



**Reforming the
Energy Vision**

The Clean Energy Standard Phase 1 Implementation Plan

**Presented by
New York State Energy Research and Development Authority
New York State Department of Public Service
December 2, 2016**

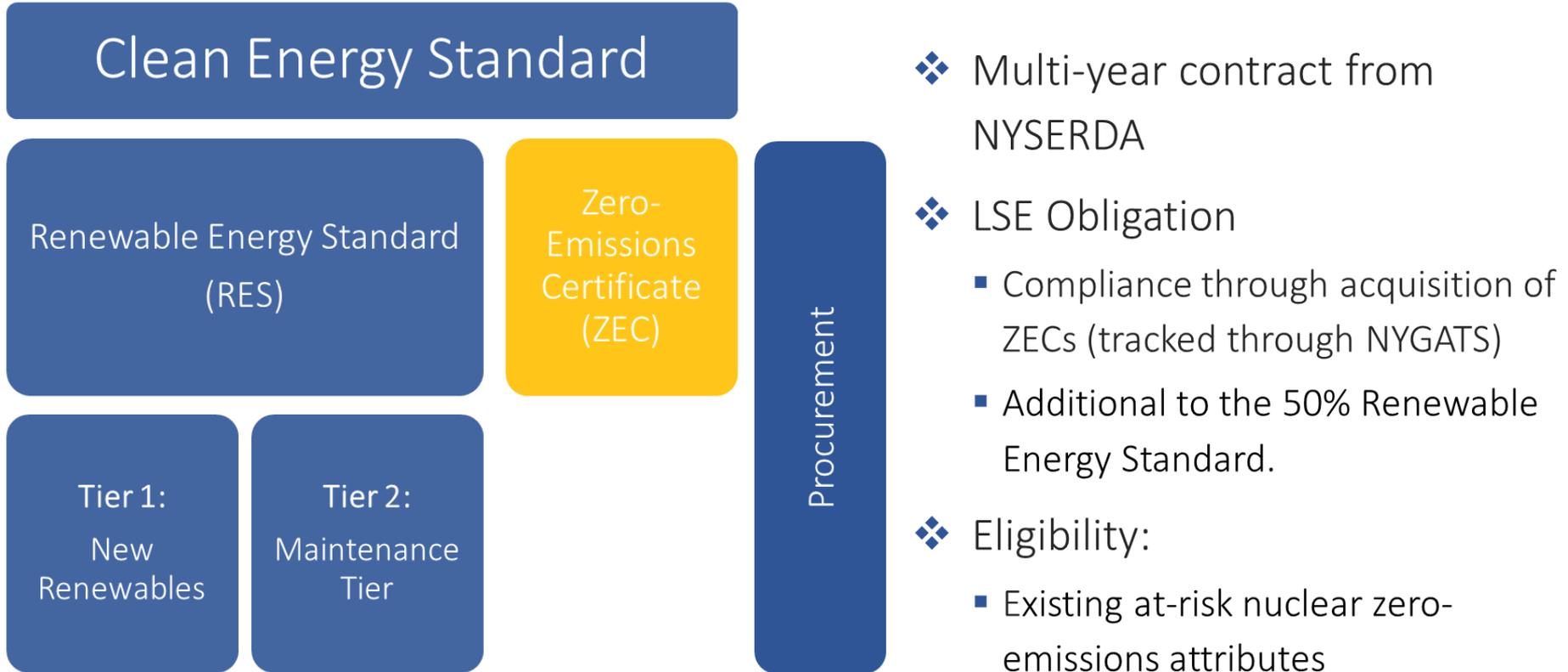


**Reforming the
Energy Vision**

Clean Energy Standard (CES)

- By Order issued August 1, 2016, the Public Service Commission adopted the State Energy Plan (SEP) goal that 50% of New York's electricity is to be generated by renewable sources by 2030 as one strategy to reduce GHG emissions 40% by 2030.
- The Clean Energy Standard (CES) anticipates a series of initiatives including, but not limited to, obligations upon LSEs and opportunities for voluntary contributions, all of which will contribute to attaining the 50 by 30 goal.
- The Order provides for two mandated requirements:
 - a Renewable Energy Standard (RES) requirement, and
 - a Zero-Emissions Credit (ZEC) requirement.
- The RES component and the ZEC component are interrelated but the goals are additive.
 - ZECs will not count toward satisfying the 50% by 2030.

Clean Energy Standard (CES) ZEC Program



Renewable Energy Standard (RES) Tier 1

Clean Energy Standard

Renewable Energy Standard
(RES)

Zero-
Emissions
Certificate
(ZEC)

Tier 1:
New
Renewables

Tier 2:
Maintenance
Tier

Procurement

- ❖ LSE mandates
- ❖ Compliance through acquisition of RECs (tracked through NYGATS) or Alternative Compliance Payments (ACP)
- ❖ Eligibility:
 - Technological requirements similar to existing RPS Main Tier
 - Behind-the-meter eligibility TBD
 - COD 1/1/2015 or after
 - Adjacent control areas eligible (require energy deliverability)
- ❖ Long term contracting by NYSERDA

Renewable Energy Standard (RES) Tier 2

Clean Energy Standard

Renewable Energy Standard
(RES)

Zero-
Emissions
Certificate
(ZEC)

Procurement

Tier 1:
New
Renewables

Tier 2:
Maintenance
Tier

- ❖ Elimination of proposed Tier 2A
- ❖ Extension of current RPS Maintenance Resource Program
- ❖ Financial support, through open book Maintenance Contracts, to facilities at risk of financial failure or retirement
- ❖ No tradable attributes

November 17, 2016 Commission Orders

- **Order Providing Clarification**
 - Issued in response to NYSERDA's Petition for Clarification
 - The Commission clarified that renewable resources from NYSUN and other Customer-Sited projects are counted toward the 50% statewide renewable goal but are not included in the LSEs' mandated procurement target.
 - 2017 RES Tier 1 Obligation on LSEs is equal to **0.035%** of total load served by an LSE during 2017. This equals the percentage of estimated quantity of Tier 1 RECs NYSERDA will offer for sale in 2017 divided by the projected load for the compliance period.
- **Order Approving Administrative Cost Recovery, Standardized Agreements and Backstop Principles for LSE purchase of RECs and ZECs from NYSERDA**
 - EDC directed to collaborate in the development of a financial backstop guarantee mechanism.
 - Approves agreements for LSE purchase of RECs and ZECs from NYSERDA.
 - Agreements must be executed by LSEs within 30 days of Order (by December 19, 2016).
 - NYSERDA administrative budget approved for 2017.
 - REC administrative adder funded through repurposed funds; no REC administrative adder in 2017.
 - A portion of the ZEC administrative adder funded through repurposed funds; ZEC administrative adder for 2017 is \$0.0594 per ZEC.

NYSERDA REC and ZEC Sales to LSE's

NYSERDA filing regarding 2017 REC Sales (November 1, 2016)

The Commission's August 1, 2016 required NYSERDA to publish on its website, by December 1, 2016, details regarding the RES program 2017 compliance period.

- Filed under Case 15-E-0302
- Filed on NYSERDA's website – nyserdera.ny.gov/clean-energy-standard

2017 Tier 1 RECs to be offered for sale by NYSERDA	2017 Tier 1 REC Price	2017 ACP Price
56,142	\$21.16	\$23.28

CES Phase 1 Implementation Plan

Phase 1 Implementation Plan

- Filed jointly by DPS and NYSERDA on October 31, 2016 for public comment and Commission decision-making.
- Comments due January 3, 2017.
- Proposes the following details and processes with regard to
 - RES Eligibility
 - Certification
 - Long Term Procurement for RECs
 - LSE Demonstration of Compliance
 - Reporting Requirements

Eligibility

Tier 1 Eligibility

- Per the August CES Order, Tier 1 eligibility mirrors the current Renewable Portfolio Standard (RPS) Main Tier with two exceptions:
 - The former 30 MW limit on hydro facilities is eliminated
 - Geographic eligibility is expanded (with delivery of energy) to the control areas adjacent to New York
- Additional details are included in the implementation plan regarding the eligibility of:
 - Upgrades
 - Return to Service
 - Repowering

Upgrades

- Material capital investment in equipment or facilities after January 1, 2015 other than operations and maintenance.
 - Increase in efficiency of generation at least 5%.
 - Increase to generator's nameplate capacity of at least 10% and minimum 5% increase in annual energy production.

Return to Service

- Demonstration that facility has not been in commercial operation for at least 48 consecutive months prior to the return to service date.

Repowering

- Existing facility (prime mover) has operated for useful life.
- Completely replaced, manufactured and installed after January 1, 2015.
- Results in material increase in efficiency (15 percent).
- 80% of tax basis is derived on or after January 1, 2015.
- Repowered facility is operating at the site of existing – facility.

Tier 2 Eligibility

- Provide support to those “at risk” eligible facilities which, if not for the support, are demonstrated to be economically inviable without such support.
- Tier 2 Maintenance Resource eligibility:
 - Currently operating run-of-river hydroelectric facilities of 5 MWs or less, wind turbines, and direct combustion biomass facilities that comply with eligible fuel source requirements for Tier 1 eligibility.
 - Commercial operation prior to January 1, 2003 and the output must have been originally included in New York’s baseline of renewable resources as of that date.
- Process is similar to RPS Maintenance Resource program.

Project Certification

Renewable Energy Standard Certification

- Certification is a prerequisite to generation facility participation in the RES program as an eligible resource.
- NYSERDA will perform all services related to the development, review, approval and ongoing validation of RES certification materials.
- NYSERDA will develop a RES certification process modeled on the RPS Main Tier certification process but adapted to be available on a continuous basis, with similar provisional and operational certification provisions.

2017 Long Term REC Procurement Design

2017 Procurement Schedule

NYSERDA filing on November 1, 2016 provided 2017 schedule:

2017 Renewable Energy Credit RFP 1 Release	April 2017
RFP 1 Awards	August 2017
NYSERDA/DPS announcement on need for 2017 RFP 2 Procurement	September 2017
2017 Renewable Energy Credit RFP 2 Release (if needed)	October 2017
RFP 2 Awards	February 2018

Additional information will be posted on NYSERDA's CES website:

<https://www.nyserra.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Renewable-Generators-and-Developers/RES-Tier-One-Eligibility>

RPS Process Overview/Issues

- 2004 – 2016 RPS process relied on resource eligibility requirements and manual eligibility determination process.
- Bid deposit and contract security acted as primary proxy for project viability.
- Short allowable timeline for commercial operation.
- Project ranking based on bid price and economic benefits.
 - Economic benefits verification time consuming
- NYSERDA experienced project attrition, which would have significant implications under the CES.

Key Proposed Changes to Procurement - 2017

Step One: Thresholds for Project Eligibility

- Establish project threshold criteria to send clear signal to market participants for project maturity expectations, fortify project pipeline, and minimize “false starts”
 - Must meet minimums (e.g., interconnection, permitting, site control) or face automatic rejection
- Leverage/harmonize existing development best practices to establish minimum maturity levels
- Require project self-certification plus documentation

Requirements are intended to maintain a robust solicitation response & maintain cycle times

Step Two: Price and Duration

- Maximum acceptable Bid Price Evaluation Metric
 - Established in consultation with DPS Staff for each solicitation (maintained)
- Maximum 20 year contract duration
 - Subject to the useful life of each facility, based on its resource type (maintained)
- Commercial Operation Milestone Date extended
 - Post award, allow up to four (4) six month extensions secured by posting additional contract security or entering into an interconnection agreement

Step Two: Revised Bid Evaluation Criteria

- **Quantitative Ranking**
 - Price – 70% (maintained)
 - Economic Benefits – 10% (reduced from 30%)
 - Project Viability – 10% (new)
 - Operational Flexibility and Peak Coincidence – 10% (new)
 - Obtain Preliminary Rank Order
- **Technical Evaluation Panel (TEP)**
 - Comprised by NYSERDA, DPS, and qualified Independent Evaluators
- **Application of Portfolio Risk Assessment**
 - TEP recommendation to NYSERDA management
 - DPS approval of results

Step Two: Evaluation of Economic Benefits

- Economic Benefits and Verification Claims requirements remain similar to current process (maintained)
 - Categories may be combined
 - Verification Claims/Reporting to be conducted by an independent third party in 3rd year of delivery
 - Will require a new audit protocol document to be developed

Step Two: Project Viability

- Project Feasibility
- Timeframe to Commercial Operation
- Location (Interconnection, Siting)
- Environmental Impacts
- Developer experience with similar projects
 - Utilize Step One submittals for assessment

Step Two: Operational Flexibility and Peak Coincidence

- Facility's ability to address:
 - Load matching
 - Peak load demands
 - Load following
 - Dispatchability
 - Ability to provide operating reserves/respond up or down to system operator instruction
 - Frequency regulation

Final Selection: Portfolio Risk Assessment

- After conducting its review and scoring of each criteria, the TEP will develop a preliminary rank order of generation facilities.
- The TEP will then consider the following constraints in making a final award group recommendation.
- If the TEP proposes to apply these limits, it will consider the potential cost impact of such decision, only exercising such a limit should the impact on the generation-weighted cost of the portfolio increase by less than 10 percent (10%) with the application of the portfolio limits.
 - **Diversity of resources**: The TEP may constrain any particular eligible technology to comprise no more than 80 percent (80%) of the award group on an annual generation basis.
 - **Diversity of owners**: The TEP may constrain any owner or affiliate of an owner to comprise no more than 80 percent (80%) of the award group on an annual generation basis.
 - **Developer experience**: The TEP may limit awards an owner to a capacity of no more than five times the renewable capacity that the developer has successfully brought to commercial operation in the past.

Changes to 2018 and Subsequent Procurements

- Introduction of phased approach for procurement evolution
 - Increased development maturity
 - More granular pricing (yearly, seasonal, peak/off-peak)
 - More rigorous documentation (equipment vendor certifications, project partner details, additional financial disclosure, etc.)

Settlement and Reporting

REC and ZEC Banking

- ZECs – No banking allowed
- Tier 1 RECs
 - NYSERDA can bank for two years
 - LSE's can bank
 - For up to two subsequent compliance years
 - Banked certificates cannot exceed 30% of the certificates needed by the LSE for compliance in the year in which they were generated
 - LSE's can also sell excess Tier 1 RECs to NYSERDA in 2017 (per Order)
- Borrowing is not permitted

Settlement/Compliance

- LSEs must demonstrate compliance with the CES's RES Tier 1 and ZEC programs for each compliance period for which a RES and ZEC LSE compliance target is established.
 - Separate compliance timelines
 - NYGATS reports used for documentation
- Alternative Compliance Payments under RES to NYSERDA
- State Compliance Reporting

Questions

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NYSERDA

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nyserda.ny.gov/clean-energy-standard