

STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Petition of New York Solar Energy Industries Association Seeking	)	
Modifications to the New York State Standardized Interconnection	)	Case 24-E-0621
Requirements to Provide Greater Transparency and Cost Certainty	)	
for New Distributed Generators and/or Energy Storage Systems	)	
5 MW or Less Connected in Parallel with Utility Distribution Systems	)	

PETITION OF NEW YORK SOLAR ENERGY INDUSTRIES ASSOCIATION SEEKING MODIFICATIONS TO THE NEW YORK STATE STANDARDIZED INTERCONNECTION REQUIREMENTS TO PROVIDE GREATER TRANSPARENCY AND COST CERTAINTY FOR NEW DISTRIBUTED GENERATORS AND/OR ENERGY STORAGE SYSTEMS 5 MW OR LESS CONNECTED IN PARALLEL WITH UTILITY DISTRIBUTION SYSTEMS

I. Introduction

Meeting increasing demand for electricity in New York State and achieving the clean energy mandates codified in the Climate Leadership and Community Protection Act (CLCPA) requires the rapid and cost-effective deployment of distributed energy resources (DER). A reliable interconnection process, with accurate cost estimates and binding interconnection agreements, is foundational to New York's ability to attract private capital to finance and deploy DERs with reduced reliance on ratepayer-funded incentives. In December 2023, National Grid threatened the integrity of New York's interconnection process by petitioning the New York Public Service Commission (PSC) to request explicit authorization to impose uncapped retroactive scope and budget modifications for distribution upgrades¹. While the Commission rejected National Grid's petition on narrow technical grounds²; it did not explicitly reject National Grid's underlying assertion that interconnection customers must pay for unbounded utility cost overruns, nor did it create a framework to protect interconnection customers or ratepayers from future utility cost overruns or retroactive scope and budget modifications for distribution upgrades.

In June 2024, National Grid again attacked the integrity of New York's interconnection process by implementing a ~71% increase to the cost of distribution upgrades without adequate justification, advanced notice, or oversight by the Department of Public Service (DPS)³. These significant, and heretofore unsubstantiated, cost increases not only apply to future projects; National Grid is also applying them retroactively to projects in advanced stages of development

¹National Grid. Petition of Niagara Mohawk Power Corporation d/b/a National Grid for a Declaratory Ruling and Certain Limited Relief Regarding Standardized Interconnection Requirements and Application Process for New Distributed Generators and/or Energy Storage Systems 5 MW or Less Connected in Parallel with Utility Distribution Systems. Case 23-E-0730. December 2023.

² New York Public Service Commission. Order Denying Petition and Making Findings. Case 23-E-0730. July 2024.

³ National Grid. National Grid - DG cost estimate revision July 2024.xlsx. Transmitted on July 15, 2024.

and construction, issuing invoices for their cost overruns after DERs are fully constructed and operational. This has caused significant financial harm to DER interconnection customers who made financial investments based on utility cost estimates and signed interconnection agreements with the utility, and undermines investor confidence in New York as a safe environment for investment⁴. In addition to the direct harm caused to DER interconnection customers, attacks on New York's interconnection process drive up clean energy costs for all New York ratepayers. Higher interconnection costs increase DER reliance on ratepayer-funded incentive programs and unreliable cost estimates jeopardize access to lower cost capital for DERs. While this issue is paramount in National Grid territory right now, it affects DER interconnection customers statewide; in recent months, interconnection customers in Avangrid (NYSEG and RG&E) and other service territories have also experienced retroactive cost estimate increases and utility cost overruns, with final costs significantly exceeding the cost estimates that were the basis for the interconnection agreements and investment decisions for proposed DER projects.

This petition seeks to enshrine guardrails and transparency into New York's Standardized Interconnection Requirements (SIR). The purpose of NYSEIA's proposal is to address the fundamental issue of utility cost overruns for distribution upgrades, and the market failure that enables, and even encourages, utility cost overruns. In competitive markets, construction subcontractors manage their costs and seek to avoid cost overruns in order to maximize their profit and retain their customers. If a construction subcontractor fails to avoid cost overruns, they either absorb the higher cost or they seek a change order from the prime contractor. If a prime contractor determines a change order is not justified, the prime contractor may reject it and/or seek to hire an alternative subcontractor to complete work in the future. However, DER interconnection customers do not have access to a competitive marketplace; currently, a single investor-owned utility with monopolistic market power is the sole entity authorized to complete distribution upgrades. Further compounding this market failure, the utilities do not currently have any incentive to manage the cost of distribution upgrades or limitations on cost overruns; today, utility cost overruns for distribution upgrades are borne exclusively by interconnection customers, who do not have any control over the utility's performance/delivery. This misalignment of incentives is contributing to a trend of rapidly rising interconnection costs in New York, and highlights the need for a regulatory regime that creates utility accountability and provides interconnection customers with greater cost transparency and cost certainty.

In this petition, New York Solar Energy Industries Association (NYSEIA) respectfully requests that the Commission: 1) direct New York's utilities to increase the level of detail in cost estimates for distribution upgrades; 2) modify the Standardized Interconnection Requirements (SIR) to turn the 15% allowable contingency that can be included in the utility's Coordinated Electric System

⁴ Altamont Road Solar LLC. Complaint of Altamont Road Solar LLC Against National Grid. Case 25-E-0026. January 2025.

Impact Review (CESIR) cost estimates into a hard cap on an interconnection customer's final cost for distribution upgrades, provided that these upgrades are not unduly delayed by the interconnection customer; 3) direct New York's Investor-Owned Utilities (IOUs) to publish their itemized actual costs for common distribution upgrades on an annual basis; and 4) direct New York's IOUs to provide interconnection customers with a detailed, itemized, clear statement of final costs for all distribution upgrades. These modest reforms will create appropriate incentives for New York's IOUs to avoid cost overruns while providing interconnection customers with greater cost certainty and transparency. Upon implementation, this proposal will counteract rising interconnection costs and eliminate cost uncertainty, enabling New York to access lower-cost capital in order to deploy clean energy projects at a reduced cost to ratepayers.

II. Background

Distributed Energy Resources are Critical for New York's CLCPA Compliance

In July 2024, NYSERDA and DPS issued their Draft Clean Energy Standard (CES) Biennial Review⁵, a CLCPA progress report which highlights New York's large renewable electricity supply gap. Shortly thereafter, the New York State Comptroller published a report on NYSERDA's Clean Energy Fund programs, which found that the NY-Sun program was New York's most successful clean energy program⁶, and that distributed solar was the only clean energy resource poised to achieve its legislatively mandated targets on time. NYSEIA asserts that DERs are also currently the only clean energy resources that deliver direct utility bill savings to Disadvantaged Communities; another CLCPA mandate. The combination of New York's large renewable electricity supply gap and New York's success deploying distributed solar relative to other technologies demonstrates the potential for New York to close its renewable electricity supply gap, and to continue delivering utility bill savings to Disadvantaged Communities, through accelerated DER deployment.

New York's SIR is the Foundation of a Robust Interconnection Process

New York's SIR created a strong foundation for New York's nation-leading community solar market. The SIR includes clear timelines and processes for both interconnection customers and utilities, resulting in a robust and orderly interconnection process. New York's requirements for significant financial commitments to reserve and hold queue positions has enabled the state to avoid many of the queue management challenges that plague other markets. New York's cost-sharing framework creates the opportunity for interconnection customers to share in the cost and benefit of larger distribution upgrades. Ongoing modifications to the SIR are needed in order to build upon this foundation and account for new and emerging challenges and market dynamics.

⁵ New York State Energy Research and Development Authority (NYSERDA) and DPS. Draft Clean Energy Standard Biennial Review. Case 15-E-0302 - Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard. July 2024.

⁶ New York State Comptroller Thomas DiNapoli. New York State's Clean Energy Fund. July 2024.

Utility Cost Estimates and Interconnection Agreements are the Basis for Clean Energy Investments and Nonrefundable Customer Payments toward Distribution Upgrades

To date, solar and energy storage companies have invested billions of dollars in New York State to finance clean energy projects. New York's ability to leverage private capital is critical to achieving the State's CLCPA mandates. Given that a significant percentage of a DER's overall project cost is interconnection, utility cost estimates and signed interconnection agreements are the basis for many of these investments. There are numerous investment decisions that interconnection customers and their business partners make based upon CESIR study results and signed interconnection agreements. Examples include: deciding to proceed with expensive and time-intensive permitting; raising and deploying development capital for interconnection deposits, including non-refundable deposits for cost-sharing projects; independent power producers' decision to purchase a DER project from a developer; purchasing solar equipment, or hiring a union/contractor to construct a solar and/or energy storage facility.

In response to the Department of Public Service (DPS) Staff Questions in the December 5, 2024 Notice Soliciting Comments under the RAPID Act Proceeding, National Grid refers to the Association for the Advancement of Cost Engineering (AACE) cost estimate classification system, and suggests that National Grid's current method for completing CESIR studies generates a Class 4 or Class 5 ("rough order of magnitude") estimate⁷, i.e., an estimate that is adequate for concept screening or feasibility. Only later in the process do they generate a "Class 3" estimate, which is typically the basis for budget authorization⁸. This approach may be appropriate for distribution upgrades that are funded broadly by ratepayers; however, it is not appropriate for DER interconnection customers, who must make significant financial commitments and sign an interconnection agreement based upon the utility cost estimate provided with the CESIR study results. Simply put, using the AACE cost estimate classification system referenced by National Grid in their comments, a CESIR study cost estimate must function as a Class 3 estimate from the perspective of the DER interconnection customer, i.e., the cost must be certain enough for budget authorization. NYSEIA supports continuous improvement to utility cost estimation methodology, however, this outcome can be accomplished most effectively by creating cost-certainty guardrails as outlined in subsequent sections of this proposal.

⁷ Case 24-E-0415 – In the Matter of Timely Interconnection of Distributed Energy Resources. National Grid Response to DPS Staff Questions. February 2025.

⁸ AACE International. Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Process Industries. 2016.

Table 1. Summary of AACE International Cost Classifications and Expected Ranges of Accuracy

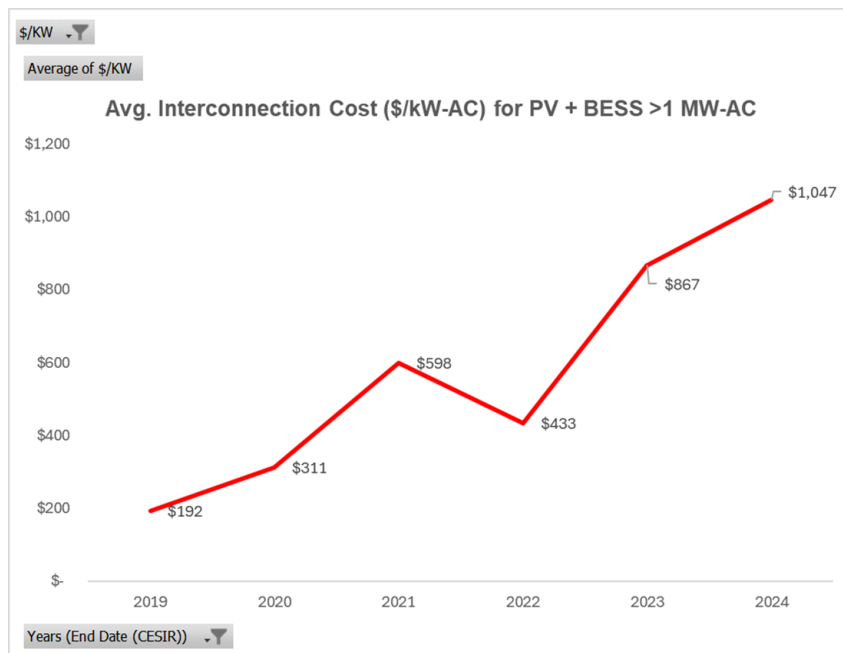
Key Characteristics of Estimate Classes

AACE Class	Typical Use	Low Expected Actual Cost	High Expected Actual Cost	Project Definition
Class 5	Concept screening, ballpark, rough order of magnitude	-50% to -20%	+30% to +100%	0% to 2%
Class 4	Feasibility study, screening, pre-design	-30% to -15%	+20% to +50%	1% to 15%
Class 3	Budgeting, basic engineering, semi-detailed	-20% to -10%	+10% to +30%	10% to 40%
Class 2	Engineering, bid, detailed unit costs	-15% to -5%	+5% to +20%	30% to 75%
Class 1	Bottoms up, full detail, firm price	-10% to -3%	+3% to +15%	65% to 100%

Source: National Grid (Case 24-E-0415); AACE.

Utility Interconnection Costs in New York are Rising and Increasingly Uncertain

For much of the last decade, New York has enjoyed rapid DER deployment and a relatively smooth interconnection process. However, in the last two years, interconnection costs have increased dramatically and utility cost estimates have become increasingly unreliable. An analysis of the SIR inventory shows that interconnection costs have been rising significantly in New York State over the last few years. For PV and battery energy storage systems (BESS) above 1 megawatt-AC, the average estimated cost to interconnect to the distribution system doubled between 2022 and 2023 and further increased in 2024.



Source: New York Department of Public Service, SIR Inventory, January 2025.

As interconnection costs have increased, a growing percentage of projects have withdrawn from the interconnection queue: 69% of projects that received CESIR study results in 2023 have since withdrawn, exceeding the withdrawal rate for any prior year despite being more recent.

Yr	Total Projects		Withdrawn		
	#	KWDC	#	%	KWDC
2023	721	3,482,056	496	68.79%	2,399,122
2022	528	2,324,493	312	59.09%	1,373,939
2021	641	2,797,544	403	62.87%	1,778,706
2020	766	3,326,933	461	60.18%	2,070,567
2019	381	1,604,268	192	50.39%	772,101

Source: New York Department of Public Service. SIR Inventory. PV + BESS Projects Above One Megawatt AC by CESIR Study Completion Year. Accessed January 2025.

In June 2024, National Grid adopted a new tool for distribution upgrade cost estimation that produced significantly higher cost estimates than their recent prior estimation methods. In July 2024, National Grid disclosed the revised cost estimates for a set of 106 DERs that had been studied by the utility earlier in the year and which were subsequently issued revised cost estimates. These revised cost estimates were ~71% higher⁹ than the utility's original cost estimates that it issued just a few months prior:

Number of Projects	106
Average Original Estimate	\$ 4,307,287.26
Average Revised Estimate	\$ 7,382,554.69
Total Original Estimate	\$ 456,572,449.62
Total Revised Estimate	\$ 782,550,797.00

These dramatic cost increases were implemented by National Grid without any regulatory oversight by the Department of Public Service. National Grid has not yet produced any data to substantiate its new, higher cost estimates. However, the new tool has been adopted by the utility and a growing number of interconnection customers are now facing unacceptably high retroactive costs increases for distribution upgrades from the utility; costs that they cannot control or accurately forecast but for which the interconnection customer bears full responsibility via the reconciliation process. In the intervening months, additional New York utilities have implemented significant increases to their cost estimates. In Avangrid territory, NYSEIA is aware

⁹ National Grid. National Grid - DG cost estimate revision July 2024.xlsx. Transmitted on July 15, 2024.

of Cost Sharing 2.0 projects where minor design revisions for projects that were originally studied as recently as 2023 have resulted in cost estimate increases in excess of 200%. When cost estimates change so dramatically over a short period of time, there are only two possible explanations; either the original estimate was erroneous, or the revised estimate is erroneous.

On January 7, 2025, Altamont Road Solar LLC filed a formal complaint against National Grid regarding a \$1,288,485.26 cost overrun that National Grid sought to bill the interconnection customer for after the solar project was completed¹⁰. The Complaint asserts that:

The Cost Increase is more than double the original cost estimate of \$1,087,482.00 that Altamont paid to National Grid to construct the upgrades required to interconnect this Project to the National Grid electric distribution system. Despite an express obligation to notify Altamont of these increases prior to commencing construction, National Grid first notified Altamont of the Cost Increase after the Project was fully constructed and, even then, well beyond the deadline for doing so. National Grid has also failed to provide a legitimate explanation to substantiate the Cost Increase.

This is just one example of a project where the interconnection customer has made such data publicly available, however, there are numerous projects similarly impacted by utility cost overruns that have not made this data publicly available. As utility cost overruns accrue, NYSEIA anticipates a growing number of DER interconnection customers will file formal complaints at the time of reconciliation. As a practical matter, no developer or financier can justify continued investment into clean energy projects in a market where their costs are subject to uncapped retroactive changes that are of a magnitude that can fully erode project profitability.

Rising Interconnection Costs Impede DER Deployment and Increase Ratepayer Costs

As the cost of distribution upgrades increases, this reduces the economic viability of solar and energy storage projects in New York State, impeding deployment and increasing reliance on government subsidies. It is a common misconception that rising DER interconnection costs in New York are solely borne by the interconnection customer and therefore not borne by ratepayers. While this may be true for traditional fossil fuel generators, clean energy DERs, such as solar PV and energy storage, are supported by NYSERDA incentives which are funded by ratepayers through the System Benefits Charge. New York's CLCPA has established ambitious clean energy mandates, and NYSERDA has continually demonstrated their commitment to administering robust programs and setting incentives at a level that will facilitate the pursuit of those mandates. Rising interconnection costs for DERs directly increase the cost of the ratepayer-funded incentive programs necessary to achieve a fixed renewable energy target.

¹⁰ Altamont Road Solar LLC. Complaint of Altamont Road Solar LLC Against National Grid. Case 25-E-0026. January 2025.

Rising interconnection costs hurt New York ratepayers; conversely, counteracting rising costs benefits ratepayers.

Lack of Cost Certainty Impedes Future DER Development

New York's ability to rapidly and cost-effectively deploy distributed solar is dependent upon developers' ability to finance DER projects; what cannot be financed cannot be built. Financiers require cost certainty in order to invest, and charge a premium for investments with real and perceived risk. The growing uncertainty around interconnection costs and the unreliable cost estimates in New York State is eroding investor confidence in New York distributed solar projects. The lack of utility transparency, accountability, and certainty regarding distribution upgrade costs make it increasingly difficult for DER developers to secure financing for New York projects, and can reasonably be expected to result in investors seeking other, more reliable markets into which to invest their private capital.

Rapidly Rising and Uncertain Interconnection Costs Undermine New York's Cost-Sharing Framework

Under Cost Sharing 2.0, multiple DER projects can share the cost of Qualifying Upgrades, typically substation upgrades that create more than 5 MW-AC of incremental hosting capacity. Per the SIR, New York's Cost Sharing 2.0 framework requires interconnection customers to make nonrefundable deposits to pay for their pro rata share of Qualifying Upgrades based on the utility's CESIR cost estimate. The utility only mobilizes to begin constructing upgrades after receiving upfront deposits in excess of a mobilization threshold; 25% or 75% depending on the type of upgrade. If the first mover for a Qualifying Upgrade makes their nonrefundable Cost Sharing payment which is less than the mobilization threshold, they must then wait for future projects to make deposits before the utility will mobilize for construction. If the cost of the Qualifying Upgrade increases dramatically between the first mover and the subsequent DER developer, it's possible that: 1) the first mover may be obligated to pay a final cost that is unreasonably higher than their initial cost estimate for their share or the upgrade; or 2) the utility may never reach the mobilization threshold, as the cost is an escalating and moving target. The longer it takes for projects to reach the mobilization threshold, the more likely it is that the first mover will encounter final costs higher than their initial cost estimate and nonrefundable deposit. If New York State wants DER developers to help pay for these major distribution upgrades that create additional hosting capacity and improve reliability for all customers, i.e., substation rebuilds and transformer bank replacements, greater cost certainty is needed.

New York's SIR Currently Misallocates the Risk of Distribution Upgrade Cost Overruns

Currently, interconnection customers bear 100% of the risk of utility cost overruns, even in cases of utility errors, omissions or mismanagement. This is a misallocation of risk, as the party responsible for completing the work (the distribution utility) has no financial incentive to complete the work in a cost-effective manner. Conversely, the party that is paying for the work has no

ability to control costs or manage performance risk, nor do they have the benefit of a competitive market which would enable them to seek an alternative contractor in the event of poor performance or excessive cost overruns. In the absence of a competitive market place, a strong regulatory framework is needed to ensure that the utility bears some responsibility for their costs and performance.

Contingency can Limit, but not Eliminate, the Risk of Cost Overruns

New York's SIR allows for IOUs to include a 15% contingency in their CESIR cost estimate for customer-funded distribution upgrades¹¹. These cost estimates, including the allowable contingency, are the basis for the deposits, which the customer must pay in full prior to construction commencement. NYSEIA and DER developers acknowledge that cost estimates provided under the SIR today constitute good-faith estimates, and that the 15% contingency within the SIR is not currently a binding cap on utility cost overruns. However, in the context of project financing, developers have routinely relied upon the 15% contingency as a reasonable and practical benchmark for potential cost escalations over time. NYSEIA does not object to interconnection customers paying the 15% contingency prior to the construction of distribution upgrades. As a general matter, contingency is a useful budgetary tool to manage the risk of cost overruns for multi-year construction projects. A recent article published by the American Institute of Architects provides a helpful summary describing contingency and its function:

A contingency is a predetermined amount or percentage of the contract held for unpredictable changes in the project. A contingency is a helpful risk management tool that financially prepares owners for addressing risk within the project. Contracts provide for contingencies to pay for unknown conditions such as price escalation of a product; design changes in scope or due to errors and omissions; or necessary construction changes that are realized on-site during construction. Owners should strive to provide a healthy contingency to the project to address risk related issues. If managed properly, a contingency can provide a safeguard for the designer, contractor, and owner to complete the project on budget¹².

Guaranteed Maximum Price (GMP) Contracts Can Appropriately Allocate Risk

Currently, interconnection customers bear full financial liability for utility cost overruns for distribution upgrades, even in cases of utility errors, omissions and mismanagement. This is a significant misallocation of risk; the customer bearing the risk has no control over the utility's performance, and the utility performing the distribution upgrade has no incentive to manage their costs, nor are they subject to any regulatory oversight for these costs. GMP contracts are a common tool used in development to better align risk among parties responsible for completing a project. Under a GMP contract, there is a maximum price, or not-to-exceed amount, that the

¹¹ New York Department of Public Service. NY Standardized Interconnection Requirements. February 1, 2024.

¹² Hart, David, FAIA. *Managing the contingency allowance*. American Institute of Architects. <https://www.aia.org/resource-center/managing-the-contingency-allowance>. November 30, 2023.

contractor will be paid for completing a defined scope of work. GMPs require the contractor performing the work to accurately scope and estimate the cost of a project, and the contractor is strongly incentivized to complete their work efficiently, as they bear the risk of cost overruns in excess of a predefined contingency. If New York Interconnection Agreements were GMP contracts, it would provide the utility with a strong incentive to accurately estimate and manage costs. It would also provide cost-certainty, allowing interconnection customers to leverage signed interconnection agreements to borrow and deploy capital to complete DER projects.

Transparency is Necessary to Ensure GMP Contracts Benefits are Realized When Transacting with Monopolies in a Non-Competitive Environment

In a competitive market, a contracting party seeking services under a GMP contract can solicit multiple bids and select a preferred subcontractor based upon price and other qualitative factors. Competitive procurement incentivizes hopeful subcontractors to provide competitive bids that accurately reflect their anticipated costs. The hopeful subcontractor will not inflate their GMP contract bid price, as this could result in the contracting party selecting another firm to complete the work.

A customer seeking to interconnect to a monopoly utility's electric distribution system does not have access to or benefit from a competitive market with regard to a required distribution upgrade. The interconnection customer is a price taker; either they can agree to pay the utility for the cost of a proposed distribution upgrade, or they must cancel their project. There is no alternative option and they have no leverage to negotiate the contract price, scope or terms. Absent competition, the introduction of a GMP will create a perverse incentive for the utilities to inflate their cost estimates in order to reduce the utility's risk of cost overruns, essentially shifting this risk back onto the interconnection customer. This market failure requires a robust regulatory framework in order to ensure fairness. Realistically, a regulatory agency such as DPS will not be able to proactively review every cost estimate or final invoice; therefore, it is critical for interconnection customers to have transparency into actual utility costs for distribution upgrades. This transparency will empower customers with information that enables them to assess the accuracy of cost estimates and final costs they are charged for distribution upgrades. Transparency, and the interconnection customer's ability to validate the reasonableness of their distribution upgrade cost estimate, will discourage utilities from inflating their cost estimates, ensuring that making interconnection agreements GMP contracts has the desired effect.

Utility Distribution Upgrade Cost Audits are Needed

To support the integrity of interconnection agreements and the reliability of cost estimates, NYSEIA further recommends that the Commission implement a formal audit process. These audits should be conducted regularly to verify utility compliance with cost estimation standards, assess the alignment of estimates with actual costs, and ensure accountability for any deviations. Publishing the findings of these audits will provide stakeholders with greater

confidence in New York’s interconnection process. In a monopolistic environment, audits are not just an oversight tool—they are essential to maintaining trust and fairness in the interconnection process. For New York ratepayers, implementing audits would mitigate the financial risks associated with unchecked utility practices, reduce cost overruns, and promote equity. Moreover, audits would help ensure that utility practices support New York’s clean energy goals by fostering a regulatory environment that prioritizes efficiency, fairness, and the responsible use of resources.

Regulatory Intervention is Needed in New York to Counteract, and Manage the Risk of, Utility Cost Overruns

Rising interconnection costs and utility cost overruns are eroding trust in New York’s interconnection process and devaluing a signed interconnection agreement with New York utilities. If these contracts are not bankable, it will prevent DER developers from raising and deploying cost-effective capital to construct clean energy projects in New York State. Implementing a regulatory regime to create interconnection cost certainty and transparency will counteract New York utilities’ rising costs and better align incentives such that New York’s utilities will be motivated to reduce the cost of distribution upgrades or at least to prevent excessive cost overruns. Addressing this issue will create improved conditions for New York to leverage private capital and continue deploying DERs at a rapid pace.

Interconnection Agreements are GMP Contracts in Many States

Cost certainty for distribution upgrade costs is not a novel concept. In fact, interconnection agreements are GMP contracts in many markets, including Massachusetts and California, two of the top three states in terms of cumulative distributed generation deployment to date¹³.

Massachusetts

In 2015, Massachusetts adopted a model interconnection tariff which established a 10% hard cap on cost overruns for utility distribution upgrades. The model tariff states that “the Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. All costs that exceed the 10% increase cap will be borne solely by the Company.”¹⁴

Rhode Island

Rhode Island’s utility tariffs include the same language as Massachusetts’ model interconnection tariff, establishing a 10% hard cap on interconnection customers’ liability for utility cost overruns¹⁵.

¹³ Institute for Local Self Reliance. The State(s) of Distributed Solar — 2023 Update. May 15, 2024.

¹⁴ Massachusetts Department of Public Utilities. ORDER ON THE MODEL INTERCONNECTION TARIFF. Attachment A. April 22, 2015.

¹⁵ The Narragansett Electric Company (“Rhode Island Energy”). Standards for Connecting Distributed Generation. Issued July 25, 2022.

California

In 2016, the California Public Utilities Commission issued an Order¹⁶ instituting cost certainty for interconnection customers in the state's IOU service territories. The California decision created a 25% cost envelope option, enabling interconnection customers to opt-in to a supplemental (20 business day) study whereby the utility produces a "Cost Envelope Estimate". For participating interconnection customers, their final cost cannot exceed 125% of the cost estimate. California's cost envelope order affirms that distribution utilities can seek to recover reasonable cost overruns that exceed the cost envelope through rate cases.

Counteracting Rising and Uncertain Interconnection Costs Will Result in Ratepayer Savings

Technically, utility cost overruns for distribution upgrades today are fully borne by interconnection customers. However, in practice, these cost overruns are borne by all ratepayers through NYSEERDA clean energy incentive programs; if DER interconnection costs rise, NYSEERDA will need to raise its incentive levels to support project viability. Conversely, if we can counteract rising interconnection costs, this will allow more DERs to be constructed with reduced reliance on ratepayer-funded NYSEERDA incentives. Similarly, a regulatory framework that provides cost certainty will reduce risk and can lower the cost-of-capital for future DER development, further compounding ratepayer savings potential.

III. Summary of NYSEIA Proposal

Increase the Level of Detail in CESIR Cost Estimates for Distribution Upgrades

In December 2024, through the Interconnection Technical Working Group, the Joint Utilities each presented their cost estimation methodology to DER stakeholders and DPS Staff¹⁷. These presentations demonstrate that the utilities already use robust estimating tools to define the scope of work for distribution upgrades and to estimate costs. However, currently, the Joint Utilities tend to aggregate their cost estimates for specific equipment and work to generalized line items before they are shared with interconnection customers in CESIR study results. Rather than aggregating this data, NYSEIA urges the Commission to direct New York's utilities to provide a detailed, itemized cost estimate with CESIR study results. The cost estimate should include equipment type, quantity/units (e.g. linear feet), technical specifications, and estimated internal and subcontract labor costs. Hourly labor rates and hours estimates should be included along with any assumed escalations to hourly rates over time. Finally, NYSEIA recommends that the Commission specifically disallow the inclusion of any indirect costs and overheads that cannot be itemized by the utility. This disallowance would require the utilities to itemize all costs

¹⁶ California Public Utilities Commission. ALTERNATE DECISION INSTITUTING COST CERTAINTY, GRANTING JOINT MOTIONS TO APPROVE PROPOSED REVISIONS TO ELECTRIC TARIFF RULE 21, AND PROVIDING SMART INVERTER DEVELOPMENT A PATHWAY FORWARD FOR PACIFIC GAS AND ELECTRIC COMPANY, SOUTHERN CALIFORNIA EDISON COMPANY, AND SAN DIEGO GAS & ELECTRIC COMPANY. June 23, 2016.

¹⁷ Joint Utilities of New York. CESIR Cost Estimation Processes and Procedures. December 2024.

that they seek to recover from DER interconnection customers. This increased transparency and the provision of higher fidelity cost estimates will provide interconnection customers with a clearer understanding of what is included in the scope of work for the distribution upgrades they are paying for.

Create a Hard Cap on the Final Cost for Distribution Upgrades, Set at 115% of the Cost Estimate Included in the CESIR

NYSEIA proposes implementing a 15% hard cap on DER interconnection cost overruns borne by DER interconnection customers. Under this proposal, an interconnecting customer connecting to the distribution grid would be responsible for paying for distribution upgrades up to a maximum of 115% of the original CESIR cost estimate that is provided to the customer before signing an interconnection agreement. Implementing a 15% hard cap on utility cost overruns ensures that the interconnecting customer is paying for the cost of distribution upgrades while being protected against unreasonable utility cost overruns. The 15% contingency borne by the DER interconnection customer accounts for reasonable utility cost overruns caused by inflation and other factors. NYSEIA's proposed allowance for this 15% contingency is necessary to account for numerous factors, especially the length of time between the issuance of a CESIR cost estimate and the procurement of equipment and completion of upgrades.

NYSEIA proposes that the CESIR cost estimate and 115% cost cap be binding for a period of 36 months following the issuance of the CESIR. If the utility procures the necessary equipment and begins construction within this 36-month period, the cost estimate would become binding and final cost should not exceed 115% of cost estimate. A 36-month period is a reasonable and appropriate duration for the cost estimates outlined in the CESIR to remain valid. This 36-month period reflects typical development and construction timelines, and the 15% contingency provides an appropriate window of tolerance that encourages utilities to manage procurement and construction costs, while also accounting for potential cost fluctuations and unforeseen circumstances. To ensure the validity of cost estimates, utilities should be required to track and document key project milestones, including procurement dates, construction start and end dates, and planned completion dates, within the SIR framework.

Formalize a Requirement for Annual Disclosure of Actual Costs for Common Distribution Upgrades

Currently, New York's investor-owned utilities provide the estimated cost of common distribution upgrades via an informal process of updating a Cost Matrix through the Interconnection Technical Working Group. However, these cost data are not backed up with any analysis of actual costs that can be evaluated by DPS Staff or impacted stakeholders, nor is there a structured regulatory process for the utilities to file their Distribution Upgrade Cost Matrix.

In 2024, the Joint Utilities repeatedly asserted that CESIR cost estimates are derived from actual costs incurred on prior projects. Despite these claims, the absence of a structured, transparent process leaves stakeholders unable to validate the accuracy or consistency of these estimates. NYSEIA strongly recommends that the Commission establish an annual SIR process for a “Distribution Upgrade Actual Cost Matrix”, whereby utilities file their actual costs of common distribution upgrades for public review, analysis. This appears to be supported by DPS Staff based on the Department’s January 2025 filing with proposed SIR redlines to improve cost estimation.

NYSEIA further urges the Commission to formalize the ITWG Cost Matrix within SIR whereby New York’s utilities annually update the “Distribution Upgrade Cost Estimate Matrix”. In addition to providing aggregate costs, NYSEIA urges the Commission to direct the utilities to include a breakdown of costs by equipment, labor, and any other major cost categories. The “Distribution Upgrade Cost Estimate Matrix” should also include new upgrades (for example Flexible Interconnection Capacity Solutions) as they become commonplace.

To ensure robust oversight, the “Distribution Upgrade Cost Estimate Matrix” should undergo public review, analysis and a public comment period before adoption by the Commission. This additional transparency will allow DPS Staff and other stakeholders to identify discrepancies among the utilities’ costs and to raise issues regarding accuracy before an updated Distribution Upgrade Cost Matrix is adopted for use by the utilities in their cost estimation process. NYSEIA also recommends that the Commission require New York utilities to use their currently effective Distribution Upgrade Cost Matrix as the basis for CESIR study cost estimates to ensure consistency and increased transparency.

Itemized Reconciliation Cost Statement for All Completed Distribution Upgrades

NYSEIA urges the Commission to direct New York’s utilities to provide every DER customer that pays for a distribution upgrade with a detailed accounting of how their funds were spent. We recommend that, following the completion of a distribution upgrade, and no more than 60 business days after a DER receives Permission to Operate (PTO), the utility provide an itemized statement that details the utilities’ true costs incurred in order to complete the distribution upgrade. This statement should include an itemized breakdown of all costs incurred to complete distribution upgrades, including equipment, labor and any other directly allocable costs with a granular breakdown of all equipment units, utility work hours and subcontracting work hours. In cases where the final costs deviate from the utility cost estimate by more than 15%, the utility must include a brief narrative explaining why the final cost deviated from their estimate. This disclosure will help DER interconnection customers understand if and why the utility incurred cost overruns and spent their contingency.

Reconciliation and Recovery for Utility Cost Overruns

NYSEIA proposes that, if the final cost is less than the deposit amount paid by the interconnection customer prior to construction, the utility issue a refund in accordance with Section 1(c) Step 11 of the SIR. If the final cost exceeds the interconnection customer's deposit, NYSEIA recommends that the interconnection customer pay for the utility cost overruns for up to 15% above the original cost estimate (i.e., the 15% contingency should be the responsibility of the interconnection customer). If the final cost exceeds 115% of the CESIR cost estimate, these excessive cost overruns should be the responsibility of the utility. In recognition that there are occasionally unforeseeable circumstances that cause costs to escalate beyond reasonable expectations, NYSEIA recommends that utilities be allowed to seek recovery of prudently incurred costs in excess of the 115% paid for by DER interconnection customers. This potential cost recovery could be pursued via the utilities traditional rate case proceedings. This approach will both protect DER interconnection customers and ratepayers from unreasonable utility cost overruns while giving utilities a fair mechanism for cost recovery that is subject to DPS oversight.

Auditing as a Necessary Oversight Mechanism

In a monopolistic environment, where utilities have exclusive control over critical infrastructure upgrades, auditing is a basic and essential oversight mechanism. Regular audits ensure transparency, prevent inefficiencies, and protect ratepayers from bearing the burden of unjustified costs. By reviewing both cost estimates and final expenses, audits provide a mechanism to verify utility practices and promote accountability. Furthermore, auditing generates data that can be used to refine interconnection processes, streamline project development, and align utility operations with New York's clean energy and energy affordability policy objectives. For ratepayers, audits are a safeguard against financial exploitation, ensuring that utilities act in the public interest. NYSEIA strongly recommends that the Department of Public Service establish an annual audit process as part of its regulatory framework.

IV. Conclusion

As New York seeks to lower energy costs, increase energy supply to meet growing demand, and make progress toward ambitious clean energy mandates, interconnection reform will be critical. This petition furthers these policy objectives and the public interest at large by improving the DER interconnection process through increased transparency, cost certainty, and accountability. Upon adoption, these reforms will lower interconnection costs and provide cost certainty that enables New York to leverage lower-cost capital to deploy clean energy projects. New York does not need to choose between energy affordability and clean energy; the two go hand-in-hand. NYSEIA thanks the Commission and DPS Staff for their consideration and urge swift action to advance this petition to cement New York's position as a clean energy leader.

V. Proposed SIR Modifications (Redline)

NYSEIA proposes the following modifications the New York Standardized Interconnection Requirements:

Section C, Step 3: Potential Applicant Files an Application

A completed application shall be placed in the utility's interconnection queue. If the required documentation is presented in this step, it will allow the utility to move to Step 4 and perform the required reviews and allow the process to proceed as expeditiously as possible.

Any cost estimates provided by the utility using the following procedures shall be based on the information published in the utility's cost estimating matrix, as provided at Step 6 below.

The utility will refund any advance payments for services or construction not yet completed should the applicant be removed from the utility's interconnection inventory. If the costs incurred by the utility exceed the advance payments made by the applicant prior to removal from the interconnection inventory, the applicant will receive a bill for any balance due to the utility.

Section C, STEP 6: Utility Completes the CESIR

The CESIR will consist of two parts:

- 1) a detailed review and explanation of the impacts to the utility system associated with the interconnection of the proposed system, and*
- 2) a detailed review and explanation of the proposed system's compliance with the applicable criteria set forth below.*

A CESIR will be performed by the utility to determine if the proposed generation on the circuit results in any protective coordination, fault current, thermal, voltage, power quality, or equipment stress concerns.

The CESIR shall be completed within sixty (60) Business Days of receipt of the information set forth in Step 5. For systems utilizing type-tested equipment, the time required to complete the CESIR may be reduced. The utility shall complete the CESIR within sixty (60) Business Days, absent extraordinary circumstances, following authorization, receipt of the CESIR fee, and complete information set forth in Step 5. If the applicant fails to provide the utility authorization to proceed, CESIR fee and information requested within thirty (30) Business Days, the interconnection request shall be removed from the queue and no further action on the part of the utility is required.

The applicant and the utility may agree to allow up to an additional forty (40) Business Days beyond the time specified above for completion of the CESIR, provided that no other application is adversely impacted.

Upon completion of the CESIR, the utility will provide the following, in writing, to the applicant:

- 1. notification of whether the proposed system meets the applicable criteria considered in the CESIR process;*

2. utility system impacts, if any;
3. a description of where the proposed system is not in compliance with these requirements;
4. detailed description of reasoning and justification for any system upgrades and associated equipment deemed necessary for interconnection of the project; *this detailed description of system upgrades shall include a scope of work with an itemized list that includes technical specifications and quantities of all equipment and an estimate of labor hours associated with installing each component of the required upgrade;*
5. a good faith, detailed estimate of the total cost of completion of the interconnection of the proposed system and/or a statement of cost responsibility for any system upgrades and associated equipment deemed necessary for interconnection of the project; *This detailed cost estimate shall include the itemized costs of all equipment including technical specifications, labor rates, and any other direct costs attributable to the distribution upgrades. Indirect costs and overheads shall not be allowable cost categories, however, actual costs that are commonly included in overhead rates may be included if they are itemized and demonstrably attributable to the distribution upgrade scope of work. Any costs that would be incurred by the utility if not for the distribution upgrade shall not be included in CESIR cost estimates and shall not be recovered from interconnection customers. Additionally, the figures in the utility's Distribution Upgrade Cost Matrix in effect at the time of the interconnection application submission must be the basis for the utility's cost estimate; and*
6. a Qualifying Upgrade Disclosure, if applicable

Appendix E sets forth the responsibility each applicant shall have with respect to the actual cost of the system upgrades and equipment necessary for the interconnection of the project. Utility cost estimates provided in the CESIR shall ~~be detailed~~ *equipment type, quantity/units (e.g. linear feet), technical specifications, and all applicable internal and subcontract labor costs. Hourly labor rates and hours estimates should be included along with any assumed escalations to hourly rates over time and broken down by specific equipment requirements, material needs, labor, overhead, and any other categories or efforts incorporated in the estimate. Utility cost estimates provided in CESIR shall not include any overhead or costs that cannot be itemized by the utility. The utility may include a contingency with the cost estimate. Contingencies associated with the cost estimates shall not exceed 15%, and must be clearly identified as a line item on utility cost estimates. The final reconciled costs of required system upgrades borne by the applicant shall be limited to no more than 115% of the initial cost estimate, excluding contingency, outlined in the CESIR study, which serves as the basis for executing an interconnection agreement. If the applicant has not authorized the utility to commence construction of the distribution upgrades within 36 months of receiving the CESIR, the utility may issue a revised cost estimate at such time and the final reconciled costs of the required system upgrades to be borne by the applicant shall be limited to no more than 115% of the updated cost estimate.*

Each utility shall publish on its website a "Distribution Upgrade Actual Cost Matrix" and "Distribution Upgrade Cost Estimate Matrix" identifying the actual and estimated cost of the equipment typically required to interconnect DG projects, including equipment necessary to construct system modifications. Each utility shall update its cost matrices at least annually, by January 31 of each year to reflect the utility's most recent actual cost experience. The utility may provide ranges for actual and estimated costs such that ranges are appropriate median of the sample costs. Utility cost estimates provided in the CESIR shall be based on the same cost information used to develop the "Distribution Upgrade Cost Estimate Matrix" in effect at the time of delivery of the CESIR, the "Distribution Upgrade Cost Estimate

Matrix” should be itemized into equipment, labor, contingency and any other cost categories applicable to the CESIR. Annual distribution upgrade cost filings shall be accompanied by cost data and workpapers so DPS Staff and interested parties can review and validate the filings for accuracy.

A utility may not revise a CESIR after it has been delivered to the applicant without the applicant’s consent, except as provided in Section H.

Section C, STEP 11: Final Acceptance and Utility Cost Reconciliation

Except as provided in Appendix E, final project costs shall be reconciled pursuant to this section. If the utility witnessed the verification testing, then, within ten (10) Business Days of the completion of such testing, the utility will issue to the applicant either a formal letter of acceptance for interconnection or a detailed explanation of the deficiencies in the installed DG system, ESS, or Hybrid Project. If the utility did not witness the verification testing, then, within ten (10) Business Days of receiving the written test notification from Step 9, the utility will either issue to the applicant a formal letter of acceptance for interconnection, or will request that the applicant and utility set a date and time to witness operation of the installed DG system, ESS, or Hybrid Project. This witnessed verification testing must be completed within twenty (20) Business Days after being requested. Within ten (10) Business Days of the completion of any such witnessed testing, the utility will issue to the applicant either a formal letter of acceptance for interconnection or a detailed explanation of the deficiencies in the installed DG system, ESS, or Hybrid Project. Within sixty (60) Business Days after issuance of the utility’s formal letter of acceptance, ~~or submittal of final as-built drawings to the utility, whichever occurs last,~~ the utility shall prepare and submit to the applicant a final reconciliation statement of its actual costs less any CESIR and construction advance payments made by the applicant. *The reconciliation statement shall include an itemized costs breakdown of all costs incurred to complete distribution upgrades, including equipment, labor and overhead with a granular breakdown of all equipment units, utility and subcontracting labor hours, their hourly rates and if applicable escalations to hourly rates.* Within twenty (20) Business Days after delivery of the reconciliation statement, the applicant will receive either a bill for any balance due or a reimbursement for overpayment from the utility as determined by the utility’s reconciliation. The applicant may contest the reconciliation with the utility. If the utility’s final reconciliation invoice states a balance due from the applicant, unless it is challenged by a formal complaint interposed by the applicant, it shall be paid to the utility within thirty (30) Business Days or the utility reserves the right to lock the generating system offline. If the utility’s final reconciliation invoice states a reimbursement for overpayment to be paid by the utility, unless the reimbursement amount is challenged by a formal complaint interposed by the applicant, it shall be paid to the applicant within thirty (30) Business Days. If the applicant is not satisfied, a formal complaint may be filed with the Secretary to the Commission.

Section D: Payment and Construction Milestones

~~Within (10) Business Days of completion of design work, the utility will provide an updated upgrade cost estimate if the scope of work changed from the CESIR estimate.~~