



Phase 5 Implementation Plan

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Energy Research and Development Authority

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1. Introduction

This Implementation Plan details the transition of the Clean Energy Standard (CES) Tier 1 Renewable Energy Standard (RES) compliance obligation for Load Serving Entities (LSEs) away from the current approach and toward a load share obligation approach similar to other existing LSE obligations under the CES. Under the current Tier 1 approach, LSEs must meet their compliance obligation, which is represented as a pre-determined percentage of the load they serve, by procuring Tier 1 renewable energy credits (RECs) from NYSERDA or other sources, or, in the alternative, by making Alternative Compliance Payments (ACPs). Under the new approach described in this Implementation Plan, LSEs would simply be obligated to procure all Tier 1 RECs made available by NYSERDA, after the completion of voluntary sales, in a proportion equivalent to their share of the State load or load share. Without a pre-determined compliance obligation percentage, there will no longer be a need for ACPs, nor will there be an incentive for LSEs to purchase RECs outside of those purchased by NYSERDA. Although these two alternative methods of meeting the current LSE compliance obligation were well-intentioned when designed, for the reasons set forth in NYSERDA's November 9, 2022, petition (the "Petition") they have not proven to be critical to the success of the CES. This transition will benefit New York State ratepayers, provide further consistency across the various LSE obligations under the CES, and provide administrative efficiency for NYSERDA and LSEs. Adopting a load share construct also provides the potential to reduce ratepayer costs by enabling NYSERDA to sell Tier 1 RECs to the in-state voluntary market.

2. Background

2.1 The Evolution of the Clean Energy Standard

On August 1, 2016, the Public Service Commission (Commission) established the CES.¹ The CES includes the RES, the Zero-Emissions Credit (ZEC) requirement and, as of July 12, 2018, the Offshore Wind Standard.² The RES includes the Tier 1 program, designed to foster the development of new renewable energy resources through the creation of a compliance obligation for each LSE to serve their retail customers by procuring qualifying Tier 1 RECs or making ACPs.³ The CES Framework Order anticipated that additional measures would be necessary to fully implement the CES and instituted an implementation process to address issues and approve changes as necessary. To date, the Commission has approved four CES Implementation Plans that are each briefly summarized below.

The CES Phase 1 Implementation Plan (Phase 1 Plan) included details and processes regarding RES eligibility, certification, the long-term procurement of Tier 1 RECs, LSE demonstration of compliance,

¹ Case 15-E-0302, Proceeding to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued and effective August 1, 2016) (CES Framework Order).

² Case 18-E-0071, In the Matter of Offshore Wind Energy, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement (issued and effective July 12, 2018).

³ CES Framework Order at 14.

and other reporting requirements. The Phase 1 Plan was approved by the Commission on February 22, 2017⁴ and filed by Department of Public Service staff (Staff) and NYSERDA on March 24, 2017.⁵

The CES Phase 2 Implementation Plan (Phase 2 Plan) included modifications to the annual targets for LSE obligations for 2018 through 2021; clarification of the treatment of voluntary purchases and baseline resources in observing progress toward the CES goals; protocols for the application of an annual divergence test (Divergence Test); program design and procedures for the 2018 sale of Tier 1 RECs procured by NYSERDA under long-term contracts; direction for post-2018 modifications; establishment of a method to calculate the ACP for 2018; and a description of how NYSERDA would utilize any ACPs received. The Phase 2 Plan was approved by the Commission on November 17, 2017⁶ and filed by Staff and NYSERDA on December 18, 2017.⁷

The CES Phase 3 Implementation Plan (Phase 3 Plan) included changes required by the Commission's Order dated November 17, 2017, resolution of previously unaddressed issues from the CES Framework Order and other existing Commission orders, procurement results, and RES program developments occurring after the filing of the Phase 2 Plan. The Phase 3 Plan included details clarifying how obligated load is calculated, amending the RES Tier 1 certification processes for eligible Value of Distributed Energy Resources (VDER) projects, extending the default commercial operation milestone dates under RES Tier 1 procurements, and proposed program design and procedures for the 2019 Tier 1 REC sales and beyond for Tier 1 RECs procured by NYSERDA under long-term contracts. The Phase 3 Plan also outlined and clarified reporting requirements under the CES, including the content and timing of the Triennial Review process, and provided a schedule of ongoing filings. The Commission approved the Phase 3 Plan by Order dated December 14, 2018⁸ with certain revisions as described in the body of the Order; the Final Phase 3 Plan was filed by Staff and NYSERDA on January 11, 2019.⁹

The CES Phase 4 Implementation Plan (Phase 4 Plan) focused on a number of implementation steps identified by the Commission's January 2020 Order Modifying Tier 1 Renewable Procurements (CES January Order),¹⁰ under which NYSERDA was authorized to employ an index pricing structure in its future Tier 1 solicitations.¹¹ These implementation steps are primarily focused on impacts to the pricing and disposition of the Tier 1 RECs that NYSERDA procures under this structure, such as changes to the process of setting market prices, performance of auctions and managing REC vintages, changes to calculating ACPs, addressing unintentional impacts on the market for RECs imported to or exported from New York, and impacts to the Value Stack Environmental Value tariffs.¹² The Commission approved the Phase 4 Plan by Order dated August 13, 2020,¹³ with minor revisions. The Final Phase 4 Plan was filed by Staff and NYSERDA on September 14, 2020.¹⁴

⁴ Case 15-E-0302, supra, Order Approving Phase 1 Implementation Plan (issued and effective February 22, 2017). (CES Phase 1 Order).

⁵ Case 15-E-0302, Clean Energy Standard Final Phase 1 Implementation Plan (filed March 24, 2017).

⁶ Id., Order Approving Phase 2 Implementation Plan (issued November 17, 2017) (CES Phase 2 Order).

⁷ Case 15-E-0302, Clean Energy Standard Final Phase 2 Implementation Plan (filed December 18, 2017).

⁸ Case 15-E-0302, supra, Order Approving Phase 3 Implementation Plan (issued and effective December 14, 2018) (CES Phase 3 Order).

⁹ Case 15-E-0302, Clean Energy Standard Final Phase 3 Implementation Plan (filed January 11, 2019).

¹⁰ Case 15-E-0302, supra, Order Modifying Tier 1 Renewable Procurements (issued and effective January 16, 2020) (CES January Order).

¹¹ CES January Order at 28.

¹² Id. at 26.

¹³ Case 15-E-030, supra, Order Approving Phase 4 Implementation Plan (issued and effective August 13, 2020).

¹⁴ Case 15-E-0302, Clean Energy Standard Final Phase 4 Implementation Plan (filed September 14, 2020).

NYSERDA's Petition Regarding Modification of the Clean Energy Standard to Transition from a Defined Percentage Obligation to a Load Share Obligation (the "Petition") was filed November 9, 2022. The Petition was approved by the Commission on April 20, 2023. In the approving Order, the Commission directed NYSERDA to file an Implementation Plan to include modifications as directed in the body of the Order within thirty (30) days, which was extended by the Commission on May 19, 2023, to a new due date of August 31, 2023.

3. Implementation of Tier 1 Load Share Obligation

In the Petition, NYSERDA proposed a new approach that would require LSEs to purchase from NYSERDA their load share of the Tier 1 RECs purchased by NYSERDA annually; this approach is already used or approved for the Tier 2, Tier 4, Offshore Wind Renewable Energy Certificate, and Zero Emission Credit programs of the CES.¹⁵ Thus, the Tier 1 compliance obligation will be brought into alignment with the other CES programs. This process will be based upon the "pay-as-you-go" model that was implemented by NYSERDA beginning with the Commission approval of the ZEC Implementation Plan.¹⁶ Under the "pay-as-you-go" model, a uniform wholesale per MWh charge will be applied to each LSE's actual wholesale load to calculate its monthly Tier 1 REC obligation payments. By transitioning to a load share approach, NYSERDA will also no longer be required to collect ACPs from LSEs.

Under this process, LSEs will be required to make payments to NYSERDA based on their load share and the quantity and cost of Tier 1 RECs purchased by NYSERDA each year, less any sales made through the voluntary sales process described later in this Implementation Plan. This approach will ensure NYSERDA has the necessary funds to meet its contractual obligations to Tier 1 generators while procuring Tier 1 RECs to fulfill the goals of the CES. This section provides a detailed synopsis of how NYSERDA will implement this transition.

3.1 Treatment of VDER Tier 1 RECs

Currently, VDER Tier 1 RECS are purchased by the Investor-Owned Utilities (IOUs) from most Tier 1 eligible projects in their service territories.¹⁷ The IOUs currently use these VDER Tier 1 RECs to help meet their Tier 1 obligations under the CES. Since the IOUs are required to purchase these VDER Tier 1 RECs to help meet their obligations under the CES, NYSERDA has included within the Petition and this Implementation Plan how these VDER Tier 1 RECs will be addressed.

Based upon feedback from the IOUs, some of the IOUs have significant quantities of VDER Tier 1 REC generating projects in their territories, which represent a significant ratepayer investment. The VDER Tier 1 RECs will be counted toward the overall LSE load share obligation. NYSERDA will accomplish this by "purchasing" all VDER Tier 1 RECs from each IOU and adding these VDER Tier 1 RECs to the Tier 1 RECs purchased by NYSERDA to determine the total Tier 1 RECs obligation for all LSEs. This approach allows the IOUs to receive credit for their required purchase of VDER Tier 1 RECs, and for the cost of VDER Tier 1 RECs to be shared amongst all jurisdictional ratepayers, as the environmental attributes these RECs represent are a shared societal benefit. NYSERDA will then include the VDER Tier 1 RECs

¹⁵ CES Framework Order at 30.

¹⁶ Case 15-E-0302, supra, Clean Energy Standard Zero Emissions Credit (ZEC) Implementation Plan (filed August 3, 2018).

¹⁷ VDER project owners have the option of foregoing the payment of the Environmental Value in the VDER Value Stack, and instead claiming a non-tradable, non-monetizable REC. Relatively few project owners have made this election, but in such cases, the IOU does not claim Tier 1 RECs for the project's generation.

originally procured by each IOU along with NYSERDA-procured Tier 1 RECs when performing the Tier 1 Voluntary Sales and Tier 1 Reconciliation processes described below. This Implementation Plan does not alter the existing option for VDER project owners to forgo the “Value of E” and retire VDER RECs for their own corporate/voluntary compliance purposes.

3.1.1 VDER Tier 1 REC Process

NYSERDA recognizes that this will be a material change to how VDER Tier 1 RECs are currently utilized and that certain changes will be required. The following are the process and changes that will be required to enable the necessary transferability of VDER Tier 1 RECs.

3.1.2 NYGATS

Currently, VDER Tier 1 RECs are unable to be transferred in NYGATS.¹⁸ The VDER Tier 1 REC transferability rules will be updated to allow VDER Tier 1 RECs minted in NYGATS to be transferrable to NYSERDA, and NYSERDA will be able to transfer VDER Tier 1 RECs as necessary. This is discussed in greater detail below.

3.1.3 NYSERDA and IOU VDER Tier 1 REC Coordination

NYSERDA “purchasing” the VDER Tier 1 RECs from the IOUs to be included in the Tier 1 load share obligation will require even closer coordination than currently exists between NYSERDA, the IOUs, and Staff.

By June 15 each year, starting in 2024 as ordered by the Commission to inform compliance year 2025, each of the IOUs will report to NYSERDA and Staff their *initial* forecast of the number of VDER Tier 1 RECs for the upcoming compliance year (2025 being the first year) and the weighted-average Value of E price that the IOU will pay to purchase the VDER Tier 1 RECs. NYSERDA will be able to utilize this data for the Annual Presale discussed later in this Implementation Plan.

By October 1 each year, starting in 2024 as ordered by the Commission to inform the compliance year 2025, each of the IOUs will report to NYSERDA and Staff their *updated* forecast of the number of VDER Tier 1 RECs for the upcoming compliance year (2025 being the first year) and the weighted-average Value of E price that the IOU will pay to purchase the VDER Tier 1 RECs. NYSERDA will utilize this information to determine the Initial Tier 1 Rate discussed later in this Implementation Plan.

First, the IOUs will have registered all available projects and transferred corresponding VDER RECs per each price point into NYGATS to NYSERDA by starting March 15, 2026. The price points will consist of historical E-Value payments (under the VDER Value Stack) made by the IOUs to the generators for pre 2025 vintage RECs plus the E-Value payments made during 2025 for projects registered and reaching commercial operation during 2025, incorporating any changes to the E-Value during that period.” E-Value payments for individual projects are locked in for 25 years from the initial payment. NYSERDA will then be able to utilize these VDER Tier 1 RECs to meet commitments resulting from the voluntary Presale. Second, any remaining projects and VDER RECs not reported by March 15 will be duly reported by the IOUs and transferred in NYGATS to NYSERDA forty-five (45) days prior to the end of trading in NYGATS, with these RECs included in the annual reconciliation. Third, any remaining VDER Tier 1 projects and RECs still not transferred by forty-five (45) days prior to the NYGATS end-of-trading can be transferred to NYSERDA in NYGATS five (5) days prior to the end-of-trading in NYGATS and would

¹⁸ Case 15-E-0751, *supra*, Order on Net Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters, (issued and effective on March 9, 2017) at 61.

be included in the following year's VDER RECs forecast. NYSERDA will issue payment for these VDER RECs during the following year's reconciliation.

The IOUs will submit a root cause analysis for each project whose registration in NYGATS is delayed beyond March 15 to Staff, detailing why the project was delayed and how the process will be modified to prevent such delays from occurring in the future.

NYSERDA will utilize this information to determine the Final Tier 1 Rate discussed later in this petition. The transfer of VDER Tier 1 RECs to NYSERDA will be accomplished via NYGATS and the updated VDER Tier 1 REC transferability rules. This approach will fully replace the existing IOU Value of E cost recovery mechanism, including both the "in market" and the "out of market" components, while leaving all other VDER cost recovery practices in place.

Each IOU will receive credit for the VDER Tier 1 RECs transferred to NYSERDA, at the cost reported to Staff and NYSERDA, during the annual Tier 1 REC reconciliation which is detailed later in this petition.

3.2 Similar VDER Situations

During the outreach process, it was identified that there could be similar situations with other entities that have an obligation under the CES. These could include entities such as the Long Island Power Authority (LIPA) and other municipal utilities.

3.2.1 Long Island Power Authority (LIPA)

NYSERDA, LIPA, and Staff are currently discussing whether LIPA will elect to participate in the new Tier 1 load share obligation framework, as LIPA already does with respect to the Tier 2 REC and ZEC programs. To the extent that LIPA agrees to participate, NYSERDA will treat LIPA essentially in the same manner as IOUs. Specifically, NYSERDA is aware that LIPA procures the rights to Tier 1 RECs through its power purchase agreements with renewable generation facilities and through its payments to behind-the-meter generators eligible for LIPA's VDER tariff. NYSERDA proposes to purchase these Tier 1 RECs from LIPA at no more than the Value of E adopted under the Order on Net Energy Metering Transition, Phase One Value of Distributed Energy Resources and related matters, as updated in the VDER E-Value Update April 2021 filing.¹⁹

If LIPA elects to participate in the new Tier 1 REC compliance framework as described above, NYSERDA and LIPA will amend their existing contract for the purchase of Tier 1 RECs by LIPA from NYSERDA to effectuate the new process. LIPA will also have the option to retain its Tier 1 RECs and/or purchase Tier 1 RECs from NYSERDA through a long-term contract or the annual pre-sale. LIPA and NYSERDA will modify their existing contract as necessary to reflect the approach that LIPA may choose.

3.2.2 Other Municipal Utilities

NYSERDA recognizes that other municipal utilities could be developing VDER-like projects that would produce Tier 1 RECs. A municipal utility that owns or is in contract with a CES Tier 1 eligible project could be treated in a manner consistent with IOUs possessing Tier 1 VDER RECs discussed previously. NYSERDA will purchase these Tier 1 RECs from municipal utilities at no more than the Value of E

¹⁹ Case 15-E-0751, In the Matter of the Value of Distributed Energy Resources, Staff filing to reflect increase in the calculated E-Value from \$27.03/MWh to \$31.03/MWh under the Value Stack compensation method, to be effective with the May, 2021 utility filings. April 21, 2021

adopted under the Order on Net Energy Metering Transition, Phase One Value of Distributed Energy Resources and related matters, as updated in the VDER E-Value Update April 2021 filing.

3.2.3 New York Power Authority (NYPA)

The New York Power Authority (NYPA) is a voluntary participant in the CES. As a voluntary participant, NYPA has entered into an agreement with NYSERDA to purchase Tier 1 RECs beginning in 2024. This agreement will need to be modified or replaced to account for changes in NYSERDA's REC sale process. NYPA and NYSERDA, with consultation with DPS Staff, will need to determine the extent to which NYPA's load should be included in the REC allocation calculations.

3.3 Timing of the Transition

The transition from an LSE obligation percentage to a method using LSE load share to determine each LSE's obligation will commence with compliance year 2025. Under this approach, NYSERDA will conduct the first voluntary Presale of Tier 1 RECs in 2024, for delivery in the 2025 compliance year as described later in this Implementation Plan.

4. Implementation of Tier 1 REC Voluntary Sales

There is growing interest in voluntary REC purchasing in New York State, a trend similar to neighboring states and across the country. Increased demand for RECs is being driven in part by expanding Community Choice Aggregations (CCAs)²⁰ and organizations seeking clean energy choices as part of their Environmental, Social, and Governance (ESG) goals. To capitalize on this growing market interest in REC purchases and to minimize costs for New York ratepayers, NYSERDA included the voluntary REC sales in the Petition to transition to a load share framework.

NYSERDA will sell Tier 1 RECs, on a percentage or fixed quantity basis, to voluntary Purchasers and enter contractual arrangements with more than one entity as may be necessary. Under this concept, NYSERDA will offer Tier 1 RECs for sale to the voluntary market, which will help defray the cost of the Tier 1 program to New York ratepayers. Tier 1 RECs will be made available for sale at NYSERDA's own net-levelized cost, including an administrative adder.

In developing a Tier 1 voluntary sale framework, NYSERDA engaged with various stakeholders to discuss their needs. Additionally, there have been preliminary discussions to ascertain the demand for voluntary Tier 1 REC purchases and the best approaches to a Tier 1 voluntary sale framework. Potential voluntary purchasers include various organizations from the higher education and municipal government sectors, as well as energy service companies (ESCOs), businesses from the commercial and industrial sectors who may have ESG goals, and CCAs.

Considering feedback received, NYSERDA determined a hybrid approach for the voluntary sale of RECs is best, including long-term contracting, an annual REC Presale and an annual REC Resale, all described in greater detail below. This approach was approved by order of the Commission on April 20, 2023.

²⁰ Comparison of 2019 and 2020 CES Annual Progress Reports shows CCAs increased their procurement and retirement of RECs by 353,758 MWhs. Case 15-E-0302, Clean Energy Standard Annual Progress Report: 2019 Compliance Year (filed January 2021) at 11. Case 15-E-0302, Clean Energy Standard Annual Progress Report: 2020 Compliance Year (filed January 2022) at 31.

4.1 Long-Term Contracting

Similar to the approach approved by the Commission for the Tier 4 REC program,²¹ NYSERDA will be able to enter into long-term contracts with creditworthy entities for the purchase of Tier 1 RECs. The terms and conditions of the contracts will include, but will not be limited to: contract length, Tier 1 REC quantity, Tier 1 REC price, and payment terms. The terms and conditions will be memorialized within the individual contracts. Under any long-term contract, participants would be required to purchase Tier 1 RECs at the NYSERDA net-weighted average price plus any administrative adder approved by the Commission for that compliance year. Any revenue NYSERDA receives from the long-term contracts will be recognized as Long-Term Contract Revenue for the purpose of the LSE Tier 1 Obligation Reconciliation, and as such will reduce the total cost of the Tier 1 REC program to ratepayers.

4.2 Annual Tier 1 REC Presale

NYSERDA recognizes that some entities will also desire an alternative to long-term contracts. As a result, NYSERDA will also offer an Annual Presale of Tier 1 RECs, covering a one-year period with a NYSERDA-projected REC price. This sale derives its name from the fact that it occurs before the compliance year, thus offering purchasers an opportunity to secure REC purchases for the upcoming compliance year.

Under this process, NYSERDA will hold an Annual Presale prior to the start of the next Tier 1 compliance year. Through this Presale, NYSERDA will offer a percentage of the net expected Tier 1 REC inventory for the following compliance year for sale. For example, the first Tier 1 compliance year under this new approach will be 2025, the first Tier 1 Presale will occur in August 2024 based on a projection of VDER and NYSERDA Tier 1 RECs described above, and it will offer a percentage of the net expected Tier 1 REC inventory for 2025. The length of the Presale period will be fourteen (14) days and will proceed according to the Tier 1 REC Presale Process Schedule as shown in Table 1 below. NYSERDA will conduct Annual Presales throughout the life of the Tier 1 Program. NYSERDA will announce the quantity of Tier 1 RECs available for sale, Presale price, and Presale process no later than July 15 each year, through the end of the Tier 1 program.

Table 1: Sample of Forward Tier 1 REC Presale Process Schedule

Trading Period	Tier 1 REC Presale Offer Announcement	Tier 1 REC Presale Process Conclusion
2025	Between July 1, 2024 and July 15, 2024	Announcement + 14 calendar days
2026	Between July 1, 2025 and July 15, 2025	Announcement + 14 calendar days
2027	Between July 1, 2026 and July 15, 2026	Announcement + 14 calendar days
2028	Between July 1, 2027 and July 15, 2027	Announcement + 14 calendar days
2029	Between July 1, 2028 and July 15, 2028	Announcement + 14 calendar days

²¹ CES Modification Order at 100.

4.2.1 Annual Tier 1 REC Presales Eligible Purchasers

Private businesses such as commercial real estate companies, state entities, hospitals, universities, municipalities, and organizations with ESG goals, as well as LSEs and CCAs (“Purchasers”), will be eligible to participate in NYSERDA Tier 1 REC Annual Presales. This approach is in alignment with the potential to mitigate Tier 1 costs to ratepayers by supporting the sale of all RECs purchased by NYSERDA in the voluntary market, regardless of tier, so long as the RECs sold stay in New York to be counted toward Climate Leadership and Community Protection Act (“Climate Act”) goals.

NYSERDA will hold informational sessions with the specific details for potential purchasers prior to the Annual Presale. These sessions will include details about how potential purchasers will be able to register and participate.

4.2.2 Annual Tier 1 Presale REC Inventory

The Tier 1 Presale inventory for Annual Presales will be the total expected supply minus the long-term contract demand, multiplied by a percentage (less than 100%), to help ensure that NYSERDA has sufficient Tier 1 RECs to fulfill Tier 1 REC Presale orders. NYSERDA will coordinate with Staff to review the determination for the eligible sale percentage.

Example:

*Net Annual Tier 1 REC Inventory = (Total Expected Tier 1 Supply – Long-Term Contract Demand) * Eligible Sale Percentage*

Where:

Long-Term Contract Demand = The forecasted total number of Tier 1 RECs for that year contracted under a long-term contract

4.2.3 Annual Tier 1 REC Presale Price

The Tier 1 REC Presale price will be based on the projected net-weighted average cost of Tier 1 RECs after subtracting the voluntary long-term contract commitments, plus any Commission-approved administrative adder. However, given the evolving and competitive nature of the Tier 1 REC market, NYSERDA will have the ability to pursue an auction mechanism that could include variable pricing. It is in the best interest of ratepayers for NYSERDA to have the ability to pursue an auction structure that meets the needs of the market and maximizes voluntary sales, thereby maximizing the reduction of ratepayer obligations necessary to achieve the goals of the Climate Act and the CES. NYSERDA will have the ability to both directly offer RECs for Presale at the net-weighted average cost to procure, or to conduct Presale auctions as described herein at this time and will seek additional approval for other potential sale mechanisms once they are more fully developed. Starting in the 2025 compliance year NYSERDA will have the ability to implement a Presale auction structure that will sell at or above NYSERDA’s forecasted net-weighted average cost to procure RECs for the upcoming compliance year. Under such a structure, the forecasted REC price will serve as an auction reserve price for blocks of RECs that voluntary Purchasers can bid on for a designated period. This auction mechanism will enable NYSERDA to minimize ratepayer impacts from the program by maximizing the potential purchase price for Tier 1 RECs.

Example:

Net Weighted Average Price = Net Annual Tier 1 REC Overall Cost / Net Annual Tier 1 REC Inventory

Where:

Annual Tier 1 REC Overall Cost = Projected Total Overall Cost – Long-Term Contract Revenue

NYSERDA acknowledges that the actual weighted average cost of Tier 1 RECs purchased by NYSERDA during the calendar year may differ from its Presale projection. In determining the Presale price of Tier 1 RECs, NYSERDA sums the projected costs and annual MWhs of generation from resources that have existing Tier 1 REC agreements with NYSERDA, both fixed- and index-priced contracts, and the projected VDER Tier 1 REC costs, to calculate the projected weighted average cost. This total includes annual MWh generation from eligible resources that commenced operation on or after January 1, 2015, as well as the pro-rated portion of MWh generation from resources that are scheduled to enter commercial operation during the year of the Annual Presale. No reconciliations will be made for the REC Presale price to the actual weighted average price. This approach was previously utilized by NYSERDA prior to the adoption of the Phase 4 Implementation Plan. Any revenue or deficit from the Tier 1 REC Presale will be settled during the annual reconciliation process discussed later in this Implementation Plan.

4.2.4 Annual Tier 1 REC Presale Process

For the Tier 1 REC Presale, NYSERDA will announce to Purchasers, at minimum on the NYSERDA website, the timing of the Tier 1 REC Presale, as well as the following information:

- The expected total Tier 1 REC inventory available for the Presale;
- The Presale reserve price at which the Tier 1 RECs are offered;
- Potential minimum order quantity or block amounts; and
- Presale period opening and closing date and time

NYSERDA will use an electronic submission form to collect orders from Purchasers that desire to participate in a Presale. NYSERDA will also evaluate whether an online auction tool should be implemented. Participating Purchasers will be required to agree to the Terms and Conditions of Presale when the order is submitted, i.e., at the point of sale.

4.2.5 Annual Tier 1 REC Presale Allocation

Similar to the process that was approved by the Commission for the Tier 2 REC resale, NYSERDA will neither limit nor guarantee a minimum number of Tier 1 RECs to purchasers participating in the Tier 1 annual Presale process. The Tier 1 REC Presale is a voluntary process, and the Tier 1 RECs will be purchased to back voluntary products/obligations or sustainability claims.

NYSERDA will allocate the RECs based upon the following:

- If the demand for Tier 1 RECs is below the expected Tier 1 Presale inventory, each organization will be allocated a quantity of RECs equal to their order quantity; or
- If total order quantity is above the expected Tier 1 REC inventory, each organization will receive a pro-rata share of Tier 1 RECs based upon their total order quantity.

4.2.6 Annual Tier 1 REC Presale Invoices

In order to allow development of a robust voluntary REC purchase market, NYSERDA anticipates the need to develop an automated process that will be used when the demand for Tier 1 RECs reaches a certain level. When determined to be necessary, NYSERDA will request appropriate funding for an automated process in its annual CES Administrative Funding Request.

Invoices will be distributed within approximately seven (7) business days from the end of each Presale period. The Purchasers' payment terms will be full payment within 30 calendar days. If the full funds are not transferred to NYSERDA according to the payment terms, NYSERDA reserves the right to cancel the Purchaser's order.

The proceeds from the annual Tier 1 REC Presale will be considered Tier 1 annual revenue and included in the reconciliation process discussed later in this Implementation Plan.

4.3 Annual Tier 1 REC Resale

NYSERDA has the ability to hold a Tier 1 REC Resale at the end of each compliance year if there is sufficient demand for such and NYSERDA has a sufficient volume of Tier 1 RECs. At this juncture, NYSERDA believes that the Tier 1 Presale approach will meet the needs of both the various market participants and NYSERDA. It is possible that there could be additional sufficient demand for Tier 1 RECs from voluntary Purchasers after the end of the calendar year. NYSERDA will begin Voluntary Resales no sooner than the 2025 compliance year and will consult with Staff before initiating any such Voluntary Resales.

If NYSERDA were to hold a Tier 1 REC Resale, the Tier 1 RECs would be priced at the actual weighted average price, plus any applicable administrative adder. NYSERDA will use the same sale methodologies for Resale as it will for Presale as described above, with one substantive difference, i.e., NYSERDA has the ability to design an auction process that would sell at or above NYSERDA's actual (rather than forecasted) net-weighted average cost to procure RECs for the compliance year. This auction mechanism will enable NYSERDA to minimize ratepayer impacts from the program by maximizing the potential purchase volume and price for Tier 1 RECs for sale to the voluntary market. Any revenue from a Tier 1 REC Resale will be treated as Tier 1 annual sale revenue and included in the reconciliation process discussed later in this Implementation Plan.

4.4 REC Transfers

Tier 1 REC transfers via NYGATS from NYSERDA to a voluntary Purchaser's NYGATS account will occur after the Tier 1 compliance year is complete. This process will occur for Tier 1 RECs under long-term contracts, Annual Presale purchases, and Annual Resale purchases. Account holders would have fourteen (14) days to accept the pending transfer from NYSERDA per the NYGATS Operating Rules.

4.5 Transferability and Banking

Both the Tier 1 RECs purchased and sold by NYSERDA and the VDER Tier 1 RECs procured by the IOUs have restrictions placed upon them by previous Commission orders. NYSERDA has initially identified updates that will need to be made related to restrictions primarily related to transferability. Any modifications deemed necessary but not identified at this point will be reviewed with Staff prior to changes being implemented. NYGATS account holders, including Voluntary Purchasers, will be allowed to transfer Tier 1 RECs purchased from NYSERDA.

4.5.1 Non-VDER Tier 1 RECs

Currently, there are specific restrictions placed on Tier 1 RECs sold by NYSERDA, as well as Tier 1 RECs in general.²² NYSERDA will implement the following updates to Tier 1 REC characteristics:

- Remove the banking restriction from Tier 1 RECs;
- Remove exemptions from Tier 1 RECs related to utilizing off-vintage RECs with the Environmental Disclosure Program (EDP); and
- NYGATS account holders will be allowed to transfer Tier 1 RECs purchased from NYSERDA through Presale or Resale events

This Implementation Plan does not include any changes to the EDP program and its requirements including vintage.

4.5.2 VDER Tier 1 RECs

The VDER Tier 1 RECs also have restrictions that need to be addressed.²³ NYSERDA will implement the following updates to the VDER Tier 1 requirements:

- Allow VDER Tier 1 RECs to be transferred to NYSERDA's NYGATS account via a standardized agreement;
- Allow VDER Tier 1 RECs acquired by NYSERDA to be resold by NYSERDA to NYGATS account holders;
- NYGATS account holders will be allowed to transfer VDER Tier 1 RECs purchased from NYSERDA; and
- Remove exemptions from Tier 1 RECs related to utilizing off-vintage RECs with the EDP program.

5. LSE CES-Obligation and Reconciliation

This section includes NYSERDA's approach to reconcile LSE obligations under the load share framework set forth in this Implementation Plan. This approach is very similar to the processes currently utilized for reconciliation of other CES Tiers. NYSERDA will execute form contracts with LSEs, as set forth in Appendix A to this petition, that will memorialize the LSE load share obligation requirements described below.

5.1 Revised CES LSE Obligation

This section addresses how each LSE's initial Tier 1 REC obligation will be calculated and how LSEs will remit Tier 1 REC obligation payments. Under the new method, a uniform wholesale per MWh charge will be applied to each LSE's actual wholesale load to calculate their monthly Tier 1 REC obligation payments. This "pay-as-you-go" payment methodology was originally adopted through the ZEC

²² 15-E-0302, *supra*, Clean Energy Standard Final Phase 1 Implementation Plan, (filed March 24, 2017), at. 31.

²³ Case 15-E-0751, *supra*, Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters (issued and effective March 9, 2017) at. Appendix B, B-1.

Implementation Order.²⁴ It provides NYSERDA with necessary operating liquidity to continue to purchase Tier 1 RECs and provides LSEs with a more uniform payment structure.

5.2 LSE Tier 1 REC Rate

Beginning January 1, 2025, and reoccurring each year thereafter, NYSERDA will determine, in collaboration with Staff, the dollar per MWh charge (LSE Tier 1 REC Rate) owed by each LSE for the next compliance year of the Tier 1 program. The LSE Tier 1 REC Rate will be used by all LSEs and NYSERDA to determine the monthly payment an LSE will be responsible for making to NYSERDA. The LSE Tier 1 REC Rate will be a wholesale rate that will be applied to the wholesale load data NYSERDA receives from the New York Independent System Operator (NYISO).²⁵ The cost component of the LSE Tier 1 REC Rate will be based on the total forecasted cost for NYSERDA to purchase Tier 1 RECs. The load component of the LSE Tier 1 REC Rate will be based on statewide forecasted load.

The LSE Tier 1 REC Rate to be paid by each LSE for the compliance year will be calculated according to the following formula:

$$\text{LSE Tier 1 REC Rate} = (\text{NYSERDA's estimated total cost to procure Tier 1 RECs} - \text{Long-Term Contract Revenue} - \text{Tier 1 Annual Presale Revenue}) / \text{Forecasted statewide electric load}^{26}$$

This “pay-as-you-go” payment methodology relies on an LSE’s monthly wholesale load requirements for their retail customers. NYSERDA will utilize Version 1²⁷ of the total LSE load data, as settled by the NYISO each month, as a basis for each LSE’s monthly payment to NYSERDA, taking into consideration a projection of the LSE’s projected Tier 1 VDER RECs as represented by a VDER Compensation Factor, discussed in detail below.

An LSE’s monthly Tier 1 payment obligation will be calculated using the LSE Tier 1 REC Rate, the number of MWh the LSE served using the NYISO Version 1 load data, a Load Modifier Rate, and a VDER Compensation Factor, according to the following formula:

$$\text{LSE Tier 1 monthly payment obligation} = (\text{LSE Tier 1 REC Rate}) \times (\text{LSE's Version 1 MWh}) \times (\text{Load Modifier Rate}) \times (\text{VDER Compensation Factor})$$

A final reconciliation will occur in June after the close of each year as described later in this Implementation Plan.

5.2.1 Cost Component

The cost component of the LSE Tier 1 REC Rate will be the cost for NYSERDA to procure Tier 1 RECs from the Large-Scale Renewable RFPs, plus the cost of VDER Tier 1 RECs, plus any Commission-approved administrative adder less any revenue made through the voluntary sale process. It should be noted that NYSERDA LSR Tier 1 RECs can vary in both quantity and price, which introduces a degree of uncertainty. This is balanced by the VDER Tier 1 RECs, which have price certainty. NYSERDA

²⁴ Case 15-E-0302, *supra*, Order Approving Zero-Emissions Credit Implementation Plan with Modifications (issued and effective September 20, 2019) at 14.

²⁵ It should be noted that the LSE TIER 1 REC Rate is based on wholesale purchases and not retail sales; the wholesale rate must be adjusted to account for delivery losses that occur between the LSE’s wholesale purchases from the NYISO and retail sales to customers.

²⁶ Forecasted statewide electric load is an estimate by NYSERDA and Staff based on information from the NYISO’s Load & Capacity Data Report (NYISO Goldbook).

²⁷ NYISO Version 1 load data is part of the NYISO settlement process. This is the initial monthly billing period data from the NYISO.

recognizes that with the implementation of index-priced RECs, there could be a variation between the forecasted Tier 1 REC price and the actual price NYISERDA pays for Tier 1 RECs. NYISERDA will review the Tier 1 REC cost estimate forecast with Staff to ensure concurrence, in an effort to minimize the variation between the estimated cost and the actual cost that will be utilized in the annual Tier 1 REC reconciliation. In short, the cost component of the LSE Tier 1 REC rate is the estimated cost NYISERDA is expected to incur to purchase Tier 1 RECs during the compliance period. Any discrepancies between projected costs and actual costs will be settled during the annual reconciliation process discussed later in this Implementation Plan.

5.2.2 Load Component

Transitioning to this new approach will place additional importance on load forecasting, as such forecasts will be used to determine the LSE Tier 1 REC Rate. If actual statewide load is less than the forecasted statewide load used to determine the LSE Tier 1 REC Rate, NYISERDA will be short in its collections to purchase Tier 1 RECs. Conversely, if the actual statewide load exceeds the forecasted statewide load, excess funds will be collected by NYISERDA from LSEs.

To provide process transparency, NYISERDA and Staff will use a published forecast, such as the Baseline Forecast of Annual Energy & Coincident Peak Demand that Reflects Impacts of Energy Savings Programs & Behind-the-Meter Generation (Base Forecast), which is published annually in the NYISO's *Load and Capacity Data*, commonly referred to as the Goldbook, as the basis of determining the statewide load component.

5.3 Load Modifier Rate

Each of the IOUs and some of the municipal utilities have load modifiers which are added to their NYISO Version 2 reported load. As part of the ZEC Implementation Plan, NYISERDA conferred with the affected entities and determined that a load modifier rate could be used to adjust their monthly payments to NYISERDA. An annual load modifier rate, based on load modifier generation data from the previous year, will also be applied. In consultation with Staff and NYISERDA, affected LSEs will calculate the load modifier rate for each LSE prior to the start of each compliance year. Applying the load modifier rate will better estimate the affected entities load, with the goal of reducing reconciliation amounts.

5.4 VDER Compensation Factor

In response to the Petition, the Joint Utilities proposed the inclusion of a VDER Compensation Factor to reduce the monthly obligations and overall reconciliation amounts by accounting for VDER Tier 1 REC contributions. The Commission agreed with the Joint Utilities proposal and the VDER Compensation Factor will be included in determining affected LSEs monthly payment obligation. The following formula will be utilized to determine the VDER Compensation Factor:

"VDER Compensation Factor" =

$$1 - [(IOU VDER Forecast RECs / NYS Total Tier 1 REC forecast) / IOU Load Share of NYS Load]$$

In the Order, the Commission limited the VDER Compensation Factor to no less than zero (0).

NYISERDA, the affected LSEs, and Staff will coordinate to determine the VDER Compensation Factor no less than sixty (60) days prior to the first monthly payment obligation for each compliance year.

5.5 Notification/Publication

NYSERDA will notify each LSE of the LSE Tier 1 REC Rate for the upcoming year as well as any load modifier adjustments and a load modifier rate, if applicable, by e-mail, after it has been calculated by NYSERDA and Staff. This notification will occur after Commission approval of any NYSERDA administrative adder for the compliance year but at least by November 1st starting 2024. NYSERDA will also publish the LSE Tier 1 REC Rate on the NYSERDA website.

5.6 Tier 1 Obligation Payment Determination

The Tier 1 obligation payment determination will utilize the “pay-as-you-go” payment methodology developed under the ZEC Implementation Plan.²⁸ This process relies on an LSE’s monthly wholesale load requirements for their retail customers. NYSERDA will utilize Version 1 of the total LSE load data, as settled by the NYISO each month, as a basis for each LSE’s monthly payment to NYSERDA.

NYSERDA typically receives monthly load data from the NYISO on or around the 15th day of the following month. NYSERDA will then determine the LSE’s Tier 1 monthly payment obligation to NYSERDA using the formula specified and issue an invoice as depicted in Figure 1. LSEs will submit their payment to NYSERDA within fifteen (15) days from the issuance of the invoice. The “pay-as-you-go” method will likely result in LSEs having a varying payment obligation each month.

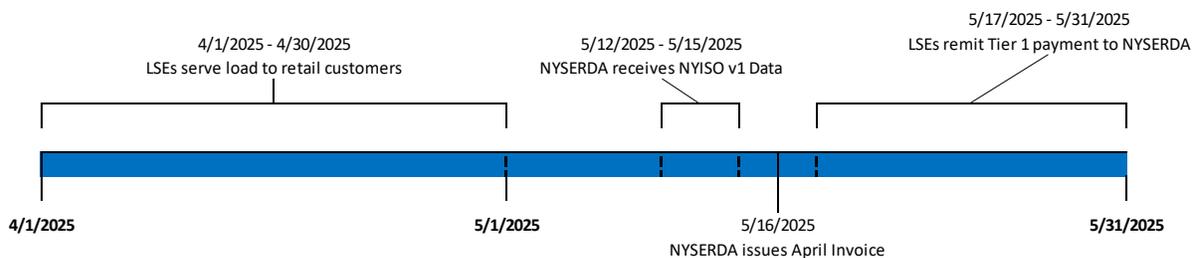


Figure 1: Timeline for LSE Payment Obligation

5.7 CES-Obligated LSE Reconciliation

The reconciliation process will occur after the Tier 1 compliance year ends on December 31 each year. NYSERDA will reconcile financial obligations to Tier 1 contracted generators and the IOUs will submit their final VDER quantity to Staff and NYSERDA. Next, NYSERDA will offset the total financial obligation to Tier 1 contracted generators and IOU VDERs with any Tier 1 Long-Term Contract Revenue, as well as any Tier 1 Annual Presale or Resale revenue, to determine the net LSE financial obligation. NYSERDA will reconcile the funds collected from each LSE to the net LSE financial obligation necessary to meet their requirement based on the Version 2 load data that is provided from the NYISO and recorded in NYGATS. This load will be adjusted for load modifiers. This reconciliation will account for the actual adjusted statewide load, the actual number of Tier 1 RECs purchased by NYSERDA, the actual price paid by NYSERDA for those Tier 1 RECs, and any Tier 1 revenue from the long-term or annual voluntary sales. NYGATS account holders, including LSEs, will not be allowed to transfer Tier 1 RECs transferred from NYSERDA for compliance purposes as a result of the reconciliation process.

²⁸ Case 15-E-0302, *supra*, Final Zero Emissions Credit Implementation Plan, (issued and effective November 14, 2019) at 2.

5.8 NYSERDA Agreements with LSEs

NYSERDA will establish new agreements with LSEs to reflect the terms of the issued Order. The contracts will be modified as needed in subsequent years. A Tier 1 Form Agreement is attached to this Implementation Plan as Appendix A. All LSEs are required to accept the agreement within sixty (60) days of filing this Implementation Plan. NYSERDA will inform LSEs regarding acceptance procedures within thirty (30) days of filing this Implementation Plan.

6. Conclusion

This Implementation Plan outlines the transition of the CES Tier 1 compliance obligation for LSEs away from the current approach and toward a load share obligation approach, similar to other existing LSE obligations under the CES as described herein.

Appendix A: Tier 1 Form Agreement

Exhibit A

TIER 1 RENEWABLE ENERGY CERTIFICATE PURCHASE AND SALE AGREEMENT

This Agreement (the “Agreement”) is made as of [_____] (“Effective Date”) by and between the New York State Energy Research and Development Authority, a public benefit corporation, having a principal business address of 17 Columbia Circle, Albany, New York 12203 (“NYSERDA”), and the Load Serving Entity entering this Agreement (“LSE Buyer”). NYSERDA and LSE Buyer are each referred to herein as a “Party” and are collectively referred to herein as the “Parties.”

RECITALS:

WHEREAS, the New York State Public Service Commission (“PSC”) through its “Order Adopting a Clean Energy Standard”²⁹ (“2016 CES Order”) established the Clean Energy Standard (“CES”) and modified further refined and modified the CES through a series of Orders under Case 15-E-0302 including the “Order Adopting Modifications to the Clean Energy Standard”³⁰ (collectively, the “CES Orders”); and

WHEREAS, the CES Orders direct NYSERDA to administer competitive Requests for Proposals (“RFPs”) for the purchase of Tier 1 RECs (defined below) from eligible generating facilities; and

WHEREAS, the CES Orders authorize NYSERDA to enter into agreements with eligible facilities receiving competitive awards under the Tier 1 RFPs; and

WHEREAS, the PSC issued the “Tier 1 Modification Order” on April 20, 2023 (“Tier 1 Modification Order”), which modified the obligations of LSEs with respect to Tier 1 of the CES, directing that each LSE purchase Tier 1 RECs from NYSERDA at a uniform wholesale per MWh charge in an amount based upon each LSE Buyer’s proportional load share; and

WHEREAS, the Tier 1 Modification Order approved this form of agreement for the procurement of Tier 1 RECs by LSEs from NYSERDA; and

NOW, THEREFORE, in consideration of the foregoing and of the mutual promises hereinafter set forth, which the Parties agree is sufficient, and the Parties, intending to be legally bound, agree as follows:

ARTICLE 1: DEFINITIONS

²⁹ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, “Order Adopting a Clean Energy Standard,” issued and effective August 1, 2016.

³⁰ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, “Order Adopting Modifications to the Clean Energy Standard,” issued and effective October 15, 2020.

1.1 Definitions. In addition to any other terms defined herein, the following terms shall have the meaning ascribed to them below:

- (a) “Administrative Adder” means the amount, of any adder or other charge approved by the Commission to be paid by LSEs to NYSERDA in their purchases from NYSERDA of Tier 1 RECs.
- (b) “Agreement” means this Tier 1 Renewable Energy Certificate Purchase and Sale Agreement, including [Exhibits A \(Standard Terms and Conditions for All NYSERDA Agreements\)](#); [B \(NYSERDA Prompt Payment Policy Statement\)](#)³¹; all of which are incorporated herein and made part hereof.
- (c) “Annual Tier 1 Obligation Amount” shall be calculated as an amount equal to the sum of (i) the Total Tier 1 Net Expenditure plus any approved (ii) Administrative Adder *multiplied by* (iii) the LSE Buyer Load Share. Annual Tier 1 Obligation Amount equals (i+ii)*iii.
- (d) “Annual Tier 1 REC Quantity” shall be calculated as the quantity of RECs equal to the product of (i) the Total Annual NYSERDA Retained Tier 1 RECs *multiplied by* the LSE Buyer Load Share.
- (e) “Compliance Year” shall mean January 1 to December 31 of each year during which NYSERDA is purchasing Tier 1 RECs.
- (f) “Annual Settlement Payment” shall mean the final settlement payment due to either LSE Buyer or NYSERDA as calculated at the end of each Compliance Year pursuant to Section 2.7.
- (g) “Energy Services Company” or “ESCO” means any eligible competitive energy services company operating in New York State pursuant to the Uniform Business Practices approved by the PSC.
- (h) “Load Modifier” means the adjustment made by certain LSEs to account for the fact that NYISO data may not accurately capture the load in New York State served by those LSEs due to some of such load being served other than through the NYISO wholesale market.
- (i) “Load Modifier Projection” means the estimated Load Modifier, if any, applicable to the LSE Buyer as determined by NYSERDA each Compliance Year in accordance with the CES Orders based on information provided by LSE Buyer.
- (j) “Load Serving Entity” or “LSE” means any entity or individual that sells retail commodity electricity supply to an end-use customer located in New York State, including any ESCO and each electric distribution company regulated by the PSC,

³¹ Available at: <https://www.nyserda.ny.gov/Funding-Opportunities/Standard-Forms-and-Agreements>

serving in their roles as electric commodity supplier of last resort, jurisdictional municipal utilities, community choice aggregators not otherwise served by an ESCO, customers purchasing power directly from NYISO, and Long Island Power Authority (“LIPA”) and the New York Power Authority (“NYPA”) to the extent LIPA and NYPA have voluntarily agreed to act as LSEs.

- (k) “Load Share of NYS Load” means effected LSEs’ forecasted load share percentage of statewide load for the upcoming compliance year based upon most recent compliance year’s load share percentage of statewide load.
- (l) “LSE Buyer Load Share” means the percentage of the total electric energy load in New York State that is served by LSE Buyer, incorporating any adjustment to NYISO load share data based on the LSE Buyer’s Load Modifier (if applicable), during such Compliance Year.
- (m) “LSE Tier 1 REC Rate” means the per MWh charge used by all LSEs and NYSERDA as calculated by the formula adopted in the Tier 1 Modification Order and as posted on NYSERDA’s website, including any administrative adder approved by the Commission.³²
- (n) “Monthly Obligation Payment” means the monthly payment due from LSE Buyer to NYSERDA, calculated as the product of (i) the wholesale load served by LSE Buyer, in MWh, for the applicable month based on NYISO Version 1 data or such other data generally used by NYGATS for similar purposes at such time, as adjusted by the Load Modifier Projection and VDER Compensation Factor, if any, applicable to the LSE Buyer, *multiplied by* (ii) the LSE Tier 1 REC Rate.
- (o) “NYGATS” means the New York Generation Attribute Tracking System, the tracking system that records electricity generation attribute information within New York State, and processes generation attribute information from energy imported and consumed within New York State, as a basis for creating tradable generation attribute certificates, including Tier 1 RECs.
- (p) “NYGATS Operating Rules” means the rules governing the operation of the NYGATS by NYSERDA and its designated NYGATS Administrator, and the participation in and use of the NYGATS by users. The Operating Rules describe how the system is operated and delineate the roles, requirements and responsibilities of all parties.³³
- (q) “NYISO” means the New York Independent System Operator.
- (r) “New York State Public Service Commission” or “PSC” means the commission duly authorized to operate in New York State pursuant to Articles 1 and 2 of the Public Service Law.

³² Case 15-E-0302, Proceeding to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Modifying Clean Energy Standard Tier 1 Obligations (issued and effective April 20, 2023)

³³ Available at: <https://www.nyserda.ny.gov/All-Programs/Programs/NYGATS/Registration-Documents>

- (s) “NYS Total Tier 1 REC Forecast” means NYS’s forecasted, aggregate quantity of Tier 1 RECs for the upcoming compliance based composed of NYSERDA contracted Tier 1 RECs and VDER Forecast.
- (t) “Total Annual NYSERDA Retained Tier 1 RECs” means the total number of Tier 1 RECs purchased by NYSERDA during the Compliance Year *minus* the number of Tier 1 RECs sold by NYSERDA during such Compliance Year.
- (u) “Total Tier 1 Net Expenditure” shall mean the total dollars expended by NYSERDA to purchase Tier 1 RECs during the Compliance Year *minus* all revenues received by NYSERDA from Voluntary Sales of Tier 1 RECs during such Compliance Year.
- (v) “Tier 1 RECs” means renewable energy certificates generated by NYGATS representing the environmental attributes associated with electrical energy produced by Tier 1 eligible electric generation sources. Each Tier 1 REC represents the environmental attributes associated with one (1) megawatt-hour of electrical energy.
- (w) “VDER Compensation Factor” means a mechanism used by effected LSEs to reduce the monthly obligations and overall reconciliation amounts by accounting for their Tier 1 VDER REC contributions. The VDER compensation factor will be no less than zero (0).
- (x) “VDER Forecast” means projected forecast of Tier 1 VDER REC for the upcoming Compliance Year
- (y) “Voluntary Sales” means any sales of Tier 1 RECs by NYSERDA other than those made for purposes of CES compliance.

ARTICLE 2: PURCHASE AND SALE OF TIER 1 RECS

2.1 Procurement. Subject to the terms and conditions of this Agreement, (a) NYSERDA agrees to sell to LSE Buyer, and LSE Buyer agrees to purchase from NYSERDA, the Annual Tier 1 REC Quantity of Tier 1 RECs in each Compliance Year and (b) LSE Buyer agrees to pay the Annual Tier 1 Obligation Amount for such Tier 1 RECs. LSE Buyer shall pay the Monthly Obligation Payment each month in accordance with the provisions below, and the Parties shall carry out the settlement and reconciliation process described in Section 2.7 each Compliance Year.

2.2 Transfer. Upon conclusion of the settlement and reconciliation process described in Section 2.7, NYSERDA will transfer in NYGATS to LSE Buyer, Tier 1 RECs for which LSE Buyer has provided payment to NYSERDA for purposes of Tier 1 of the CES compliance in accordance with this Agreement.

2.3 Monthly Invoicing. NYSERDA will provide invoices to the LSE Buyer on a monthly basis for the Monthly Obligation Payment.

2.4 Monthly Payments. Payments in the amount of the Monthly Obligation Payment shall be due to NYSERDA within fifteen (15) days of the invoice date. Any and all payments due to NYSERDA shall be made by wire/ACH payment using electronic banking information provided by NYSERDA.

When making payment, LSE Buyer shall include the Customer ID that NYSERDA previously sent to LSE Buyer by e-mail and available in NYGATS.

2.5 Taxes/Fees. NYSERDA shall pay any taxes or other fees, if any, imposed on the creation of Tier 1 RECs in NYGATS.

2.6 Term. The purchase and sale obligations under this Agreement shall commence in Compliance Year 2025 and remain in effect until the date on which all of NYSERDA's obligations to purchase Tier 1 RECs pursuant to agreements entered into in accordance with Tier 1 of the Clean Energy Standard have expired or been terminated.

2.7. Annual Settlement. After the required data becomes available following each Compliance Year, the Parties will undertake the following on a timely basis:

- (a) NYSERDA shall calculate LSE Buyer's Annual Tier 1 Obligation Amount for each Compliance Year based on the NYISO Version 2 of the LSE load data or such other data generally used by NYGATS for similar purposes at such time.
- (b) Should the aggregate amount of Monthly Obligation Payments paid by LSE Buyer in a Compliance Year exceed the Annual Tier 1 Obligation Amount for that Compliance Year, NYSERDA shall pay LSE Buyer the difference between such amounts.
- (c) Should the aggregate amount of Monthly Obligation Payments paid by LSE Buyer in a Compliance Year be less than the Annual Tier 1 REC Obligation Amount for that Compliance Year, LSE Buyer shall pay NYSERDA the difference between such amounts.

2.8 Netting and Set-Off. If at any time during the term of this Agreement there is a written agreement between the Parties pursuant to which NYSERDA purchases Tier 1 RECs from LSE Buyer ("Other Tier 1 Agreement"), the Parties agree that, to the extent agreed in the Other Tier 1 Agreement, amounts due from LSE Buyer to NYSERDA hereunder may be set off or netted against payments due from NYSERDA to LSE Buyer under the Other Tier 1 Agreement.

ARTICLE 3: REPRESENTATIONS AND WARRANTIES

3.1 NYSERDA Representations and Warranties. NYSERDA hereby represents and warrants to LSE Buyer as follows:

- (a) NYSERDA has and, at all times during the Term will have, all necessary power and authority to execute this Agreement and to perform its obligations hereunder.

- (b) The execution of and performance under this Agreement by NYSERDA has been duly authorized by all necessary action and does not violate any of the terms or conditions of NYSERDA governing documents, or any contract to which it is a party, or any law, rule, regulation, order, judgment or other legal or regulatory determination applicable to NYSERDA. This Agreement constitutes the valid and binding obligation of NYSERDA enforceable against it in accordance with its terms, subject to the effects of bankruptcy, insolvency, reorganization, moratorium and similar laws affecting enforcement of creditors' rights and remedies generally and to general principles of equity.
- (c) There is no pending or (to NYSERDA's knowledge) threatened litigation, arbitration or administrative proceeding that materially adversely affects NYSERDA's ability to perform its obligations under this Agreement.
- (d) The Tier 1 payments made by LSE Buyer to NYSERDA hereunder shall be made for compliance under the CES Orders as modified by the Tier 1 Modification Order.
- (e) EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NYSERDA EXPRESSLY DISCLAIMS ANY OTHER REPRESENTATIONS OR WARRANTIES, WHETHER WRITTEN OR ORAL, AND WHETHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY WITH RESPECT TO CONFORMITY TO MODELS OR SAMPLES, MERCHANTABILITY, OR FITNESS FOR ANY PARTICULAR PURPOSE.

3.2 LSE Buyer Representations and Warranties. LSE Buyer hereby represents and warrants to NYSERDA as follows:

- (a) LSE Buyer is duly organized, validly existing and in good standing and has the requisite power and authority to own, lease and operate its properties and to carry on its business as being conducted on the Effective Date. LSE Buyer has, and at all times during the Term will have, all necessary power and authority to execute this Agreement and to perform its obligations hereunder.
- (b) The execution of and performance by LSE Buyer under this Agreement has been duly authorized by all necessary action and does not violate any of the terms or conditions of LSE Buyer's governing documents, or any contract to which it is a party, or any law, rule, regulation, order, judgment or other legal or regulatory determination applicable to LSE Buyer. This Agreement constitutes the valid and binding obligation of the LSE Buyer enforceable against it in accordance with its terms, subject to the effects of bankruptcy, insolvency, reorganization, moratorium and similar laws affecting enforcement of creditors' rights and remedies generally and to general principles of equity.
- (c) There is no pending or (to LSE Buyer's knowledge) threatened litigation or administrative proceeding against LSE Buyer that materially and adversely affects LSE Buyer's ability to perform its obligations under this Agreement.

- (d) LSE Buyer has, and at all times during the Term will use reasonable efforts to maintain, the financial capability to perform its obligations hereunder.
- (e) LSE Buyer is an Account Holder as defined in the NYGATS Operating Rules.

ARTICLE 4: EVENTS OF DEFAULT

4.1 Events of Default. For purposes of and during the Term, each of the following shall constitute an event of default (“Event of Default”) by a Party:

- (a) if a Party materially breaches any or all of its obligations as described in this Agreement and such breach is not cured within fifteen (15) Business Days of written notice of such breach from the other Party;
- (b) if any representation or warranty made by a Party in Article 3 of this Agreement proves to have been misleading or false in any material respect when made; and/or
- (c) if a Party:
 - (i) makes an assignment or any general arrangement for the benefit of its creditors;
 - (ii) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause under any bankruptcy or similar law for the protection of creditors, or has such a petition filed against it;
 - (iii) otherwise becomes bankrupt or insolvent (however evidenced); or
 - (iv) becomes unable to pay its debts as they become due.

ARTICLE 5: REMEDIES UPON DEFAULT

5.1 Remedies. Upon an Event of Default, the non-defaulting Party may (a) terminate this Agreement upon written notice to the defaulting Party, (b) withhold any payments due in respect of this Agreement, (c) set off any payments due against any other credits or payments under other agreements between the Parties, (d) withhold the transfer of Tier 1 RECs to the defaulting Party, and/or (e) exercise its legal rights to secure payment of amounts due and owing to the non-defaulting Party by the defaulting Party. Notices by LSE Buyer pursuant to this section shall be served on NYSERDA and the PSC. NYSERDA may enforce this Agreement and pursue the collection of any unpaid portion of the Monthly Obligation Payment, Annual Settlement Payment or any other amounts due to NYSERDA under this Agreement by referring the matter to the New York State Attorney General or by any other legal means.

5.2 Exclusive Remedy. The remedies set forth in this Article 5 shall be the sole and exclusive remedies of the respective parties in the event of a default, and a party's liability shall be limited as set forth in this section. All other remedies or damages at law are hereby waived.

5.3 Limitation of Liability. In the event of a default, the defaulting party's liability shall be limited as set forth herein. In no event shall any other liability be incurred by either Party for any obligations that arise under this Agreement, including (but not limited to) liability for consequential, incidental, punitive, exemplary, or indirect damages in tort, contract, or otherwise.

ARTICLE 6: NOTICES

6.1 Notices.

- (a) All notices, requests, consents, approvals and other communications which may or are required to be given by either party to the other under this Agreement shall be in writing and shall be transmitted either:
- (1) via certified or registered United States mail, return receipt requested;
 - (2) by personal delivery;
 - (3) by expedited delivery service; or
 - (4) by e-mail, return receipt requested.

Such notices shall be addressed as follows, or to such different addresses as the parties may from time-to-time designate as set forth in paragraph (c) below:

To LSE Buyer: At address, electronic mail addresses confirmed through prior communications

To NYSERDA: NYSERDA
 Attn: Office of the General Counsel
 17 Columbia Circle
 Albany, New York 12203-6399
 Email address: ceslegal@nyserda.ny.gov

With a copy to: NYSERDA
 Attn: Large Scale Renewables
 17 Columbia Circle
 Albany, New York 12203-6399
 Email address: ces@nyserda.ny.gov

- (b) Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt of an email acknowledgement of receipt.
- (c) The parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other party sent in accordance herewith. The parties agree to mutually designate individuals as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the parties for purposes of

implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

6.2 The addresses for notice and payment specified in Sections 6.1 may be changed from time to time by written notice by either Party to the other Party without amendment of this Agreement.

ARTICLE 7: MISCELLANEOUS

7.1 Force Majeure. Neither party hereto shall be liable for any failure or delay in the performance of its respective obligations hereunder if and to the extent that such delay or failure is due to a cause or circumstance beyond the reasonable control of such party, including, without limitation, acts of God or the public enemy, expropriation or confiscation of land or facilities, compliance with any law, order or request of any Federal, State, municipal or local governmental authority, acts of war, rebellion or sabotage or damage resulting therefrom, fires, floods, storms, explosions, accidents, riots, or strikes. In the event that such failure or delay occurs, the claiming Party shall notify the other Party of the occurrence thereof as soon as possible, shall use reasonable efforts to resume performance as soon as possible, and shall regularly consult with the other Party during the pendency of the force majeure event. In the event that the force majeure event lasts more than forty-five (45) days, NYSERDA may terminate this Agreement with no further obligation or liability to LSE Buyer other than to transfer to LSE Buyer for Tier 1 REC compliance purposes any Tier 1 RECs for which LSE Buyer has made payment prior to termination.

7.2 Severability. If any provision of this Agreement shall be declared by any court of competent jurisdiction to be illegal, void or unenforceable, all other provisions of this Agreement shall not be affected and shall remain in full force and effect. If any provision of this Agreement is so broad as to be unenforceable, that provision shall be interpreted to be only so broad as will enable it to be enforced.

7.3 Waiver. No delay or omission by a Party in the exercise of any right under this Agreement shall be taken, construed or considered as a waiver or relinquishment thereof, and any such right may be exercised from time to time and as often as may be deemed expedient. If any of the terms and conditions hereof are breached and thereafter waived by a Party, such waiver shall be limited to the particular breach so waived and is not deemed to waive any other breach hereunder.

7.4 Forward Contract. Each Party represents and warrants to the other that it is a “forward contract merchant” within the meaning of the United States Bankruptcy Code, that this Agreement is a “forward contract” within the meaning of the United States Bankruptcy Code, and that the remedies identified in this Agreement shall be “contractual rights” as provided for in 11 U.S.C. § 556 as that provision may be amended from time to time.

7.5 Assignment. Except as specifically provided otherwise in this Section 7.5, the assignment, transfer, conveyance, subcontracting or other disposal of this Agreement or any of the LSE Buyer’s rights, obligations, interests or responsibilities hereunder, in whole or in part, without the express consent in writing of NYSERDA shall be void and of no effect as to

NYSERDA. Such consent shall not be unreasonably withheld. Either Party may, upon written notice, assign its rights and obligations hereunder, or transfer such rights and obligations by operation of law, to any entity with which or into which such Party shall merge or consolidate or to which such Party shall transfer all or substantially all of its assets, provided that such other entity agrees to be bound by the terms hereof and provided further, that such other entity's creditworthiness is comparable to or higher than that of such Party at the time this Agreement was executed and such Party is not relieved of any obligation or liability hereunder as a result of such assignment.

7.6 Entire Agreement; Amendment. This Agreement embodies the entire agreement and understanding between NYSERDA and the LSE Buyer and, excepting any Tier 1 reconciliation process provided for by prior agreement, supersedes all prior agreements and understandings relating to the subject matter hereof, including but not limited to any prior agreement between the parties regarding the purchase and sale of Tier 1 RECs. Except as otherwise expressly provided for herein, this Agreement may be amended, modified, changed, waived, discharged or terminated only by an instrument in writing, signed by the party against which enforcement of such amendment, modification, change, waiver, discharge or termination is sought.

7.7 All Legal Provisions Deemed Included. It is the intent and understanding of LSE Buyer and NYSERDA that each and every provision of law required by the laws of the State of New York to be contained in this Agreement shall be contained herein, and if, through mistake, oversight or otherwise, any such provision is not contained herein, or is not contained herein in correct form, this Agreement shall, upon the application of either NYSERDA or the Seller, promptly be amended so as to comply strictly with the laws of the State of New York with respect to the inclusion in this Agreement of all such provisions.

7.8 Governing Law/Venue. This Agreement shall be governed by, and construed in accordance with the laws of the State of New York applicable to contracts executed and to be performed in New York State without regard to its conflicts of laws principles. The parties irrevocably acknowledge and accept that all actions arising under or relating to this Agreement, and the transactions contemplated hereby and thereby shall be brought exclusively in a United States District Court or New York State Court located in Albany, New York having subject matter jurisdiction over such matters, and each of the Parties hereby consents to and accepts such personal jurisdiction of, and waives any objection as to the laying of venue in, such courts for purposes of such action.

7.9 Intentionally left blank.

7.10 Headings. The Article and Section titles in this Agreement are only for purposes of convenience and do not form a part of this Agreement and will not be taken to qualify, explain or affect any provision thereof.

7.11 No Third Party Beneficiaries. Nothing herein is intended to or should be construed to create any rights of any kind whatsoever in third persons not parties to this Agreement.

7.12 Freedom of Information Law. Seller acknowledges that NYSERDA is subject to and must comply with the requirements of New York's Freedom of Information Law ("FOIL;" see Public Officers' Law Article 6); 21 NYCRR Part 501. The FOIL Law (Public Officers Law § 87(d)(2)) provides an exception to disclosure for records or portions thereof for numerous reasons, including but not limited to protected material that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." If NYSERDA receives a request from a third party for information or a document received from Seller and which has been marked "Confidential" or "Proprietary," NYSERDA will process such request under the procedures provided by NYSERDA's FOIL regulations (21 NYCRR Part 501).

7.13 Claim of Confidentiality. Information of any tangible form including any document that LSE Buyer wishes to be protected from disclosure to third parties, including this Agreement must be marked "Confidential" or "Proprietary" at the time such information is provided to NYSERDA. Notwithstanding the foregoing, NYSERDA shall be permitted to report to the New York State Department of Public Service through its Records Access Officer seeking confidential treatment as appropriate, as to the amounts received from LSE Buyer for Tier 1 purchases as against the total due each month and on LSE Buyer's compliance or non-compliance, generally, with the terms of this Agreement.

7.14 Electronic Execution. LSE Buyer acknowledges, confirms and agrees that any signature (including any electronic symbol or process attached to, or associated with, this standard Tier 1 Renewable Energy Certificate Purchase and Sale Agreement or other record and adopted by LSE Buyer with the intent to sign, authenticate or accept such contract or record hereto or to any other certificate, agreement or document necessary to this transaction shall have the same legal validity and enforceability as a manually executed signature or use of a paper-based recordkeeping system to the fullest extent permitted by applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, and the parties hereby waive any objection to the contrary.