NYISO Business Issues Committee Meeting Minutes April 8, 2020 10:00 a.m. – 1:40 p.m.

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

Mr. Chris Wentlent (MEUA) called the meeting to order at 10:00 a.m. The members of the BIC identified themselves and attendance was recorded. A guorum was determined.

2. March 18, 2020 BIC Meeting Minutes

There were no questions or comments regarding the draft minutes from the March 18, 2020 BIC meeting that were included as part of the meeting material.

Motion#1:

Motion to approve the March 18, 2020 BIC meeting minutes.

Motion passed unanimously with an abstention.

3. Market Operations Report and Broader Regional Markets Report

Mr. Rana Mukerji (NYISO) reviewed the market operations report included with the meeting material.

Mr. Aaron Breidenbaugh (Consumer Power Advocates) requested information regarding efforts the NYISO is undertaking to evaluate load forecast impacts related to the COVID-19 pandemic. Mr. Mukerji stated that the NYISO is continually evaluating changes in energy consumption and demand related to the COVID-19 pandemic and impacts thereof on load forecasts.

Mr. Bruce Bleiweis (DC Energy) requested information regarding the manner in which the NYISO anticipates providing updates regarding market impacts of the COVID-19 pandemic. Mr. Mukerji stated that updates regarding market and operational impacts of the ongoing COVID-19 pandemic are expected to be provided as part of the Management Committee meetings.

Mr. Mukerji reviewed the broader regional markets report included with the meeting material. There were no questions or comments.

4. Installed Capacity Manual Revisions

Ms. Christina Duong (NYISO) reviewed the presentation included with the meeting material.

Mr. Kevin Lang (Couch White) asked whether the NYISO plans to conduct outreach to affected resources regarding duration limitation elections deadline for the 2021/2022 Capability Year capacity market participation. Mr. Zach T. Smith (NYISO) stated that the NYISO plans to monitor responses from the resources that it anticipates should be providing duration limitation elections for the 2021/2022 Capability Year and anticipates following up with resources prior to the deadline as necessary.

Mr. John Cordi (NYPA) noted appreciation for the NYISO's commitment to treat as confidential the information required to be provided by resources to support the basis for their duration limitation election for capacity market participation purposes.

Motion #2:

The Business Issues Committee ("BIC") hereby approves the revisions to the Installed Capacity Manual regarding as described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

5. Manual Revisions for Dual Participation

Mr. Harris Eisenhardt (NYISO) reviewed the presentation included with the meeting material.

Mr. Jim D'Andrea (Helix Ravenswood) requested confirmation that the proposed manual revisions are consistent with the applicable rules in the tariff. Mr. Eisenhardt confirmed that the proposed manual revisions are consistent with the applicable rules related to dual participation set forth in the NYISO's tariffs.

Motion #3:

The Business Issues Committee ("BIC") hereby approves the revisions to the Emergency Operations, Day Ahead Scheduling, Transmission & Dispatch Operations and Ancillary Services Manuals regarding the updates required for the implementation of the Dual Participation rules to become effective May 1, 2020, as described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

6. Manual Revisions for Implementing the Meter Services Entity Construct

Mr. Jeremiah Brockway (NYISO) reviewed the presentation included with the meeting material. Mr. D'Andrea requested confirmation that the proposed manual revisions are consistent with the applicable rules in the tariff. Mr. Brockway confirmed that the proposed manual revisions are consistent with the applicable rules related to the Meter Services Entity construct set forth in the NYISO's tariffs.

Motion #4:

The Business Issues Committee ("BIC") hereby approves the revisions to the Ancillary Services, Day Ahead Demand Response Program, and Emergency Demand Response Program Manuals regarding the updates required for the implementation of the Meter Services Entity rules to become effective May 1, 2020, as described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

7. Meter Services Entity Manual

Ms. Michelle McLaughlin (NYISO) reviewed the presentation included with the meeting material.

Mr. Lang asked for clarification regarding the proposed May 1, 2020 effective date for the manual. Mr. Greg Campbell (NYISO) stated that the proposed May 1, 2020 effective date for the manual is aligned with the effective date of the tariff revisions for the Meter Services Entity construct.

Mr. D'Andrea requested confirmation that the proposed manual revisions are consistent with the applicable rules in the tariff. Ms. McLaughlin confirmed that the proposed manual revisions are consistent with the applicable rules related to the Meter Services Entity construct set forth in the NYISO's tariffs.

Motion #5:

The Business Issues Committee ("BIC") hereby approves the new Meter Services Entity Manual as more fully described in the presentation entitled "Meter Services Entity (MSE) Manual" made to the BIC on April 15, 2020.

Motion passed unanimously with abstentions.

8. Tailored Availability Metric

Ms. Emily Conway (NYISO) reviewed the presentation included with the meeting material.

Mr. Mike DeSocio (NYISO) noted that the NYISO acknowledges the interest that has been expressed by certain stakeholders in evaluating further enhancements for more direct assignment of weighting factors to particular months

in determining the availability calculations for capacity suppliers. Mr. DeSocio recommended that conducting any such further evaluation could be considered as part of the project prioritization process for 2021 project efforts.

Ms. Doreen Saia (Greenberg Traurig) asked for clarification regarding whether an effort to further assess direct assignment of weighting factors to particular months in the availability calculations for capacity suppliers would be evaluated as a continuing project or whether it would require prioritization by stakeholders in order to proceed. Mr. DeSocio noted that any further project efforts to evaluate the assignment of direct weighting factors to months would be submitting as a project for scoring and prioritization by stakeholders in the project prioritization process for 2021 project initiatives.

Mr. Mark Younger (Hudson Energy Economics) and Mr. Mike Cadwalader (Atlantic Economics) acknowledged that the current proposal represents an improvement over the current rules, but contend that the further evaluation to assign direct weighting factors to particular months should have been conducted as part of the current project efforts and not require prioritization of a future project in order to be addressed.

Mr. Younger recommended that the NYISO ensure that the tariff requirements related to quadrennial study that includes assessing hours encompassed by the peak load window are not structured in a manner that would prohibit the NYISO from more generally assessing the reliability contribution of weather-dependent renewable generation as the penetration level of such resources increases over time. Mr. Zach T. Smith stated that the tariff language addressing the requirement to conduct the quadrennial study that includes assessing hours encompassed by the peak load window describes the general purpose of the study and obligates the NYISO to further discuss the scope, assumptions and methodology for the analysis with stakeholders in advance of commencing the study.

Mr. Lang raised concerns that in the absence of market rules to facilitate hybrid resource participation, weather-dependent renewable resources will be unfairly penalized due to the inability control output to seek to maximize production during the peak load window hours. Mr. Chris Hall (NYSERDA) also expressed concern regarding implementing the revised availability calculations for wind and solar resources absent rules to facilitate participation of hybrid resources. Mr. Zach T. Smith stated that the NYISO acknowledges stakeholder interest in seeking to expedite market rules to facilitate hybrid resource participation, noting that as the NYISO collaborates with stakeholders on the development of such rules it will continually assess opportunities to potentially accelerate the implementation thereof.

Motion #6:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve changes to Sections 5.12.6.2 and 5.12.14.3 of the NYISO's Market Administration and Control Area Services Tariff as more fully described in the presentation "Tailored Availability Metric" made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

9. Capacity Market Buyer-Side Mitigation: Part A Exemption Test Enhancements

Ms. Duong reviewed the presentation included with the meeting material.

Mr. Howard Fromer (PSEG) asked for clarification regarding the interactions and interdependencies of the proposed enhancements to the Part A exemption test and the compliance filing submitted by the NYISO on April 7, 2020 addressing FERC's directives to propose a revised MW cap for the renewable exemption under the Installed Capacity market buyer-side mitigation rules. Mr. Shaun Johnson (NYISO) and Ms. Duong acknowledged that there are interactions between the proposed enhancements to the Part A exemption test and the NYISO's compliance filing to address the revised MW cap for the renewable exemption, including the fact that the Part A exemption test enhancements propose that the Part A exemption test would occur after the NYISO has evaluated requests for exemptions under the renewable exemption.

Mr. Lang requested clarification regarding how the NYISO would address a situation where more than one resource being evaluated for a potential Part A test exemption have exactly the same net cost of new entry value. Ms. Duong

noted that, although highly unlikely to occur, if more than one resource had exactly the same net cost of new entry value and such resources were determined to be eligible for a Part A exemption, the MW of available exemption under Part A would be prorated among such resources that have the same net cost of new entry.

Mr. Fromer asked whether out-of-market revenues, such as renewable energy credit payments, are considered in determining a resource's net cost of new entry. Ms. Duong noted that in the case of payments for attributes that are not expressly recognized in the wholesale market, such as environmental attributes, the NYISO develops a consistent assumption regarding the market value for such attributes and applies this same assumed value to all facilities receiving out-of-market payments for such attributes.

Mr. Ting Chan (Central Hudson) asked whether Special Case Resources can qualify as a "public policy resource" under the proposed enhancements to the Part A test. Ms. Duong noted that Special Case Resources within Mitigated Capacity Zones are assessed pursuant to an alternative evaluation methodology that is specific to such resources and, therefore, would not be considered for evaluation as a "public policy resource" under the proposed enhancements to the Part A test.

Ms. Saia (Greenberg Traurig) sought confirmation that the application of the renewable exemption would be evaluated first for NYC and then the G-J Locality prior to evaluating Part A test exemptions with such Part A exemption determinations also being conducted first in NYC prior to conducting the evaluation for the G-J Locality. Ms. Duong confirmed that for a qualifying "public policy resource" located within Load Zone J (NYC), the evaluation of any renewable exemption request by the resource is conducted prior to the Part A exemption test, and that the evaluations in each instance are conducted for NYC prior to the G-J Locality.

Mr. Lang asked if a renewable resource within a Mitigated Capacity Zone could seek both a competitive entry exemption and a renewable exemption assuming that the resource did not have any disqualifying contracts that would prevent it from seeking a competitive entry exemption. Ms. Duong stated that if a renewable resource in a Mitigated Capacity Zone sought a competitive entry exemption, the resource would not be eligible to simultaneously seek a renewable exemption.

Ms. Saia sought confirmation that if a resource receives a renewable exemption it would not subsequently be evaluated for a Part A test exemption. Ms. Duong confirmed that, because the NYISO proposes to evaluate renewable exemption requests prior to conducting the Part A test, a resource that receives a renewable exemption for its full MW capability would not be considered for an exemption under the Part A test. Ms. Saia recommended that in finalizing the tariff revisions prior to the Management Committee the NYISO ensure that the tariff is clear that resources receiving a renewable exemption will not be evaluated for an exemption under the Part A test.

Mr. Chris LaRoe (Brookfield) recommended that the NYISO consider specifically listing run-of-river hydro resources as a technology that qualifies as a "public policy resource" under the proposed enhancements to the Part A test.

Mr. Scott Leuthauser (HQUS) recommended that the NYISO further consider specifically referencing the technologies that qualify as eligible renewable resources under the Climate Leadership and Community Protection Act (CLCPA) in defining what qualifies as a "public policy resource" under the proposed enhancements to the Part A test. Mr. David Allen (NYISO) stated that the NYISO has previously considered requests to define "public policy resources" based on the technologies that are listed as eligible renewable resource technologies under the CLCPA, but prefers to utilize a construct that is not expressly tied to the language of the CLCPA.

Mr. Lang recommended that the NYISO further review the tariff revisions related to the proposal at an Installed Capacity Working Group (ICAPWG) meeting prior to the Special Management Committee meeting scheduled for April 15, 2020. Mr. Wentlent suggested that the NYISO consider further reviewing the proposed tariff revisions related to the proposed Part A test enhancements at the April 14, 2020 ICAPWG meeting. Mr. Johnson stated that the NYISO would seek to schedule an additional ICAPWG meeting on April 10, 2020 to review the tariff revisions related to the proposal, as well as conducting a further review at the April 14, 2020 ICAPWG meeting.

Mr. Fromer noted that due to ongoing development of the proposed tariff revisions and the overall concepts of the proposal, PSEG has not had an adequate opportunity to fully consider the proposal and, therefore, will be abstaining from today's vote.

Motion #7:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve and recommend that the Board of Directors approve the enhancements to the Part A Exemption Test of NYISO's Buyer-Side Mitigation rules, as those concepts were presented and discussed at the April 8, 2020 BIC meeting. Tariff language reflecting these enhancements shall be further refined and reviewed at an ICAP Working Group meeting prior to presentation to the Management Committee.

Motion passed by majority with abstentions.

10. Market Software Performance Impacts of Scheduling Energy Storage Resources

Mr. DeSocio reviewed the presentation included with the meeting material.

Mr. Lang asked whether the proposed authority to suspend the availability to use ISO-managed state of charge management bid functionality is intended as a temporary solution while the NYISO continues to assess potential opportunities to further enhance performance of the market software. Mr. DeSocio stated that the NYISO is continuing to evaluate opportunities to further improve the performance of the market software in order to help minimize or avoid the need for the NYISO to have to trigger any suspension of the ability for energy storage resources to use the ISO-managed state of charge management bid functionality.

Mr. Fromer asked whether the NYISO's determination to suspend the use of ISO-managed state of charge management bid functionality would be based on anticipated issues in achieving the posting the Day-Ahead Market (DAM) results prior to 10 a.m., consistent with the NYISO's current operating practice, even though the tariff provides the NYISO until 11 a.m. to post such results. Mr. DeSocio acknowledged importance of the current operating practice for posting results of the DAM prior to 10 a.m. as it relates to electric and gas market coordination. Mr. DeSocio stated that the NYISO will continue to be mindful of this timing consideration going forward.

Motion #8:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's MST with regard to Suspending ISO-Managed Bids as more fully described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

11. Working Group Updates

- Billing and Accounting and Credit Working Group: The group has not met since the last BIC meeting.
- <u>Electric System Planning Working Group</u>: The group met on April 6, 2020 and reviewed initial results for the 70x30 scenario being conducted as part of the 2019 Congestion Assessment and Resource Integration Study (CARIS)
 Phase 1 analysis, an update regarding proposed scenarios to be evaluated as part of the 2020 Reliability Needs Assessment (RNA), topology and other base case modeling assumptions for the 2020 RNA, and proposed revisions to the Public Policy Transmission Planning Process Manual.
- Installed Capacity Working Group: The group has met jointly with MIWG and PRLWG five times since the last BIC meeting. On March 18, 2020, the group met and reviewed the anticipated schedule for developing the 2020 Master Plan outlining a strategic vision for market design initiatives over the next five years, an update regarding the proposed methodology for developing a revised MW cap for the renewable exemption of the buyer-side mitigation rules in response to FERC's directives, proposed enhancements to the Part A exemption test of the buyer-side mitigation rules, and proposed enhancements to the methodology for determining the statewide peak load hour and the allocation of capacity requirements to Load Serving Entities. The group met on March 20, 2020 and reviewed proposed revisions to various manuals (Emergency Operations, Day-Ahead Scheduling, Transmission and Dispatch Operations, and Ancillary Services) related to dual participation by resources in retail programs and

the wholesale markets, proposed revisions to various manuals (Emergency Demand Response Program, Day-Ahead Demand Response Program, Ancillary Services, and Installed Capacity) related to the new meter data services construct for distributed energy resources (DER) and demand response participating in the wholesale markets, proposed revisions to the Installed Capacity Manual related to the participation of energy storages resources in the capacity market, the application of buyer-side mitigation rules to new Special Case Resources in response to FERC's directives, proposed revisions to the availability calculation methodologies for capacity supply resources, the results of the deliverability assessment conducted for various peaking plant technologies being considered as part of the ongoing 2019-2020 ICAP Demand Curve reset process, and a presentation regarding the operation of New York wind and solar resources during 2019. On March 26, 2020, the group met and reviewed a presentation by Analysis Group regarding assumptions related to financial parameters, and estimating net energy and ancillary services revenues for various peaking plant technology options in connection with the ongoing 2019-2020 ICAP Demand Curve reset process, a presentation by Burns & McDonnell regarding updated capital cost estimates to construct various peaking plant technology options as part of the ongoing 2019-2020 ICAP Demand Curve reset process, and a presentation by Competitive Power Ventures regarding Analysis Group's proposed methodology for estimating net energy and ancillary services revenues for various peaking plant technology options in connection with the ongoing 2019-2020 ICAP Demand Curve reset process. The group met on March 30, 2020 and reviewed proposed enhancements to the Part A exemption test of the buyer-side mitigation rules, a presentation by PA Consulting and LIPA regarding capacity market considerations for meeting the requirements of the Climate Leadership and Community Protection Act (CLCPA), and a presentation by The Brattle Group regarding the modeling methodology and assumptions for an analysis to assist in determining potential wholesale market impacts of anticipated changes to the electric system through 2040 in response to the requirements of the CLCPA. The group met on April 7, 2020 and reviewed proposed enhancements to the Part A exemption test of the buyerside mitigation rules.

- Load Forecasting Task Force: The group has not met since the last BIC meeting.
- Market Issues Working Group: The group has met jointly with ICAPWG and PRLWG five times since the last BIC meeting. The group met on March 18, 2020 and reviewed the anticipated schedule for developing the 2020 Master Plan outlining a strategic vision for market design initiatives over the next five years. On March 20, 2020, the group met reviewed proposed revisions to various manuals (Emergency Operations, Day-Ahead Scheduling, Transmission and Dispatch Operations, and Ancillary Services) related to dual participation by resources in retail programs and the wholesale markets, proposed revisions to various manuals (Emergency Demand Response Program, Day-Ahead Demand Response Program, Ancillary Services, and Installed Capacity) related to the new meter data services construct for DER and demand response participating in the wholesale markets, and a presentation regarding the operation of New York wind and solar resources during 2019. On March 26, 2020, the group met and reviewed the survey results related to the Autumn 2020 Centralized TCC Auction. The group met on March 30, 2020 and reviewed a presentation regarding analysis related to energy market software performance and solution solve time related to the scheduling of energy storage resources, and a presentation by The Brattle Group regarding the modeling methodology and assumptions for an analysis to assist in determining potential wholesale market impacts of anticipated changes to the electric system through 2040 in response to the requirements of the CLCPA. The group also met on April 7, 2020 and reviewed supplemental information regarding reserve provider performance during reserve pickup events, and proposed enhancements to the current reserve shortage pricing values and reserve demand curves.
- <u>Price Responsive Load Working Group</u>: The group met jointly with ICAPWG and MIWG on March 18, 2020, March 20, 2020, March 26, 2020, March 30, 2020, and April 7, 2020. At each meeting, the group reviewed the agenda topics related to DER, energy storage resources and/or the NYISO-administered demand response programs.

12. New Business

There was no new business.

Meeting adjourned at 1:40 p.m.

Business Issues Committee April 8, 2020 Final Motions

Motion #1:

Motion to approve the Minutes of the March 18, 2020 BIC meeting.

Motion passed unanimously with an abstention.

Motion #2:

The Business Issues Committee ("BIC") hereby approves the revisions to the Installed Capacity Manual regarding as described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

Motion #3:

The Business Issues Committee ("BIC") hereby approves the revisions to the Emergency Operations, Day Ahead Scheduling, Transmission & Dispatch Operations and Ancillary Services Manuals regarding the updates required for the implementation of the Dual Participation rules to become effective May 1, 2020, as described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

Motion #4:

The Business Issues Committee ("BIC") hereby approves the revisions to the Ancillary Services, Day Ahead Demand Response Program, and Emergency Demand Response Program Manuals regarding the updates required for the implementation of the Meter Services Entity rules to become effective May 1, 2020, as described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

Motion #5:

The Business Issues Committee ("BIC") hereby approves the new Meter Services Entity Manual as more fully described in the presentation entitled "Meter Services Entity (MSE) Manual" made to the BIC on April 15, 2020.

Motion passed unanimously with abstentions.

Motion #6:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee ("MC") approve changes to Sections 5.12.6.2 and 5.12.14.3 of the NYISO's Market Administration and Control Area Services Tariff as more fully described in the presentation "Tailored Availability Metric" made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

Motion #7:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve and recommend that the Board of Directors approve the enhancements to the Part A Exemption Test of NYISO's Buyer-Side Mitigation rules, as those concepts were presented and discussed at the April 8, 2020 BIC meeting. Tariff language reflecting these enhancements shall be further refined and reviewed at an ICAP Working Group meeting prior to presentation to the Management Committee.

Motion passed by majority with abstentions.

Motion #8:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's MST with regard to Suspending ISO-Managed Bids as more fully described in the presentation made to the BIC on April 8, 2020.

Motion passed unanimously with abstentions.

New York Independent System Operator - Committee Membership

Business Issues Committee - April 08, 2020 - Conference Call - Parties Checked in Attendance

rganization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Gues
oria Energy LLC	Generation Owners	McCall, Chuck	Browne, Scott	Habib , Phillipe	Singer, Leonard					•	
nne Energy Center, LLC	Generation Owners	Allman, Ellen	Caplan, Stu								
Valley LLC	Generation Owners	Litchfield, Matt	Rumsey , Tom	✓ Pierpont , Daniel							
pine	Generation Owners	✓Kruse, Brett	Reitmeyer, Jay	Flumerfelt, John	Schleimer, Steve	Schwall , Matthew					
anta Niagara, LP	Generation Owners	Burke , David	Abbott , Sharon		,	,					1
ket Valley Energy Center	Generation Owners	Davis , Charles	Wallenstein , Arnold	Paryl , Ron							1
kammer Energy, LLC	Generation Owners	Reid , William	Cada , Eric								
Renewables North America LLC	Generation Owners	Brodbeck, John	Loturco, Thomas	High, Jeremy	Priemer, Dustin						
Coast Power, LLC	Generation Owners	Shanker, Roy	Fogarty, Thomas	McEachern, Ben	Franzetti , Paul						İ
re Generating Co, LLC	Generation Owners	Morris , Chandler	Maida, Jeff	Hudson, Daniel							
gy Nuclear Northeast	Generation Owners	Dell Orto , Ken	✓ Saia, Doreen	Bergeron, John							
Path Power Solutions LLC	Generation Owners	McKissack, Chris	Baur, Sean	Vickery, Chris	Labij, Denis	Braun , Gary					
Ravenswood LLC	Generation Owners	D'Andrea , James	Kline, Marc	DiBari , Dominic							İ
rd Wind LLC	Generation Owners	Smith , David	Brocks , Annette	Rohrbach, John							
k Energy Services, Inc.	Generation Owners	Ferguson, Mike	✓Younger, Mark	,							
ative Energy Systems	Generation Owners	Zeliff, Peter	Henningham, Scott								†
ergy Energy Management LLC	Generation Owners	Bangston , Kaley	Goldstein , Michael	Orzel , Chris							1
apture Energy	Generation Owners	Galarneau, Kenneth	Goldwasser, Rachel	Fitzgerald, Dan		1					
al Grid Generation LLC	Generation Owners	Kain, Terrence	McCabe , Brian	J ,							1
k Cogen Partners, LP	Generation Owners	Biittig, Timothy	, "								
rset Operating Company, LLC	Generation Owners	Gregson , Brian	Goodenough, Jeery	Love , Jordan							
ergy LLC	Other Suppliers	Ni, Bing	Lee, George								[
ergy Company	Other Suppliers	Ellis , Dean	Chintapalli , Raj	✓ Ackerman, Alan							
field Energy Marketing L.P.	Other Suppliers	✓ LaRoe , Chris	Talamo , Marco	Dziedzic , Tomasz	Madonna, Phil						1
ton Commodities Merchant Trading L.P.	Other Suppliers	Stuss , Gordon	Romine , Brad	Emmett, Robert	,	1					1
oup Energy Inc.	Other Suppliers	Gollomp , Jeffrey	Bisaria , Shikher	, 1.00011		Í					
lidated Edison Energy, Inc.	Other Suppliers	✓ Mah, Norman	Dannels , Jeff								1
llation New Energy	Other Suppliers	Barlette, Richard	Kirk , Steven			1					
Sound Cable Company, LLC	Other Suppliers	Reinhart, Brian	Rotger, Jose			1					†
ergy	Other Suppliers	✓ Bleiweis, Bruce	Stevens, Andrew	Tate, Matthew	Milberg, Sadao	Jeev , Kumar					1
nergy	Other Suppliers	German, Robert	Pakela, Gregory	, 1/11111011		, , , , , , , , , , , , , , , , , , , ,					
Energy Business Marketing, LLC	Other Suppliers	Newton , Jonathan	Carrier , Ron	Morris , Sandra		1					
y Marketing and Trade	Other Suppliers	Weinstein , Andrew	Allen , Sean	, ,							1
X	Other Suppliers	Geller , Greg	Chibani , Yanis								1
E Energy Marketing NA, Inc.	Other Suppliers	Levine , Jeffrey	Hawkins , Darin	Campbell, Chad							İ
Generation	Other Suppliers	Baker, Liam	Reese, John	✓ Younger, Mark	Schwall , Matthew	Johnson , David	Wolcott , Tyler				[
Spectrum	Other Suppliers	David, Gary	✓Ahrens, David	Neiburg, David	Iskowitz, Aron	Brown, Ruben	Pentland, William	Villegas , Cristina	Cinadr, Matt		
Technology Savings Inc. d/b/a Logical	Other Suppliers				2010 1112, 1 11011	Diowii, Rubbii	. caira , 17 iiiiaiii	·gus , Cristina	Cinadi , multi		
rgs	Caner Suppliers	Hendler , Jeff	Ross , Valerie								
Generating Co. LLC	Other Suppliers	Barlette , Richard	Kirk , Steven								
ower	Other Suppliers	Fernands, Rochelle	✓ Ackerman, Alan								
ergy Services US	Other Suppliers	✓ Plante , Matthieu	✓ Leuthauser, Scott	Guilbault, Louis	Bélanger , Frédéric						
ntive Power	Other Suppliers	Gruber, Craig	Halford, Steve								
ria Energy America, Inc.	Other Suppliers	Davis , Andrew	✓Younger, Mark	Frye , Samuel							
n Stanley Capital Group, Inc.	Other Suppliers	Kochonies, Karen	Meditz , Alex	Grimes , Jordan							
ower Marketing Inc.	Other Suppliers	✓ Fitch , Neal	Hsia , Jennifer	Cona , Lisa	Kranz, Bradley						
ork Transco	Other Suppliers	Mullin , Victor	Caso , Rob	Carrigan , Kathleen	Camp, Adam						
ra Energy	Other Suppliers	✓ Applebaum, David	✓ Talbot , Soria	Gibelli, Stephen							
o Power Generation, Inc.	Other Suppliers	Lauritsen , Kim									†
Energy Resource & Trade, LLC	Other Suppliers	✓ Fromer, Howard	DePillo , Raymond	Cimino , David	Dillon , George						1
ny Corporation	Other Suppliers	Merola , Peter	Ellison , Noel	,,	, 223.80	1					
Enterprises, LLC	Other Suppliers	Schubiger, Michael	Thoresen, James			Í					
nergy North America, LLC	Other Suppliers	Picardi, Matt				1					
ntown Spindle, LLC	Other Suppliers	Streeter , Christopher				Í					
Energy	Other Suppliers	Toomey , Megan	Hohenshilt , Jennifer	Labella , Julie	Raggio, Debra						1
Energy, Inc.	Other Suppliers	Freifeld , Allen									1
nc.	Other Suppliers	Wadsworth , Joe	Viola, Bob	Kahn, Casey							
nergy NY, LP	Other Suppliers	Drangula , Carey	Thompson, Matthew	Hughes , Adam							
al Hudson Gas & Electric Corp.	Transmission Owners	May, Jeff	✓Chan, Ting	Jolly , James	Delmar , Valerie	1	1				İ

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Consolidated Edison Co. of NY, Inc.	Transmission Owners	Quin , Jane	✓ Hargett, Chris	Yu , Joel	Lazarus , Dana	Butterklee, Neil	LoFrumento, Susan				
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										
Rochester Gas and Electric Corp.	Transmission Owners	✓Caletka, Patricia	Lynch, Tim	✓ 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	Mackaronis , Chris	Baker, 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	Timsey , Timanda	Luig, Revin						
Association for Energy Affordability	Small Consumer	Strauss , Valerie	Hepinstall, David	Morris, Jackson							
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	Government Statewide Consumer Advocate		_		*	, , , , , , , , , , , , , , , , , , ,					
Protection, NY Dept. of State		Hogan, Erin	✓ Montalvo , Marc	O'Hare , Katie							
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	✓ Hall , Christopher	Mouseau Cal 1	Winding-1-: A . 1	Mos. Carl	Com Poris					
	Aggregate	1 -	Matteson , Schuyler	Zielinski, Andrew	Mas , Carl	Coup, David					
Long Island Power Authority	State Power Authorities	Clarke, Dave	Wilczek, Mariann	,							
New York Power Authority	State Power Authorities	Antinori , Andrew	Michaels , Alan	✓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	Reynolds, Anne	Reeder, Mark	Fink , Sari	Tabak, Gabe	Grace, Gene					
Environmental Advocates	Environmental	Bambrick , Conor	Morris, Jackson								
Environmental Defense Fund	Environmental	Peress J., Naim	Stein, Elizabeth	Karas , Natalie	Murphy , Erin						
Natural Resources Defense Council	Environmental	Howe , Cullen	Morris, Jackson	De Costanzo , Donna							+
New York City Environmental Justice Alliance	Environmental	Garcia, Carlos	Bautista , Eddie	, , , , , , , , , , , , , , , , , , ,							
PACE Energy & Climate Center	Environmental Environmental	Hart , Craig	Valova , Radina	Howe , Cullen							
Riverkeeper AES ES Holdings LLC	Environmental Non Voting	Webster , Richard Hillman , Sharon	Morris, Jackson Kumaraswarmy , Kiran								
Able Grid Energy Solutions, Inc.	Non Voting	Lines , Sam	Mills , Sara			1					
Acadia Center	Non Voting	Donovan , Deborah	, , , , , ,								İ
Alliance for Clean Energy New York	Non Voting	Reynolds , Anne	Dufresne, Zach	Reeder, Mark							
Anbaric Development Partners, LLC	Non Voting	Kosel , Howard	Sanderson , Bryan	Knobloch , Kevin	Bruno , Clarke						
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								
CPower	Non Voting	Dotson-Westphalen , Peter	Hourihan, Michael	Damaskos , Deno	Campbell , Bruce						
Caithness Energy LLC	Non Voting	Keevill , Gary	Alvarez , Asavari	Garber, Mitchell							
Calpine Energy Solutions	Non Voting	Sun , Jungsuk	Nakhonthap , Jade	Sunga , Leonard							
Customized Energy Solutions	Non Voting	Powell , Alan	Powell , Leighton	Singer, Leonard	ZA-str	}					
Customized Energy Solutions	Non Voting	Mancini, Rick	Fernands, Stephen	Rexrode, Caryn	✓ Ackerman, Alan						
Cypress Creek Renewables	Non Voting	Kemp , Melissa	Eskew , Ollivia	Kohlstedt, Kevin							
Ecesis LLC Energya VM	Non Voting Non Voting	Wu , Brian Garcia , Francisco	Maeso , Manual	Lopez, Ana	Corvillo , Cristina						
Fluent Energy	Non Voting Non Voting	Acampora , Peter	Doll , Ed	ьорсг, мна	Corvino , Cristilia						
	Non Voting	Falcier, Peter	Robinson , James			1					1

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
ighview Power Storage, Inc.	Non Voting	Riley, Richard	Minopoli , Salvatore								
ndson River Energy Group	Non Voting	Radigan, Frank	Canfield, Richard								
vdro-Quebec TransEnergie	Non Voting	Prevost, Michel									
C Mid-Atlantic Development LLC	Non Voting	Wrenbeck, Tom	Benedict, Nathan								
titute for Policy Integrity at NYU School of Law	Non Voting	Unel, Burcin	Noll, Bethany	Bialek , Sylwia	Gundlach , Justin						
Power Grid NY	Non Voting	Willick, Lawrence	York , Joshua	Carroll , Casey	Hayes , Patrick						
ckport Energy Assoc.	Non Voting	Gesicki, Thomas	Youngberg, Mary								
onsdale Biomass, LLC	Non Voting	Ralston, William	Hebel, Nathan	Carrigan , Kathleen							
G Energy Solutions, Inc.	Non Voting	Pelletier, Simon	Vezina, Alexandre								
rathon Energy	Non Voting	Nichols, Jim	Perrotti , Frank	Yeager, Keith							
G Curtailment Solutions, Inc.	Non Voting	✔ Popova , Julia	Ainspan, Malcolm	Pieniazek, Marie							
Y-BEST Consortium	Non Voting	Acker, William	Sheehan, Denise								
'S Department of Public Service	Non Voting	✓ Paynter , Thomas	Evans , Adam								
ional Fuel Gas Distribution Corporation	Non Voting	Stankovski , Maryann	Eck, Robert			İ					İ
w Athens Generating Co. LLC	Non Voting	Tripp, Hank									
rtheast Clean Heat & Power Initiative	Non Voting	Melpignano, Kristin	Brown, Ruben	Cinadr , Matt	Dwyer, Herb	Lillian, Jon					
Energen	Non Voting	Hamilton , Sandy	Korczykowski, Ryan								
s Power, LLC	Non Voting	Fraenkel, Alex									
NEW Northeast	Non Voting	Pullaro, Francis	Krich, Abigail								
hard P. Felak	Non Voting	Felak, Rich									
EM, Inc.	Non Voting	Ko, Ted	Bellacicco, John								
acen Energy East LP	Non Voting	Peebles , Andy	Miller, Jason								
ion, LLC	Non Voting	Doering, Anthony	Sunderman, Derek								
nens Energy, Inc.	Non Voting	Feltes, James									
olor Biomass Energy, LLC	Non Voting	Taylor, Jim	Page, Allan								
chos Energy, LLC	Non Voting	Maclearnsberry, Kirk	VanCoevering , Darrel								
a, Inc.	Non Voting	Van Cleve , Sarah	Gilfenbaum, Eliah								
sAlta Energy Marketing (U.S.) Inc.	Non Voting	Nivolianitis, Ted	Abend, Erik								
nsmission Developers Inc.	Non Voting	Jessome , Donald	Helmer, William	Harrison, Bob	Coxe, Raymond						
source New York, LLC	Non Voting	Rupert, David	Cundiff, Robert								
eelabrator Technologies, Inc.	Non Voting	Goldie, Reg	Ginnetti, Jim								
lliam P. Short	Non Voting	Short, William	Schaefer, Marc		Savage, Paul	Verna, Jim					