



**Department of
Public Service**



NYSERDA

Case 15-E-0302

Clean Energy Standard

Final Zero Emissions Credit (ZEC)

Implementation Plan

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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

On August 3, 2018, NYSEDA and Staff presented an Implementation Plan proposal for an alternative method to calculate future ZEC obligation payments.⁶ The Commission approved the Implementation Plan proposal by Order (ZEC Order) dated September 20, 2019 with certain revisions as described in the body of the ZEC Order and directed the filing of a final Implementation Plan by October 21, 2019.⁷ This Final Plan incorporates the changes required by the ZEC Order.

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

¹ 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 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.

⁶ Case 15-E-0302, supra, *Zero Emission Credit (ZEC) Implementation Plan* (filed August 3, 2018).

⁷ Case 15-E-0302, supra, *Order Approving Zero-Emissions Credit Implementation Plan with Modifications* ("ZEC Order") (issued September 20, 2019).

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 Zero Emissions Credit Requirement (ZECR) Programs.

Under the CES Order, each LSE that serves end-use customers in New York is required to purchase from NYSDERDA a fixed number of ZECs purchased by NYSDERDA 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 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 Order⁸ required all LSEs to enter into contracts with NYSDERDA for the monthly purchase of ZECs, beginning April 1, 2017, and directed NYSDERDA 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, NYSDERDA 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.

NYSDERDA 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, NYSDERDA determines the actual number of ZECs purchased by NYSDERDA during the compliance year, reviews the load of each LSE and calculates the load share for each LSE using the actual New York State load for the compliance year, and determines the necessary number of ZECs each LSE is obligated to purchase. NYSDERDA then either issues a refund to those LSEs who paid more than their calculated obligation, or issues bills to LSEs who underpaid their calculated obligation.

3 Revised ZEC Compliance Payment Approach

In accordance with the ZEC Order, NYSDERDA and Staff will modify how each LSE's initial ZEC obligation is calculated, beginning April 1, 2020, and how LSEs remit ZEC 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 ZEC obligation payments.

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. This process will significantly reduce the magnitude of the settlements between NYSDERDA and the LSEs during the annual reconciliation period and will result in a more accurate, fair and equitable process.⁹

⁸ Case 15-E-0302, *supra*, Order Approving Cost Recovery, Standardized Agreements and Backstop Principals, (issued November 17, 2016) ("November 2016 Order").

⁹ Case 15-E-0302, *supra*, Order Approving Zero-Emissions Credit Implementation Plan with Modifications (issued September 20, 2019), p. 7.

Each year, NYSERDA will 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 will be calculated according to the following formula:

$$\text{LSE ZEC Rate} = \text{NYSERDA's maximum total cost to procure ZECs}^{10} / \text{Forecasted statewide electric load}^{11}$$

An LSE's monthly ZEC payment obligation will be calculated using the LSE ZEC Rate, the number of MWh the LSE served, using the New York Independent System Operator's (NYISO) Version 1 load data¹² and a Load Modifier Rate, discussed in Section 3.3, according to the following formula:

$$\text{LSE ZEC monthly payment obligation} = (\text{LSE ZEC Rate}) \times (\text{LSE's Version 1 MWh}) \times (\text{Load Modifier Rate})$$

A final reconciliation will occur after the close of each program year.

3.1 LSE ZEC Rate

The 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 wholesale load data NYSERDA receives from the NYISO.¹³ 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.¹⁴ 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, this process will not change how the ZEC cost is determined but simply modifies the way the LSE ZEC obligation is determined and remitted by LSEs to NYSERDA.

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 by NYSERDA from LSEs.

¹⁰ 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.

¹¹ Forecasted statewide electric load is an estimate by NYSERDA and Staff based on information from the NYISO's Load & Capacity Data Report (Goldbook).

¹² NYISO Version 1 load data is part of the NYISO settlement process. This is the initial monthly billing period data from the NYISO.

¹³ It should be noted that the LSE ZEC Rate is based on wholesale purchases and not retail sales; the wholesale rate must be "grossed-up" to account for delivery losses that occur between the LSE's wholesale purchases from the New York Independent System Operator and retail sales to customers.

¹⁴ Case 15-E-0302, Supra, *Order Adopting a Clean Energy Standard* (issued August 1, 2016), p. 129.

In order to provide process transparency, NYSERDA 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 Goldbook, as the basis of determining the statewide load component.¹⁵ In order to account for variances between the published forecast and the resulting actual load for the same period, NYSERDA and Staff will adjust the published forecast by the three (3) year historic average variance between the published forecasted load and the actual NYISO Version 2¹⁶ 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.

3.2 LSE MWh

LSE MWh is the energy purchased by the LSE from the NYISO to serve their retail customers. The NYISO will provide NYSERDA with the Version 1 load data each month for each LSE.

3.3 Load Modifier Rate

The ZEC Order directed NYSERDA, in consultation with Staff, to discuss a process with affected LSEs that accurately and efficiently incorporates load modifier data for the purpose of payment calculations¹⁷ while maintaining timely ZEC payments.¹⁸ Based on these discussions, an annual Load Modifier Rate, based on the previous year's load modifier generation data, will also be applied. In consultation with Staff and LSEs, NYSERDA will calculate the Load Modifier Rate for each LSE prior to the start of each ZEC compliance year.

3.4 Notification/Publication

NYSERDA will notify each LSE of the next year's LSE ZEC Rate 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 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 remit its payment to NYSERDA, how this information will be verified and recorded, and the systems necessary to execute the process. The process may need to be altered to accommodate additional information or limitations not identified at this time. In that case, NYSERDA will continue to work closely with Staff during the development process to ensure any alterations will have limited financial or administrative impact on LSEs.

¹⁵ See New York Independent System Operator, 2017 Goldbook (released April 2018) and annually.

¹⁶ NYISO Version 2 load data is part of the NYISO settlement process. This is the load information that is used to determine final LSE obligations under the CES. There is a 5-month lag between when the load occurs and when it is available to NYGATS.

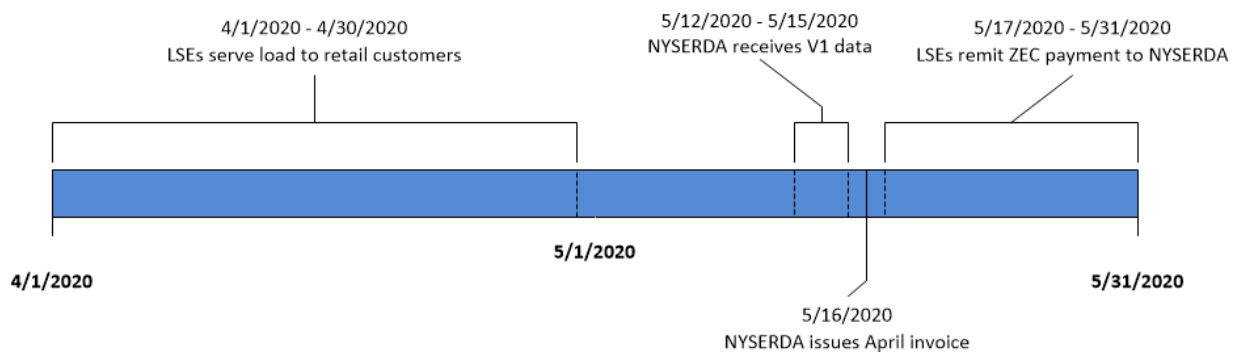
¹⁷ Load modifiers typically represents generation that is not reportable by the NYISO and used by a utility to serve load.

¹⁸ Case 15-E-0302, *supra*, Order Approving Zero-Emissions Credit Implementation Plan with Modifications (issued September 20, 2019), p. 11.

4.1 ZEC Obligation Payment Determination

The new “pay-as-you-go” payment methodology relies on an LSE’s monthly wholesale load requirements for their retail customers. NYISERDA 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 NYISERDA. NYISERDA typically receives load data from the NYISO on or around the 15th day of the following month.¹⁹ NYISERDA will then determine the LSE’s ZEC monthly payment obligation to NYISERDA using the formula specified in Section 3 and issue an invoice. As directed by the ZEC Order, LSEs will submit their payment to NYISERDA within 15 days from the issuance of the invoice.²⁰ As opposed to the ZECR program’s current set payment schedule, the pay-as-you go method will likely result in LSEs having a varying payment obligation each month. Figure 1 includes an indicative timeline for the ZEC obligation payment for April 2020.

Figure 1. Timeline for ZEC Obligation Payments



4.2 LSE Payment to NYISERDA & Documentation

NYISERDA will create an online system through which NYISERDA will record each LSEs’ Version 1 load for the month and the payment amount due to NYISERDA. NYISERDA anticipates that this system will build on the functionality of either NYGATS or Salesforce, as currently utilized by NYISERDA for various functions, and will be based on the necessary system requirements, cost, functionality and convenience. Such a system will be made available to LSEs at least one month before the 2020 ZEC compliance year. NYISERDA will provide outreach and training opportunities to LSEs to ensure that LSEs are aware of the new process and their responsibilities.

5 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. The reconciliation process will continue to be based on the LSE’s load using NYISO Version 2 data, the total load served by the LSEs and the number of ZECs actually purchased by NYISERDA.

5.1 Reconciliation Process

The reconciliation process occurs during September and October after the ZEC compliance year ends on March 31st. NYISERDA will reconcile the funds collected from each LSE to the funds necessary to meet

¹⁹ Case 15-E-0302, *supra*, Order Approving Zero-Emissions Credit Implementation Plan with Modifications (issued September 20, 2019), p. 11.

²⁰ *Id.*

their obligation 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 as described in the Phase 1 Implementation Plan.²¹

NYSERDA will also 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.

In summary, NYSERDA will utilize the following process to reconcile the funds necessary to purchase the ZECs and account for collections from the LSEs.

1. NYSERDA will determine the actual dollar per MWh charge based on the total dollars expended by NYSERDA to purchase ZECs.
2. NYSERDA will sum the total load served by the LSEs using the NYISO Version 2 load data including load modifiers.
3. Steps 1 and 2 will be used to determine the final ZEC Rate.
4. This final ZEC Rate will be applied to the total load associated with each LSE, as recorded in NYGATS, and provide the LSEs their ZEC obligation for the compliance year.
5. NYSERDA will reconcile the payments received from each of the LSEs against the ZEC obligation.

6 NYSERDA Agreements with LSEs

NYSERDA will replace its existing agreements with LSEs to reflect the terms of the ZEC Order. The contracts will be modified as needed in subsequent years. The revised agreement is attached to this implementation plan as Exhibit A.

NYSERDA will develop and implement a method for LSEs to accept the revised ZEC agreement by December 19, 2019 and LSEs shall provide NYSERDA with an executed copy no later than February 1, 2020.²²

²¹ Case 15-E-0302, *supra*, Order Approving Phase 1 Implementation Plan (issued February 22, 2017) p. 30.

²² Case 15-E-0302, *supra*, Order Approving Zero-emissions Credit Implementation Plan with Modifications (issued September 20, 2019), p. 15.