral Investment Options

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

Motion #2:

The Business Issues Committee (BIC) hereby recommends that the Management Committee approve, and recommend to the NYISO Board for filing under Section 205 of the Federal Power Act, revisions to Attachment K of the Market Administration and Control Area Services Tariff and Attachments U and V of the Open Access Transmission Tariff as described in the presentation entitled "Proposal to Eliminate Bond Funds from MP Cash Collateral Investment Options," made at the May 17, 2017 BIC meeting.

Motion passed unanimously.

5. Rate Schedule 1 – MISO PAR Cleanup

Mr. Chris Russell (NYISO) reviewed the presentation included with the meeting material. There were no questions or comments.

Motion #3:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve revisions to the NYISO's Open Access Transmission Tariff ("OATT") as more fully described in the "Rate Schedule 1 – MISO PAR Cleanup" presentation made to the BIC on May 17, 2017. *Motion passed unanimously.*

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6. Ramapo Phase Angle Regulator Cost Recovery

Mr. Wes Yeomans (NYISO) reviewed the presentation included with the meeting material.

Mr. Dave Clarke (LIPA) raised a concern regarding accounting for Transmission Congestion Contract (TCC) revenues and congestion rent impacts associated with the Ramapo Phase Angle Regulators (PARs) as an adjustment to the charges

under Rate Schedule 1 for these facilities. Mr. Clarke noted that the current charge does not provide for any such adjustments and requested that this be further reviewed. Mr. Chris Hargett (Con Edison) noted that Con Edison would be agreeable to further evaluating the issue raised by Mr. Clarke as part of a separate, future initiative.

Mr. Tom Rudebusch (NYAPP) requested clarification as to whether upstate LSEs have paid for past charges under Rate Schedule 1 for the Ramapo PARs. Mr. Yeomans confirmed that since commencement of NYISO operations these charges have been collected through Rate Schedule 1, which would include charges to all LSEs statewide. The NYISO assumed the New York Power Pool ("NYPP") obligation to fund 50% of the costs related to the Ramapo PARs under the 1993 Ramapo PARs agreement.

Mr. Mark Younger (Hudson Energy Economics) requested clarification regarding the scope of the proposed charges under Rate Schedule 1 for the Ramapo PARs. Mr. Yeomans explained the intent is to develop cost recovery to install and operate two PARs on a prospective basis, less any contributions from PJM. Mr Younger also requested further details regarding Con Edison's estimated \$5.5 million annual charge for the Ramapo PARs. Mr. Rich Bolbrock (MEUA/NYMPA) noted that it would be helpful if Con Edison could provide a separate cost breakout for installation and ongoing maintenance for the second PAR.

Mr. Younger requested further details regarding Con Edison's plan and timeline for installing the second PAR if the proposed changes are approved by stakeholders. Mr. Bob Brantley (Con Edison) indicated that the time necessary to install the second PAR once it is moved to the substation would be approximately two months, subject to conditions. Mr. Brantley noted, however, that the PAR is not currently at the substation and there would be additional time needed within the schedule to provide for moving the PAR to the Ramapo substation.

Mr. Bolbrock raised concerns that approval by New York stakeholders to fund 100% of the costs for the Ramapo PARs may adversely impact the ongoing negotiations with PJM regarding interregional cost sharing. Mr. Yeomans indicated that the NYISO will continue working with PJM and PJM stakeholders on benefits principles and cost causation principles as a basis for determining an appropriate interregional cost sharing mechanism for the Ramapo PARs.

Ms. Jane Quin (Con Edison) stated that Con Edison does not support the NYISO's proposed concept of a separate rate schedule for the Ramapo PARs. Instead, Con Edison believes that all the necessary revisions can be contained within Rate Schedule 1 without the need for a separate Ramapo PARs rate schedule. Accordingly, Ms. Quin noted that Con Edison would propose an amendment to the motion to provide for conceptual approval only with a commitment to develop tariff revisions prior to a Management Committee vote on this matter.

Motion #4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve revisions to the NYISO's Open Access Transmission Tariff ("OATT") to revise the cost recovery mechanism for the two Ramapo PARs consistent with the concept described in the "Ramapo Phase Angle Regulator Cost Recovery" presentation made to the BIC on May 17, 2017. The specific OATT revisions will be detailed for the MC and are not being approved by the BIC. To the extent that there are segregable TCC revenues, TCC auction revenues and congestion rent surpluses or shortfalls associated with the Ramapo PARs, such revenues, surpluses or shortfalls shall be reflected as an offset or adjustment, as applicable, to the Ramapo PARs charge. BIC directs the NYISO to work with stakeholders to identify procedures to facilitate identifying these segregable revenues and charges.

Motion passed with 89.89% affirmative votes.

Motion #4A:

Motion to amend motion 4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve revisions to the NYISO's Open Access Transmission Tariff ("OATT") to revise the cost recovery mechanism for the two Ramapo PARs consistent with the concept described in the "Ramapo Phase Angle Regulator Cost Recovery" presentation made to the BIC on May 17, 2017. The specific OATT revisions will be detailed for the MC and are not being approved by the BIC. To the extent that there are segregable TCC revenues, TCC auction revenues and congestion rent surpluses or shortfalls associated with the Ramapo PARs, such revenues, surpluses or shortfalls shall be reflected as an offset or adjustment, as

applicable, to the Ramapo PARs charge. BIC directs the NYISO to work with stakeholders to identify procedures to facilitate identifying these segregable revenues and charges.

Motion passed unanimously with abstentions.

7. Cost Recovery for Regulated Transmission Facilities

Mr. John Buechler (NYISO) reviewed the presentation included with the meeting material.

Mr. Howard Fromer requested clarification that the proposed changes to Rate Schedule 10 do not involve changes to the underlying cost allocation procedures for regulated transmission projects that may result from the various planning processes. Mr. Buechler confirmed that is correct.

Mr. Butler asked if the revisions to Rate Schedule 10 would obviate the need for other new rate schedules in the future. Mr. Carl Patka (NYISO) said it would possible for new rate schedules to be added to the NYISO tariff for costs of transmission projects that are not covered by Rate Schedule 10. For transmission projects that are selected through one of the NYISO's planning processes, reliability, economic and public policy, the NYISO believes that Rate Schedule 10 will cover such projects.

Mr. David Johnson (IPPNY) requested clarification on how specific projects would be incorporated into Rate Schedule 10 following FERC approval of cost recovery for such projects. Mr. Buechler replied that, using the NY Transco projects as an example, the rate schedule refers to a formula rate that must be filed with and accepted at FERC, and that will also be part of the NYISO tariffs. Rate Schedule 10 provides the "pro-forma" template for cost recovery for regulated transmission projects that are selected by NYISO under its Comprehensive System Planning Process (to meet reliability, economic or public policy needs).

Motion #5:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve revisions to the NYISO's Open Access Transmission Tariff ("OATT") with regard to the Rate Schedule 10 Cost Recovery Mechanism for Regulated Transmission Projects and related amendments to OATT Attachment Y as more fully described in the presentation made to and as discussed at the BIC on May 17, 2017. *Motion passed unanimously.*

8. State of the Market Report

Mr. Pallas LeeVanSchaick (Potomac Economics) reviewed highlights from the 2016 State of the Market Report. Further detailed reviews of the Energy and Ancillary Services markets will take place at the June 6, 2017 MIWG meeting and a more detailed review of the Capacity market will occur at the June 1, 2017 ICAPWG meeting.

9. Escalation Factor and Inflation Rate in Buyer-Side Mitigation Rules: Review and Proposed Tariff Revisions

Mr. Jonathan Newton (NYISO) reviewed the presentation included with the meeting material. Mr. Fromer asked if this would be packaged with the other proposed BSM changes. Ms. Gloria Kavanah (NYISO) replied if both BIC motions were approved, they would be combined for the Management Committee. Mr. Fromer asked what effective date the NYISO would request from FERC. Ms. Kavanah stated that the NYISO would intend to seek an effective date of 60 days after filing.

Motion #6:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff related to the escalation factors and inflation rates in buyer-side market power mitigation determinations, as more fully described in the presentation made to the BIC on May 17, 2017.

Motion passed unanimously.

10. BSM Forecast Enhancements

Mr. Lorenzo Seirup (NYISO) reviewed the presentation included with the meeting material. Mr. Michael Mager (Couch White) thanked the NYISO for its efforts in developing a balanced approach. Mr. Fromer also thanked the NYISO for its tenacity and efforts to improve the tariff.

Motion #7:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff related to the forecast provisions for buyer-side capacity market power mitigation rule determinations, as more fully described in the presentation made to the BIC on May 17, 2017 and the Tariff language provided with the meeting materials. *Motion passed unanimously.*

11. Working Group Updates

- <u>Billing and Accounting and Credit Working Group</u>: The group met on April 21,2017 and reviewed the grid accounting report, the projected true-pp exposure study, proposal to eliminate bond funds from MP cash collateral investment options and linked virtual transactions proposed credit policy.
- <u>Electric System Planning Working Group</u>: The group met on April 19, 2017 and reviewed the impacts of energy efficiency and behind-the-meter resource impacts reflected in the 2017 Gold Book and proposed Rate Schedule 10 revisions for transmission cost recovery.
- <u>Installed Capacity Working Group</u>: The group met on April 19, 2017 and reviewed enhancements in the BSM forecast and NYISO probabilistic locality exchange factor analysis. The group also met on May 11, 2017 and reviewed the proposal for forecasting the ICAP reference point in Buyer-Side Mitigation determinations, proposed changes to the escalation factor and inflation rate in Buyer-Side Mitigation rules and alternative methods for determining LCRs.
- <u>Electric Gas Coordination Working Group</u>: The group has not meet since the last BIC meeting.
- Load Forecasting Task Force: The group has not meet since the last BIC meeting.
- <u>Market Issues Working Group</u>: The group met on April 24, 2017 and reviewed preliminary Day-Ahead Market results from Phase 2 of the Integrating Public Policy Project, a concept proposal for Distributed Energy Resource (DER) aggregations, an update regarding implementation of the ConEd/PSEG wheel replacement protocol, proposed revisions to Rate Schedule 1 to remove language related to the MISO PARs cost recovery and refund process, and the proposed tariff revisions related to the NYISO's compliance filing in response to FERC Order No. 831 addressing offer caps. The group also met on May 5, 2017 and reviewed the DER pilot program framework proposal, energy storage integration and optimization proposal, and manual updates related to several initiatives, including the hybrid GT pricing improvements, the ConEd/PSEG wheel replacement protocol and DARU notification enhancements.
- <u>Price Responsive Load Working Group</u>: The group met jointly with MIWG on April 24, 2017 and May 5, 2017 to review the DER agenda items.

12. New Business

There was no new business.

Meeting adjourned at 3:30 p.m.

Business Issues Committee May 17, 2017 Meeting Motions

Motion #1:

Motion to approve the Minutes of the April 12, 2017 BIC meeting.

Motion passed unanimously.

Motion #2:

The Business Issues Committee (BIC) hereby recommends that the Management Committee approve, and recommend to the NYISO Board for filing under Section 205 of the Federal Power Act, revisions to Attachment K of the Market Administration and Control Area Services Tariff and Attachments U and V of the Open Access Transmission Tariff as described in the presentation entitled "Proposal to Eliminate Bond Funds from MP Cash Collateral Investment Options," made at the May 17, 2017 BIC meeting.

Motion passed unanimously.

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Motion passed unanimously.

Motion #4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve revisions to the NYISO's Open Access Transmission Tariff ("OATT") to revise the cost recovery mechanism for the two Ramapo PARs consistent with the concept described in the "Ramapo Phase Angle Regulator Cost Recovery" presentation made to the BIC on May 17, 2017. The specific OATT revisions will be detailed for the MC and are not being approved by the BIC. To the extent that there are segregable TCC revenues, TCC auction revenues and congestion rent surpluses or shortfalls associated with the Ramapo PARs, such revenues, surpluses or shortfalls shall be reflected as an offset or adjustment, as applicable, to the Ramapo PARs charge. BIC directs the NYISO to work with stakeholders to identify procedures to facilitate identifying these segregable revenues and charges.

Motion passed with 89.89% affirmative votes.

Motion #4A:

Motion to amend motion 4:

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the extent that there are segregable TCC revenues, TCC auction revenues and congestion rent surpluses or shortfalls associated with the Ramapo PARs, such revenues, surpluses or shortfalls shall be reflected as an offset or adjustment, as applicable, to the Ramapo PARs charge. BIC directs the NYISO to work with stakeholders to identify procedures to facilitate identifying these segregable revenues and charges.

Motion passed unanimously with abstentions.

Motion #5:

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Motion passed unanimously.

Motion #6:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff related to the escalation factors and inflation rates in buyer-side market power mitigation determinations, as more fully described in the presentation made to the BIC on May 17, 2017. *Motion passed unanimously.*

Motion #7:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff related to the forecast provisions for buyer-side capacity market power mitigation rule determinations, as more fully described in the presentation made to the BIC on May 17, 2017 and the Tariff language provided with the meeting materials.

Motion passed unanimously.

New York Independent System Operator

Business Issues Committee - May 17, 2017

Motion: Motion #Ramapo PAR

Result: Motion Passed

Sector with base percent	%	Active	Quorum	Adj. Percent	For	Against	Abstain	% For	% Against
Generation Owners	21.50	\		21.50	0.00	0.00	6.00	0.00	0.00
Other Suppliers	21.50		\checkmark	21.50	1.00	0.00	11.00	21.50	0.00
Transmission Owners	20.00		\checkmark	20.00	4.00	0.00	0.00	20.00	0.00
End Use Consumer			\checkmark						
Large Consumer	9.00			9.00	4.00	0.00	0.00	15.50	0.00
Large Cons. Gov. Agency	2.00			2.00	0.00	0.00	0.00	0.00	0.00
Small Consumer	4.50	√	\checkmark	4.50	0.00	0.00	6.00	0.00	0.00
Gov. State-wide Cons. Advocate	2.70			2.70	1.00	0.00	0.00	2.70	0.00
Gov. Sm. Cons. & Retail Aggr.	1.80			1.80	2.00	0.00	0.00	1.80	0.00
Public Power			\checkmark						
State Power Authorities	8.00			8.00	2.00	0.00	0.00	9.07	0.00
Munis & Co-ops	7.00			7.00	0.00	8.00	3.00	0.00	7.93
Environmental	2.00			2.00	0.00	0.00	2.00	0.00	0.00
			5	100.00	14.00	8.00	28.00	70.57	7.93
				100.00	Norn	nalize to 10	0%:	89.89	10.11

New York Independent System Operator

Business Issues Committee - May 17, 2017

Motion: Motion #Ramapo PAR

Result: Motion Passed

Sector	Organization	Representative	Affiliate	Present	For	Against
Generation Owners	Indeck Energy Services, Inc.	Younger, Mark	N	Y	0.00	0.00
Generation Owners	Astoria Energy LLC		N	N	0.00	0.00
Generation Owners	Calpine		Ν	N	0.00	0.00
Generation Owners	CPV Valley LLC		N	N	0.00	0.00
Generation Owners	East Coast Power, LLC		Ν	N	0.00	0.00
Generation Owners	Entergy Nuclear Northeast	Saia, Doreen	Ν	Y	0.00	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	Younger, Mark	Ν	Y	0.00	0.00
Generation Owners	TC Ravenswood, Inc.	Johnson, David	N	Y	0.00	0.00
Generation Owners	EDP Renewables North America LLC		Ν	N	0.00	0.00
Generation Owners	Cricket Valley Energy Center		Ν	N	0.00	0.00
Generation Owners	Invenergy Energy Management LLC	Johnson, David	N	Y	0.00	0.00
Generation Owners	National Grid Generation LLC		Y	N	0.00	0.00
Generation Owners	Somerset Operating Company, LLC	Johnson, David	Ν	Y	0.00	0.00
Generation Owners	Howard Wind LLC		N	N	0.00	0.00
Other Suppliers	BJ Energy LLC		N	N	0.00	0.00
Other Suppliers	Citigroup Energy Inc.		N	N	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	German, Robert	N	Y	0.00	0.00
Other Suppliers	Energy Spectrum	Ahrens, David	N	Y	0.00	0.00
Other Suppliers	EnerNoc		N	N	0.00	0.00
Other Suppliers	Galt Power	Ackerman, Alan	N	Y	0.00	0.00
Other Suppliers	HQ Energy Services US	Plante, Matthieu	N	Y	0.00	0.00
Other Suppliers	Integrys Energy Services of New York, Inc		Y	N	0.00	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		N	N	0.00	0.00
Other Suppliers	PSEG Energy Resource & Trade, LLC	Fromer, Howard	N	Y	1.00	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.		Y	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		N	N	0.00	0.00
Other Suppliers	Innoventive Power		N	N	0.00	0.00
Other Suppliers	Vitol Inc.		N	N	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	Ahrens, David	N	Y	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
Other Suppliers	Noble Americas Gas & Power Corp.	Sunga, Leonard	N	Y	0.00	0.00
Other Suppliers	Lyonsdale Biomass, LLC	, Leonard	Y	N	0.00	0.00

Sector	Organization	Representative	Affiliate	Present	For	Against
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	0.00	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	Dynegy Marketing and Trade	Roby, Rick	N	Y	0.00	0.00
Other Suppliers	Brookfield Energy Marketing L.P.	LaRoe, Chris	N	Y	0.00	0.00
Other Suppliers	Eastern Generation	Baker, Liam	N	Y	0.00	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	1.00	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	Ν	Y	1.00	0.00
Transmission Owners	National Grid	Janzen, Margaret	N	Y	1.00	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	1.00	0.00
End Use - Large Consumer	IBM Corporation	Mager, Michael	N	Y	1.00	0.00
End Use - Large Consumer	Occidental Chemical Corp.	Mager, Michael	N	Y	1.00	0.00
End Use - Large Consumer	Wegmans Food Markets	Mager, Michael	N	Y	1.00	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	0.00	0.00
End Use - Small Consumer	Beth Israel Health Care System	Breidenbaugh, Aaron	N	Y	0.00	0.00
End Use - Small Consumer	Fordham University	Breidenbaugh, Aaron	Ν	Y	0.00	0.00
End Use - Small Consumer	Memorial Sloan Kettering Cancer Center	Breidenbaugh, Aaron	N	Y	0.00	0.00
End Use - Small Consumer	Mount Sinai Medical Center	Breidenbaugh, Aaron	Ν	Y	0.00	0.00
End Use - Small Consumer	New York University	Breidenbaugh, Aaron	N	Y	0.00	0.00
End Use - Small Consumer	Association for Energy Affordability		N	N	0.00	0.00
End Use - Gov. State-wide Cons. Advocate	Utility Intervention Unit, Division of Consumer Protection, NY Dept. of State	Hogan, Erin	Ν	Y	1.00	0.00
End Use - Gov. Sm. Cons. & Retail Aggr.	NYS Energy Research & Dev. Authority	Matteson, Schuyler	Ν	Y	1.00	0.00
End Use - Gov. Sm. Cons. & Retail Aggr.	City of New York	Mager, Michael	N	Y	1.00	0.00
Public Power - State Power Authorities	Long Island Power Authority	Clarke, Dave	Ν	Y	1.00	0.00
Public Power - State Power Authorities	New York Power Authority	Boyle, Bob	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Bath Electric, Gas & Water Systems	Bolbrock, Richard	Ν	Y	0.00	1.00
Public Power - Munis & Co-ops	Freeport Electric	Rudebusch, Tom	Ν	Y	0.00	0.00
Public Power - Munis & Co-ops	Jamestown Board of Public Utilities	Rudebusch, Tom	N	Y	0.00	0.00
Public Power - Munis & Co-ops	Lake Placid Village	Bolbrock, Richard	Ν	Y	0.00	1.00
Public Power - Munis & Co-ops	Municipal Commission of Boonville	Bolbrock, Richard	Ν	Y	0.00	1.00
Public Power - Munis & Co-ops	Plattsburgh Municipal Lighting Dept	Bolbrock, Richard	N	Y	0.00	1.00
Public Power - Munis & Co-ops	Village of Westfield	Bolbrock, Richard	Ν	Y	0.00	1.00
Public Power - Munis & Co-ops	Village of Solvay	Bolbrock, Richard	N	Y	0.00	1.00
Public Power - Munis & Co-ops	Village of Arcade	Bolbrock, Richard	N	Y	0.00	1.00
Public Power - Munis & Co-ops	Village of Fairport	Bolbrock, Richard	Ν	Y	0.00	1.00
Public Power - Munis & Co-ops	Village of Rockville Centre	Rudebusch, Tom	N	Y	0.00	0.00
Public Power - Environmental	American Lung Association	Epstein, Roni	N	Y	0.00	0.00
Public Power - Environmental	American Wind Energy Association		N	N	0.00	0.00
Public Power - Environmental	Environmental Advocates	Epstein, Roni	N	Y	0.00	0.00
Public Power - Environmental	Natural Resources Defense Council		Ν	N	0.00	0.00

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

New York Independent System Operator - Committee Membership

Business Issues Committee - May 17, 2017 - NYISO - Parties Checked in Attendance

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
storia Energy LLC	Generation Owners	McCall, Chuck	Browne, Scott	Habib , Phillipe	Singer, Leonard						
PV Valley LLC	Generation Owners	Litchfield , Matt	Rumsey, Tom	-							
alpine	Generation Owners	Kruse, Brett	Reitmeyer, Jay	Flumerfelt, John	Schleimer, Steve						
ricket Valley Energy Center	Generation Owners	De Meyere , Bob	Wallenstein, Arnold	Paryl, Ron							
DP Renewables North America LLC	Generation Owners	Brodbeck , John	Kaplan, Seth	Nemeth , Jeffrey	High , Jeremy						
ast 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							
Ioward Wind LLC	Generation Owners	Merich, Olivia	Rugh , Chris								
ndeck Energy Services, Inc.	Generation Owners	Ferguson, Mike	✓ Younger, Mark								
nnovative Energy Systems	Generation Owners	Zeliff, Peter	Henningham, Scott								
nvenergy Energy Management LLC	Generation Owners	Ma , Alex	Goldstein, Michael	Orzel, Chris						🗸 Johnson, David	
Jational Grid Generation LLC	Generation Owners	Kain, Terrence	McCabe, Brian								İ
Voble Environmental Power LLC	Generation Owners	Silton , Harry									
Selkirk Cogen Partners, LP	Generation Owners	Biittig, Timothy	Ryan, James							Younger, Mark	
omerset Operating Company, LLC	Generation Owners	Evanoski, Dave	Goodenough, Jeery	McManus , John						Johnson, David	
C Ravenswood, Inc.	Generation Owners	Taylor, William	DAndrea, James	Congel, Dan	Hachey, Mike					Johnson, David	
J Energy LLC	Other Suppliers	Ni, Bing	Lee, George	Congel, Dun	muchey, white					• Johnson, David	
3P Energy Company	Other Suppliers	Briscoe, Judy	Magruder, Kathy								
SioUrja 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	Cumpton , bruce	interkinent, creig					
Citigroup Energy Inc.	Other Suppliers	Trayers, Barry	, Diud								
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								
OC 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							
DF Trading North America, LLC	Other Suppliers	Erbrick, Michael	LeForce , Randall	Ziegier, rete							
Eastern Generation	Other Suppliers	Baker, Liam	Reese, John	Vounger, Mark	Schwall, Matthew	Johnson , David	Wolcott, Tyler				
		Brewster, David	Geller, Greg	V Tounger, Mark	Schwall, Matthew	Johnson , David	wolcon, Tylei				
EnerNoc Energy Spectrum	Other Suppliers Other Suppliers		Ahrens, David	Naihara David	T-lassita Ausu	Durana Datan	Dentional William	Village Cristing	Circula Matt		
		David, Gary		Neiburg, David	Iskowitz, Aron	Brown, Ruben	Pentland, William	Villegas, Cristina	Cinadr , Matt		
Energy Technology Savings	Other Suppliers	Hendler, Jeff Wentlent, Chris	Ross, Valerie								
Exelon Generating Co. LLC GDF Suez Energy NA, Inc.	Other Suppliers		Kirk , Steven Hawkins , Darin	Comphall Chad							
alt Power	Other Suppliers	Levine , Jeffrey	Ackerman, Alan	Campbell, Chad							
	Other Suppliers	Fernands, Rochelle									
IQ Energy Services US	Other Suppliers	Plante , Matthieu	Leuthauser, Scott	Guilbault , Louis							
nnoventive Power	Other Suppliers	Gruber, Craig	Halford, Steve								
tegrys Energy Services of New York, Inc	Other Suppliers	Haugh, Michael	Habal N-4-	Comission IZ 41							
yonsdale Biomass, LLC	Other Suppliers	Ralston, William	Hebel, Nathan	Carrigan, Kathleen							
Iercuria Energy America, Inc.	Other Suppliers	Davis, Andrew	Younger, Mark	Frielder D							
forgan Stanley Capital Group, Inc.	Other Suppliers	Murray, Patrick	Kochonies, Karen	Ezickson, Doron							
IRG Power Marketing Inc.	Other Suppliers	Joseph , Kelli	Fuller, Peter	Cona , Lisa							
ew York Transco	Other Suppliers	Nachmias, Stuart	Hitti , Nabil	Caso , Rob	Carrigan, Kathleen	Dumais , Paul					
lextEra Energy	Other Suppliers	Applebaum, David	Gardner, Michelle								
oble Americas Gas & Power Corp.	Other Suppliers	Boston, Roy	Kyle, Chris	Sunga , Leonard	at 1 at 1						
ntario Power Generation, Inc.	Other Suppliers	Lacivita, Ken	Gell, Richard	Barr, David	Sheinfield, Joel						
SEG Energy Resource & Trade, LLC	Other Suppliers	Fromer, Howard	DePillo, Raymond	Messmer, Robert	Murawski, James						
iverbay Corporation	Other Suppliers	Merola, Peter	Ellison, Noel	Ahrens, David	Villegas, Cristina						
ESCO Enterprises, LLC	Other Suppliers	Schubiger, Michael	Thoresen, James								
hell Energy North America, LLC	Other Suppliers	Picardi, Matt									
Calen Energy	Other Suppliers	Hohenshilt, Jennifer	Labella , Julie	Kershner, Zane	Klicker, Owen						
FransCanada Power Marketing, Ltd.	Other Suppliers	Taylor, William	D'Andrea, James	Congel, Dan	Hachey, Mike						
/iridity 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
XO Energy NY, LP	Other Suppliers	Drangula , Carey	Thompson , Matthew	Hughes , Adam	Alternates	Alternate4	Alternates	Alternateo
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	V Hargeu, Chiris	Butterkice, Neil		
New York State Electric & Gas (NYSEG)	Transmission Owners	Caletka, Patricia	,	Brophy, Richard				
Orange & Rockland Utilities, Inc.	Transmission Owners	V Caletka, Faultia	Kinney, Ray	Groupity, Kichard				
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	Lang, Kevin			
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	Timbey , Timanda	Lung, Revin			
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	• 6			
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			
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	Wilkie , Brian		
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	
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				
PACE Energy & Climate Center	Environmental	Martin, Nicholas	Valova, Radina	Farmer, Miles				
Riverkeeper	Environmental	Gallay , Paul	Jones, Abigail	Doran, Erin				
AES ES Holdings LLC	Non Voting	Hillman , Sharon	Kumaraswarmy , Kiran					
Acadia Center	Non Voting	Howland, Jamie	Malone, Leslie					
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 Anbaric Northeast Transmission Development Co.	Non Voting	Reynolds, Anne	Dufresne, Zach					
Andare Normeast Transmission Development Co. Appian Way Energy Partners East, LLC	Non Voting Non Voting	Sanderson , Barry Levy , Tal	Klein, Abram	Shen, Dong	Westlund , John	Laich, Marcus		
Ardor Energy LLC	Non Voting	Breen, Erika	recent, restant	5, 5015		Later, marcus		
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				
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				
Customized Energy Solutions	Non Voting	Mancini, Rick	Fernands, Stephen	Rexrode, Caryn	🗸 Ackerman, Alan			
Demand Energy Networks	Non Voting	Staker, Doug	Cook-Coyle, Jeff	I	I	Ι	1	T

Alternate7	Proxy	Guest
	🗸 Matteson, Schuyler	

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Earth Networks	Non Voting	Crawford , Jaden									
Energya VM	Non Voting	Garcia, Francisco	Maeso, Manual	Lopez , Ana	Silveira, Juan						
luent Energy	Non Voting	Acampora, Peter	Doll , Ed								
Iudson River Energy Group	Non Voting	Radigan, Frank	Canfield, Richard								
Iydro-Quebec TransEnergie	Non Voting	Prevost, Michel									
TC Mid-Atlantic Development LLC	Non Voting	Wrenbeck, Tom	Benedict, Nathan								
perdrola Renewables Inc	Non Voting	Allen, Thresa									
movari, Inc.	Non Voting	Lunt, Robin	Hodges, Brent								
IAG 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								
VYS 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									
Joble Americas Energy Solutions	Non Voting	Sun , Jungsuk	Nakhonthap, Jade	🗸 Sunga , Leonard							
lortheast Clean Heat & Power Initiative	Non Voting	Venkataraman, Sree	Lilian, Jon	Dwyer, Herb	Brown, Ruben	Cinadr , Matt	Martin, Nicholas	Villegas, Cristina			
lorthline Utilities LLC	Non Voting	McKinney, Jeff	Danskin, Susan								
luEnergen	Non Voting	Hamilton, Sandy	Korczykowski, Ryan								
ower Supply Services LLC	Non Voting	Phillips , Gabriel	Abend , Erik								
BC Energy Services, LP	Non Voting	Burnham, Steve	Fraiture, Christian	Doolittle, Robin							
ENEW Northeast	Non Voting	Pullaro, Francis	Krich, Abigail								
ES Americas, Inc.	Non Voting	Fernandes, John	Boyd , Dan								
ed Wolf Energy Trading, LLC	Non Voting	Sharma , Rishi									
ichard P. Felak	Non Voting	Felak, Rich									
TEM, Inc.	Non Voting	Ko , Ted									
aracen Energy East LP	Non Voting	Peebles , Andy									
iemens Energy, Inc.	Non Voting	Feltes, James									
olarCity Corporation	Non Voting	Watson, Betty	Khan , Jamil	Reinhardt, Jessica							
tephentown Spindle, LLC	Non Voting	Hebert, Chris									
aylor Biomass Energy, LLC	Non Voting	Taylor , Jim	Page , Allan								
esla Motors, Inc.	Non Voting	Burson, Kate	Van Cleve , Sarah								
ransAlta Energy Marketing (U.S.) Inc.	Non Voting	Nivolianitis, Ted									
ransmission Developers Inc.	Non Voting	Jessome, Donald	Helmer, William	🗸 Dave , Suresh							
ransource New York, LLC	Non Voting	Burkholder, Joshua									
Villiam P. Short	Non Voting	Short, William	Schaefer, Marc		Savage, Paul	Verna, Jim					