



# New York State Clean Energy Standard RES Tier 1 Certification Submission Instructions and Eligibility Guidelines

Version 2 | December 2023



**NYSERDA**

# NYSERDA Record of Revision

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Document Title
New York State Clean Energy Standard RES Tier 1 Certification Submission Instructions and Eligibility Guidelines December 2023

Revision Date	Description of Changes	Revision on Page(s)
03/15/2017	Original Issue	Original Issue
2/04/2018	Section 2.1 and 7.3, additional information on metering	Page 2, 14
5/21/2018	Section 5.2, additional information on importing projects	Page 13,14
5/10/2019	Sections 4, 5.1, 7.3.1, 7.3.1.1, 7.3.2.2, 7.3.2.3 and A.1.1.1	Pages 5, 7, 14,15, 18, A-1
4/28/2021	Updates to reflect Oct 2020 CES Order modifications	
1/15/2022	Updates to Section 7.2 and 7.6 and Repower Tables	Pages 5,6, 12, 13,14
4/29/2022	Updates to Section 7.3. and 7.6	Pages 15-19& 21
12/04/2023	Updates to Section 6.1 Fuel Cells, 7.6 Repower Engineer Report, Table 3 – Removed Landfill Gas, and Table 6 – Revised Example for clarity	Pages 16, 23 & 25

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# 1 Overview

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This document describes the resource eligibility determination process under Tier 1 of the Renewable Energy Standard (RES) component of New York State’s Clean Energy Standard (CES). For details regarding Tier 2 eligibility, please refer to NYSERDA’s Tier 2 webpage.<sup>1</sup> For details regarding Tier 4 eligibility, please refer to NYSERDA’s Tier 4 webpage.<sup>2</sup>

To be eligible to participate in Tier 1 of the RES, an applicant must submit a request for a resource eligibility determination and demonstrate the project meets RES eligibility requirements. Projects that demonstrate eligibility will be granted a Statement of Qualification (SoQ). The SoQ entitles all eligible New York Generation Attribute Tracking System (NYGATS) Renewable Energy Certificates (RECs) created by the project to be used for Tier 1 RES compliance by load serving entities.

Projects must be operational to receive an SoQ. Applicants whose projects have not yet become operational can submit a resource eligibility determination request for provisional status, and if successful, will be granted a Provisional Statement of Qualification (PSoQ). Projects with either a PSoQ or an SoQ will be eligible to participate in the New York State Energy Research and Development Authority’s (NYSERDA) long-term annual solicitations for Tier 1 RECs.

For more information on the RES, refer to:

- The New York Public Service Commission Order Adopting a Clean Energy Standard, August 1, 2016 (2016 CES Order)
  - See Appendix A of the CES Order for eligible technologies, modified by 2020 CES Order.
- Clean Energy Standard Phase 1, 2, 3, 4 Implementation Plan Proposal and Final Implementation Plans
- Orders issued by the Public Service Commission under case number 15-E-0302, including the New York Public Service Commission Order Adopting Modifications to the Clean Energy Standard, October 15, 2020 (2020 CES Order)

Orders and reports are available on NYSERDA’s Clean Energy Standard webpage.<sup>3</sup>

## 1.1 Projects Eligible under the Renewable Portfolio Standard Main Tier

Operating projects previously certified and delivered under the Main Tier Renewable Portfolio Standard that are also eligible for Tier 1 of the RES do not need to resubmit for a resource eligibility determination. Such projects will be identified by NYSERDA and noted as qualified for Tier 1 of the RES in their NYGATS account. Projects under development previously certified under the Main Tier Renewable Portfolio Standard that are also eligible for Tier 1 of the RES will not need to submit a request for a PSoQ but will need to submit a request for an SoQ after operation commencement. It is important to note that to be RES Tier 1 eligible, the project must have commenced operation on or after January 1, 2015, unless the project qualifies as a Vintage Generation Facility (VGF) Project (section 7).

## 2 Interface within NYGATS

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All submissions for a resource eligibility determination will be completed in NYGATS. Submissions will be accepted on a continuous basis for either a PSoQ or an SoQ. The first step for achieving either qualification is to register the project in NYGATS. For more information or to start the registration process, visit the NYGATS page on NYSERDA's website.<sup>4</sup>

### 2.1 Creating a Provisional Statement of Qualification-Non-Operational Projects

A PSoQ will be granted to non-operational projects meeting the specified requirements. Such certifications affirm the project meets the eligibility criteria for Tier 1 RES certification and participation in a NYSERDA solicitation for RES Tier 1 long-term contracts if installed or constructed in a manner consistent with the information in the submission and the RES Tier 1 requirements for operational projects. Once the facility is operational, the applicant must complete a NYGATS Registration, and subsequently, the SoQ Application associated with operating projects, including demonstration of Commercial Operation and any additional information required to confirm the facility was constructed as Provisionally Certified or that the facility is otherwise Tier 1 eligible.

Projects not yet operational will not be able to complete a full NYGATS registration but can complete a submission for a PSoQ in NYGATS. The provisional submission form will follow the same format as the SoQ submission, though some fields required for operating projects will not be required of provisional submissions. The information entered in the submission will be held in NYGATS, so when the project becomes operational, the applicant may return to NYGATS to complete a SoQ submission and may start the application with the information provided in the PSoQ. The applicant may then update any project information that changed, and if eligible, will be granted an SoQ. The applicant is required to provide an explanation or progress report for any missing information.

### 2.2 Creating a Statement of Qualification Submission-Operating Projects

Once a project is registered in NYGATS, the applicant may return to NYGATS at any time to complete the request for a Tier 1 RES SoQ determination. The data fields required for certification will be incremental to information submitted in the NYGATS registration process—any information entered during registration will carry over to the certification submission.<sup>5</sup>

Operating projects that have implemented, or plan to implement incremental upgrades, will need to register the upgrade investment as a distinct project from the original project. The portion of the project included in the registration for an incremental upgrade should reflect the increased project generation resulting from the project post-upgrade and the total capacity of the project post-upgrade.



If a project that has multiple generating units<sup>6</sup> aggregating to a single point identifier (PTID)<sup>7</sup> applies for eligibility using the meter data reported for that PTID, then the engineering report must include all data for all generating units. Tier 1 RECs will only be issued for the portion of generation deemed eligible.

If a project that has multiple generating units aggregating to a single PTID applies for eligibility for an individual project and provides an engineering report that does not include all the projects reporting under that PTID, then the applicant will be required to separately register all projects aggregating to the PTID in NYGATS. All meter data must also be reported by a Qualified Independent Party per the meter data loading requirements set out in the NYGATS Operating Rules in order to have the SoQ submission approved. Certificate creation will occur for the individual projects and Tier 1 RECs will be issued for the portion of generation deemed eligible.

All fields contained in the submission are required for NYSERDA to grant an SoQ. If the documentation requested is not available, the applicant should upload a progress report either toward securing the required document or an explanation for why the project does not have it.

For more information on using NYGATS or to submit a PSoQ or SoQ request, please visit the NYGATS page on NYSERDA's website.<sup>8</sup>

## **2.3 Communications through NYGATS**

When creating a NYGATS Standard Registration, the applicant must designate at least one contact. The designated contact(s) will receive all RES certification-related communications, including clarifying questions, notifications of submission status, PSoQ or SoQ issuance or denial, notice of suspension or revocation, NYGATS system updates, and NYSERDA program announcements.



# 3 Documentation

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## 3.1 Criteria for RES Eligibility

Each applicant is required to submit materials to sufficiently demonstrate fulfillment of all RES program eligibility requirements. Information submitted in NYGATS registration necessary for certification includes the following:

- Contact information
- Unit name and NYGATS identification number
- Nameplate capacity
- Fuel type
- In-service date
- Control area
- Street address and navigational coordinates
- Whether the project is submitting a request as part of an aggregation
- Uploaded documentation to support eligibility claims
- If a project is seeking certification as a VGF, additional information as required

## 4 Distributed Energy Resources

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The eligibility of distributed energy resources (DER) under Tier 1 of the RES was determined by a Public Service Commission Order issued on March 9, 2017, in Case 15-E-0082, Policies, Requirements, and Conditions for Implementing a Community Net Metering Program.<sup>9</sup>

In accordance with the Order:

1. Behind-the-meter projects will only be eligible to create NYGATS Tier 1 RECs or to bid in RES Tier 1 solicitations conducted by NYSERDA if they meet the following requirements:
  - a. Completes Step 8 (for projects greater than 50kW) or Step 4 (for projects less than or equal to 50kW) of the Standardized Interconnection Requirements by March 9, 2017
  - b. Provides written notice of such completion to the interconnecting utility, by March 17, 2017
  - c. Enrolls in NEM under the pre-existing NEM tariffs
  - d. Have not received incentive funding from any State or local program
  - e. Project meets the RES resource eligibility and vintage requirements
2. Projects that meet all requirements and are successful in securing an award through a RES solicitation by NYSERDA will receive Tier 1 NYGATS RECs for performance under the RES Agreement with NYSERDA. All other projects will be eligible to receive non-tradable, non-Tier 1 eligible RECs only.
3. DER projects that enroll in VDER Phase One NEM are ineligible to bid in RES Tier 1 solicitations conducted by NYSERDA. Under VDER Phase 1 NEM, NYGATS RECs associated with generation from community distributed generation projects are granted by default to the interconnecting LSE unless the customers jointly elect to retain the RECs from the project. For community distributed generation projects that fall into this default scenario, the interconnecting LSE must submit a request for Tier 1 certification and if deemed eligible the project will create Tier 1 RECs for the portion of the generation that is exported to the grid. These Tier 1 RECs can only be used to satisfy the utility's RES Tier 1 compliance requirements. Projects that elect to retain the NYGATS RECs will be eligible to receive non-tradable, non-Tier 1 eligible RECs only.
4. DER projects enrolled in VDER Phase 1 Value Stack compensation are ineligible to bid in RES Tier 1 solicitations conducted by NYSERDA. Under the VDER Phase 1 Value Stack, the RECs from all projects are granted by default to the interconnecting LSE unless the customer elects to retain the NYGATS RECs from the project. For projects that fall into this default scenario, the interconnecting LSE must submit a request for Tier 1 certification and if deemed eligible the project will create Tier 1 RECs for the portion of the generation that is exported to the grid. These Tier 1 RECs can only be used to satisfy the utility's RES Tier 1 compliance requirements. Projects that elect to retain the RECs will be eligible to receive non-tradable, non-Tier 1 eligible RECs only.

Table 1. Summary of Distributed Energy Resource Categories and Treatment of Generation Attributes

		DER Category	Options	Is the project allowed to bid into RES Tier 1 Solicitations conducted by NYSDERDA if otherwise eligible?	Will NYGATS create a transferable Certificate in the account of the generator?	Will NYGATS create a non-transferable Certificate in the account of the customer (indicates retirement by the customer)?	Do the attributes of the generation count towards the interconnecting LSE's RES Compliance Mandate?	Do the attributes of the generation count towards the Statewide 50% by 2030 renewable resources goal?
Pre-existing NEM Tariffs	Net Energy Metering	All Projects (Prior to Cut-off)	RES Tier 1 (if eligible and awarded a contract by NYSDERDA) *	Yes	Yes**	No	No	No
			Customer Retention	No	No	Yes	No	Yes
VDER Phase One Tariffs	Phase One NEM	On-Site Mass Market Projects and Small Wind Remote Net Metering Projects On-Site Large Projects	None	No	No	Yes	No	Yes
		Community Distributed Generation Projects	Interconnecting-LSE-Option	No	No	No	Yes	Yes
			Customer-Retention-Option	No	No	Yes	No	Yes
	Value Stack	On-Site Mass Market Projects and Small Wind (by opt-in, no longer net metering) Community Distributed Generation Projects (no longer net metering) Remote Customer Projects (no longer net metering) On-Site Large Projects (no longer net metering)	Interconnecting-LSE-Option	No	No	No	Yes	Yes
			Customer-Retention-Option	No	No	Yes	No	Yes

Note: The generation attributes of all renewable resource generation consumed by customer in New York State will contribute towards the Statewide 50% by 2030 renewable resources goal, which relies on both mandatory and voluntary contributions for its end to be achieved. Voluntary market contributions do not count towards compliance with the Load Serving Entity mandates of the Renewable Energy Standard (RES).

\*All pre-existing NEM projects that are eligible to bid into RES Tier Solicitations are subject to a previous RPS Main Tier contract rule that prohibited simultaneous collections of both New York RPS incentive payments and production-based incentives from any other state or local source, including CST, NY-Sun, and CEF program incentives.

\*\*The Certificates will be transferrable to NYSDERDA pursuant to contract who may then transfer them to Load Serving Entities.

# 5 Interconnection, Geographic Eligibility, and Delivery Requirements

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In addition to the possession of an SoQ, to be eligible to create Tier 1 RECs in NYGATS, a project must demonstrate the supply of energy into a market administered by the New York Independent System Operator (NYISO). Specific delivery requirements were included in the Implementation Plan Proposals and Final Implementation Plans.<sup>10</sup>

Regardless of the physical location of the project, any electricity associated with Tier 1 RES-eligible RECs must not be exported to another control area once delivered within NYISO. Applicants will need to attest to their understanding of this requirement in the submission.

## 5.1 Projects Located within NYISO

The applicant must provide information regarding the distribution utility to which the project is connected, as well as the tariff type used to meter the contracted delivery. The tariff type options are as follows:

- Wholesale – NYISO
- Distribution Utility – Energy and Capacity
  - The user must select one of the following Generation Meter Types:
    - Utility Controlled Wholesale Meter
    - Facility Controlled Revenue Grade Meter
- Distribution Utility – Net Energy Metering
- Distribution Utility - Value of DER Phase 1

## 5.2 Importing Projects

The electricity associated with the RECs used for compliance from RES resources located in a control area adjacent to NYISO must be scheduled, transmitted, delivered, and settled in the NYISO energy market in each hour. In addition, it must be accompanied with documentation of a unit-specific contract path between the injection point in the control area of origin to the delivery point in New York that includes the provision of transmission or transmission rights for delivering the generation via NYISO using the North American Electric Reliability Corporation (NERC) tag fields Sending and Receiving Control Areas and Purchasing/Selling Entity Name and Number. For imported RECs to be flagged as eligible toward Tier 1 compliance obligations, projects located in an adjacent control area will need to continuously demonstrate the delivery of energy and RECs into New York State through the requirements laid out in the Phase I Implementation Plan Proposal and Final Implementation Plan linked above (locate ongoing requirements in section 10.3).

Tier 1 eligible energy scheduled and delivered from external control areas must be accompanied by the NERC tag information from the OATI (Open Access Technology International) or similar System indicating the importing project as the source for the scheduled and transmitted electricity into the NYISO. Importing projects who submit proposals into a Tier-1 solicitation will also be required to comply with the delivery requirements stated in that solicitation and the accompanying agreement. All Import projects must apply for Provisional Eligibility and provide a sample tag. Once approved as Operational, NERC tag information must be emailed to [res@nyserda.ny.gov](mailto:res@nyserda.ny.gov) directly from OATI or similar system. NYSERDA will use the information from OATI or similar system to ensure that the requirements set forth in the Final Phase 1 Implementation Plan have been satisfied. For imports that are also repowering projects, go to section 7.5.

## 6 Technology Types

Certification under the RES is limited to the list of eligible resources as outlined by the 2016 CES Order, Appendix A, as modified by the 2020 CES Order. This list is provided in Table 2. The requirements and documentation needs vary by eligible technology.

Table 2. RES Eligible Tier 1 Resources

<b>RES Eligible Electric Generation Sources</b>	<b>Sources</b>	<b>Other Requirements</b>
Fuel Cells	Solid Oxide Fuel Cells (SOFC)	Must utilize a non-fossil fuel resource, such as hydrogen (or other fuel), that has been produced using a “renewable energy system” <sup>11</sup> as a primary source.
	Molten Carbonate Fuel Cells (MCFC)	
	Proton Exchange Membrane Cells (PEM)	
	Phosphoric Acid Fuel Cells (PAFC)	
Hydroelectric	Hydroelectric Upgrades	No new storage impoundment, eligibility limited to the incremental production associated with the
	Low-Impact Run-of-River Hydroelectric	No new storage impoundment.
Geothermal Electric		
Geothermal Ground Source Heat		
Solar	Photovoltaics and Thermal	
Tidal/Wave/Ocean	Tidal and Ocean Wave or Current (turbines and other rotary motion drives)	
	Ocean Thermal Pumped Storage Hydro Powered by Tidal	
On Land and Offshore Wind	Wind Turbines	

## 6.1 Fuel Cells

Fuel cells using renewable fuels may be certified for Tier 1 of the RES if they meet all other requirements. Eligible types of fuel cells include Solid Oxide, Molten Carbonate, Proton Exchange Membrane, and Phosphoric Acid. The 2020 CES Order adopted a definition of Renewable Energy Systems consistent with PSL §66-p(1)(b), which limits Fuel Cell eligibility to those that do not utilize fossil fuels. Fuel Cells must include a fuel plan to utilize and maintain a non-fossil fuel resource.

Pursuant to the [Order regarding Value Stack Compensation for High-Capacity-Factor Resources](#)<sup>12</sup>, a fuel cell that would not meet the definition of a renewable energy system under the PSL could still receive the Environmental Value associated with the RECs generated if the project “qualified” on or before August 13, 2019. A project qualifies when it meets the standard for placement in a Tranche; that is, when it has a payment made for 25% of its interconnection costs or has its Standard Interconnection Contract executed if no such payment is required.

## 6.2 Hydroelectric

Qualifying hydroelectric resources are new, low-impact, run-of-river or incremental upgrades. The production associated with a new hydroelectric project must meet the following criteria: run-of-river operation and no new storage impoundments.

For provisional status, the applicant must attach a report, prepared by an independent professional engineer, verifying the design meets the eligibility criteria. Requirements for hydroelectric incremental upgrades are described in section 7.3.

## 6.3 Tidal/Wave/Ocean

Projects utilizing tidal, ocean wave, ocean current wave, ocean thermal, or pumped storage hydroelectric powered by tidal may be certified for the RES if they meet all other requirements.

## 6.4 Solar and Wind

Projects utilizing solar or wind energy may be certified for the RES if they meet all other requirements.

## 6.5 Geothermal Electric and Ground Source Heat

Projects utilizing geothermal energy may be certified for the RES if they meet all other requirements. Note that NYGATS Certificates, including Tier-1 Certificates, are only created upon the metered generation of electricity.



# 7 Vintage

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If the project's first date of commercial operation is on or after January 1, 2015 (Threshold Eligibility Date or TED), it is eligible for evaluation as a Tier 1 project. Existing projects with a first date of commercial operation before January 1, 2015, are only eligible if they are a Vintage Generation Facility (VGF). VGFs are projects that are upgraded, returned to service, relocated, or repowered, and must meet the specified requirements described in this section to be Tier 1 eligible.

## 7.1 In-Service Date

The in-service date is the date of commercial operation if the applicant is submitting a project SoQ request or the planned date of commercial operation if the applicant is submitting a request. The in-service date information is collected during project registration and may not be changed in the certification submission.

For VGFs, the in-service date refers to the date when the original project first entered commercial operation (i.e., before the project was upgraded, returned to service, or relocated). VGFs PSoQ or SoQ requests will also need to report and document the in-service date of the incremental upgrade, the date returned to service, or the date the relocated project became commercially operational.

## 7.2 Demonstration of Commercial Operation

Each applicant submitting an SoQ request for a project must submit materials sufficient to demonstrate it has been constructed and achieved commercial operation. Such information includes:

- A formal letter declaring the date commercial operation has been achieved
- A third-party engineering or vendor commissioning report verifying the project is fully commissioned and operating and confirming the installed capacity in MW
- Data and information provided to NYSEERDA from NYISO or local utility company verifying the project is available and capable of producing electricity, or from an internet-enabled electric meter for DER generation, (e.g., Permission to Operate letter issued by the appropriate interconnecting authority or equivalent).
- Permission to Operate letter: a signed and dated letter or email from the utility or appropriate interconnecting authority including date the Generating Unit is interconnected and can transmit energy; must acknowledge that the Generating Unit has completed all applicable pre-commercial operation date testing and authorization to interconnect the Generating Unit and includes:
  - Reference to final inspection, synchronization, witness testing of the interconnection facilities and reference to date when utility provides permission to operate the Generating Unit.
  - Reference to when the Generating Unit energized its transmission line and project substation, if applicable.

- Reference to when the project's (first and last turbine/solar inverter/other unit specific to that fuel type) was successfully synchronized to the grid.
- Reference to revenue metering, telemetry, and communication requirements being satisfied.
- For repowered projects date of repowering completion and project description on company letterhead, go to section 7.6 for additional requirements.
- Any other supplemental information necessary to verify the project is operating and consistent with the conditions under which a PSoQ was granted, if applicable

In some instances, an applicant may not need to upload a separate document to meet each of these criteria (for example, a non-fuel-based project may submit one commissioning report that contains within it a formal letter stating the date of Commercial Operation and meter data verifying electricity production). In these situations, the applicant may upload the same document for multiple requirements or upload an explanation of why a separate document does not apply. VGFs must submit documentation noting the eligible commercial operation date of the upgrade, return to service, or relocated power.

### 7.3 Incremental Upgrades

The incremental production associated with the upgrade of an existing project is eligible for Tier 1 of the RES if it meets certain requirements. The requirements vary based on whether the project utilizes a non-intermittent resource (i.e., fuel cells) or an intermittent resource (i.e., hydro, wind, or solar) to produce energy. Once granted an SoQ, only the eligible production determined to result from the incremental upgrade will be considered for Tier 1 of the RES program.

To obtain a PSoQ for a project already in commercial operation planning an upgrade, the applicant will need to register a new provisional project and submit a request for a PSoQ for the incremental production. The provisional Nameplate Capacity (MW-AC) entered by the applicant should indicate the total capacity of the project after the upgrade. After the provisional project registration is approved, the applicant can submit a PSoQ request for the incremental production associated with the project. Once the upgrade is complete, the applicant associated with the upgrade project must submit an SoQ request.

If a project that has multiple generating units aggregating to a single PTID applies for eligibility using the meter data reported for that PTID, then the engineering report must include the data for all generating units. Tier 1 RECs will only be issued for the portion of generation deemed eligible.

If a project that has multiple generating units aggregating to a single PTID applies for eligibility for an individual project and provides an engineering report that does not include all the projects reporting under that PTID, then the applicant will be required to separately register all projects aggregating to the PTID in NYGATS, and have all meter data reported by a Qualified Independent Party per the meter data loading requirements set out in the NYGATS Operating Rules in order to have the SoQ submission approved. Certificate creation will occur for the individual projects and Tier 1 RECs will be issued for the portion of generation deemed eligible.

### 7.3.1 Requirements for Non-Intermittent Resources

Existing, non-intermittent electric generating projects associated seeking RES Tier 1 certification for increased capacity/production derived from eligible fuels must be certified as an incremental upgrade. To be considered for Tier 1 certification, applicants representing these projects must first provide the historic generation baseline from RES eligible fuels. The historic generation baseline will be calculated on an energy basis, with the baseline generation calculated as the average annual RES eligible generation from the three calendar years from 2012 through 2014 (inclusive),<sup>13</sup> or for the first 36 months after the in-service date if after January 1, 2012.

To qualify as an upgraded generation project, an applicant representing a VGF must demonstrate to NYSERDA that a material capital investment in equipment or facilities has been made to the generation project on or after January 1, 2015, other than expenditures for routine operations, maintenance, and/or repair. The applicant must also provide the date the capital investment was made, defined as the purchase of equipment or projects or a contract with an engineering, design, and construction provider.

The specific requirements for the investment based on project type are described as follows:

- An applicant representing a project already using only RES eligible fuel types (i.e., a fuel cell project) will need to demonstrate that such investment directly results in one of the following conditions:
  - A material increase in the efficiency of its generation process, resulting in an increase in annual energy production of at least 5% under normal operating conditions and normal resource availability, relative to the historic generation baseline
  - An increase to the project's nameplate capacity of at least 10% also resulting in a minimum 5% increase in annual energy production above the historic generation baseline

For a PSoQ or SoQ, the applicant must attach documentation of the historic generation baseline and the investment made in the project (if applicable) and include a report prepared or endorsed by an independent professional engineer or other third-party approved by NYSERDA, describing the expected resultant increase in production, and if applicable, capacity.

### 7.3.2 Requirements for Intermittent Resources

The incremental production associated with an upgrade of an existing hydroelectric, wind, or solar project must meet certain requirements to be certified under the RES. Only the production resulting from the incremental upgrade will be considered eligible for Tier 1 the RES, measured as the percentage over the historic generation baseline of average annual production. The applicant must also demonstrate significant equipment upgrades that are not the result of normal capital and/or operations and maintenance activities.

An applicant representing a project will need to demonstrate that such investment directly results in one of the following conditions:

- A material increase in the efficiency of the project's generation process, resulting in an increase in annual energy production of at least 5% under normal operating conditions and normal resource availability, relative to the weather-normalized annual energy production prior to the upgrade.
- An increase to the project's nameplate capacity of at least 10% also resulting in a minimum 5% increase in annual energy production under normal operating conditions and normal resource availability, relative to the weather-normalized annual energy production prior to the upgrade.
- NYSERDA will use the average historic baseline generation and a third-party engineering report to calculate the project's Incremental Upgrade percentage for NYGATS Tier 1 eligibility.

### *7.3.2.1 Hydroelectric Upgrades*

The applicant must demonstrate that no new storage impoundments have been installed for the hydroelectric generating project while implementing the upgrade.

To be eligible for a PSoQ or SoQ, the applicant must attach a report prepared by an independent professional engineer that documents specific upgrades and associated investments that have been or will be made to the referenced project. The report must document:

- Historic generation baseline of average annual production (not less than 10 years or the project's operating lifetime) with the corresponding water flows as measured by USGS gauges or best available data sources
- The post-upgrade expected average annual production
- The incremental production, expressed as a percentage, of the expected average annual production due specifically to the completed or proposed upgrade investments

The report must also reflect the production according to the metering configuration that will be utilized in NYGATS for REC creation. For example, if the project will be aggregated with other projects under a single point of interconnection for purposes of reporting into NYGATS, the engineering report should utilize the generation at the point of interconnection for the production calculations previously listed and should include production from all the projects at the aggregation point in the analysis. If a project will be separately metered and reported to NYGATS independently, the engineering report should utilize the project's generation on a standalone basis.

The approach for calculating the historic generation baseline, the post-upgrade expected average annual production, and the percentage of such production attributable to the upgrade entails the development of a mathematical model to simulate monthly and annual energy production. Applicants can propose an alternative approach to these calculations provided the approach can predict the incremental production with comparable accuracy.

The model would incorporate available stream flow data (USGS gauges or best available data sources), reservoir management requirements (determined by FERC license conditions), and the performance characteristics of the generating equipment (based on the manufacturer's guarantees or field testing) as parameters. The simulation model should be based on water-balance continuity (all inflows match outflows). Simulation results should be calibrated to actual electrical output over the historical periods that contain the most detailed and complete records (at least monthly flow data, with complete information on water utilization). Overall plant efficiency may be adjusted as needed to modify simulated production to match actual production. Pre-and post-upgrade simulations should be used to determine the percentage of electrical output attributable to the upgrade in an average year, where an average year means average annual flow conditions over the most recent representative historical period of not less than 10 years. If the project has been operating for less than 10 years, the historic generation baseline will be calculated based on the number of years the project has in production.

In constructing the simulation model, any information on historical water utilization (i.e., minimum flow restrictions, bypass flows, and spillage) should be considered, and the model should assume the operation of the project conforms to the guide curves as laid out in the FERC license. Any FERC license constraints that will, in the future, change current reservoir management practices should be accounted for in the post-upgrade simulation. If the project enters into a contract with NYSERDA for the purchase of Tier 1 RECs, the seller will be required, on a semiannual basis, to compare the actual water flows and power production with simulated production post upgrade for the same period to determine the degree of accuracy of the projected incremental power production.

### *7.3.2.2 Wind Upgrades*

For a PSoQ or SoQ, the applicant must attach a report prepared by an independent professional engineer, meteorologist, or other third-party approved by NYSERDA that documents specific upgrades and associated investments that have been or will be made to the referenced project. The report must describe the electric energy potential of the upgraded project, the wind resource potential at the site, and the incremental upgrade as proposed.

The report must document:

1. The most recent 10-year historic baseline generation of the project or the available equivalent of the entire pre-upgrade operating history of the project with the corresponding meter data or best available data sources.
2. The post upgrade expected annual production resulting from the proposed upgrade. The Incremental Upgrade percentage will be calculated based on the difference of post upgrade expected annual production resulting from the proposed upgrade.

NYSERDA will use the average historic baseline generation and the third-party report to calculate the project's Incremental Upgrade percentage for NYGATS Tier 1 eligibility. The calculation will be based on the difference of item (2) minus item (1) divided by item (2), using average historic generation (1) and the post upgrade engineering report (2) to result in the NYGATS Tier 1 Eligibility calculation.

### 7.3.2.3 Solar Upgrades

For a PSoQ or SoQ, the applicant must attach a report, prepared by an independent professional engineer or other third-party approved by NYSERDA that documents specific upgrades and associated investments that have been or will be made to the referenced project.

The report must document:

1. The most recent 10-year historic baseline generation of the project or the available equivalent of the entire pre-upgrade operating history of the project with the corresponding meter data or best available data sources.
2. The post upgrade expected annual production resulting from the proposed upgrade. The Incremental Upgrade percentage will be calculated based on the difference of post upgrade expected annual production resulting from the proposed upgrade.
3. A Solar Resource Evaluation Report describing the electric energy producing potential of the project, which assesses the solar resource potential at the site and describes the incremental upgrade as proposed.

NYSERDA will use the average historic baseline generation and the third-party report to calculate the project's Incremental Upgrade percentage for NYGATS Tier 1 eligibility. The calculation will be based on the difference of item (2) minus item (1) divided by item (2), using average historic generation (1) and the post upgrade engineering report (2) to result in the NYGATS Tier 1 Eligibility calculation.

## 7.4 Return to Service Project

The entire output of a project that does not meet the TED requirements can qualify as a Return to Service generation unit and be eligible for Tier 1 if the applicant can demonstrate to NYSERDA that the project has not been in commercial operation for at least 48 consecutive months prior to the return to service date noted in the PSoQ or SOQ request. The applicant must submit written documentation of the applicable dates in and out of service, such as an engineering report, formal letter, and/or data from NYISO or the local utility.

## 7.5 Relocated Project

A project meeting the following definition of a relocated Tier 1 generation project will be considered eligible for Tier 1 if the applicant demonstrates it meets all other eligibility requirements. A relocated project is a generation project whose prime mover was used on or before the TED to generate electrical energy outside of the NYISO Control as shown in Table 3.

Table 3. Prime Mover Definition

Energy Source	Definition of Prime Mover for Energy Source
Wind	The entire wind turbine, including the generator, gearbox (if any), nacelle, rotor,
Hydroelectric	The entire turbine and structures supporting the turbine, not necessarily including the building housing the turbine.
Solar PV	The modules and inverters.

## 7.6 Repowering Project

Developers of repowered projects are advised the Tier 1 eligibility requirements regarding repowering have been updated pursuant to the CES Modification Order. Developers seeking to submit PSoQ or SoQ applications in NYGATS are strongly encouraged to contact the Large-Scale Renewables team at [res@nyscrda.ny.gov](mailto:res@nyscrda.ny.gov) prior to starting a Tier 1 request in NYGATS.

The entire generation of the repowered vintage generator (Repowered Facility) (100% of output) will be deemed eligible for Tier 1 if the original generator reached the end of the facility’s useful life (Table 8) and can demonstrate it meets the following requirements:

- The project is a qualifying technology.
- For all technologies except Hydroelectric, the repowering must include replacement of each prime mover. For Hydroelectric resources, repowering does not need to include the replacement of the prime mover.
- Replacement of the prime mover<sup>14</sup> must result in an overall increase of 15% or more in the production of the generation unit compared to its projected future output.
  - The repowering must have the result that 80% of the tax basis per Generally Accepted Accounting Principles (GAAP) from the completed Repowered Facility (not including its property and tangible assets) is derived from capital expenditures made on or after the date of the October 15, 2020 Commission order implementing this proposal (Please also read related electronic clarification letter by DPS Staff filed in Case 15-E-0302 on May 14, 2021 for further information).<sup>15</sup> An independent audit and verification will be required. Certification will be required and submitted at the time of the resource eligibility determination under Tier 1 of the RES. Submit and include a valuation identifying the total cost of the project (as-planned or as-completed, as appropriate), the disposed equipment value, and for as-proposed projects, a rationale for the project book value following completion of the project.



A third-party engineering report will be required to verify the projected generation through the Tier 1 certification process. The third-party engineering report must include:

- For the original project:
  - Commercial Operation date – Month/Year
  - Description of age and useful life of prime mover, equipment, and other project specific details (Nameplate Capacity in MWac, Capacity Factor, etc.)
  - Useful life end date of the original project – Month/Year (refer to Table 8 below)
  - Projected generation for the repowered project for each year of remaining useful life
  - All available historical generation associated with the original project – MWh/year
  - Include a description of operations and maintenance history, including details regarding any maintenance, replacement, upgrades, or modifications made to facility and history for the equipment currently installed
  - If applicable, the projected generation for each year of remaining useful life of original project – MWh/year
- For the Repowered Project:
  - Actual or anticipated Repowering Date – Month/Day/Year
- Description of prime mover replacement, equipment, and other project specific details (Nameplate Capacity in MWac, Capacity Factor, etc.) as planned or completed e.g., P(50) 8760, Resource Assessment and Energy Production Estimate in MWh).
- Provide manufacturer documentation describing equipment efficiency, specifications, and expected future degradation.
- Provide electronic copies of the repowering model used, please provide as separate uploaded document labeled in application and referred to in Engineering Report.
- For illustration purposes, interested parties will need to provide information to NYGATS similar to the example(s) shown in Tables 4 and 5.

Table 4. Project That Has Already Repowered (Operational Status)

<b>Project Name – Unicorn Winds</b>					
Background Data		Useful Life Data			
Original Operation Date	June 2003	Useful Life	Calendar Year	Original Project - Projected Generation (MWhrs)	Repowered Project - Projected Generation (MWhrs)
Repower Date	March 15, 2019	17	2019	762,120	914,544
		18	2020	744,600	914,544
		19	2021	727,080	914,544
		20	2022	709,560	914,544
		21	2023	692,040	914,544

Table 5. Project That Is Applying for Repowering (Provisional Status)

<b>Project Name - Starfish HydroPower</b>					
Background Data		Useful Life Data			
Original Operation Date	June 1975	Useful Life	Calendar Year	Original Project - Projected Generation (MWhrs)	Repowered Project - Projected Generation (MWhrs)
Repower Date	March 15, 2023	46	2021	762,120	
		47	2022	744,600	
		48	2023	727,080	
		49	2024	709,560	914,544
		50	2025	692,040	914,544
		51	2026	690,000	914,544
		52	2027	599,000	914,544

The data provided in the third-party engineering report will assist NYSERDA in determining Tier 1 Eligible generation associated with repowered projects on a 12-month basis, starting the first of the month after the actual or anticipated repowering date. Generation beyond what has been projected in the engineering report for each year of remaining useful life will be Tier 1 eligible. Once the useful life of the original project is met, all generation (100%) from the repowered project will be Tier 1 Eligible.

Table 6. Example of NYSERDA Analysis of Project That Achieves Commercial Operation, NYGATS Statement of Qualification March 15, 2021

<b>NYSERDA Analysis - Unicorn Winds</b>							
Calendar Date	Useful Life	Original Project - Projected Generation (MWhrs)	Repowered Project - Projected Generation (MWhrs)	Percentage increase in Generation	Tier 1 Percentage Applicability	Non-Tier 1 Percentage Applicability	Tier 1 Eligibility applicable to Generation
July 1, 2019 - June 30, 2020	17	762,120	914,544	20%	20%	80%	
July 1, 2020 - June 30, 2021	18	744,600	914,544	23%	23%	77%	April 1, 2021 - June 30, 2021
July 1, 2021 - June 30, 2022	19	727,080	914,544	26%	26%	74%	July 1, 2021 - June 30, 2022
July 1, 2022 - June 30, 2023	20	709,560	914,544	29%	29%	71%	July 1, 2022 - June 30, 2023
July 1, 2023 - June 30, 2024	21	n/a	914,544	n/a	100%	0%	July 1, 2023 - June 30, 2024

Note: Analysis shows that once operational, the repowered project will satisfy the eligibility requirement of 15% generation increase.

Table 7. Prime Mover Definition

<b>Energy Source</b>	<b>Definition of Prime Mover for Energy Source</b>
Wind	The entire wind turbine, including the generator, gearbox (if any), rotor and blades.
Hydroelectric	The entire turbine and structures supporting the turbine, not necessarily including the building housing the turbine.

Table 8. Useful Life by Energy Source

<b>Energy Source</b>	<b>Useful Life (Years)</b>
Fuel Cell	20
Hydroelectric	50
Landfill Gas	15
Solar PV	20
Wind	20

## 8 Aggregated Projects

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Applicants representing aggregated projects may submit a PSoQ or SoQ request if they are of the same technology and tier and reach commercial operation during the same calendar year. The applicant must submit complete information about the aggregated projects, providing project-specific data for all fields that do not apply across all projects in the PSoQ or SoQ request.

### 8.1 Registering Aggregations in NYGATS

As with individual projects, an applicant with an aggregated project must set up a NYGATS project registration before completing a PSoQ or SoQ request. To register an aggregation, the applicant must first set up one aggregation account, then the applicant may enter information for one or more individual projects within the aggregation account. For additional information on project registration see NYGATS website and materials.

The PSoQ or SoQ request will follow the same structure as project registration and will apply to the same individual projects registered in the aggregation account.

### 8.2 Provisional Aggregations

There is no registration form specific to provisional project aggregations in NYGATS. However, an applicant may submit a PSoQ request for a project by completing a registration based on the information at the aggregate level. The registration should reflect the total capacity of all projects to be included in the aggregation, and the average capacity factor or aggregate maximum annual energy across all projects included. The applicant should enter the anticipated in-service date for the last project that will be completed and included in the aggregation. For any other data fields required that vary across the projects, the applicant may enter n/a. Project aggregations will need to demonstrate eligibility and compliance with the requirements noted in section 8.1 and will need to complete a NYGATS registration for an aggregated project once operational and ready to submit a SoQ request.

## 9 Attestations

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For a submission to be deemed complete, the applicant must acknowledge and agree to the provided attestations. These statements confirm the applicant reviewed and understands the SoQ requirements as described in this document, is an authorized representative of the project, acknowledges NYSERDA's rights to request additional information, and verify that all information submitted is complete, true, and accurate.

In addition to these requirements, NYSERDA or persons acting at its behest, may conduct audits and/or site visits at NYSERDA's discretion at any time to further assist in verification and ongoing RES compliance. NYSERDA will have sole discretion to determine if any required ongoing information filings are material to a project's PSoQ or SoQ. If a project is determined to have experienced a material change, NYSERDA will have the sole discretion to require the project to resubmit a request for PSoQ or SoQ.

# 10 Next Steps

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## 10.1 Submission Review

NYSERDA will first review all PSoQ and SoQ submissions for completeness. If the submission is missing material information, NYSERDA will email the applicant any deficiencies. Once a submission is deemed complete, NYSERDA will either grant or deny a PSoQ or SoQ within 30 days.

## 10.2 Issuance of PSoQ or SoQ

Once NYSERDA determines the applicant's PSoQ or SoQ request, the contact listed in the NYGATS account for the project will receive an e-mail that the submission has been reviewed. The applicant can then log on to the project's NYGATS record to view the official decision. VDER Resources will not be issued an SoQ.<sup>16</sup>

If NYSERDA grants an SoQ, the qualification will be noted in the project's NYGATS record in the documents and attestation view section. The record will include a signed decision letter that notes the date of SoQ approval, as well as a summary of pertinent project attributes. NYGATS RECs minted after the SoQ approval date will be eligible to be used for RES compliance.

If a PSoQ or SoQ request is denied, then the applicant will be advised of the basis for the denial. The applicant may resubmit within its existing NYGATS record at any time after the identified problems are corrected.

## 10.3 Ongoing Requirements, Revocation or Suspension

All projects must notify NYGATS and NYSERDA of any changes in ownership and/or authorized representative. In addition, some projects are subject to ongoing requirements.

### Ongoing Requirements for Imports

For imported RECs to be flagged as eligible toward Tier 1 compliance obligations, the requirements contained within the Clean Energy Standard Phase I Implementation Plan Proposal and Final Implementation Plan must be met. Applicants should also refer to the NYGATS operating rules and associated documents for more details.

### Ongoing Requirements for Fuel-Based Technologies

Fuel-based technologies will be required to submit periodic reports summarizing fuel consumption and actual emissions. In addition to these requirements, NYSERDA or persons acting at its behest, may conduct audits and/or site visits at NYSERDA's discretion at any time to further assist in verification and ongoing RES compliance.



## 10.4 NYSERDA Right to Verify Information and Revoke or Suspend SoQ

All information submitted by applicants is subject to verification by NYSERDA. If NYSERDA finds an applicant provided false information, failed to notify NYSERDA of a change in eligibility status, or did not comply with the RES program rules, the project's authorized representative will receive a notice and an opportunity for a hearing. NYSERDA has the authority to suspend or revoke the project's Tier 1 RES SoQ if the failures are not remedied within the specified timeframe. If the project's SoQ is suspended, NYSERDA will provide notice to the project's authorized representative through NYGATS. The notice will include the period for which the project cannot produce Tier 1 RES-eligible RECs, and the NYGATS administrator will suspend the Tier 1 RES qualification for RECs minted during the suspension period. If the project's SoQ is revoked, the project may not produce Tier 1 RES-eligible RECs until it has remedied the failure, resubmitted a SoQ request, and received an approval from NYSERDA on the SoQ request. NYSERDA will provide notice to the project's authorized representative through NYGATS that includes the period that must elapse and the conditions that must be met before resubmitting the project.

# Endnotes

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- <sup>1</sup> For details on NYSERDA’s Tier 2 Program visit: [nysesda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-Two-Eligibility](https://nysesda.ny.gov/All-Programs/Large-Scale-Renewables/RES-Tier-Two-Eligibility)
- <sup>2</sup> For details on NYSERDA’s Tier 4 Program, visit: [nysesda.ny.gov/All-Programs/Large-Scale-Renewables/Tier-Four](https://nysesda.ny.gov/All-Programs/Large-Scale-Renewables/Tier-Four)
- <sup>3</sup> For a list of Clean Energy Standard filings, orders and reports published by Department of Public Service (DPS) visit: [nysesda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Important-Orders-Reports-and-Filings/Filings-Orders-and-Reports](https://nysesda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Important-Orders-Reports-and-Filings/Filings-Orders-and-Reports)
- <sup>4</sup> For details on NYGATS, visit: [nysesda.ny.gov/All-Programs/NYGATS](https://nysesda.ny.gov/All-Programs/NYGATS)
- <sup>5</sup> Subject to fulfillment of the associated delivery requirements.
- <sup>6</sup> A generating unit consists of the sum and total of all equipment necessary for production of electricity.
- <sup>7</sup> A Point Identifier is a resource-specific numerical identifier used by the NYISO’s software systems to identify Generators and other Suppliers.
- <sup>8</sup> For details on NYGATS, visit: [nysesda.ny.gov/All-Programs/NYGATS](https://nysesda.ny.gov/All-Programs/NYGATS)
- <sup>9</sup> Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters: <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={FD2886CF-87D6-4F02-A252-95F9094A2CED}>
- <sup>10</sup> For a list of Clean Energy Standard filings, orders and reports published by Department of Public Service (DPS) visit: [nysesda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Important-Orders-Reports-and-Filings/Filings-Orders-and-Reports](https://nysesda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Important-Orders-Reports-and-Filings/Filings-Orders-and-Reports)
- <sup>11</sup> The CLCPA defines “renewable energy system” as “systems that generate electricity or thermal energy through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.”
- <sup>12</sup> Order regarding Value Stack Compensation for High-Capacity-Factor Resources: <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={BE6442B8-8B26-4B20-866D-DD76D1905170}>
- <sup>13</sup> Based on the January 1, 2015, vintage date established by the CES Order.
- <sup>14</sup> For purposes of this requirement, “prime mover” shall be defined as follows: for wind facilities, the wind turbine, including the generator, gearbox (if any), rotor and blades; for solar PV facilities, the modules and inverters; and for hydroelectric facilities, the generator, the entire turbine and structures supporting the turbine, but not the building housing the turbine. For wind projects, the nacelle is not included as a part of the prime mover.
- <sup>15</sup> CES Order Letter 5-14-2021
- <sup>16</sup> Order Approving Phase 3 Implementation Plan: <https://www.nysesda.ny.gov/-/media/Project/Nyserda/Files/Programs/Clean-Energy-Standard/2018-12-14-Order-Approving-Phase-3-Implementation-Plan.pdf>



**NYSERDA**

**New York State  
Energy Research and  
Development Authority**

17 Columbia Circle  
Albany, NY 12203-6399

**toll free:** 866-NYSERDA  
**local:** 518-862-1090  
**fax:** 518-862-1091

[info@nyserda.ny.gov](mailto:info@nyserda.ny.gov)  
[nyserda.ny.gov](http://nyserda.ny.gov)