#### FINAL

Pursuant to notice duly given, a meeting of the NEPOOL Participants Committee was held via teleconference beginning at 1:00 p.m. on Wednesday, July 21, 2021. A quorum determined in accordance with the Second Restated NEPOOL Agreement was present and acting throughout the meeting. Attachment 1 identifies the members, alternates and temporary alternates who participated in the teleconference meeting.

Mr. David Cavanaugh, Chair, presided and Mr. Sebastian Lombardi, Acting Secretary, recorded. Mr. Cavanaugh began by reporting that the slate of candidates for election to the ISO Board in 2021 had been conditionally endorsed earlier that morning. Written ballots for approval of the Waiver Agreement to accomplish the temporary waivers of certain provisions of the Participant Agreement required to seat the endorsed four-person slate would be disseminated to members and, following approval by both NEPOOL and the ISO, notice of the supporting waivers would be submitted to the FERC.

# **APPROVAL OF JUNE 11 MEETING MINUTES**

Mr. Cavanaugh referred the Committee to the preliminary minutes of the June 11, 2021 Pathways Study meeting, as circulated and posted in advance of the meeting. Following motion duly made and seconded, the Committee unanimously approved those minutes with an abstention by Mr. Michael Kuser's alternate noted.

# ISO PRESENTATION ON A POTENTIAL THIRD PATHWAY (HYBRID APPROACH)

On behalf of the ISO, Mr. Chris Geissler reviewed materials that had been circulated and posted in advance of the meeting about the plan of the ISO and Analysis Group Inc. (AGI) to evaluate a potential third pathway (referred to as the hybrid approach). The contemplated analysis

of the hybrid approach was requested for consideration by NESCOE. Mr. Geissler explained the work schedule implications, noting that the inclusion of a third pathway in AGI's planned analyses would require additional time to model and complete. He noted that AGI's public report, which would include an assessment of all three approaches (FCEM, net carbon pricing, and the hybrid approach), was expected to be completed in April 2022.

Mr. Geissler then shared the ISO's initial observations of the hybrid approach. He began by noting that the hybrid approach consisted of two components, a net carbon price and a variant of a forward clean energy market (FCEM) and integrated clean capacity market (ICCM). As the ISO understands it, this potential hybrid model is intended to achieve two market outcomes simultaneously -- reducing carbon emissions in the electricity sector and producing average energy market prices that are no less than some administratively-determined value. Mr. Geissler indicated that the ISO and AGI would continue to evaluate how to most appropriately model the hybrid approach, which they expected would be more challenging and time-intensive than the separate evaluations of the two other stand-alone pathways. Given that effort, the ISO anticipated completing the review of all three potential pathways (including the hybrid approach) by April 2022, two months later than originally anticipated. Mr. Geissler noted that the ISO had agreed to study the hybrid approach to provide additional information to the region, but highlighted that the approach appeared to be attempting to meet a diverse set of objectives and might be inconsistent with sound market design. He concluded by requesting stakeholder feedback on various design elements of a hybrid construct (specifically the target LMP level and the limitation of Clean Energy Credits (CECs) to new resources (i.e., eligibility parameters)) and anything else concerning the efforts to study the three identified pathways.

At the Chair's request, Mr. Jeff Bentz, on behalf of NESCOE, provided an overview of the potential hybrid pathway as referenced in the memorandum included in the materials circulated and posted in advance of the meeting. He noted that this additional pathway is not presented as a proposal at this time, but rather as a proxy in the overall analysis that would necessarily require further judgment, analysis and evaluation. He referenced the two potential payment scenarios included in the contemplated hybrid approach, with both set no higher than the price used in AGI's central case.

In response to questions about whether existing resources with new components would be included in the model, Mr. Geissler and Mr. Bentz noted that, if included, those resources should be included in all three models to ensure consistency. When asked about Renewable Energy Credits (RECs) and FCEM clean energy certificates (CECs), Mr. Geissler noted that they would each affect resources differently under a hybrid construct. Further, when asked about the longevity of CEC credits, Mr. Geissler indicated the CEC process was not fixed and could change over time in all models. When asked if adding another approach to the study effort would create differences in outcomes, it was noted that the hybrid approach provided another, different way to look at possible outcomes. A member then provided feedback on the assumed compensation of existing and current renewables/clean energy resources and how the analysis of the model may result in inefficient interaction with the rest of the ISO market. Further, it was acknowledged that FERC Order 2222 would not be included in the scope of the planned modeling.

### **AGI PRESENTATION**

Mr. Cavanaugh then introduced Mr. Todd Schatzki who, along with his AGI colleague. Mr. Chris Llop, reviewed materials, circulated and posted in advance of the meeting, noting the "work in progress" nature of the modeling process. First, Mr. Schatzki reviewed responses to certain questions asked at prior meetings about model assumptions, inputs, and mechanics. He then discussed the proposed set of scenarios that would be evaluated, noting a change from prior presentations due to the introduction of the hybrid approach as well as a sharpened look at the scenarios to ensure they reflect the most valuable output possible. The changes were further detailed, including AGI's decision to exclude NYISO modelling in the central case and the addition of transmission congestion in the proposed set of scenarios (but not in the central case). Mr. Schatzki then reviewed the proposed quantitative scenarios across the different approaches, and the scenarios that would be reviewed separately under each of the three different potential pathways.

In response to a question regarding the use of the U.S. Energy Information Administration's (EIA) cost estimates, Mr. Llop confirmed that, for offshore wind in the first year, they planned to use the cost that includes a 25% adder (which would then decline over time). Turning to carbon pricing relative to state-sponsored contracted resources versus market resources without contracts, Mr. Schatzki indicated that they did not intend to model differences in the costs between multi-year contracts and those under net carbon pricing. AGI planned to keep assumed costs the same between the base/central case and the net carbon pricing market scenario. Discussing the resource mix assumptions further, he noted the inherent nature of the regulatory approaches that, by design, lead to a least-cost outcome, which was not the case with the status quo model. Additionally, in response to a suggestion, Mr. Schatzki noted the importance of taking the many viewpoints and policies into consideration, including legislative mandates.

Addressing next steps, Mr. Schatzki indicated that market simulations would continue to be built through October 2021, with stakeholders engaged throughout the process as needed. A presentation of AGI's preliminary analysis of the results was planned for October. Mr. Cavanaugh noted that the next Future Grid Pathways Study meeting was tentatively scheduled for August 19,

and that advanced notice would be provided if cancelled.

There being no further business, the meeting adjourned at 4:10 p.m.

Respectfully submitted,

Sebastian Lombardi, Acting Secretary

# PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES PARTICIPATING IN JULY 21, 2021 PM TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/	MEMBER NAME	ALTERNATE	PROXY
Advanced Energy Economy	GROUP Fuels Industry Participant	Caitlin Marquis	NAME	
American Detroleum Institute	Fuels Industry Participant	Paul Powers		
AR Large Renewable Generation (RG) Group Member	AR-RG	Alex Worsley		
AR Small RG Group Member	AR-RG	Frik Abend		
AR Small Load Response (LR) Group Member		Brad Swalwell		
A shumber Musiciael Liekt Dient	Publicly Owned Entity	brad Swarwen	Daira Thanasan	
ASINGUTINAM MUNICIPAL LIGHT Plant	Transmission		Iason Rauch	
Relmont Municipal Light Department	Publicly Owned Entity		Dave Cayanaugh	
Block Island Utility District	Publicly Owned Entity	Dave Cayanaugh	Dave Cavanaugh	
	AR-DG	Liz Delanev		
Borrego Solar Systems IIC.	Publicly Owned Entity	Liz Delancy	D	
Boyiston Municipal Light Department	Supplier		Brian Thomson	José Rotger
Braintree Electric Light Department	Publicly Owned Entity			Dave Cavanaugh
Brooks Dick	End User	Dick Brooks		Dave Cavanaugn
Calpina Energy Services, LP	Supplier	Bratt Krusa		Bill Fowler
Castleton Commodities Merchant Trading	Supplier	blett Kluse		Bob Stein
Chester Municipal Light Department	Publicly Owned Entity		Dave Cayanaugh	bob Stelli
Chisenes Manisipal Listéra Diset	Publicly Owned Entity		Dave Cavanaugh	
CLEAResult Consulting Inc	AR-DG	Tamera Oldfield	Brian Thomson	
Clearway Power Marketing LLC	Supplier			Pete Fuller
Concord Municipal Light Plant	Publicly Owned Entity		Dave Cayanaugh	
Connecticut Municipal Electric Energy Coon	Publicly Owned Entity	Brian Forshaw	Dave Cavanaugh	
Conservation Law Foundation (CLF)	End User	Dhalps Turner		
CPV Towantic LLC	Generation	I helps Tuller		
Cross Sound Cable Company (CSC)	Supplier	Joer Gordon	José Potger	
Danvers Electric Division	Publicly Owned Entity		Dave Cayanaugh	
Dominion Energy Generation Marketing, Inc.	Generation	Mike Durdie	Mary Nuara	
DTE Energy Trading Inc	Supplier	wike i ulule	Mary Nuara	José Potger
Dynegy Marketing and Trade LLC	Supplier			Bill Fowler
Emera Energy Services	Supplier			Bill Fowler
Enel X North America Inc	AR-IR	Michael Macrae		Biii I Owici
Environmental Defense Fund	End User	Iolette Westbrook		
Eversource Energy	Transmission	Joiette Westbrook		Parker Littlehale
Exelon Generation Company	Supplier		Bill Fowler	
FirstLight Power Management LLC	Generation	Tom Kaslow		
Galt Power Inc	Supplier	Iosé Rotger	leff Iafrati	
Generation Group Member	Generation	Dennis Duffy		
Georgetown Municipal Light Department	Publicly Owned Entity	Domino Darry	Dave Cayanaugh	
Great River Hydro	AR-RG			Bill Fowler
Groton Electric Light Department	Publicly Owned Entity		Brian Thomson	
Groveland Electric Light Department	Publicly Owned Entity		Dave Cavanaugh	
H.O. Energy Services (U.S.) Inc. (HOUS)	Supplier	Louis Guilbault	Bob Stein	
High Liner Foods (USA) Incorporated	End User		William P. Short III	
Hingham Municipal Lighting Plant	Publicly Owned Entity	John Coyle	Dave Cavanaugh	
Holden Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Holyoke Gas & Electric Department	Publicly Owned Entity		Brian Thomson	
Hull Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
Inswich Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Jericho Power LLC (Jericho)	AR-RG	Mark Spencer	_ mail monison	
Littleton (MA) Electric Light and Water Department	Publicly Owned Entity		Dave Cavanaugh	

# PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES PARTICIPATING IN JULY 21, 2021 PM TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
Long Island Power Authority (LIPA)	Supplier		Bill Killgoar	
Maine Power LLC	Supplier	Jeff Jones		
Maine Public Advocate's Office	End User	Drew Landry		
Mansfield Municipal Electric Department	Publicly Owned Entity		Brian Thomson	
Marblehead Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Mass. Attorney General's Office (MA AG)	End User	Tina Belew	Ben Griffiths	
Mass. Bay Transportation Authority	Publicly Owned Entity		Dave Cavanaugh	
Mass. Municipal Wholesale Electric Company	Publicly Owned Entity	Brian Thomson		
Mercuria Energy America, LLC	Supplier			José Rotger
Merrimac Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Michael Kuser	End User		Jason York	
Middleborough Gas & Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Middleton Municipal Electric Department	Publicly Owned Entity		Dave Cavanaugh	
National Grid	Transmission	Tim Brennan	Tim Martin	
Natural Resources Defense Council	End User	Bruce Ho		
Nautilus Power, LLC	Generation		Bill Fowler	
New England Power Generators Association (NEPGA)	Fuels Industry Participant	Bruce Anderson		
New Hampshire Electric Cooperative	Publicly Owned Entity			Brian Forshaw; Dave Cavanaugh
NextEra Energy Resources, LLC	Generation	Michelle Gardner		
North Attleborough Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Norwood Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
NRG Power Marketing LLC	Generation		Pete Fuller	
Pascoag Utility District	Publicly Owned Entity		Dave Cavanaugh	
Paxton Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Peabody Municipal Light Plant	Publicly Owned Entity		Brian Thomson	
Princeton Municipal Light Department	Publicly Owned Entity		Brian Thomson	
PSEG Energy Resources & Trade LLC	Supplier		Eric Stallings	
Reading Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Rowley Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	
Russell Municipal Light Dept	Publicly Owned Entity		Brian Thomson	
Shrewsbury Electric & Cable Operations	Publicly Owned Entity		Brian Thomson	
South Hadley Electric Light Department	Publicly Owned Entity		Brian Thomson	
Sterling Municipal Electric Light Department	Publicly Owned Entity		Brian Thomson	
Stowe Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Sunrun Inc.	AR-DG			Pete Fuller
Taunton Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	
Templeton Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
The Energy Consortium	End User	Bob Espindola		
Union of Concerned Scientists	End User		Francis Pullaro	
Vermont Electric Power Company (VELCO)	Transmission	Frank Ettori		
Vermont Public Power Supply Authority	Publicly Owned Entity			Brian Forshaw
Village of Hyde Park (VT) Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Wakefield Municipal Gas and Light Department	Publicly Owned Entity		Brian Thomson	
Wallingford DPU Electric Division	Publicly Owned Entity		Dave Cavanaugh	
Wellesley Municipal Light Plant	Publicly Owned Entity		Dave Cavanaugh	
West Boylston Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
Westfield Gas & Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Wheelabrator North Andover Inc.	AR-RG		Bill Fowler	