Attachment I

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. **Docket No. ER25-596-000**

SUPPLEMENTAL AFFIDAVIT OF PAUL J. HIBBARD, DR. TODD SCHATZKI, JOSEPH CAVICCHI, CHARLES WU, AND DR. DANIEL STUART

I. Qualifications

A. Paul Hibbard, Dr. Todd Schatzki, Joseph Cavicchi, Charles Wu, and Dr. Daniel Stuart

1. We have previously provided an affidavit as part of the New York Independent System Operator, Inc. (NYISO) initial filing in the above captioned docket that was submitted on November 29, 2024 (2025-2029 DCR Filing).[1] Our qualifications are described therein.

II. Purpose and Summary of Supplemental Affidavit

2. This supplemental affidavit provides our response to certain comments and protests received in response to the 2025-2029 DCR Filing, particularly as they relate to financial parameters.[2] First, for context, we briefly summarize the process we used to arrive at our conclusions and recommendations related to the financial parameters, as described and documented in the Initial Affidavit and our final report.[3] Next, we discuss issues raised in comments and protests related to the proposed financial parameters, including the cost of

[1] *See* Docket No. ER25-596-000, *New York Independent System Operator, Inc.*, 2025-2029 ICAP Demand Curve Reset Proposal at Attachment III (*Affidavit of Paul J. Hibbard, Dr. Todd Schatzki, Joseph Cavicchi, Charles Wu, and Dr. Daniel Stuart*) (November 29, 2024) (hereafter, the "Initial Affidavit"). Capitalized terms that are not specifically defined in this Supplemental Affidavit shall have the meaning set forth in the filing to which this affidavit is attached or, if not defined therein, the meaning set forth in the NYISO Market Administration and Control Area Services Tariff (Services Tariff).

[2] *See, e.g.*, Docket No. ER25-596-000, *supra*, Protest of Independent Power Producers of New York, Inc. (December 20, 2024) (hereafter, the "IPPNY Protest"); and Docket No. ER25-596-000, *supra*, Protest of Ravenswood Operations, LLC (December 20, 2024) (hereafter, the "Ravenswood Protest").

[3] Initial Affidavit at Exhibit F (hereafter, the "Final Report").

equity, cost of debt, and debt to equity ratio. Finally, we evaluate and respond to the issues raised.

3. In summary, we find that most of the comments raised by the IPPNY Protest and the Ravenswood Protest were raised and responded to in the tariff-required stakeholder process for developing the NYISO's proposal and addressed in the 2025-2029 DCR Filing. Further, we disagree with the characterizations and opinions presented in the affidavits submitted as part of the IPPNY Protest by Mr. Mark Younger[4] and Mr. Ronald J. Arsenault and Mr. Fengrong Li of FTI Consulting, Inc.,[5] as well as those raised in the affidavit submitted by Mr. Richard Roloff as part of the Ravenswood Protest.[6] In short, nothing in the IPPNY Protest or Ravenswood Protest alters our analysis, findings or opinions regarding the appropriate financial parameters to use in setting the NYISO ICAP Demand Curves for the 2025-2029 reset period or otherwise demonstrates that the NYISO's proposed financial parameters are unjust, unreasonable, or lack adequate support.

III. Overview and Summary of the Final Report

4. As described in our Initial Affidavit, our analyses and recommendations reflect information on data, assumptions and methods from a wide range of sources, applied to arrive at estimates of the cost to construct and operate various technology options to serve as the basis of the ICAP Demand Curves for the 2025-2029 reset period. Based on the results of our analyses, we recommended selection of a 200 MW, 2-hour lithium-ion battery energy storage system (BESS) to serve as the basis for the ICAP Demand Curves for each capacity region for the 2025-2029 reset period. Our recommendations were greatly aided and improved by the full scope of comments and opinions heard throughout the extensive stakeholder process required by the Services Tariff for conducting comprehensive reviews of the ICAP Demand Curves every four years. These periodic reviews are commonly referred to as the "ICAP Demand Curve reset" (DCR). Throughout the process, we received a wide set of often divergent stakeholder opinions on a wide range of assumptions and methods, including extensive comments on the estimation of financial parameters.

[4] IPPNY Protest at Exhibit A (hereafter the "Younger Affidavit").

[5] IPPNY Protest at Exhibit B (hereafter, the "FTI Affidavit").

[6] Ravenswood Protest at Affidavit of Richard Roloff (hereafter, the "Roloff Affidavit").

5. The development of ICAP Demand Curve parameters necessarily requires the careful evaluation of a complex set of market and industry factors, and the application of reasoned and independent judgment in the face of uncertainty. For this reason, early in the process we developed a set of objectives and criteria to help guide our analysis and provide a framework for the evaluation of process and analytic alternatives. As described in our Initial Affidavit and Final Report, our assessment of the ICAP Demand Curve parameters involved a complex mix of historical data, forecasts, and modeling techniques geared towards developing an accurate representation of New York's electricity market structures and dynamics. It involved extensive review of relevant data and analytic methods, and required a selection of methods, models and data from among a range of alternatives based on the application of decision criteria and professional judgment.

6. Equally important, no single parameter or decision was determined in isolation. Our determination for the appropriate values reflects consideration of the interrelationships between and among the various models. This includes the levelized capital costs (including financial parameters) and various critical inputs to the estimation of net Energy and Ancillary Services (EAS) revenues. Our evaluation of the appropriate ICAP Demand Curve parameters reflects our judgment, based on a structured and holistic evaluation of the interplay among localized market, industry and regulatory factors, and financial risks faced by a project developer in the New York electricity market context.

7. To this end, and as described in greater detail below, in our view the NYISO's proposed ICAP Demand Curve parameters provide a fair and reasonable assessment of the divergent but inter-related issues introduced and discussed throughout the DCR.

IV. Financial Parameters

8. The financial parameters translate the upfront costs of developing new generation facilities into an annualized value. A number of stakeholders commented on our selection of financial parameters. Some stakeholders identified factors that they contend would support a higher weighted average cost of capital (WACC), while others generally supported our

recommended WACC.[7] We have reviewed these comments and protests and conclude that they do not alter our opinions with respect to the appropriate financial parameters to apply in this DCR. Our financial and economic analysis is robust and complete, and as discussed herein the positions provided in the comments and protests suffer from mistakes, misrepresentations, and unfounded opinions without a reasonable basis in fact or supporting analysis. As a result, adjustments to our recommended WACC are inappropriate and unnecessary.

9. As explained in our Initial Affidavit, we developed the financial parameters to reflect the particular financial risks faced by a developer given the nature of the project, its technology, and the New York electricity market context. The values were chosen in an integrated fashion to properly account for the interrelationships among the financial parameters. Many factors can affect the development risks of a new peaking plant, including uncertainty and variability in fuel prices and demand for capacity and energy; changes in market infrastructure (generation and transmission) over time; energy and environmental policies with implications for industry demand, resource mix and infrastructure, costs, and revenues; and the pace and nature of technological change. Our selections reflect available data on individual components of the WACC and the amortization period ("AP"), recognizing that the values for these components vary with features specific to circumstances, including location, corporate structure, prevailing economic/financial conditions, fuel and electricity market expectations, financial hedges

[7] *See* IPPNY Protest (including the Younger Affidavit and FTI Affidavit) and the Ravenswood Protest (including the Roloff Affidavit). The IPPNY Protest and Ravenswood Protest generally argue incorrectly that we ignored in our setting of financial parameters several factors, including (1) the potential for declining costs of batteries over the next 20 years; (2) the potential for capacity accreditation factors (CAFs) to decline over time; and (3) the potential for battery storage facilities to lead to declining prices in the reserves market. The IPPNY Protest and Ravenswood Protest also raise concerns related to the companies ("proxy group") and factors we evaluate in determining the appropriate cost of debt (COD), cost of equity (COE), and debt to equity ratio. Other parties support our process for evaluating and our recommendations for financial parameters. *See*, *e.g.*, Docket No. ER25-596-000, *supra*, Comments of the New York State Entities (December 20, 2024); Docket No. ER25-596-000, *supra*, Comments and Limited Protest of the Consumer Stakeholders (December 20, 2024); Docket No. ER25-596-000, *supra*, Comments of the New York Transmission Owners (December 20, 2024); Docket No. ER25-596-000, *supra*, Limited Comments by the Consolidated Edison Company of New York and Orange and Rockland Utilities in Support of the NYISO's Proposed ICAP Demand Curves for 2025-2029 (December 20, 2024); Docket No. ER25-596-000, *supra*, Supplemental Comments of Niagara Mohawk Power Corporation (December 20, 2024); and Docket No. ER25-596-000, *supra*, Limited Protest of the New York State Energy Research and Development Authority (December 20, 2024).

(such as power purchase agreements), and the nature and impact of current and potential future market and regulatory factors.

10. Ultimately, the recommended WACC and AP reflect our view of the risks associated with the merchant development of a peaking plant in the NYISO market context, and the return required by investors to compensate for those risks. Our recommendations are based on our professional judgment, reflecting the particular circumstances of merchant development of a hypothetical peaking plant in New York; the many sources of information identified and described below; professional experience, including conversations with developers and the finance community; and our view of current industry conditions and market factors, including past experience with merchant generation development in wholesale markets.

11. We found that the financial parameters should take into consideration technology-specific risk factors, such as uncertainty with respect to future CAF values for BESS, differences in factors driving technological change for each technology, and differences in the applicability of various state and federal energy and environmental policies to each technology (*i.e.*, the BESS units and simple cycle gas turbine [SCGT] technologies evaluated as potential peaking plant options for the 2025-2029 reset period). In consideration of these factors, our proposed financial parameters that underlie the WACC for each technology are different.

12. For SCGT technologies, we found that the WACC used to develop the levelized gross cost of new entry (CONE) should reflect a capital structure of 55 percent debt and 45 percent equity; a 6.7 percent cost of debt; and a 14.0 percent cost of equity, for a WACC of 9.99 percent. Based on current tax rates in New York State and New York City, this translates to a nominal after tax WACC (ATWACC) of 9.02 percent for all locations other than Load Zone J and 8.76 percent for Load Zone J.

13. For BESS technologies, we found that the WACC used to develop the levelized gross CONE should reflect a capital structure of 55 percent debt and 45 percent equity; a 7.2 percent cost of debt; and a 14.5 percent cost of equity, for a WACC of 10.49 percent. Based on current tax rates in New York State and New York City, this translates to a

nominal ATWACC of 9.45 percent for all locations other than Load Zone J and 9.17 percent for Load Zone J.

14. Below, we describe information used in developing the individual financial parameters that bear on the recommended WACC and respond to certain comments raised in response to the NYISO's initial filing.

a) Accounting for Risk

15. The IPPNY Protest and Ravenswood Protest argue that we did not appropriately account for certain elements of risk associated with BESS development in New York. Specifically, these parties incorrectly suggest that we failed to appropriately consider the following factors when setting our financial parameters: (a) the possibility that BESS could decline in cost over twenty years, which could result in lower capacity market prices, compromising the investment climate;[8] (b) the possibility that CAFs could decline over time relative to current CAFs;[9] and (c) the possibility that the addition of BESS capacity over time could lead to declining prices in ancillary services (reserves) markets.[10]

16. The IPPNY Protest and Ravenswood Protest are incorrect that we did not consider such factors in setting the WACC for BESS. Moreover, these parties fail to consider countervailing factors that would be expected to affect the direction, probability, and magnitude of the potential impacts, thus potentially exaggerating the likely impact of such factors on the financial parameters. As noted in our Final Report, our development of unique financial parameters for BESS systems reflects our consideration of these factors and several others, including:[11]

- unique physical performance risks (*e.g.*, uncertainties around physical and economic lifetimes, potential for cell degradation, uncertain market dispatch outcomes, and potential variation in operational modes over time), recognizing

[8] *See*, *e.g.*, IPPNY Protest at 15-19; and Ravenswood Protest at 5 and 13.

[9] *See*, *e.g.*, IPPNY Protest at 19-29; and Ravenswood Protest at 5 and 13. The Market Monitoring Unit also raised similar concerns regarding the potential impacts of future CAF declines for BESS. *See* Docket No. ER25-596-000, *supra*, Motion to Intervene and Comments of the New York ISO Market Monitoring Unit at 5-15 (December 20, 2024).

[10] *See*, *e.g.*, IPPNY Protest at 29; and Ravenswood Protest at 5-6 and 13.

[11] Final Report at 62-65.

that these risks are mitigated by the inclusion of augmentation costs, initial system overbuild included in capital costs, and the fact that BESS projects are typically backed by 20-year warranty and performance guarantees;

- various market performance risks associated with BESS technologies, including the fact that as a relatively early-stage technology, BESS may experience further improvements in operational performance, and thus early battery systems may be less competitive than battery units that enter the market at a later date with more advanced and/or efficient technologies;
- market risk related to CAFs that are used in determining the quantity of UCAP a resource can supply. Specifically, in our Final Report, we noted:

> "… CAF changes for the peaking plant technology used to establish each curve would lead to shifts in the demand curve and clearing price that would tend to offset the effect of any future declines in the CAFs for such peaking plant technology during the four-year period of this reset. Thus, the financial risk of CAF changes for the 2025-2029 DCR reset period is mitigated for the peaking plant technology selected to establish each demand curve. Under certain circumstances, changes in CAFs can affect future capacity market revenue streams. In particular, if the peaking plant technology were to change in a future reset to a technology that experienced CAF changes uncorrelated with batteries (*e.g.*, the CAFs of a potential future peaking plant technology remained fixed while the prior CAFs of the technology previously utilized to set the curves declined), then future CAF values beyond the four-year period of this reset could reduce the future revenue earnings of a battery. However, future CAF values are unknown given potential temporal and geographic variations in the expansion of, for example, battery storage technology and intermittent renewables in New York, which could tend to have countervailing impacts on battery storage CAFs depending on the timing, magnitude, and types of future resource additions."[12]

Finally, since 2016, the methodology for establishing the ICAP Demand Curves has been based (in part) on estimates of technology candidate revenues that are rooted in actual, current market rules and updating historical market prices. We do not recommend adjusting demand curves to account for some entities' expectations around potential future prices in energy or ancillary services markets, and/or potential future changes in market

[12] Final Report at 64.

designs. In our view, the protestors' comments about future reserve prices possibly declining are too speculative to warrant any formulaic adjustment to net energy and ancillary service revenues, or any adjustment to financial parameters to account for this alleged risk. Moreover, the Commission has expressly recognized that the implementation of the annual updating methodology for the demand curves was intended to avoid the need for such speculative adjustments by capturing the actual impacts of market rule and price changes over time.[13]

b) Cost of Debt

17. The IPPNY Protest and Ravenswood Protest suggest that the Commission should approve a cost of debt that is higher compared to our initial recommendation of 7.20 percent.[14] The IPPNY Protest recommends a value of 8.60 percent,[15] while the Ravenswood Protest provides no specific recommended value but notes that "AG's proposed 7.2 percent assumed cost of debt […] falls far short of the current cost of debt that is achievable to finance these projects"[16] and makes reference to certain rates, including "the all-in yields (cost of debt) for a basket of single asset power TLB financing was approximately 9.5 percent,"[17] four illustrative debt financings with swap-adjusted rates between 9 percent and 9.5 percent, and other term loans with yields between 6.4 percent and 7.8 percent.[18] As explained below, the methods used to obtain the suggested values are incorrect and/or inappropriate for application in the case at hand for several reasons.

18. First, the FTI Affidavit purports to have undertaken an "Investor Sentiment Survey" and rely on these "discussions" as support for their conclusions.[19] For a combination of reasons, we do not believe this information to be suitably reliable as support for

[13] *See, e.g., New York Independent System Operator, Inc.*, 158 FERC ¶ 61,028 at P 166 (2017).

[14] 2025-2029 DCR Filing at 57-58; Final Report at 65-66 and Appendix B; and Initial Affidavit at ¶ 50 and 130-134.

[15] IPPNY Protest at 14; and FTI Affidavit at ¶ 30 and 55-59.

[16] Roloff Affidavit at 5.

[17] Roloff Affidavit at 12. Notably, this value is reported without any reference to a source or calculations to support the derivation of the cited value.

[18] Roloff Affidavit at 18-20.

[19] FTI Affidavit at ¶ 12, 27, 47 and 53-54.

establishing the financial parameters for the DCR. First, the survey reflects "discussions" with market participants, not the market data reflecting actual costs, financings and transactions. Thus, the FTI Affidavit proposes financial parameters based not on empirical market data, but entirely on views expressed in their "discussions."[20] Second, the FTI Affidavit provides very little information about their survey to support the veracity thereof. Notably, no survey instrument is provided; the companies surveyed are not identified; the FTI Affidavit selectively reports from this survey rather than provide full information about the responses from the companies surveyed; and the FTI Affidavit does not indicate how the sample of respondents was selected. Absence of such information compromises any reliable inference from the survey as its representativeness cannot be assessed and respondents may include companies participating in or planning to participate in the NYISO ICAP market, and thus may be self-interested. The absence of such information has consequences for reliable interpretation. For example, the Commission cannot determine if responses reflect current surplus market conditions rather than "at criterion" market conditions required for consideration in establishing the ICAP Demand Curves.[21]

19. Second, the analysis of the cost of debt described in the FTI Affidavit does not accurately characterize our assessment and appears to double count the premiums it claims to capture. In particular, the analysis measures two spreads – a "Spread of B to BB/BBB" and an "Implied 2-hour BESS spread over Baseline COD"[22] – and claims that the appropriate COD should reflect both spreads. The FTI Affidavit also implies that our assessment of the COD supports the claim that both of these spreads should be accounted for, which is an incorrect interpretation of our assessment. In our assessment, we draw on various types of information, including the COD of publicly traded independent power producers (IPPs) and generic COD benchmarks, to develop an estimate of the COD assuming the creditworthiness of B-rated debt for a 2-hour BESS project. Our assessment accounts for multiple factors, including the yields for generic corporate debt, the corresponding yields of

[20] *Id*. For example, the FTI Affidavit notes that "Based on the Investment Sentiment Survey, a ROE range of 16.00%-19.00%, a pre-tax COD greater than 8%, and a debt-to-capital ratio of 40% is required to secure financing for these projects." FTI Affidavit at ¶ 27.

[21] *See*, *e.g.*, Services Tariff § 5.14.1.2.2; and 2025-2029 DCR Filing at 2-3.

[22] FTI Affidavit at ¶ 59, Table 8.

IPP debt (which may be lower or higher than these indices), and risk factors associated with particular technologies.

20. The two spreads described in the FTI Affidavit are duplicative in that they each measure the same thing – the difference between the average yield of debt for entities in the proxy group and the average yield for the assumed level of creditworthiness for a 2-hour BESS project (*i.e.*, B-rated debt). Table 1 below, which shows the values from Table 8 of the FTI Affidavit, illustrates this point. The values of the two spreads are virtually identical – in one case, 1.38 percent and, in the other case, 1.40 percent. This is not surprising because, according to the analysis presented in support of the IPPNY Protest, the proxy group has an average creditworthiness of BB/BBB, and the NYISO's proposed COD for a 2-hour BESS project is assumed using a B rating creditworthiness. Thus, the calculation used to support the IPPNY Protest, in effect, double counts the spread between the proxy group and the assumed riskiness of a 2-hour BESS project for purposes of determining their alternative COD value.

Table 1. Comparison of IPPNY Protest COD Spreads[23]

Description	**Rate**	**Description**	**Rate**
AG Proxy Group COD	5.82 percent	BB/BBB Average Yield-to-Maturity	5.77 percent
NYISO's Proposed COD	7.20 percent	B Average Yield-to-Maturity	7.16 percent
Implied 2-hour BESS spread over Baseline COD	1.38 percent	**Spread of B to BB/BBB**	1.40 percent

21. Third, the assessment supporting the Ravenswood Protest (and the FTI Affidavit's analysis, although less explicitly) assumes that the developer needs to be "small" and the development "stand-alone" without stating this explicitly. The claim that larger IPPs, such as Calpine, Talen, LS Power, and NRG, should be ignored because they are "big" has no foundation. The ICAP Demand Curve reference point prices should be designed to support

[23] FTI Affidavit at ¶ 59, Table 8.

new merchant development generally, not only development from a select group or type of project developers or every potential development regardless of its economics relative to development opportunities of other investors. The Ravenswood Protest's exclusive focus on small, stand-alone, non-recourse development is unnecessarily limiting and, if adopted, would unnecessarily shift the financial parameter to the highest possible values.

22. As noted by the Roloff Affidavit , "the cost of debt increases as portfolio size, diversity and revenue pool is reduced."[24] While a large, diversified borrower may secure financing at a lower cost due to these risk-reducing factors, our recommendation controls for credit risk by assuming a B-rated credit risk for a 2-hour BESS project. While larger IPP companies vary in their creditworthiness, which we account for in our analysis, we see no reason to ignore these market participants when computing the cost of capital, including the cost of debt. Larger companies have developed new projects in recent years, including BESS and gas-fired resources.

23. Excluding large companies *a priori* is inappropriate given current market characteristics, as some of the players active in the battery storage business are much larger than the companies referenced in the Roloff Affidavit. The current development and operation of BESS projects includes many companies that vary in size, structure, focus, merchant activity and geographic concentration, and includes large companies (or companies part of large conglomerates) such as AES, Cypress Creek, Enel, Engie, Equinor, Key Capture and NextEra.

24. The Roloff Affidavit claims that our assessment "should have used recent transactions associated with merchant peaking plants or other facilities to guide and develop the cost of debt for the 2-hour BESS,"[25] and provides limited information on publicly available transactions of entities that the Ravenswood Protest contends are more aligned with a merchant non-recourse BESS investment.[26] Those transactions include companies such as

[24] Roloff Affidavit at 20.

[25] Roloff Affidavit at 10.

[26] Roloff Affidavit at 18-19.

Calpine Corporation, Talen Energy Supply, LLC, and Lightning Power (an LS Power affiliate) and produce a yield range between 6.4 percent and 7.8 percent.

25. We note that our recommended cost of debt (7.2 percent) is very close to the midpoint of this range (7.1 percent). Therefore, despite claims to the contrary, our recommended value is consistent with data provided by the Ravenswood Protest.

26. The Ravenswood Protest also claims that Ravenswood provided us data concerning the parameters of transactions on single asset financings that can be compared to a 2-hour BESS.[27] Specifically, the Roloff Affidavit refers to four transactions with swap-adjusted rates for single asset financings that range from 9 percent to 9.5 percent. As acknowledged by Ravenswood Protest,[28] we declined to consider this information because it is incomplete and, therefore, its relevance to our assessment could not be reliably ascertained. Partial information regarding data on only the cost of debt can be unreliable if the inter-related elements that form the cost of capital (*e.g.*, cost of debt, cost of equity, and debt-to-equity structure) are unavailable. Moreover, these financings were undertaken under current market conditions with as found levels of excess capacity, and thus they face higher market risks than those under "at criterion" conditions that must be assumed when determining the ICAP Demand Curves. We determined that this limited transaction data should not be used to infer the appropriate COD because we lack visibility on the other characteristics surrounding those transactions, such as whether the borrower had other sources of financing available, the debt and equity mix used to fund the project, and their cost of equity capital.

c) Cost of Equity

27. The IPPNY Protest claims that our recommended COE is too low as it should instead be in the 16 percent to 19 percent range.[29] This range reflects values allegedly reported based on the "Investor Sentiment Survey" undertaken in support of the IPPNY Protest.[30] As

[27] Roloff Affidavit at 19-20.

[28] Roloff Affidavit at 19 ("The Consultant claims that these financings lack sufficient information because it is not known what the debt-to-equity ratios or other financing terms are").

[29] *See*, *e.g.*, IPPNY Protest at 14; and FTI Affidavit at ¶ 27 and 53.

[30] *Id*.

described in Section IV(b) above, such a survey does not provide a reliable empirical basis for determining the financial parameters.

28. The IPPNY Protest recommends alternative COE values based solely on "discussions" with certain developers and with no basis in empirical market data.[31] In contrast, our approach relies on estimates of the COE for IPP companies based on empirical market data with appropriate adjustments for specific risk factors not accounted for in these empirical estimates. This approach is consistent with that undertaken and approved by the Commission for determining the COE for net CONE in prior DCRs, as well as other neighboring markets.[32] Reliance on conclusory statements without any empirical support, as is done by the IPPNY Protest, is not a reasonable approach and should be rejected.

d) Debt to Equity Ratio

29. The IPPNY Protest and Ravenswood Protest suggest that the Commission should approve a debt-to-equity ratio that includes a higher proportion of equity compared to our initial recommendation of 55 percent debt to 45 percent equity.[33] The IPPNY Protest recommends a value of 40 percent debt to 60 percent equity.[34] The Ravenswood Protest provides no specific recommended value but notes that "[a] debt-to-equity ratio of 55 percent / 45 percent would not be available from lenders for the BESS proxy plant"[35] and that "even a 40 percent/60 percent ratio [recommended by the IPPNY Protest] will be challenging to achieve."[36] As explained below, the proffered reasons to reject our recommended 55 percent debt to 45 percent equity ratio are flawed and should be rejected.

[31] *Id.*

[32] 2025-2029 DCR Filing at 57; Final Report at 68 and Appendix B; and Initial Affidavit at ¶ 136.

[33] IPPNY Protest at 14; FTI Affidavit at ¶ 27 and 61; and Roloff Affidavit at 6-7 and 22-23.

[34] IPPNY Protest at 14; and FTI Affidavit at ¶ 27 and 61.

[35] Roloff Affidavit at 6-7.

[36] Roloff Affidavit at 23. In drawing this conclusion, the Ravenswood Protest appears to draw on experience from what is purported to be the first merchant BESS project which occurred over six years ago, in 2018. *See, e.g.*, Roloff Affidavit at 23-24. The battery storage market has experienced explosive growth and significantly matured over the past six years. Reliance on outdated information does not provide probative value for assessing the current and future investment climate for battery storage projects in New York.

30. Similar to their approach for the COE, the IPPNY Protest relies on unsubstantiated observations from their survey for their recommended capital structure without any supporting empirical data. For the reasons explained in Sections IV(b) and IV(c) above, such unsubstantiated, conclusory statements cannot be used to reliably set financial parameters.

31. The Ravenswood Protest provides no independent evidence on capital structure other than a reference to the alternative structure recommended by the IPPNY Protest and a reference to a single merchant financing that occurred six years ago (in 2018) to support the claim that BESS technologies involve higher risks and, therefore, lenders would be too risk-averse to fund these projects in a substantial amount.[37] This fails to provide useful information for determining the financial parameters because the example is but one example from more than six years ago and, as recognized by protestors, BESS development has expanded substantially since this time period and the investment environment for battery storage projects is fundamentally different than 2018 given the growth and maturity of the market over the past six years.

32. The IPPNY Protest acknowledges that credits from the Investment Tax Credit ("ITC") would provide a foundation for bankable revenue streams ("relatively liquid collateral").[38] These benefits along with other risk-reducing factors such as the availability of capacity market revenue streams in New York that are not available in some markets (*e.g.*, ERCOT) must be considered when determining the appropriate capital structure. Our assessment accounts for both technology and market risks associated with investing in BESS projects in New York, as well as countervailing factors that may help to reduce or offset such risks. Such a holistic approach is required to develop appropriate and reasonable recommendations. Assessing financial parameters by solely accounting for downside project risks will tend to overstate the risk profile of a project and the resulting costs to finance such a project.

[37] Roloff Affidavit at 22-24.

[38] FTI Affidavit at ¶ 61.

V. Conclusion

33. This concludes our supplemental affidavit.

ATTESTATION

I am the witness identified in the foregoing supplemental affidavit. I have read the supplemental affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Paul J. Hibbard
[Month] __, [Year]
JANUARY 2, 2025

Subscribed and sworn to before me
this 2 day of [Month], [Year]
JANUARY, 2025

Notary Public

Michelle Yvonne Igoe
NOTARY PUBLIC
Commonwealth of
Massachusetts
My Commission Expires
July 31, 2031

My commission expires: 07/31/2031

ATTESTATION

I am the witness identified in the foregoing supplemental affidavit. I have read the supplemental affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Dr. Todd Schatzki
January 2, 2025

Subscribed and sworn to before me
this 2 day of January 2025

Notary Public

EMILY A IRBY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 23, 2030

My commission expires: August 23, 2030

ATTESTATION

I am the witness identified in the foregoing supplemental affidavit. I have read the supplemental affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Joseph Cavicchi
January 2, 2025

Subscribed and sworn to before me
this 2nd day of January, 2025

Notary Public

EMILY A IRBY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 23, 2030

My commission expires: August 23, 2030

ATTESTATION

I am the witness identified in the foregoing affidavit. I have read the affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Charles Wu
January 2, 2025

Subscribed and sworn to before me
this 2nd day of January, 2025

Notary Public

ALANA A BERNAZZANI
Notary Public
Commonwealth of Massachusetts
My Commission Expires
November 8, 2030

My commission expires: November 8th, 2030

ATTESTATION

I am the witness identified in the foregoing supplemental affidavit. I have read the supplemental affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Dr. Daniel Stuart
January 2, 2025

Subscribed and sworn to before me
this 2nd day of January, 2025

Notary Public

EMILY A IRBY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 23, 2030

My commission expires: August, 23 2030