NYISO Business Issues Committee Meeting Minutes October 14, 2015 10:05 a.m. – 12:00 p.m.

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

The chair of the Business Issues Committee (BIC), Ms. Patti Caletka (NYSEG) called the meeting to order at 10:05 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. Meeting Minutes

Motion #1: Motion to approve the Minutes of the August 12, 2015 BIC meeting.

Motion passed unanimously.

Motion #2: Motion to approve the Minutes of the September 16, 2015 BIC meeting.

Motion passed unanimously.

3. Market Operations Report

Mr. Robb Pike (NYISO) reviewed the market operations report included with the meeting material. There were no questions.

4. Seams Report

Mr. Pike reviewed the seams report included with the meeting material. Mr. Howard Fromer (PSEG) asked for an update on the status of monitoring the discrepancy between NYISO and PJM offer price caps. Mr. Pike explained that the NYISO is continuing to monitor the status of PJM's proposal to increase its offer cap and has asked Potomac Economics to review it as well.

5. Planning Update

Mr. Henry Chao (NYISO) reported that the 2015 CARIS study was complete and would be voted on at today's meeting. Mr. Chao also noted that the solicitation for a public policy transmission solutions in response to the Western New York Public Policy Transmission Need identified by the New York State Public Service Commission (PSC) will be issued on November 1, 2015.

6. Enhancements to Submitting Risk Management Policies and Procedures

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

Motion #3:

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 as described in the presentation entitled "Enhancements to Submitting Risk Management Policies and Procedures," made at the October 14, 2015 BIC meeting.

Motion passed unanimously.

7. Comprehensive Scarcity Pricing

Mr. Ethan Avallone (NYISO) reviewed the presentation included with the meeting material. Ms. Doreen Saia (Greenberg Traurig) asked for confirmation that, when the NYISO activates SCR/EDRP resources, the amount of additional 30-minute reserves procured is also being increased within the existing reserve region(s) to which the activated zones belong. Mr. Avallone explained the NYISO's intent is that the scarcity reserve requirement must be procured as additional 30 minute reserve in any existing reserve region(s) to which the entire scarcity reserve region is a member. For example, if there was an activation in zones G-K, the 30-minute reserve requirement would be increased not only there, but also for EAST and for NYCA to ensure that it is appropriately modeled. The NYISO will clarify this item in the Tariff language to be presented at the Management Committee.

Mr. Mike Cadwalader (Atlantic Economics) submitted the following statement for inclusion in the minutes:

The proposal that is before BIC is a significant improvement on the scarcity pricing procedures that are currently in effect. As the ISO stated, it addresses concerns raised by the TOs in 2013 that the current scarcity pricing mechanism produces prices for energy and operating reserves that are inconsistent with each other. This may lead either to windfalls or to losses that would be offset by DAMAPs. It also addresses similar concerns that the MMU has raised regarding inconsistent pricing of internal and external transactions. This can produce similar outcomes to the inconsistency issue that the TOs noted. And it contains other improvements. The determination of whether there is scarcity now considers the likely response of demand response, rather than assuming a 100 percent response rate. And it takes into consideration resources that could have been used to meet load, but which cannot provide 30-minute reserve.

However, it still has its weaknesses; it may produce a less efficient dispatch. This may occur because it increases the 30-minute reserve requirement in cases when the anticipated impact of demand response on load exceeds the amount of capacity available within 30 to 60 minutes that could have met that load. Given the increased 30minute reserve requirement, RTC and RTD will attempt to create additional 30-minute reserve through dispatching down cheap generation and dispatching up expensive generation. It can also occur because the NYCA 30-minute reserve demand curve is being increased to \$500/MWh in cases when demand response is only activated within part of the state. As a result, in cases where there were enough resources to have met load and operating reserve requirements even without the load reduction provided by DR, but the marginal cost of providing OR was more than \$25, RTD would have been willing to incur a NYCA 30-minute reserve shortage because the demand curve was only set at \$25. It would now not run the shortage and incur costs of more than \$25/MWh to avoid the shortage, so there would be an increase in 30-minute reserve costs, even though there is no scarcity.

[The] Transmission Owners are also concerned about the provision that disregards capacity that is not available within 60 minutes when determining whether the 30-minute reserve requirement should be increased. This will lead to cases when the 30-minute reserve requirement will be increased even though online capacity would have been able to offset the load that would [have] been there if DR providers had not reduced consumption. In such cases, we do not think that scarcity pricing is appropriate.

[The] Transmission Owners proposed an alternative method, which the ISO calls Option 2, that we believe would address these concerns. However, the ISO states that implementation of Option 2 would cost several million dollars more than Option 1 and would take several years. The estimated savings from eliminating the inefficient redispatch does not appear to justify the additional cost that developing Option 2 would entail. It also appears that the 60-minute limitation would not affect prices very often. Therefore, based on these projections, we are willing to support the ISO's proposal. However, we should reassess, once we have actual experience with CSP [Comprehensive Scarcity Pricing], to see if the expectations upon which our support for CSP was predicated were correct.

Therefore, we [the Transmission Owners] will move to amend the motion to:

- Request that the ISO and/or its Market Monitoring Unit ("MMU") monitor the effects of these changes on real-time market outcomes during EDRP/SCR activations.
- Request that once they have gained sufficient experience with these revised procedures, the ISO and/or the MMU report to stakeholders regarding:
 - The impact of these revised procedures on dispatch efficiency.
 - Whether changes to the definition of Available Operating Capacity (e.g., eliminating the 60-minute limit) would have significantly affected the frequency with which scarcity pricing would have been applied.

Motion #4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff (MST) and Open Access Transmission Tariff (OATT) related to the Comprehensive Scarcity Pricing proposal, as more fully described in the presentation entitled "Comprehensive Scarcity Pricing" made to the BIC on October 14, 2015. The BIC also requests that the NYISO and/or its Market Monitoring Unit ("MMU") monitor the effects of these changes on real-time market outcomes during EDRP/SCR activations. After sufficient experience has been gained with these revised procedures, the BIC requests that the NYISO and/or the MMU report to stakeholders regarding: (1) whether these revised procedures had any significant effects on dispatch efficiency and (2) whether changes to

the definition of Available Operating Capacity would have significantly affected the frequency with which scarcity pricing would have been applied.

Motion passed unanimously with abstentions.

Motion #4A:

Motion to amend Motion #4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff (MST) and Open Access Transmission Tariff (OATT) related to the Comprehensive Scarcity Pricing proposal, as more fully described in the presentation entitled "Comprehensive Scarcity Pricing" made to the BIC on October 14, 2015. <u>The BIC also requests that the NYISO and/or its Market Monitoring Unit ("MMU") monitor the effects of these changes on real-time market outcomes during EDRP/SCR activations. After sufficient experience has been gained with these revised procedures, the BIC requests that the NYISO and/or the MMU report to stakeholders regarding: (1) whether these revised procedures had any significant effects on dispatch efficiency and (2) whether changes to the definition of Available Operating Capacity would have significantly affected the frequency with which scarcity pricing would have been applied.</u>

Motion passed unanimously.

8. Proposed Revision of the Transmission Expansion and Interconnection (TEI) Manual

Mr. Steve Corey (NYISO) reviewed the presentation included with the meeting material. Mr. Fromer requested the NYISO to report at TPAS whenever the NYISO determined whether an SIS study is required or not (similar to current reporting of materiality determinations) and the NYISO agreed with that request.

Motion #5:

The Business Issues Committee (BIC) hereby approves the Transmission Expansion and Interconnection Manual revisions as presented and discussed at the October 14, 2015 BIC meeting.

Motion passed unanimously with abstentions.

9. NY Generation Attribute Tracking System Data Feed and Code of Conduct Change

Mr. John Bub (NYISO) and Mr. Chris Sharp (NYISO) reviewed the presentation included with the meeting material. Mr. Bub explained that the NYISO currently produces reports to support NYSERDA's RPS, or the Renewable Portfolio Standard.. The NYISO also supplies data on an annual basis to the PSC to support the Environmental Disclosure Program (EDP) labeling effort.

NYSERDA, through a contractor (APX), is creating a Generation Attribute Tracking System (NYGATS) that will support RPS and EDP, and permit creation of a voluntary trading market for Renewable Energy Credits (RECs). This project has been discussed since 2004. Several Market Participants inquired about protecting the confidentiality of the data. Mr. Sharp explained that the NYISO has drafted the tariff language to keep the data as confidential as possible. NYSERDA will be responsible to notify the NYISO if there are any Freedom of Information Law (FOIL) requests for the data. There is no way to preclude the possibility of a FOIL request for the data; however, Mr. Peter Keane (NYSERDA) and Ms. Doreen Harris (NYSERDA) indicated that they believe the confidential data the NYISO is providing is commercially sensitive and therefore should be exempt from disclosure under FOIL should a request be received by NYSERDA. The NYISO committed to clarify the tariff language prior to presentation at the MC to be more specific about the data that will be provided by NYISO for NYGATS and to specify that the information will be shared pursuant to a confidentiality agreement

Motion #6:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Open Access Transmission Tariff as described in the presentation entitled "NY Generation Attribute Tracking System Data Feed and Code of Conduct Change," made to the BIC on October 14, 2015.

Motion passed unanimously.

10. 2015 CARIS Phase 1 Report

Mr. Tim Duffy (NYISO) reviewed the presentation included with the meeting material. Mr. Scott Butler (Con Edison) stated Con Edison would abstain on the vote related to the report today. Mr. Butler clarified that Con Edison's abstention is certainly not meant as a criticism of the NYISO's efforts on this report, because Mr. Butler believes Tim Duffy has done a masterful job of keeping Stakeholders involved and getting their input. Mr. Butler noted that there are a lot of ways you can look at the economic costs and benefits of projects, and a lot of different assumptions you can make. Mr. Butler indicated that there are certain assumptions that Con Edison does not fully agree with (such as the assumed cost of energy efficiency, and the gas price forecast methodology). Mr. Butler noted that these issues are the reason for Con Edison's abstention.

Motion #7:

The Business Issues Committee (BIC) recommends that the Management Committee recommend that the Board of Directors approve the NYISO 2015 Congestion Assessment and Resource Integration Study Phase 1 Report (2015 CARIS Phase 1 Report) as presented by the NYISO to the BIC at its October 14, 2015 meeting. The 2015 CARIS Phase 1 Report was prepared by the NYISO in consultation with and subject to review by the Electric System Planning Working Group and the Transmission Planning Advisory Subcommittee.

Motion passed unanimously with an abstention.

11. T&D Manual Revisions for FASR and Other Minor Updates

Mr. James Pigeon (NYISO) reviewed the presentation included with the meeting material. There were no questions.

Motion #8:

The Business Issues Committee (BIC) hereby approves the Transmission and Dispatching Manual revisions as presented and discussed at the October 14, 2015 BIC meeting.

Motion passed unanimously.

12. Working Group Updates

BAWG – Mr. Norman Mah (Con Ed Solutions) reported that BAWG met on September 22, 2015 to review the standard accounting reports.

CPWG – Mr. Mah reported that CPWG discussed Balance-of-Period TCC Credit Policy and Enhancements to Submitting Risk Management Policies.

ESPWG – Mr. Butler reported that ESPWG met in conjunction with other working groups on the Reliability Must Run (RMR) compliance filing. Mr. Butler also noted that ESPWG has been working on the transmission security cost allocation methodology which will be filed as part of the RMR

compliance filing. ESPWG also completed the work on reviewing the CARIS Phase 1 report, discussed possible LTP updates due to the Ginna retirement and received an update on the status of the ongoing public policy planning process.

ICAPWG – Ms. Debbie Eckels (NYISO) reported that ICAPWG has spent several meetings reviewing the RMR compliance filing. Ms. Eckels noted that the discussions regarding the Demand Curve Reset will begin on October 19, 2015.

IPTF – The group did not meet.

LFTF – Mr. Bryan Irrgang (PSEG Long Island) reported that LFTF met twice during the month of September. LFTF prepared and reviewed weather normalized peaks from Summer 2015. LFTF also updated the regional load growth factors for 2016 and prepared a 2016 load forecast for the New York State Reliability Council for use in connection with the 2016 installed reserve margin study. The LFTF will meet twice in October – October 21, 2015 and October 22, 2015. The fall economic conference will be held on October 21, 2015. The LFTF will discuss long term forecast methods on October 22, 2015.

MIWG – Mr. Chris LaRoe (Brookfield) reported that MIWG has also been working on the RMR compliance filing.

PRWLG – The group did not meet.

EGCWG – The group did not meet.

13. New Business

Mr. Pike reported that the NYISO intends to submit a request to FERC on or about October 16, 2015 to request an extension of time to implement a limited aspect of the Comprehensive Shortage Pricing project that is contingent on the implementation of the graduated transmission demand curve. Specifically, the NYISO will seek permission to delay implementation of the revisions to the definition of "Transmission Shortage Cost" that were previously approved by FERC as part of the Comprehensive Shortage Pricing project. The NYISO intends to proceed with activating all other aspects of the Comprehensive Shortage Pricing project in early November 2015.

The meeting adjourned at 11:30 a.m.

Business Issues Committee

October 14, 2015 Meeting Final Motions

Motion #1:

Motion to approve the Minutes of the August 21, 2015 BIC meeting.

Motion passed unanimously.

Motion #2:

Motion to approve the Minutes of the September 16, 2015 BIC meeting.

Motion passed unanimously.

Motion #3:

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 as described in the presentation entitled "Enhancements to Submitting Risk Management Policies and Procedures," made at the October 14, 2015 BIC meeting.

Motion passed unanimously.

Motion #4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff (MST) and Open Access Transmission Tariff (OATT) related to the Comprehensive Scarcity Pricing proposal, as more fully described in the presentation entitled "Comprehensive Scarcity Pricing" made to the BIC on October 14, 2015. The BIC also requests that the NYISO and/or its Market Monitoring Unit ("MMU") monitor the effects of these changes on real-time market outcomes during EDRP/SCR activations. After sufficient experience has been gained with these revised procedures, the BIC requests that the NYISO and/or the MMU report to stakeholders regarding: (1) whether these revised procedures had any significant effects on dispatch efficiency and (2) whether changes to the definition of Available Operating Capacity would have significantly affected the frequency with which scarcity pricing would have been applied.

Motion passed unanimously with abstentions.

Motion 4A:

Motion to amend motion 4:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Market Administration and Control Area Services Tariff (MST) and Open Access Transmission Tariff (OATT) related to the Comprehensive Scarcity Pricing proposal, as more fully described in the presentation entitled "Comprehensive Scarcity Pricing" made to the BIC on October 14, 2015. <u>The</u> BIC also requests that the NYISO and/or its Market Monitoring Unit ("MMU") monitor the effects of these changes on real-time market outcomes during EDRP/SCR activations. After sufficient experience has been gained with these revised procedures, the BIC requests that the NYISO and/or the MMU report to stakeholders regarding: (1) whether these revised procedures had any significant effects on dispatch efficiency and (2) whether changes to the definition of Available Operating Capacity would have significantly affected the frequency with which scarcity pricing would have been applied.

Motion passed unanimously.

Motion #5:

The Business Issues Committee (BIC) hereby approves the Transmission Expansion and Interconnection Manual revisions as presented and discussed at the October 14, 2015 BIC meeting.

Motion passed unanimously with abstentions.

Motion #6:

The Business Issues Committee ("BIC") hereby recommends that the Management Committee approve changes to the NYISO's Open Access Transmission Tariff as described in the presentation entitled "NY Generation Attribute Tracking System Data Feed and Code of Conduct Change," made to the BIC on October 14, 2015.

Motion passed unanimously.

Motion #7:

The Business Issues Committee (BIC) recommends that the Management Committee recommend that the Board of Directors approve the NYISO 2015 Congestion Assessment and Resource Integration Study Phase 1 Report (2015 CARIS Phase 1 Report) as presented by the NYISO to the BIC at its October 14, 2015 meeting. The 2015 CARIS Phase 1 Report was prepared by the NYISO in consultation with and subject to review by the Electric System Planning Working Group and the Transmission Planning Advisory Subcommittee.

Motion passed unanimously with an abstention.

Motion #8:

The Business Issues Committee (BIC) hereby approves the Transmission and Dispatching Manual revisions as presented and discussed at the October 14, 2015 BIC meeting.

Motion passed unanimously.

New York Independent System Operator - Committee Membership

Business Issues Committee - October 14, 2015 - NYISO - Parties Checked in Attendance

rganization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
oria Energy LLC	Generation Owners	McCall, Chuck	Habib , Phillipe	Singer, Leonard							
V Valley LLC	Generation Owners	Remillard, Steven	Litchfield , Matt	Bruno, Michael	Felak, Rich						
vine	Generation Owners	Kruse, Brett	Reitmeyer, Jay	Flumerfelt, John	Schleimer, Steve	LaRoe , Chris					
ket Valley Energy Center	Generation Owners	De Meyere , Bob	Wallenstein, Arnold	Ahrens, Jeff	,						
Renewables North America LLC	Generation Owners	Brodbeck , John	Kaplan, Seth	Grimes, Mike	Nemeth, Jeffrey	Harmon, Brad					
Coast Power, LLC	Generation Owners	Shanker, Roy	Fogarty, Thomas	Fisher, Amy							
rgy Nuclear Northeast	Generation Owners	Logan , Kathy	Potkin, Marc	Saia, Doreen	Del Orto, Ken						
yard Wind LLC	Generation Owners	Merich, Olivia	Rugh , Chris	Sala, Doreen	Der Onto, Ken						
ck Energy Services, Inc.	Generation Owners	Ferguson, Mike	Schrage, John	Younger, Mark							
wative Energy Systems	Generation Owners	Zeliff, Peter	Henningham, Scott	I ounger, Mark							
nergy Energy Management LLC	Generation Owners	Ma, Alex	Goldstein, Michael	Orzel, Chris							
onal Grid Generation LLC	Generation Owners	Kain, Terrence	McCabe, Brian	Orzer, Chiris							
Athens Generating Co. LLC	Generation Owners	Breen, Jack	Litchfield, Matt	DeVinney, Dan	Felak, Rich						
e Environmental Power LLC	Generation Owners	Silton, Harry	Elicinicia, Matt	De vinney, Dan	I Clak, Kich						
irk Cogen Partners, LP	Generation Owners	Biittig, Timothy	Ryan, James								
erset Operating Company, LLC	Generation Owners	Evanoski , Dave	-	McManus, John							
			Goodenough, Jeery								
nentown Spindle, LLC	Generation Owners	Hebert, Chris	Bullwinkel, Aaron	O'Brien, Robin	Hasher Ma						
Ravenswood, Inc.	Generation Owners	Taylor, William	DAndrea, James	Congel, Dan	Hachey, Mike						
nergy LLC	Other Suppliers	Ni, Bing Proceett Bandy	Lee, George	Descott Laffmary							
Energy Company	Other Suppliers	Prescott , Randy Nichols , Jim	Magruder, Kathy	Bassett, Jeffrey	Ginson Jan						
Rock Energy, Inc. kfield Energy Marketing	Other Suppliers Other Suppliers	LaRoe, Chris	Eno, Jason	VanHorne, Phil	Gipson, Jon						
			Mitreski, Aleksandar	Mitelman, Rimma	Dallaire, Eric						
wer	Other Suppliers	Markham , Craig	Lacey, Frank	Damaskos, Deno	🗸 Ackerman, Alan						
eton Commodities Merchant Trading L.P.	Other Suppliers	Stuss , Gordon	Cheong, Mei								
roup Energy Inc.	Other Suppliers	Trayers, Barry									
Edison Solutions Inc.	Other Suppliers	🗸 Mah, Norman	Dannels, Jeff								
tellation New Energy	Other Suppliers	McCartney, Glen	Wentlent, Chris	Kirk, Steven							
s Sound Cable Company, LLC	Other Suppliers	Reinhart, Brian	Rotger, Jose								
Energy	Other Suppliers	Bleiweis, Bruce	Stevens, Andrew	Tate, Matthew	Milberg, Sadao	Kuo, David					
Energy	Other Suppliers	Pakela, Gregory	Wieszczyk, Raymond	German , Robert							
ct Energy Business Marketing, LLC	Other Suppliers	Philips, Marjorie	Comstock, Read								
egy Power Marketing, Inc.	Other Suppliers	Roby , Rick	Ellis, Dean	Daley, Marty							
Trading North America, LLC	Other Suppliers	Erbrick, Michael	LeForce, Randall								
Noc	Other Suppliers	Brewster, David	Breidenbaugh, Aaron	Geller, Greg							
gy Spectrum	Other Suppliers	David, Gary	Ahrens, David	Neiburg, David	Iskowitz, Aron	Brown, Ruben	Pentland, William	Villegas, Cristina			
gy Technology Savings	Other Suppliers	Hendler, Jeff	Ross, Valerie	Nudelman, Craig							
gyConnect	Other Suppliers	Campbell, Bruce	Davis, Robert	 Lawrence , David 							
on Generating Co. LLC	Other Suppliers	McCartney, Glen	Wentlent, Chris	Kirk , Steven	Sears , Deborah						
Suez Energy NA, Inc.	Other Suppliers	Levine, Jeffrey	Hawkins , Darin	Campbell, Chad							
Power	Other Suppliers	Fernands, Rochelle	🗸 Ackerman, Alan								
Energy Services US	Other Suppliers	Bernier, Luc	Collins , Kyle	Leuthauser, Scott	Vennes, Yannick						
ventive Power	Other Suppliers	Gruber, Craig	Halford, Steve								1
rys Energy Services of New York, Inc	Other Suppliers	Haugh, Michael									1
sdale Biomass, LLC	Other Suppliers	Ralston, William	Hebel, Nathan	Carrigan, Kathleen							
uria Energy America, Inc.	Other Suppliers	Davis, Andrew	Younger, Mark	-							
gan Stanley Capital Group, Inc.	Other Suppliers	Murray, Patrick	Kochonies, Karen	Ezickson, Doron							
Power Marketing Inc.	Other Suppliers	Joseph , Kelli	Fuller, Peter	Neal, David							
Era Energy	Other Suppliers	Applebaum, David	Gardner, Michelle	Gil, David							
e Americas Gas & Power Corp.	Other Suppliers	Boston , Roy	Kyle , Chris	🗸 Sunga , Leonard							
rio Power Generation, Inc.	Other Suppliers	Lacivita, Ken	Gell, Richard	Barr, David	Sheinfield , Joel						1
Energy Resource & Trade, LLC	Other Suppliers	Fromer, Howard	Carretta, Kenneth	Messmer, Robert	Murawski, James						
rex Corporation	Other Suppliers	Tang, Glen	Dion, Julien	Fichten , Murray	,						
ol Energy North America Corporation	Other Suppliers	Moreton, Samuel	Horvath, Peter	,,							
bay Corporation	Other Suppliers	Merola, Peter	Freedman, Herbert	Ahrens, David	Villegas , Cristina						
CO Enterprises, LLC	Other Suppliers	Schubiger, Michael	Thoresen, James	,							
Energy North America, LLC	Other Suppliers	Picardi, Matt	French, Dave								
n Energy	Other Suppliers	Hyzinski , Tom	Greening, Michele								
sCanada Power Marketing, Ltd.	Other Suppliers	Taylor, William	D'Andrea, James	Congel, Dan	Hachey, Mike						
Cities Power LLC	Other Suppliers	Staska, Stephanie	Dube, Alex		,						

Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6
U.S. Power Generating Co.	Other Suppliers	🖌 Baker, Liam	Reese, John	🗸 LaRoe , Chris				
Viridity Energy, Inc.	Other Suppliers	Freifeld, Allen						
Vitol Inc.	Other Suppliers	Wadsworth , Joe	Viola , Bob	Kam, Kenney				
KO Energy NY, LP	Other Suppliers	Drangula, Carey	Thompson, Matthew	Hughes, Adam				
Central Hudson Gas & Electric Corp.	Transmission Owners	Borchert , John	Chan, Ting	Seitz, Diane	Dittmann, David			
Consolidated Edison Co. of NY, Inc.	Transmission Owners	🗸 Quin , Jane	Nachmias, Stuart	Altobell, Deidre	Butler, Scott	Butterklee, Neil		
National Grid	Transmission Owners	✓ Franey, Bart	Lodemore, David					
New York State Electric & Gas (NYSEG)	Transmission Owners	Caletka, Patricia	Kinney, Ray	Brophy, Richard				
Orange & Rockland Utilities, Inc.	Transmission Owners	· · · ·	5, 5	- 137				
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			
BM Corporation	Large Consumer		0.01					
•		Mager, Michael	Loughney, Robert	Trinsey, Amanda	🗸 Lang, Kevin			
Nucor Steel Auburn, Inc.	Large Consumer	Brew, James	Radigan, Frank	Kopon, Owen	1			
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	George, Quintin	Luthin, Catherine	Dowling, John	Loughney, Robert	Mager, Michael	🗸 Lang, Kevin	
Association for Energy Affordability	Small Consumer	Morris, Jackson	Hepinstall, David	Strauss, Valerie				
Beth Israel Health Care System	Small Consumer	Luthin, Catherine	Dowling, John	Loughney, Robert	Mager, Michael	🖌 Lang, Kevin		
Fordham University	Small Consumer	Dowling, John	Luthin, Catherine	Loughney, Robert	Mager, Michael	Lang, Kevin		
Memorial Sloan Kettering Cancer Center	Small Consumer	Dowling, John	Luthin, Catherine	Loughney, Robert	Mager, Michael	Lang, Kevin		
Mount Sinai Medical Center	Small Consumer	Luthin, Catherine	Dowling, John	Loughney, Robert	Mager, Michael	Lang, Kevin		
New York University	Small Consumer	Luthin, Catherine	Dowling, John	Loughney, Robert	Mager, Michael	Lang, Kevin		
Utility Intervention Unit, Division of Consumer	Government Statewide Consumer Advocate		Downing, John	0,000		V Lang, Kevin		
Protection, NY Dept. of State City of New York	Government Statewide Consumer and Retail	V Hogan , Erin	Rigberg, Saul	Montalvo, Marc	Pereira , Alvaro			
VYS Energy Research & Dev. Authority	Aggregate Government Small Consumer and Retail	🗸 Lang, Kevin	Mager, Michael	Trinsey, Amanda				
13 Energy Research & Dev. Authority	Aggregate	Williams, John	Hall , Christopher	d'Aversa , Jon-Paul				
Long Island Power Authority	State Power Authorities	Clarke, Dave	Wilczek , Mariann					
New York Power Authority	State Power Authorities	Antinori , Andrew	Boyle, Bob	Fossa, Andrea	Mahoney , Daniel	Wilkie, Brian		
Bath Electric, Gas & Water Systems	Municipalities and Coops	Moore, Ken	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			
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	Moore, Ken	Bolbrock, Richard	Cordeiro, Mark				
Village of Rockville Centre	Municipalities and Coops	Andreas, Philip	Cardile, Thomas	🗸 Rudebusch, Tom				
Village of Solvay	Municipalities and Coops	Mondre, Judith	Bolbrock, Richard	Cordeiro, Mark				
Village of Westfield	Municipalities and Coops	Hamilton, James	Bolbrock, Richard	Cordeiro, Mark				
American Lung Association	Environmental	Gahl , David	Seilback, Michaek	Miller, Edward				
American Wind Energy Association	Environmental	Reynolds, Anne	Gramlich, Robert					
Environmental Advocates	Environmental	Bambrick , Conor	Gahl , David	Morris, Jackson				
Natural Resources Defense Council	Environmental	Morris, Jackson	Clements, Allison	Kennedy, Kit				
PACE Energy & Climate Center	Environmental	Gahl , David	Bowie, John	Morris, Jackson				
Riverkeeper	Environmental	Gallay, Paul	Gahl , David	Morris, Jackson				
Ace Energy Company, Inc.	Non Voting	Lynch, Stephen						
Alliance for Clean Energy New York	Non Voting	Reynolds, Anne						
Anbaric Northeast Transmission Development Co.	Non Voting	Sanderson, Barry						
Appian Way Energy Partners East, LLC	Non Voting	Levy , Tal	Klein , Abram	Shen, Dong	Westlund , John	Laich , Marcus		
Beacon Power LLC	Non Voting	Hebert, Chris	Bullwinkel, Aaron	O'Brien, Robin				
Boston Energy Marketing & Trading	Non Voting	Kramek , Mike						
Boundless Energy, LLC	Non Voting	Tompkins John, E.	Pratt, Charles					
Bruce Power	Non Voting	Viswanathan , Samira	Meyer, Sandra					
Caithness Energy LLC	Non Voting	Keevill , Gary	Collins, Kevin	Garber, Mitchell				
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	Lundin , Tim		
Demand Response Partners	Non Voting	Dorn , Andrew	Almeter , Carl	Hourihan, Michael				
Ecogen	Non Voting	Hagner, Thomas	· ····································					
Energetix, Inc.	Non Voting	Comstock, Read						
	Non Voting	Pieniazek, Marie	1	1		1		1

6	Alternate7	Proxy	Guest
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Organization	Sector	Representative	Alternate1	Alternate2	Alternate3	Alternate4	Alternate5	Alternate6	Alternate7	Proxy	Guest
Energya VM	Non Voting	Ortiz Lopez , Jose Ignacio	Adell Almazan, Miguel								
First Wind Holdings, LLC	Non Voting	Keene , John	Salehian, Afshin								
Fluent Energy	Non Voting	Acampora, Peter	Begley, Jeff	Doll, Ed							
Great Bay Energy IV, LLC	Non Voting	Franco, Eugene	Colon, Antonio								
Hudson River Energy Group	Non Voting	Radigan, Frank	Canfield, Richard								
Hydro-Quebec TransEnergie	Non Voting	Prevost, Michel									
TC Mid-Atlantic Development LLC	Non Voting	Wrenbeck, Tom	Benedict, Nathan								
berdrola Renewables Inc	Non Voting	Allen, Thresa									
innovari, Inc.	Non Voting	Lunt, Robin	Hodges, Brent								
MAG Energy Solutions, Inc.	Non Voting	Roberge, Martin	Vezina, Alexandre								
NYS Department of Public Service	Non Voting	Paynter , Thomas	Evans, Adam								
National Fuel Gas Distribution Corporation	Non Voting	Novak , Michael	Eck , Robert								
New York Transco	Non Voting	Nachmias, Stuart	Lahtinen, James	Allen, Richard							
Noble Americas Energy Solutions	Non Voting	Sun , Jungsuk	Nakhonthap, Jade	🗸 Sunga , Leonard							
Northeast Clean Heat & Power Initiative	Non Voting	De Veer, Henrietta	Lilian , Jon	Dwyer, Herb	Brown, Ruben	Cinadr , Matt	Martin , Nicholas	Villegas, Cristina			
NuEnergen	Non Voting	Hamilton, Sandy	Korczykowski, Ryan								
Power Supply Services LLC	Non Voting	Phillips , Gabriel	Abend , Erik								
RBC Energy Services, LP	Non Voting	Burnham, Steve	Fraiture, Christian	Doolittle, Robin							
RENEW Northeast	Non Voting	Pullaro, Francis	Krich, Abigail								
RES Americas, Inc.	Non Voting	Fernandes, John	Boyd , Dan								
Red Wolf Energy Trading, LLC	Non Voting	Sharma , Rishi									
Richard P. Felak	Non Voting	Felak, Rich									
Saracen Energy East LP	Non Voting	Peebles , Andy									
Saranac Power Partners	Non Voting	Wible , Steven									
Siemens Energy, Inc.	Non Voting	Feltes, James									
Caylor Biomass Energy, LLC	Non Voting	Taylor , Jim	Page, Allan								
FransAlta Energy Marketing (U.S.) Inc.	Non Voting	Nivolianitis, Ted									
Fransmission Developers Inc.	Non Voting	Jessome, Donald	Helmer, William								
William P. Short	Non Voting	Short, William	Schaefer, Marc		Savage, Paul	Verna, Jim					