



Case 15-E-0302

Clean Energy Standard
Zero Emissions Credit (ZEC)
Implementation Plan

Filed by

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Authority

and

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1 Introduction

The Public Service Commission's (Commission) August 1, 2016 "Order Adopting a Clean Energy Standard" (the CES Order)¹ directed load serving entities (LSEs), including energy service companies (ESCOs), to purchase an amount of Zero-Emissions Credits (ZECs) from the New York State Energy Research and Development Authority (NYSERDA), representing that LSE's proportional share of the statewide load multiplied by the number of ZECs purchased annually by NYSEDA pursuant to the ZEC Requirement (ZECR).

On September 29, 2017, Astral Energy LLC (Astral), an ESCO, submitted a petition requesting that the Commission reduce the company's ZEC obligation amount due to significant declines in load. Astral's petition stated that the company had experienced a significant reduction in retail load and as such, its ZEC payments would result in a significant overpayment to NYSEDA.² Astral recognized that the overpayment would be refunded by NYSEDA through the reconciliation process but asserted that overpayment was a substantial and costly burden that placed Astral at a competitive disadvantage to other LSEs.³

NYSERDA submitted comments in response to Astral's petition, introducing an alternative method for calculating future ZEC obligation payments for all LSEs. The Commission's February 22, 2018 Order⁴ directed NYSEDA and Department of Public Service Staff (Staff) to submit an implementation plan for Commission consideration that would modify the way in which LSEs remit ZEC payments to NYSEDA from a payment structure based on a fixed ZEC obligation based on the LSE's historic proportional share of statewide load, to a "flexible, "pay-as-you-go" model, based on each LSE's known actual load."⁵ NYSEDA and Staff hereby presents this Implementation Plan for an alternative method to calculate future ZEC obligation payments, as requested.

2 Background

In the CES Order, the Commission adopted the 2015 State Energy Plan goal that 50% of New York's electricity be generated by renewable sources by 2030 as part of a strategy to reduce statewide greenhouse gas (GHG) emissions by 40% by 2030. The CES Order created the principal structure through which the State will channel its supply-side efforts to achieve the GHG goal. In furtherance of that strategy, the Commission directed a two-part initiative to increase the State's renewable energy supply and to impose obligations on LSEs to financially support the preservation of existing at-risk nuclear zero-emissions generation facilities – the Renewable Energy Standard and ZECR Programs.

Under the CES Order, each LSE that serves end-use customers in New York is required to purchase from NYSEDA a fixed number of ZECs purchased by NYSEDA from zero-emissions generators during each program year, in proportion to the LSE's share of the statewide load served during that year. The CES Order established the ZECR compliance period as April 1 through March 31 of each year, beginning in

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 August 1, 2016).

² Case 15-E-0302, supra, *Petition of Astral Energy, LLC for Reduction of ZEC Compliance Payments* ("Petition"), p. 2. ³ Id. at p. 3.

⁴ Case 15-E-0302, supra, *Order Modifying Compliance Payment* ("Astral Order") (issued February 22, 2018)

⁵ Id. at, p. 8.

2017. The ZECR purchase obligation is divided into six two-year tranches, the last ending on March 31, 2029. The Commission's November 17, 2016 Order⁶ required all LSEs to enter into contracts with NYSERDA for the monthly purchase of ZECs, beginning April 1, 2017, and directed NYSERDA to determine and make available to each LSE the number of ZECs it must purchase for compliance with the ZEC program. Per the CES Order, each LSE's ZEC obligation is proportional to the LSE's share of the statewide load served during the previous 12 months, as reported by the New York Generation Attribute Tracking System (NYGATS). At the close of each compliance period of the ZECR program, NYSERDA will reconcile the quantity of ZECs acquired by each LSE to each LSE's actual ZEC obligation, based on each LSE's achieved proportional share of the statewide load.

NYSERDA has now implemented the requirements of the CES Order, requiring each LSE to purchase a defined number of ZECs based on their historic load share ratio. The load share ratio is based on the LSE's historic load compared to the New York State historic load – both of which differ from the actual load during the compliance year and necessitate a reconciliation period and process. During the ZEC reconciliation period, NYSERDA will determine the actual number of ZECs purchased by NYSERDA during the compliance year, review the load of each LSE and calculate the load share for each LSE using the actual New York State load for the compliance year, and determine the necessary number of ZECs each LSE is obligated to purchase. NYSERDA will then either issue a refund to those LSEs who paid more than their calculated obligation, or issue bills to LSEs who underpaid their calculated obligation.

3 Proposed ZEC Compliance Payment Approach

In this Implementation Plan, NYSERDA and Staff to propose modify how each LSE's initial ZEC obligation is calculated and how LSEs remit ZEC obligation payments from the current payment structure, which is based on a fixed ZEC quantity obligation calculated using the LSE's historical share of statewide load, to a model based on each LSE's actual load. Under this proposal, LSEs will be given a uniform wholesale per kWh charge that can be collected from their retail customers, as opposed to an obligation to purchase predetermined number of ZECs from NYSERDA.

Under this approach, each year, NYSERDA would determine, in collaboration with Staff, the dollar per MWh charge (LSE ZEC Rate) owed by each LSE for the next compliance year of the ZEC program. The dollar per MWh charge to be paid by each LSE for the compliance year would be calculated according to the following formula:

$$\text{LSE ZEC Rate} = \text{NYSERDA's maximum total cost to procure ZECs}^7 / \text{Forecasted statewide electric load}^8$$

An LSE's ZEC payment obligation would then be calculated as the LSE ZEC Rate multiplied by the number of MWh the LSE served, using the New York Independent System Operator's (NYISO) Version 2 load

⁶ Case 15-E-0302, *supra*, *Order Approving Cost Recovery, Standardized Agreements and Backstop Principals*, (issued November 17, 2016) ("November 2016 Order").

⁷ The maximum cost to NYSERDA will be known for each year, as the CES Order established the maximum number of ZECs per year to be purchased by NYSERDA (27,618,000) and the price of each ZEC for the current tranche plus any Commission-approved NYSERDA administrative adder.

⁸ Forecasted statewide electric load is an estimate by NYSERDA and DPS staff based on information from the NYISO's Load & Capacity Data Report (Goldbook).

data,⁹ including generation from load modifiers utilized by distribution utilities. The LSE's obligation would thus be calculated according to the following formula:

$$\text{LSE ZEC payment obligation} = \text{LSE ZEC Rate} \times (\text{LSE's MWh} + \text{MWh from Load Modifiers})$$

Under this proposal, each LSE will be required to make monthly payments to NYSERDA, based on the load served by each LSE for the previous month. The monthly obligation will be subject to an interim reconciliation once the Version 2 generation data is provided by NYISO and recorded in NYGATS, which occurs approximately five months following the close of each month. A final reconciliation will continue to occur after the close of each program year.

This modification is necessary to more accurately reflect month-to-month changes in an LSE's load and to avoid significant under- or over-payments by LSEs as is the case under the current structure. NYSERDA's review of the LSE's ZEC obligation payments will permit under or overpayments to be reconciled on a shorter timeline than the current annual reconciliation, thereby alleviating administrative and financial burdens on LSEs. This process will significantly reduce the magnitude of the settlements between NYSERDA and the LSEs during the annual reconciliation period, since LSEs must know their load for business purposes and for scheduling with the NYISO, and thus will be able to accurately calculate their actual obligation in near real-time.

3.1 MWh Charge (LSE ZEC Rate)

The uniform MWh charge (LSE ZEC 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 ZEC Rate will be a wholesale rate that will be applied to the load data NYSERDA receives from the NYISO as opposed to a retail rate that an LSE could apply directly to its retail customers. The cost component of the LSE ZEC Rate will be based on the total forecasted cost for NYSERDA to purchase ZECs. The load component of the LSE ZEC Rate will be based on a statewide forecasted load.

3.1.1 Cost Component

The cost component of the LSE ZEC Rate will remain as described in the CES Order.¹⁰ In short, the cost component of the LSE ZEC rate is the maximum cost NYSERDA is expected to incur to purchase ZECs from the upstate at-risk nuclear generators plus any approved NYSERDA administrative adder. For the avoidance of doubt, Staff and NYSERDA are not proposing any changes to how the cost of a ZEC is determined.

3.1.2 Load Component

The change from the historical method to the LSE ZEC Rate approach will place considerable importance on the load forecast that is used to determine the LSE ZEC Rate. If actual statewide load is less than the forecasted statewide load used to determine the LSE ZEC Rate, NYSERDA will be short in its collections to purchase ZECs. Conversely, if the actual statewide load exceeds the forecasted statewide load, excess funds will be collected from ratepayers through payments collected by NYSERDA from LSEs.

⁹ NYISO Version 2 load data is part of the NYISO settlement process. This is the load information that is used to determine LSE obligations under the CES. There is a 5-month lag between when the load occurs and when it is available to NYGATS.

¹⁰ Case 15-E-0302, *Supra*, *Order Adopting a Clean Energy Standard* (issued August 1, 2016), p. 129.

In order to increase transparency, NYSERDA and Staff propose to 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 Goldbook, as the basis of determining the statewide load component.¹¹ In order to account for variances between the published forecast and the resulting actual load for the same period, NYSERDA and Staff propose to adjust the published forecast by the three (3) year historic average variance between the published forecasted load and the actual NYISO Version 2 generation data for the same historic period. Additionally, NYSERDA and Staff will adjust the forecasted load to account for expected generation data recorded in NYGATS from load modifiers used by distribution utilities.

3.1.3 Notification/Publication

NYSERDA will notify each LSE of the next year's LSE ZEC Rate 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 2 months before the commencement of a compliance year. NYSERDA will also post the LSE ZEC Rate on the NYSERDA website.

4 Process

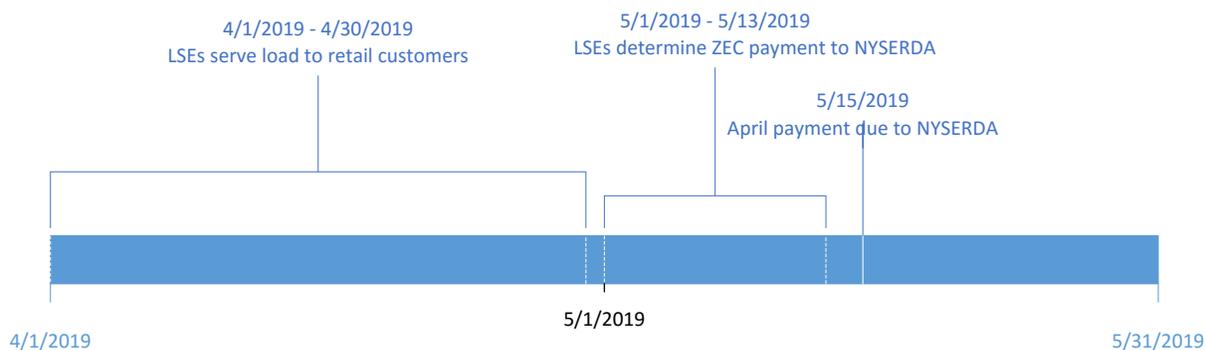
This section describes the process through which an LSE will determine its payment to NYSERDA, how this information will be verified and recorded, and the systems necessary to execute it. Should this approach ultimately be adopted by the Commission, it is anticipated that the process may need to be altered to accommodate additional information or limitations not identified at this time. In that case, NYSERDA would continue to work closely with Staff during the development process to ensure any alterations will have limited financial or administrative impact on LSEs.

4.1 ZEC Obligation Payment Determination

The new "pay-as-you-go" payment methodology relies on LSE's use of the monthly wholesale load requirements for their retail customers. LSEs have this information readily available, as it is used to schedule energy requirements with the NYISO. LSEs will use their best estimate of their wholesale load for the prior month to calculate and report their expected ZEC obligation payment to NYSERDA. LSEs will have the option to use their total forecasted load as submitted to the NYISO or Version 1 of the total LSE load data, as settled by the NYISO each month, as a basis for their monthly payment to NYSERDA. The LSE will then multiply this load, plus load served by generation from a load modifier, if applicable, by the LSE ZEC Rate to determine their ZEC obligation payment to NYSERDA for that month. LSEs will submit their payment to NYSERDA by the 15th of the following month, such that, NYSERDA can ensure receipt of LSE payments before NYSERDA's ZEC payments to generators are due. Figure 1 is a sample timeline for the ZEC obligation payment for April 2019.

¹¹ See New York Independent System Operator, 2017 Goldbook (released April 2018) and annually.

Figure 1. Timeline for ZEC Obligation Payments



4.2 LSE Payment to NYSERDA & Documentation

NYSERDA proposes to create an online system through which LSEs will record their estimated load for the month and the payment amount due to NYSERDA. NYSERDA anticipates this system will build on the functionality of either NYGATS or Salesforce, as currently utilized by NYSERDA for various functions. Should this proposal be adopted by the Commission, NYSERDA will review the necessary system requirements, cost, functionality and convenience to help inform NYSERDA’s choice of platform.

When the NYISO Version 2 load and any load modifier data becomes available, NYSERDA will enter it in the system such that NYSERDA can use this system to reconcile the amounts paid by each LSE with the Version 2 data. This will allow both the LSE and NYSERDA to review the accuracy of payments based on the LSE estimate of load compared to the LSE’s actual load.

5 Verification and Reconciliation

As opposed to the ZECR program’s current set payment schedule, the pay-as-you go method will likely result in each LSE having a different payment amount each month. NYSERDA will develop a verification process to ensure that LSEs’ estimated loads are reasonably accurate, based on actual data received. This process would be in addition to the reconciliation process that is required when NYSERDA receives the annual actual Version 2 load data and the total number of ZECs purchased by NYSERDA.

5.1 Interim Verification

NYSERDA and Staff recognize the potential for collection variances to occur due to differences between the estimated monthly loads the LSE will record with NYSERDA and the actual load recorded in NYGATS. NYSERDA proposes the use of a quarterly review to verify the accuracy of the submitted estimated load. Based on this interim review, LSEs will be required to make-up any shortfalls in the monthly ZEC payments through payments to NYSERDA within 15 days of notification. During the review, NYSERDA would compare the submitted estimated load for the quarter to the actual Version 2 load received by NYSERDA for that same quarter. NYSERDA recognizes that the submitted load forecast is an estimate and there are conditions outside of the LSEs control, such as weather conditions, that could cause the actual load to vary from the LSE’s forecasted load.

5.1.1 Underpayment

NYSERDA must ensure that it collects the funds necessary to meet its obligation to purchase ZECs. NYSERDA and Staff seek to balance the flexibility provided LSEs under the pay-as-you go method with

NYSERDA’s obligation to make ZEC payments to generators. Therefore, we propose that LSEs with an aggregate estimated quarterly load for any quarter that is less than 90% of their actual Version 2 load for that quarter be required to make-up the shortfall within 15 days of being notified by NYSERDA. The aggregate estimated quarterly load is the sum of three consecutive months of the load an LSE recorded through the online system and utilized to determine its ZEC obligation payment. This implementation plan proposes that LSEs be required to pay a penalty if their aggregated estimated load for any quarter is less than 85% of their actual load for that quarter. This penalty would be equal to 15% of the difference between the payment amount for aggregated estimated load for the quarter and the payment amount for the actual load for the quarter, with the minimum penalty being no less than \$1,000. Penalty payment amounts would not count towards an LSE’s obligation. Table 1 contains an example of the how the shortfall would be calculated including the penalty.

Table 1. Example of shortfall calculation

LSE	LSE Estimated Load (MWh)	Actual LSE Load - V2 Data (MWh)	Difference (MWh)	Percent Difference	Shortfall Payment	Shortfall Payment Amount	Penalty	Penalty Payment	Total Payment
LSE A	16,822	20,268	3,446	83%	yes	\$ 10,487.21	yes	\$ 1,573.08	\$ 12,060.29
LSE B	42,683	47,958	5,275	89%	yes	\$ 16,053.41	no		\$ 16,053.41
LSE C	84,750	93,132	8,382	91%	no		no		\$ -
LSE D	8,286	10,357	2,071	80%	yes	\$ 6,302.67	yes	\$ 1,000.00	\$ 7,302.67
LSE E	123,557	105,023	-18,534	-18%	no				
LSE ZEC Rate = \$3.04330/MWh									

5.2 Reconciliation

The updated pay-as-you-go process should reduce the magnitude of the reconciliations but will not eliminate the need for a reconciliation process. NYSERDA will still need to reconcile the funds collected from each LSE to the funds that should have been collected based on the actual Version 2 load data that is provided from the NYISO and recorded in NYGATS. This load will be adjusted for load modifiers as described in the Phase 1 Implementation Plan.¹²

NYSERDA will also have to reconcile the funds collected from the LSEs against NYSERDA’s financial obligations to the nuclear generators. This reconciliation will take into account the actual adjusted statewide load as well as the number of ZECs created by the nuclear generators.

NYSERDA proposes the following process to reconcile the funds necessary to purchase the ZECs and collections from the LSEs. NYSERDA will determine the actual dollars per MWh charge based on the total dollars expended by NYSERDA to purchase ZECs and the actual Version 2 load data including load modifiers. This charge will be applied to the load associated with each LSE and provide the LSEs ZEC obligation based on an LSE’s actual load, as opposed to estimates, as is currently completed under the ZECR Program. NYSERDA will reconcile the payments received from each of the LSEs against the ZEC obligation determined using actual load data.

¹² Case 15-E-0302, supra, Order Approving Phase 1 Implementation Plan (issued February 22, 2017) pg. 30

6 NYSERDA Agreements with LSEs

If approved, NYSERDA will need to replace its agreements with LSEs to reflect the terms of any Commission order resulting from this implementation plan. The agreement will need to include the amount of the LSE ZEC Rate, a process by which NYSERDA will determine each LSE's load share, payment instructions, and a penalty for failure to meet ZEC payments for the compliance period. The contracts will be modified as needed in subsequent years. Through notice and comment on these proposed contract modifications, NYSERDA will remove the possibility of numerous and lengthy contract negotiations with LSEs and prevent the need for countersigned agreements, in the interest of updating LSE contracts prior to the third compliance year. The proposed agreement is attached to this implementation plan as Exhibit A.

7 Conclusion

NYSERDA and Staff request that the Commission approve this implementation plan, including the proposed pay-as-you-go LSE ZEC payment obligation and the method in which volumetric charges are will be calculated.