# NYISO Business Issues Committee Meeting Minutes April 17, 2019 10:00 a.m. - 12:50 p.m.

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

Mr. Aaron Breidenbaugh (Consumer Power Advocates) called the meeting to order at 10:00 a.m. by welcoming the members of the BIC. The members of the BICidentified themselves and attendance was recorded. A quorum was determined.

#### 2. Approval of BIC Minutes

There were no questions or comments regarding the draft minutes for the February 13, 2019 and March 13, 2019 BIC meeting that were included as part of the meeting material.

#### Motion #1:

Motion to approve the Minutes of the February 13, 2019 and March 13, 2019 BIC meetings.

Motion passed unanimously with an abstention.

#### 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 regarding the Market Operations report.

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

#### 4. Accounting & Billing Manual Changes

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

#### Motion #2:

The Business Issues Committee ("BIC") hereby approves the revisions to the Accounting & Billing Manual as described in the presentation to the BIC on April 17, 2019.

Motion passed unanimously with an abstention.

#### 5. External SRE Penalty

Ms. Amanda Carney (NYISO) reviewed the presentation included with the meeting material.

Mr. Howard Fromer (PSEG) thanked the NYISO for being responsive to concerns raised by parties regarding the need to develop a proposal that achieves greater comparability between external and internal capacity supply resources. Mr. Fromer noted, however, that the proposed penalty for external capacity suppliers that do not perform in response a Supplemental Resource Evaluation (SRE) request is a suboptimal measure for seeking to ensure that external capacity suppliers operate when needed for reliability. Mr. Fromer further noted that the current proposal should only be considered as an interim measure, recommending that future improvements to addressing external capacity supplier performance when needed for reliability should be further evaluated and pursued.

Mr. Mark Younger (Hudson Energy Economics) asked how the NYISO plans to address deliverability requirements for external capacity suppliers. Ms. Carney noted that the NYISO will be addressing deliverability requirements for external capacity suppliers as a separate initiative and currently expects to continue discussions with stakeholders on such requirements in May 2019. Mr. Younger recommended that as part of the separate initiative related to deliverability

requirements for external capacity suppliers that the NYISO seek to obtain a more clear commitment from neighboring control areas to confirm that such neighboring areas will maintain energy deliverability from external capacity suppliers into New York absent transmission system issues that prevent such deliveries.

Mr. Pallas LeeVanSchaick (Potomac Economics) raised concerns regarding certain aspects of the make whole payments to external capacity suppliers included as part of the proposal and recommended further review of this aspect of the proposal.

#### Motion #3:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve revisions to the Market Administration and Control Area Services Tariff, as more fully described in the presentation entitled "External SRE Penalty Proposal" made to the BIC on April 17, 2019.

Motion passed unanimously with abstentions.

#### 6. DER Market Design

Mr. Michael Lavillotti (NYISO) reviewed the presentation included with the meeting material.

Ms. Doreen Saia (Greenberg Traurig) asked for clarification regarding whether after implementation of the proposed Distributed Energy Resources (DER) market design: (1) a demand response resource would have the option to participate either as a Special Case Resource (SCR) or as a DER; and (2) if the resource could elect to participate in a different manner between wholesale market and retail/utility programs. Mr. Lavillotti (NYISO) confirmed that for purposes of wholesale market participation a demand response resource would retain the option to participate as either a SCR or a DER and that elections regarding participation in the wholesale market are separate and distinct from participation elections in retail/utility programs.

Ms. Saia noted concerns with respect to the proposed dual participation rules as it relates to clearly establishing whether the NYISO or the local utility controls operation of resources participating in both the wholesale markets and retail/utility programs. Mr. James Pigeon (NYISO) explained that the rules addressing dual participation will require coordination between NYISO, the DER aggregator and the local utility. Mr. Pigeon stated that under the proposed rules, the aggregator will bid into the wholesale makrets, receive a day ahead schedule from the NYISO based on its bids into the wholesale markets. After receipt of its schedule, the DER aggregator will then notify the local utility of the schedule received. The local utility will then verify whether its local system can support the DER aggregator's anticipated use of resources from within its aggregation. Mr. Pigeon further noted that if the local utility requires operation of a DER aggregator's resources, the local utility will notify the DER aggregator of such need and the DER aggregator would be expected to reflect its need to operate at the request of the local utility through its bids into wholesale markets. Mr. Pigeon further noted that in the event that a local utility requires operation by a DER aggregator's resources and the aggregation is not scheduled based on its bids in the wholesale markets, the local utility would, as is the case with other generators under today's rules, retain the ability to request out-of-market commitments for local reliability. Ms. Emilie Nelson (NYISO) stated that the overall intent of the rules is to facilitate proper coordination between the NYISO and the local utilities akin to the coordination that occurs under the current market rules for commitment and dispatch of resources to meet bulk and local system needs.

Mr. Younger noted that it is critically important to ensure that the rules provide proper incentives and penalty structures to ensure that DER participating in the wholesale markets operate consistent with the schedules produced by the NYISO. Ms. Nelson stated that the NYISO believes the proposal provides appropriate mechanisms to ensure that DER operates when needed by the NYISO.

Mr. Breidenbaugh noted that similar coordination requirements already exist today as it relates to Special Case Resources (SCRs) that participate in retail/utility demand response programs. Mr. Breidenbaugh noted that the rules applicable to such SCRs require that the resources take the actions necessary to ensure that they are available when called upon by the NYISO.

Ms. Julia Popova (NRG Curtailment Solutions) supported Mr. Breidenbaugh's observation regarding coordination requirements already in place for SCRs, noting that the NYISO's tariff includes an existing penalty structure that is sufficient to ensure SCRs are available when called upon by the NYISO.

Mr. Fromer (PSEG) noted that in the case of dual participation it is critically important to ensure that the NYISO's tariffs are clear regarding priority in the event that both the NYISO and the local utility require competing operation of DER. Mr. Vijay Ganugula (NYISO) noted that the tariff clearly identifies that dispatch instructions for DER participating in the wholesale markets are provided by the NYISO. Mr. Ganugula further stated that NYISO and utilities have been working on the coordination framework for more than a year, and that the agreed upon framework provides that operation required for local needs by a utility will be coordinated between the DER aggregator and NYISO.

Mr. Miles Farmer (NRDC) noted appreciated for the NYISO's efforts in developing the proposal and recognized the proposal as an improvement over the status quo. Mr. Farmer, however, expressed concerns regarding certain aspects of the proposal, including the compensation proposed for duration-limited capacity resources and the application of buyer-side mitigation rules to DER located within Mitigated Capacity Zones.

Mr. Peter Dotson-Westphalen (CPower) provided the following statement for the minutes:

CPower thanks the NYISO for the work that they have done and the consideration taken of stakeholder feedback throughout the DER Market Design effort. While CPower has lingering concerns about several aspects of the proposal and tariffs, we appreciate the strides that have been taken to arrive at a design that most stakeholders can support. We appreciate that the NYISO will continue to work with stakeholders to help smooth the transition for end-use customers that currently participate in the SCR program to the DER participation model, and look forward to further collaboration with NYISO staff and stakeholders. CPower supports the DER Market Design being proposed.

Mr. Christopher Hall (NYSERDA) provided the following statement for the minutes:

NYSERDA plans to abstain today and we wanted to read a brief explanation for this vote. We first want to commend the NYISO and stakeholders for the months of hard work on the ELR capacity ("partial capacity") valuation item. Despite some remaining concerns there, we would have been likely to support that portion of this DER package today, had it been a separate proposal. However, the NYISO linked that item to the broader package, leading to our abstention. Regarding the broader package, we hoped to support it to create new DER participation models and capacity market opportunities, but despite many positive elements, we have concluded that there are too many open concerns for NYSERDA to support it. For example, first and foremost, we feel strongly that applying BSM testing to DER resources in mitigated capacity zones is a misuse of the rule. We also believe the NYISO should do more to enable and/or clarify dual market participation under the DER Framework, and we have certain concerns with the ESR proposal or filing that also apply to this DER proposal. We look forward to working through these issues moving forward regardless of the outcome of this vote.

Ms. Jane Quin (Con Edison) provided the following statement for the minutes:

Con Edison and Orange & Rockland appreciate the NYISO's efforts on this project, and close coordination with the joint utilities to coordinate joint distribution-transmission operations to make DER aggregations and dispatch possible. However, with respect to the expanded capacity value proposal, we are relying on the NYISO's assurance that the end proposal meets the reliability needs of the bulk system.

#### Motion #4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve revisions to the Market Administration and Control Area Services Tariff ("MST") and Open Access Transmission Tariff ("OATT") to integrate Distributed Energy Resources in the NYISO-administered markets consistent with the concepts described in the presentation entitled "DER Energy & Capacity Market Design" made to the BIC on April 17, 2019. The specific MST and OATT revisions will be detailed for the MC and are not being approved by the BIC.

Motion passed with 89.25% affirmative votes.

#### 7. Working Group Updates

- Billing and Accounting and Credit Working Group: The group met on March 13, 2019 and reviewed additional
  clarifying tariff revisions related to proposed changes to the credit requirements for Fixed Price TCCs, and
  changes to customer registration agreements for market participants electing to utilize a third-party financially
  responsible party.
- Electric System Planning Working Group: The group has met five times since the last BIC meeting. The group met on March 19, 2019 and reviewed the 2019-2028 Comprehensive Reliability Plan (CRP) and the scenario analysis related to the New York State Department of Environmental Conservation's proposed "peaker rule." On March 28, 2019, the group met jointly with MIWG and ICAPWG and reviewed a presentation by Analysis Group regarding assumptions and scenarios for the fuel and energy security assessment. The group met April 1, 2019 and reviewed initial considerations for potential improvements to the Class Year Study and interconnection processes, preliminary assumptions for the New York State Reliability Council's study to determine the NYCA Installed Reserve Margin for the 2020/2021 Capability Year, and the long term energy and peak demand forecasts to be included in the 2019 Load and Capacity Data report. The group also met on April 12, 2019 and reviewed initial lessons learned from the AC Transmission Public Policy Transmission Planning Process, an initial straw proposal for addressing upgrades to non-bulk power transmission facilities as part of the Public Policy Transmission Planning Process, the draft 2019-2028 CRP report, proposed revisions to the Economic Planning Process Manual, the NYISO's proposal for complying with FERC Order No. 845, and an overview of key study assumptions for the Generator Deactivation Assessment related to the ICAP Ineligible Forced Outage status for the Hudson Ave. 4 unit. The group met jointly with MIWG and ICAPWG on April 15, 2019 and reviewed a presentation by Analysis Group regarding assumptions and scenarios for the fuel and energy security assessment.
- Installed Capacity Working Group: The group has met jointly with MIWG, ESPWG and/or PRLWG seven times since the last BIC meeting. The group met on March 18, 2019 and reviewed proposed changes to the requirements for external capacity resources to respond to Supplemental Resource Evaluation (SRE) requests, and the proposal for revising capacity payment and qualification structures to address duration-limited resources including capacity market participation rules for Distributing Energy Resources (DER). On March 25, 2019, the group met and reviewed initial considerations related to reviewing the deliverability requirements for external capacity suppliers, the proposed documents related to the request for proposals for the 2019-2020 ICAP Demand Curve reset process independent consultant, and the proposal for revising capacity payment and qualification structures to address duration-limited resources including capacity market participation rules for DER. On March 28, 2019, the group met and reviewed a presentation by Analysis Group regarding supplemental analysis being undertaken with respect to the carbon pricing initiative, and a presentation by Analysis Group regarding assumptions and scenarios for the fuel and energy security assessment. The group met on April 5, 2019 and reviewed the proposal to implement a new meter data services construct for DER and demand response participating in the wholesale markets. On April 8, 2019, the group met and reviewed proposed revisions to the calculation of "LBMPc" as part of the wholesale market carbon pricing initiative, a presentation by Covanta regarding the impacts of assessing carbon charges to waste-to-energy generation facilities in New York under the wholesale market carbon pricing initiative, and the proposal for revising capacity payment and qualification structures to address duration-limited resources including capacity market participation rules for DER. On April 10, 2019, the group met and reviewed proposed tariff revisions related to the proposed rules for the participation of DER in the wholesale energy, ancillary services and capacity markets. The group also met on April 15, 2019 and reviewed an overview of the schedule and proposed scope for the analysis being undertaken to assess the potential impacts of the ongoing transition of the electric grid (i.e., the "Reliability and Market Considerations for a Grid in Transition" white paper), a presentation by Analysis Group regarding assumptions and scenarios for the fuel and energy security assessment, and proposed tariff revisions related to the proposed rules for the participation of DER in the wholesale energy, ancillary services and capacity markets.
- Load Forecasting Task Force: The group has not met since the last BIC meeting.
- <u>Market Issues Working Group</u>: The group has met jointly with ICAPWG, ESPWG and/or PRLWG seven times since the last BIC meeting. The group met on March 18, 2019 and reviewed the proposed rules for the participation

of DER in the wholesale energy and ancillary services markets. On March 25, 2019, the group met and reviewed proposed changes to the Ancillary Services Manual related to voltage support service and automatic fuel swap capability testing for certain generators located in New York City. On March 28, 2019, the group met and reviewed a presentation by Analysis Group regarding supplemental analysis being undertaken with respect to the carbon pricing initiative, the proposed rules for the participation of DER in the wholesale energy and ancillary services markets, and a presentation by Analysis Group regarding assumptions and scenarios for the fuel and energy security assessment. On April 5, 2019, the group met and reviewed the proposal to implement a new meter data services construct for DER and demand response participating in the wholesale markets. The group met on April 8, 2019 and reviewed proposed revisions to the calculation of "LBMPc" as part of the wholesale market carbon pricing initiative, a presentation by Covanta regarding the impacts of assessing carbon charges to waste-to-energy generation facilities in New York under the wholesale market carbon pricing initiative, and the proposed rules for the participation of DER in the wholesale energy and ancillary services markets. The group also met on April 10, 2019 and reviewed proposed revisions to the Joint Operating Agreement with PJM related to market-to-market coordination, and proposed tariff revisions related to the proposed rules for the participation of DER in the wholesale energy, ancillary services and capacity markets. On April 15, 2019, the group met and reviewed an overview of the schedule and proposed scope for the analysis being undertaken to assess the potential impacts of the ongoing transition of the electric grid (i.e., the "Reliability and Market Considerations for a Grid in Transition" white paper), proposed changes to the comprehensive bid management system related to the bidding requirements for energy storage resources participating in the wholesale energy and ancillary services markets, a presentation by Analysis Group regarding assumptions and scenarios for the fuel and energy security assessment, and proposed tariff revisions related to the proposed rules for the participation of DER in the wholesale energy, ancillary services and capacity markets.

• Price Responsive Load Working Group: The group has met seven times since the last BIC meeting. The group met jointly with MIWG and/or ICAPWG on March 18, 2019, March 25, 2019, March 28, 2019, April 5, 2019, April 8, 2019, April 10, 2019, and April 15, 2019 and reviewed the agenda topics related to DER and/or the demand response programs for each meeting.

#### 8. New Business

Thinh Nguyen (NYISO) stated that Class Year 2017-2 study report will be presented at the May 2019 Operating Committee meeting. Jonathan Newton (NYISO) added buyer-side mitigation determinations for affected projects will be issued in conjunction with finalization of the Class Year 2017-2 study report.

The meeting adjourned at 12:50 p.m.

#### **Business Issues Committee**

April 17, 2019 Meeting Final Motions

#### Motion #1:

Motion to approve the February 13, 2019 and March 13, 2019 BIC Meeting Minutes.

Motion passed unanimously with an abstention.

#### Motion #2:

The Business Issues Committee ("BIC") hereby approves the revisions to the Accounting & Billing Manual as described in the presentation to the BIC on April 17, 2019.

Motion passed unanimously with an abstention.

#### Motion #3:

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Motion passed unanimously with abstentions.

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Motion passed with 89.25% affirmative votes.

# **New York Independent System Operator**

# **Business Issues Committee - April 17, 2019**

**Motion: Motion #DERs** 

**Result: Motion Passed** 

Sector with base percent	%	Active	Quorum	Adj. Percent	For	Against	Abstain	% For	% Against
Generation Owners	21.50	✓	<b>-</b>	21.50	1.00	1.00	4.00	10.75	10.75
Other Suppliers	21.50	✓	✓	21.50	7.00	0.00	6.00	21.50	0.00
Transmission Owners	20.00	✓	<b>/</b>	20.00	4.00	0.00	0.00	20.00	0.00
End Use Consumer			✓						
Large Consumer	9.00	✓		9.00	4.00	0.00	1.00	10.33	0.00
Large Cons. Gov. Agency	2.00	✓		2.00	0.00	0.00	0.00	0.00	0.00
Small Consumer	4.50	<b>✓</b>	<b>√</b>	4.50	6.00	0.00	1.00	5.17	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			<b>√</b>						
State Power Authorities	8.00	✓		15.00	2.00	0.00	0.00	15.00	0.00
Munis & Co-ops	7.00	<b>/</b>		0.00	0.00	0.00	0.00	0.00	0.00
Environmental	2.00	<b>√</b>		2.00	1.00	0.00	3.00	2.00	0.00
			5	100.00	26.00	1.00	17.00	89.25	10.75
				100.00	Norn	nalize to 10	00% :	89.25	10.75

# **New York Independent System Operator**

# **Business Issues Committee - April 17, 2019**

**Motion: Motion #DERs** 

**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	Schwall, Matthew	N	Y	0.00	0.00
Generation Owners	CPV Valley LLC	Schwall, Matthew	N	Y	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	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	Schwall, Matthew	N	Y	0.00	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		Y	N	0.00	0.00
Generation Owners	Helix Ravenswood LLC	D'Andrea, James	N	Y	0.00	1.00
Generation Owners	Empire Generating Co, LLC		N	N	0.00	0.00
Generation Owners	Danskammer Energy, LLC		N	N	0.00	0.00
Generation Owners	Covanta Niagara, LP		N	N	0.00	0.00
Other Suppliers	BJ Energy LLC		N	N	0.00	0.00
Other Suppliers	Citigroup Energy Inc.	Trayers, Barry	N	Y	1.00	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	Ahrens, David	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	0.00	0.00
Other Suppliers	Morgan Stanley Capital Group, Inc.		N	N	0.00	0.00
Other Suppliers	NRG Power Marketing Inc.	Fitch, Neal	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		N	N	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	BP Energy Company	Chintapalli, Raj	N	Y	1.00	0.00
Other Suppliers	NextEra Energy	Applebaum, David	N	Y	0.00	0.00
Other Suppliers	Innoventive Power	Gruber, Craig	N	Y	1.00	0.00
Other Suppliers	Vitol Inc.		N	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
Other Suppliers	Lyonsdale Biomass, LLC		Y	N	0.00	0.00
Other Suppliers	Direct Energy Business Marketing, LLC	Galarneau, Kenneth	N	Y	1.00	0.00
Other Suppliers	Mercuria Energy America, Inc.	Younger, Mark	N	Y	1.00	0.00

Sector	Organization	Representative	Affiliate	Present	For	Against
Other Suppliers	New York Transco	- I probeinant	Y	N	0.00	0.00
Other Suppliers	Talen Energy		N	N	0.00	0.00
Other Suppliers	XO Energy NY, LP		N	N	0.00	0.00
Other Suppliers	Dynegy Marketing and Trade		N	N	0.00	0.00
Other Suppliers	Brookfield Energy Marketing L.P.	LaRoe, Chris	N	Y	0.00	0.00
Other Suppliers	CPower	Laroc, Chiris	Y	N	0.00	0.00
Other Suppliers	Eastern Generation	Younger, Mark	N	Y	0.00	0.00
Other Suppliers	BioUrja Power, LLC	Tounger, Mark	N	N	0.00	0.00
Other Suppliers	Drift Marketplace, Inc.		N	N	0.00	0.00
Other Suppliers  Other Suppliers	ENGIE Energy Marketing NA, Inc.		Y	N	0.00	0.00
Other Suppliers	Stephentown Spindle, LLC		N	N	0.00	0.00
Other Suppliers	ENEL X	Geller, Greg	N	Y	1.00	0.00
Other Suppliers	Energy Technology Savings Inc. d/b/a Logical Buildings	Gener, Greg	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	N	Y	1.00	0.00
Transmission Owners	National Grid	Wilkie, Brian	N	Y	1.00	0.00
Transmission Owners	Orange & Rockland Utilities, Inc.	VVIIIIO, BITAII	Y	N	0.00	0.00
Transmission Owners	Rochester Gas and Electric Corp.		Y	N	0.00	0.00
End Use - Large Consumer	IBM Corporation	Trinsey, Amanda	N	Y	1.00	0.00
End Use - Large Consumer  End Use - Large Consumer	Occidental Chemical Corp.	Trinsey, Amanda	N	Y	1.00	0.00
End Use - Large Consumer	Wegmans Food Markets	Trinsey, Amanda	N	Y	1.00	0.00
End Use - Large Consumer	Nucor Steel Auburn, Inc.	Brew, James	N	Y	0.00	0.00
End Use - Large Consumer  End Use - Large Consumer	Alcoa, Inc.	Trinsey, Amanda	N	Y	1.00	0.00
End Use - Large Consumer  End Use - Large Cons. Gov. Agency	Metropolitan Transportation Authority	Tillisey, Amanda	N	N	0.00	0.00
End Use - Large Cons. Gov. Agency  End Use - Small Consumer	American Sugar Refining, Inc	Breidenbaugh,	N	Y	1.00	0.00
End Use - Sman Consumer	American Sugar Remning, inc	Aaron	IN .	1	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	Farmer, Miles	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	0.00	0.00
End Use - Gov. Sm. Cons. & Retail Aggr.	City of New York	Trinsey, Amanda	N	Y	1.00	0.00
Public Power - State Power Authorities	Long Island Power Authority	Clarke, Dave	N	Y	1.00	0.00
Public Power - State Power Authorities	New York Power Authority	Antinori, Andrew	N	Y	1.00	0.00
Public Power - Munis & Co-ops	Bath Electric, Gas & Water Systems		N	N	0.00	0.00
Public Power - Munis & Co-ops	Freeport Electric		N	N	0.00	0.00
Public Power - Munis & Co-ops	Jamestown Board of Public Utilities		N	N	0.00	0.00
Public Power - Munis & Co-ops	Lake Placid Village		N	N	0.00	0.00
Public Power - Munis & Co-ops	Municipal Commission of Boonville		N	N	0.00	0.00
Public Power - Munis & Co-ops	Plattsburgh Municipal Lighting Dept		N	N	0.00	0.00
Public Power - Munis & Co-ops	Village of Westfield		N	N	0.00	0.00
Public Power - Munis & Co-ops	Village of Solvay		N	N	0.00	0.00
Public Power - Munis & Co-ops	Village of Arcade		N	N	0.00	0.00
Public Power - Munis & Co-ops	Village of Fairport		N	N	0.00	0.00
Public Power - Munis & Co-ops	Village of Rockville Centre		N	N	0.00	0.00
Public Power - Environmental	American Wind Energy Association		N	N	0.00	0.00
Public Power - Environmental	Environmental Advocates	Farmer, Miles	N	Y	0.00	0.00

Sector	Organization	Representative	Affiliate	Present	For	Against
Public Power - Environmental	Natural Resources Defense Council	Farmer, Miles	N	Y	1.00	0.00
Public Power - Environmental	PACE Energy & Climate Center	Farmer, Miles	N	Y	0.00	0.00
Public Power - Environmental	Riverkeeper	Farmer, Miles	N	Y	0.00	0.00
Public Power - Environmental	Environmental Defense Fund		N	N	0.00	0.00

# **New York Independent System Operator - Committee Membership**

### Business Issues Committee - April 17, 2019 - 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 , Phillipe	Singer, Leonard					
Bayonne Energy Center, LLC	Generation Owners	Allman, Ellen Caplan, Stu							
CPV Valley LLC	Generation Owners	Litchfield, Matt Rumsey, Tom	Pierpont, Daniel						Schwall, Matthew
Calpine	Generation Owners	Kruse, Brett Reitmeyer , Jay	Flumerfelt, John	Schleimer, Steve					✓ Schwall, Matthew
Covanta Niagara, LP	Generation Owners	Burke , David Abbott , Sharo							
Cricket Valley Energy Center	Generation Owners	Davis , Charles Wallenstein , A	rnold Paryl, Ron						
Danskammer Energy, LLC	Generation Owners	Reid , William Cada , Eric							
EDP Renewables North America LLC	Generation Owners	Brodbeck, John Kaplan, Seth	Ingalls, Kellen	Loturco, Thomas	High, Jeremy	Priemer , Dustin			
East Coast Power, LLC	Generation Owners	Shanker, Roy Fogarty, Thon		Franzetti , Paul					
Empire Generating Co, LLC	Generation Owners	Nuss , Kurt Argetsinger , A		Swenson, Nils					
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, S							
Invenergy Energy Management LLC	Generation Owners	Pakula , Maggie Goldstein , Mic							Schwall, Matthew
National Grid Generation LLC	Generation Owners	Kain, Terrence McCabe, Bria	ı						
Selkirk Cogen Partners, LP	Generation Owners	Biittig, Timothy Ryan , James							
Somerset Operating Company, LLC	Generation Owners	Gregson, Brian Goodenough,	eery Love, Jordan		-				
BJ Energy LLC	Other Suppliers	Ni, Bing Lee, George	,		-				
BP Energy Company	Other Suppliers	Chintapalli , Raj Magruder , Ka	hy Ackerman, Alan						
BioUrja Power, LLC	Other Suppliers	Shah , Kinjal Patel , Ankeet	Eamani , Arun						
BlueRock Energy, Inc.	Other Suppliers	VanHorne , Phil Campese , Bob		Klaben, Jason					
Brookfield Energy Marketing L.P.	Other Suppliers	LaRoe , Chris Talamo , Marc	Dallaire , Eric	Lund, Roxana					
CPower	Other Suppliers	Dotson-Westphalen , Peter Hourihan , Mic	hael Damaskos , Deno	Campbell , Bruce					
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	Barlette , Richard Kirk , Steven							
Cross Sound Cable Company, LLC	Other Suppliers	Reinhart, Brian Rotger, Jose							
DC Energy	Other Suppliers	Bleiweis, Bruce Stevens, Andre	w Tate, Matthew	Milberg, Sadao	Jeev , Kumar				
DTE Energy	Other Suppliers	Pakela, Gregory Wieszczyk, Ra	mond German, Robert						
Direct Energy Business Marketing, LLC	Other Suppliers	Galarneau , Kenneth Philips , Marjo	ie						
Drift Marketplace, Inc.	Other Suppliers	Tilley, Alan Robinson, Gre	3						
Dynegy Marketing and Trade	Other Suppliers	Frazier , Amanda Allen , Sean							
ENEL X	Other Suppliers	Geller , Greg Chibani , Yani							
ENGIE Energy Marketing NA, Inc.	Other Suppliers	Levine , Jeffrey Hawkins , Dari	Campbell, Chad						
Eastern Generation	Other Suppliers	Baker, Liam Reese, John	Younger, Mark	Schwall, Matthew	Johnson , David	Wolcott, Tyler			
Energy Spectrum	Other Suppliers	David, Gary Ahrens, David	Neiburg, David	Iskowitz, Aron	Brown, Ruben	Pentland, William	✓ Villegas, Cristina	✓ Cinadr , Matt	
Energy Technology Savings Inc. d/b/a Logical Buildings	Other Suppliers	Hendler , Jeff Ross , Valerie							
Exelon Generating Co. LLC	Other Suppliers	Barlette , Richard Kirk , Steven							
Galt Power	Other Suppliers	Fernands, Rochelle Ackerman, Ala	,						
HQ Energy Services US	Other Suppliers	,		Dilana Foidicia					
			· ·	Bélanger , Frédéric					
Innoventive Power	Other Suppliers	Gruber , Craig Halford , Steve							
Lyonsdale Biomass, LLC	Other Suppliers	Ralston , William Hebel , Nathan	_						
Mercuria Energy America, Inc.	Other Suppliers	Davis , Andrew Younger, Mark							
Morgan Stanley Capital Group, Inc.	Other Suppliers	Kochonies, Karen Meditz , Alex	Grimes , Jordan						
NRG Power Marketing Inc.	Other Suppliers	Fitch , Neal Hsia , Jennifer	Cona , Lisa	Kranz , Bradley					✓ Fitch, Neal
New York Transco	Other Suppliers	Mullin , Victor Hitti , Nabil	Caso , Rob	Carrigan , Kathleen	McKinney , Jeff				
NextEra Energy	Other Suppliers	Applebaum, David Gardner, Mich	Gibelli , Stephen		-				
Ontario Power Generation, Inc.	Other Suppliers	Gell, Richard			-				
PSEG Energy Resource & Trade, LLC	Other Suppliers	Fromer, Howard DePillo , Rayn	ond Cimino , David	Murawski , James					
Riverbay Corporation	Other Suppliers	Merola , Peter Ellison , Noel							
SESCO Enterprises, LLC	Other Suppliers	Schubiger, Michael Thoresen, James	S						
Shell Energy North America, LLC	Other Suppliers	Picardi, Matt							
Stephentown Spindle, LLC	Other Suppliers	Streeter , Christopher	T -1 11 T 11	Provide D. I					
Talen Energy	Other Suppliers	Toomey, Megan Hohenshilt, Je	nnifer Labella, Julie	Raggio, Debra					
Viridity Energy, Inc.	Other Suppliers	Freifeld, Allen	I	I	I	1		1	l I

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Vitol Inc.	Other Suppliers	Wadsworth , Joe	Viola, Bob	Kahn, Casey							
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	✓Wilkie , Brian							
New York State Electric & Gas (NYSEG)	Transmission Owners	✓ Caletka, Patricia	Lynch, Tim	✓ Brophy , Richard							
Orange & Rockland Utilities, Inc.	Transmission Owners	- Curcia, i auricia	Lynen , 1mi	- Dropny, Nichau							
Rochester Gas and Electric Corp.	Transmission Owners	✓ Caletka, Patricia	Lynch Tim	✓Brophy , Richard							
Alcoa, Inc.			Lynch, Tim	✓ Trinsey , Amanda	, <sub>1</sub> , .						
	Large Consumer	Mager, Michael	Loughney, Robert		Lang, Kevin						
IBM Corporation	Large Consumer	Mager, Michael	Loughney, Robert	✓ Trinsey , Amanda	Lang, Kevin						,
Nucor Steel Auburn, Inc.	Large Consumer	Brew , James	Mackaronis , Chris	,							<b>√</b> Wynn, Laura
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	Strauss , Valerie	Hepinstall, David	√Farmer , Miles							
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		Breidenbaugh , Aaron		_	Trinsey , Amanda					
Utility Intervention Unit, Division of Consumer	Government Statewide Consumer Advocate	Luthin, Catherine	1 _	Lang, Kevin	Mager, Michael	11msey, Amanda					
Protection, NY Dept. of State  City of New York	Government Statewide Consumer Advocate  Government Small Consumer and Retail	√Hogan , Erin	Montalvo , Marc	Loiacono , Matthew	O'Hare, Katie						
200, 200,000	Aggregate	Lang, Kevin	Mager, Michael	√ Trinsey , Amanda							
NYS Energy Research & Dev. Authority	Government Small Consumer and Retail Aggregate	✓ Hall , Christopher	Matteson , Schuyler	Osso Jr., Joe	Mas , Carl	Coup, David					
Long Island Power Authority	State Power Authorities	✓Clarke, Dave	✓Wilczek , Mariann								
New York Power Authority	State Power Authorities	✓ Antinori , Andrew	✓Cordi , John	✓Kane, James	✓ Mahoney , Daniel						
Bath Electric, Gas & Water Systems	Municipalities and Coops	Bonacci , Erin	Wentlent, Chris	Cordeiro, Mark	,						
Freeport Electric	Municipalities and Coops	Livingston , Al	Rudebusch, Tom	Fiore , Chris							
Jamestown Board of Public Utilities	Municipalities and Coops	Sellstrom , Kris	Leathers, David	Allen , Cory	Rudebusch, Tom						
Lake Placid Village	Municipalities and Coops	Daby , Kimball	Wentlent, Chris	Cordeiro, Mark							
Municipal Commission of Boonville	Municipalities and Coops	Varner, Doug	Wentlent, Chris	Cordeiro, Mark							
Plattsburgh Municipal Lighting Dept	Municipalities and Coops	Treacy, William	Wentlent, Chris	Cordeiro, Mark							
Village of Arcade	Municipalities and Coops	Kilburn, Larry	Wentlent, Chris	Cordeiro, Mark							
Village of Fairport	Municipalities and Coops	Hegarty, Matt	Wentlent, Chris	Cordeiro, Mark							
Village of Rockville Centre	Municipalities and Coops	Andreas , Philip	Valenzano, Michael	Rudebusch, Tom							
Village of Solvay	Municipalities and Coops	Hawksby, Joe	Wentlent, Chris	Cordeiro, Mark							
Village of Westfield	Municipalities and Coops	Thompson , Andrew	Wentlent, Chris	Cordeiro, Mark							
American Wind Energy Association	Environmental	Fink , Sari	Reeder, Mark	Reynolds, Anne	Beck, Betsy	Grace, Gene	McIntire, Natalie				
Environmental Advocates	Environmental	Bambrick , Conor	Farmer , Miles	Morris, Jackson							
Environmental Defense Fund	Environmental	Christian , Rory	Stein, Elizabeth	Panfil, Michael							
Natural Resources Defense Council	Environmental	Farmer , Miles	Morris, Jackson	De Costanzo , Donna							
PACE Energy & Climate Center	Environmental	Musgrove, Sheryl	Taylor, Geordi	Farmer, Miles							
Riverkeeper	Environmental	Webster, Richard	Morris, Jackson	Farmer, Miles							
AES ES Holdings LLC	Non Voting	Hillman, Sharon	Kumaraswarmy , Kiran								
Acadia Center	Non Voting	Howe, Cullen	Donovan , Deborah								
Alliance for Clean Energy New York	Non Voting	Reynolds , Anne	Dufresne, Zach	Reeder, Mark							
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									
Avangrid Renewables, Inc.	Non Voting	Kilgallen, Kevin	Sokolski, Adam								
Boston Energy Marketing & Trading	Non Voting	Kramek , Mike									
Bruce Power	Non Voting	Jain , Anshul	Meyer, Sandra								
Caithness Energy LLC	Non Voting	Keevill, Gary	Alvarez , Asavari	Garber, Mitchell							
Calpine Energy Solutions	Non Voting	Sun , Jungsuk	Nakhonthap, Jade	Sunga, Leonard							
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						
Cypress Creek Renewables	Non Voting	Kohlstedt, Kevin	Kemp, Melissa	Scavo , Marisa							
Ecesis LLC	Non Voting	Wu, Brian									
Energya VM	Non Voting	Garcia , Francisco	Maeso , Manual	Lopez, Ana	Corvillo , Cristina						
Fluent Energy	Non Voting	Acampora , Peter	Doll , Ed								
GI Energy	Non Voting	Falcier, Peter	Robinson, James								
Highview Power Storage, Inc.	Non Voting	Robson , Paul	Riley, Richard	1	1	ı	1	1	i	i	1

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Hudson River Energy Group	Non Voting	Radigan, Frank	Canfield, Richard								
lydro-Quebec TransEnergie	Non Voting	Prevost , Michel									
TC Mid-Atlantic Development LLC	Non Voting	Wrenbeck, Tom	Benedict, Nathan								
nstitute for Policy Integrity at NYU School of Law	Non Voting	Unel , Burcin	Noll, Bethany	Bialek , Sylwia	Gundlach, Justin						
Key Capture Energy	Non Voting	Fitzgerald, Dan	Bishop , Jeff								
S Power Grid NY	Non Voting	Willick, Lawrence	York , Joshua	Hayes, Patrick							
AAG Energy Solutions, Inc.	Non Voting	Pelletier, Simon	Vezina, Alexandre								
RG Curtailment Solutions, Inc.	Non Voting	✓ Popova , Julia	Ainspan, Malcolm	Pieniazek, Marie							
Y-BEST Consortium	Non Voting	✓ Acker, William	Sheehan, Denise								
IYS Department of Public Service	Non Voting	✓ Paynter , Thomas	✓Evans, Adam								
ational Fuel Gas Distribution Corporation	Non Voting	Novak , Michael	Eck, Robert								İ
New Athens Generating Co. LLC	Non Voting	Tripp , Hank									İ
ortheast Clean Heat & Power Initiative	Non Voting	Melpignano, Kristin	✓Brown, Ruben	✓Cinadr , Matt	Dwyer , Herb	Lillian , Jon					
Torthline Utilities LLC	Non Voting	McKinney, Jeff	Danskin, Susan								İ
uEnergen	Non Voting	Hamilton , Sandy	Korczykowski, Ryan								
BC Energy Services, LP	Non Voting	Rigby, Angus	Everhardt, Brandon								
ENEW Northeast	Non Voting	Pullaro, Francis	Krich, Abigail								
ed Wolf NT, LLC	Non Voting	Christian , Adam									
chard P. Felak	Non Voting	Felak, Rich									
ΓΕΜ, Inc.	Non Voting	Ko, Ted	Bellacicco, John								
aracen Energy East LP	Non Voting	Peebles , Andy	Miller, Jason								
emens Energy, Inc.	Non Voting	Feltes , James									
ylor Biomass Energy, LLC	Non Voting	Taylor , Jim	Page , Allan								
eichos Energy, LLC	Non Voting	Maclearnsberry, Kirk	VanCoevering, Darrel								
sla, Inc.	Non Voting	Watson, Betty	Gonzales , Carlos	Van Cleve, Sarah							
ansAlta Energy Marketing (U.S.) Inc.	Non Voting	Nivolianitis, Ted	✓ Abend , Erik								
ansmission Developers Inc.	Non Voting	Jessome , Donald	Helmer, William	Harrison, Bob							
ansource New York, LLC	Non Voting	Burkholder, Joshua									
heelabrator Technologies, Inc.	Non Voting	Goldie , Reg	Ginnetti, Jim								
Villiam P. Short	Non Voting	Short, William	Schaefer, Marc		Savage, Paul	Verna, Jim					