

New York Generation Attribute Tracking System | June 25, 2019

NYGATS Stakeholder Meeting

Agenda

- Introductions
- New York Generation Attribute Tracking System Updates
- 2018 Settlement Timeline
- APX update on NYGATS registry administration
- Stakeholder feedback and wrap-up



New York State Climate Leadership and Community Protection Act of 2019

- > Most aggressive climate policy enacted by a major global economy
- > Charts Path to a Carbon Neutral Economy by 2050
- > 100% Clean Electricity by 2040, 70% Renewable Energy by 2030
- > Codifies New York's Clean Energy Targets into Law
- > Establishes the first Statutory Climate Action Council
- > Landmark Commitments to Environmental Justice and Just Transition



CLCPA by the Numbers, Targets Codified into Law

Carbon neutral economy by 2050, mandating at least an 85 percent reduction in emissions below 1990 levels

40 percent reduction in emissions by 2030

100 percent clean electricity by 2040

70 percent renewable electricity by 2030

9,000 MW of offshore wind by 2035

6,000 MW of distributed solar by 2025

3,000 MW of energy storage by 2030

185 TBTU energy savings

100% clean carbon-free electricity
by 2040
most aggressive in the nation

NYGATS History



Today's Updates:

- Demonstration of Clean Energy Standard (CES) compliance Mark Gundrum
- Value of Distributed Energy Resources (VDER) project RECs Jennifer Phelps
- Renewable Energy Standard (RES) Tier 1 certification Marci Brunner
- Environmental Disclosure Program (EDP) Peter Sheehan
- CES Progress Reporting Marci Brunner
- Community Choice Aggregation (CCA) renewable products Brad Tito



CES Compliance Functionality





CES Compliance Module

- New module on the home page in LSE Accounts
- Shows running total of load for the RES and ZEC compliance periods
- Monitor RES and ZEC obligations and compliance activity

LSE Tier 1 REC Preliminary Compliance Report

Compliance Year (January-December) LSE Total L	Load (MWh) through January 2019 Tier	1 REC Obligation % Tier	1 REC Obligation Tie	er 1 RECs Banked Tie	er 1 RECs Active Ti	er 1 RECs EDP T	ier 1 REC Balance	ACP Price	Potential ACP Total Charge
2019	4,009	0.780	31	0	0	0	(31)	\$24.67	\$764.77
2018 - Final	668,759	0.150	1,003	0	56	183	(820)	\$18.71	\$15,342.20
2017 - Final	703,770	0.035	246	0	0	246	0	\$23.28	\$0.00

Note: There is a 5-month lag between when the load occurs and when it is available to NYGATS. This lag is part of the NYISO settlement process. For example, the load data from January will be available in NYGATS in June.

LSE ZEC Compliance Summary

Compliance Year (April-March)	LSE Total Load (MWh) through January 2019	LSE Load Share	LSE ZEC Obligation	ZECs	ZEC Balance	ZEC Price	ZEC Total Charge	Data Source
2019	0	0.00000%	0	0	0	\$19.5900	\$0.00 C	alculated
2018	496,133	0.37218%	98,397	0	(98,397)	\$17.4800	\$1,719,979.56 C	alculated
2017 - Final	705,761	0.45868%	126,679	126,679	0	\$17.5394	\$0.00 S	napshot

Note: There is a 5-month lag between when the load occurs and when it is available to NYGATS. This lag is part of the NYISO settlement process. For example, the load data from January will be available in NYGATS in June.

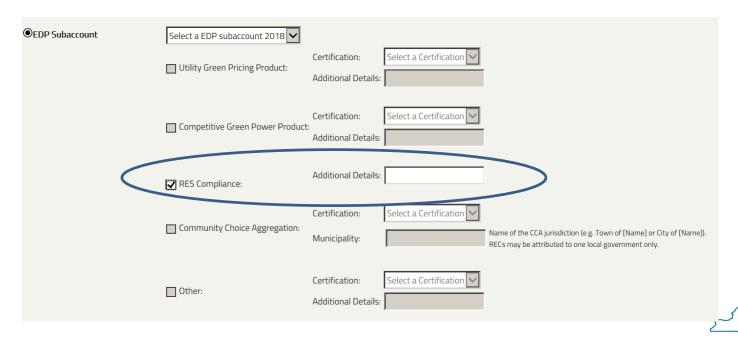


NEW YORK NYSERDA

OPPORTUNITY.

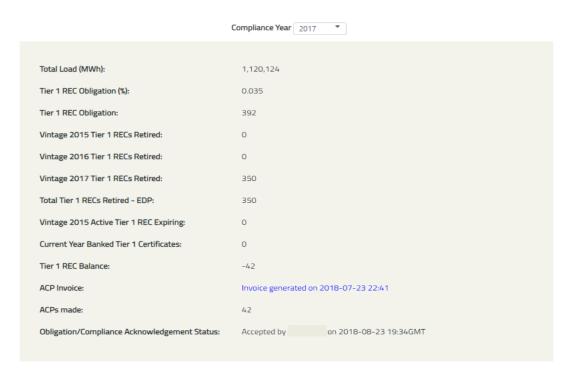
RES Retirement Reason

- LSE Accounts for EDP transfers
- Trackable field to identify RES retirements



LSE Compliance Reporting

LSE Obligation and Compliance Verification



- In LSE Accounts
- View summary of compliance activity
- Submit RES compliance filing
- Record of compliance activity is maintained
- Viewable by NYSERDA and DPS



NYSERDA Tier 1 REC Sales

- Interface in NYGATS for LSEs to order Tier 1 RECs from NYSERDA
- Functions in accordance with CES Final Phase 2 Implementation Plan

Order Tier 1 RECs - 2019 Q1

Compliance Year (January- December		through January 2019	Tie Obligation		Tier 1 RECs Banked	Tier 1 RECs Active	Tier 1 RECs EDP	Tier 1 Ba
2019		4,009	0.78	8% 31	0	0	0	
Vintage Year	Right of First Refusal Tier 1 RECs Available	NYSERDA Tier	1 REC Price	Tier 1 REC Order Quantity	Order Cost	Allocated Tier	1 RECs	Actual Cost
2018	66		\$17.01	0	\$0.00		0	\$0.00
2019	156		\$22.43	0	\$0.00		0	\$0.00



NYGATS and the CES

- Available Non-NYSERDA Tier 1 RECs can be posted to the NYGATS Bulletin Board
- Publicly available for Buyers and Sellers

Bulletin Board Buyer Listings									
Requestor	Contact	Phone T	Email	Quantity	Price T	Comments	Timestamp		
New York Municipal Power Agency	Ken Podolny	518-465-9313	kp@readlaniado.com	5000		interested in procuring 5,000+ Vintage 2017-19 RECs, both Tier 1 eligible and otherwise.	2019-05-06 16:40:55Z		
New York Power Authority	Thomas Doherty	9142873760	thomas.doherty@nypa.gov	160000		The New York Power Authority (NYPA) invites you to submit a proposal for NYPA's voluntary purchase of Renewable Energy Credits (also known as Environmental Attributes) (Attributes or RECs) derived from wind farms located in the State of New York, for resale and transfer to its customers. NYPA is requesting bids for up to 160,000 MWh of RECs over the calendar-year 2018-2019 Vintage periods. Product types, quantities, and terms requested are shown in the RFP event posted separately on the Ariba platform. Participation requires registration and onboarding of the organization on Ariba. Please contact NYPA for more information and assistance.	2019-05-13 19:41:48Z		
NOCO Electric LLC	Joe DePrima	7166141309	jdeprima@noco.com	568		NOCO looking to purchase 2018 Tier-1 RECS to meet RES/CES compliance obligations.	2019-05-30 13:30:33Z		

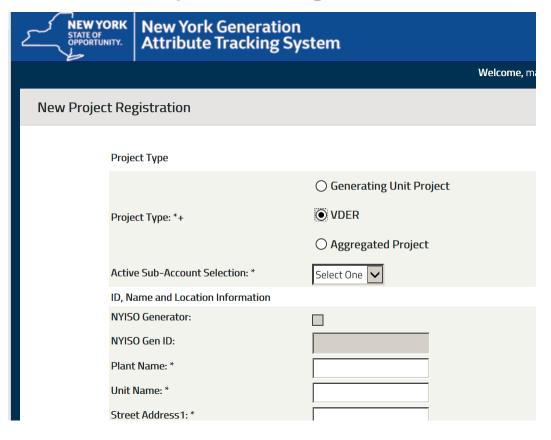


VDER Project Registration





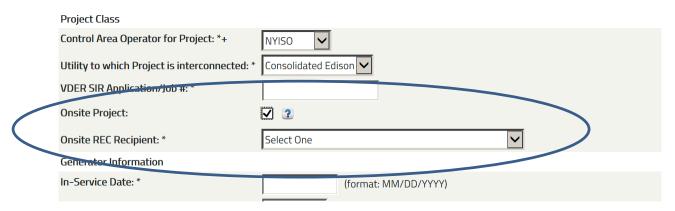
VDER Project Registration



- New project type (VDR)
- Available in all account types
 - Interconnecting utility
 - Customers declining "E"
- Reduced number of registration fields to complete
- SIR # required
- Many fields set with default values (e.g. NERC Region = NPCC)



VDER Project Registration – Onsite Owner



- New project type (ONS)
- Available in all account types
- As per 3/19/2017 PSC VDER Order
 - For onsite VDER projects where the utility has rights to the RECs from exported generation and the onsite owner desires the RECs from generation consumed on-site

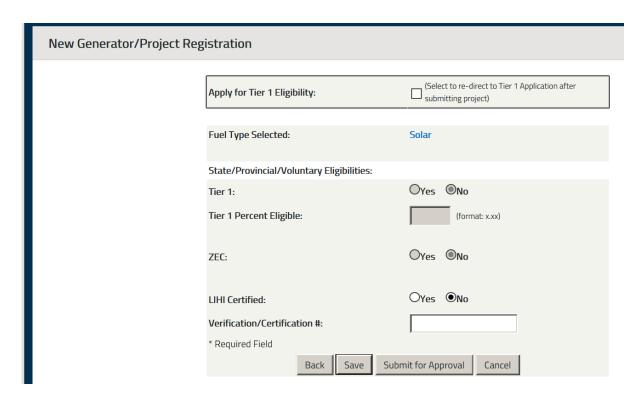


VDER Project Registration – Onsite Owner

VDER Onsite is only for projects where RECs are split between the interconnecting LSE and the project owner

- 1. Interconnecting LSE registers VDER project, VDR project created in LSE Account
- 2. Review of VDR project registration, VDR project approved
- 3. ONS project created in project owner's NYGATS Account
- 4. Interconnecting LSE loads meter data for exported generation from VDER project
- 5. Feasibility check 1 is run on VDR meter data
- 6. Passes feasibility, exported generation RECs issued in LSE's NYGATS Account
- 7. Onsite owner loads meter data for onsite consumption from VDER project
- 8. Feasibility check 2 is run on (VDR meter data) + (ONS meter data)
- Passes feasibility, onsite consumption RECs issued in onsite owner's NYGATS
 Account

VDER Project Registration – LSE Accounts



In LSE Accounts Only

- Tier 1 application integrated into project registration
- Project registration and Tier 1 certification a onestep process
- Validated using DPS
 Public SIR Inventory
 Reporting



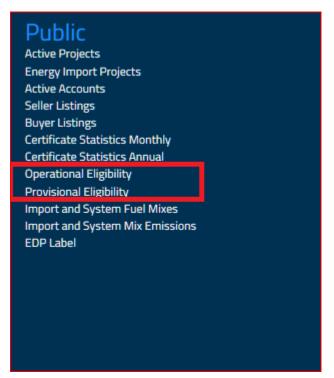
RES Tier 1 Certification





RES Tier 1 Eligibility – Certification Process

- NYGATS is the platform for generators to apply for eligibility and for NYSERDA and DPS review and determination
- For Operational Projects, if approved, eligible percentage of certificates get Tier 1 flag
 - Tier 1 eligibility is indicated on RECs issued after approval of Tier 1 application
- Provisional Certification -- non-operational projects pre-requisite for participation in RES Procurements
- Public reports available on RES Tier 1 Operational and Provisional Certification





NYGATS Public Reports

Operational Eligibility												
Account Holder Company Name	NYGATS ID T	Project Y Name	City / State	Control Area Operator	Fuel T	Vintage Type ▼	Nameplate T Capacity	Eligibility	Initial Vintage	Application T Status	Date Submitted 🌹	Date of NYSERDA ruling
GreenLogic LLC	GEN33746	Deer Park F.I.T PC Richard & Son Long Island Corp	Deer Park, NY	NYISO	Solar	New	0.315	Tier 1	01/2017	Approved	04/04/2017	04/10/2017
GreenLogic LLC	GEN33757	Finish Line Technologies, INC Finish Line Technologies, INC.	Hauppauge, NY	NYISO	Solar	New	0.315	Tier 1	01/2017	Approved	04/04/2017	04/10/2017

Provisional Eligibility							
Control Area Operator	Fuel Type	V Typ	Eligibility	Count of Projects	Nameplate Capacity		
NYISO	Adulterated Biomass - Renewable	New	Tier 1	1	21		
NYISO	Biogas - Anaerobic Digestion	New	Tier 1	1	2		
PJM	Biogas - Landfill Gas	New	Tier 1	3	10.525		
NYISO	Fuel Cells - Non-Renewable	New	Tier 1	3	15.24		
NYISO	Hydroelectric	Existi	Tier 1	2	13.6		
NYISO	Solar	New	Tier 1	279	12683.97		

RDA



Quick Stats on Certification

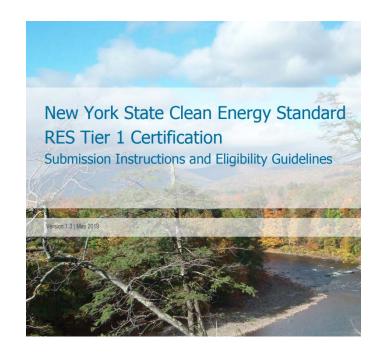
NYSERDA has 30 days to either grant or deny a PSoQ or SoQ.

Average time to determination = 4 days

340 Provisionally Certified Projects 200 Operationally Certified Projects

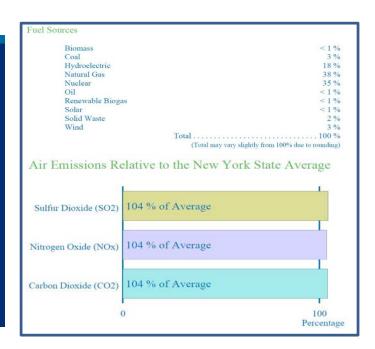
Review the Eligibility Guidelines prior to submitting an Operational or Provisional Certification application

https://www.nyserda.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/Eligibility-Certification-Guidelines.pdf





Environmental Disclosure (EDP)





Updates and Mechanics

- All RECs must be in the EDP subaccount by June 30 to be included in the EDP label
 - This includes any Tier 1 RECs transferred for RES compliance
- Only bundled (attributes + energy) RECs are included in EDP
 - Nationally-sourced REC-only imports are not included in the label
 - EDP eligibility can be confirmed on the REC Transfer Acceptance screen



- Final LSE load numbers for the calendar year are available from the NYISO in May
 - Available in NYGATS by May 15
- LSEs have between May 15 and June 30 to ensure they have sufficient RECs within the EDP subaccount to backup renewable claims
- Non-Tier 1 RECs purchased by NYSERDA under the former RPS program are allocated to eligible LSE EDP subaccounts at settlement, prior to label creation



Updates and Mechanics (cont'd)

- Understanding and calculating values contained in EDP label
 - Figure 6.2 Get the total load figure from the "EDP Label" report within NYGATS (this is within the "Account Holder" reports in LSE Accounts)
 - Run the "Import and System Mix Emissions" report from the Public reports section and note the pollutant emission values (lbs/MWh) from Residual Mix Type within the NYISO Control Area
 - Multiply the lbs/MWh x Non-Renewable Certificates value from the EDP Label report and divide by Total Load. Values will match label.
- EDP labels located at:

http://www3.dps.ny.gov/W/PSCWeb.nsf/All/80AF99D08DD828EA85258228005172A9?Open <u>Document</u> (2000 – 2015)

https://nygats.ny.gov/ng/Report/getdto_view_Report_PublicEDPLabel (2016, 2017, future)



CES Progress Reporting





CES Annual Progress Report: 2017 Compliance Year

- Published February 2019
- NYGATS data used throughout
- Available at https://www.nyserda.ny.gov/-/media/Files/Publications/Energy-
 Analysis/RPS/2019-Clean-Energy-Standard-Annual-Progress-Report.pdf





NYGATS data in 2017 Report

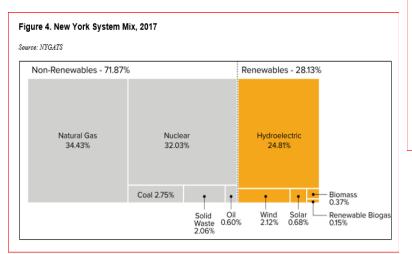


Table 8. Voluntary Activity in NYGATS

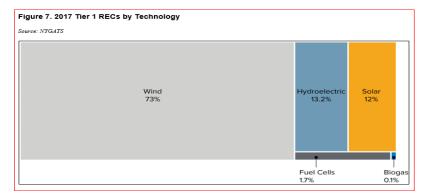
Source: NYGATS

	2017 RECs
Total Voluntary Activity in LSE EDP Subaccounts	4,019,475
Corporate or Individual Retirements	188,279
Customer-sited DER Retirements	1,114,207
Non-Tier 1 RECs Banked	2,601,389

Table 2. New York System Mix Renewable Energy by Technology

Source: NYGATS

Fuel Type	2014 MWhs	2017 MWhs	MWh change
Biomass	609,293	561,816	-47,477
Hydroelectric	35,834,762	37,995,574	2,160,812
Renewable Biogas	394,314	236,970	-157,344
Solar	681,610	1,045,489	363,879
Wind	3,775,684	3,242,868	-532,816
Total	41,295,663	43,082,717	1,787,054





NYGATS Public Reports

- Certificate Statistics updated in real-time
- Import and System Fuel
 Mixes updated at
 settlement
- APX working on enhancements to public reports for more transparency in CES Progress Reporting



CCA Renewable Products





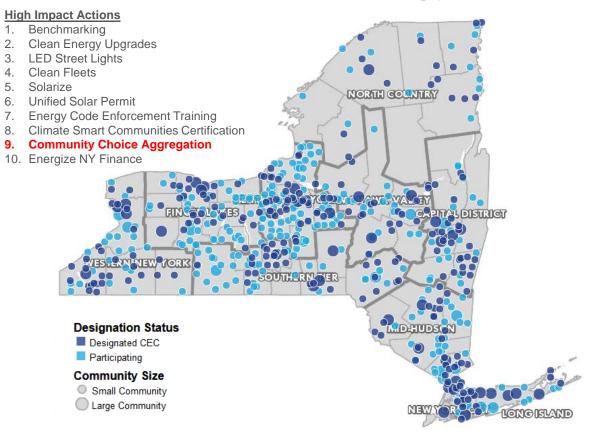
CCA Retirement Reason

- In NYGATS LSE Accounts for EDP transfers
- Trackable field to identify CCA retirements by jurisdiction

●EDP Subaccount	Select a EDP subaccount 2018	Certification: Additional Details:	Select a Certification
	Competitive Green Power Product:	Certification: : Additional Details:	Select a Certification
	RES Compliance:	Additional Details:	
	Community Choice Aggregation:	Certification*: Municipality:	Select a Certification Name of the CCA jurisdiction (e.g. Town of [Name] or City of [Name]). RECs may be attributed to one local government only.
	Other:	Certification: Additional Details:	Select a Certification



NYSERDA's Clean Energy Communities Program



272

Clean Energy Communities

552

Participating Communities

1,573

High-Impact Actions Completed



CEC Requirements for the CCA Action

To earn credit for the CCA action under NYSERDA's Clean Energy Communities (CEC) Program, the municipality must submit the following documentation:

- The adopted legislation authorizing the municipality's participation in an opt-out CCA program.
- An executed electric service agreement between the applying jurisdiction and an Energy Services Company (ESCO) to supply electricity to participating customers on an opt-out basis that is a default 100% renewable clean energy product mix.
 - The agreement should provide that the ESCO will retire RECs on behalf of the Municipality in a NYGATS Account (with reports on such retirements to the Municipality) in a manner that is compliant with rules of the Environmental Disclosure Program.
 - The electrical energy associated with the RECs must be consumed at retail in New York State.



Questions?

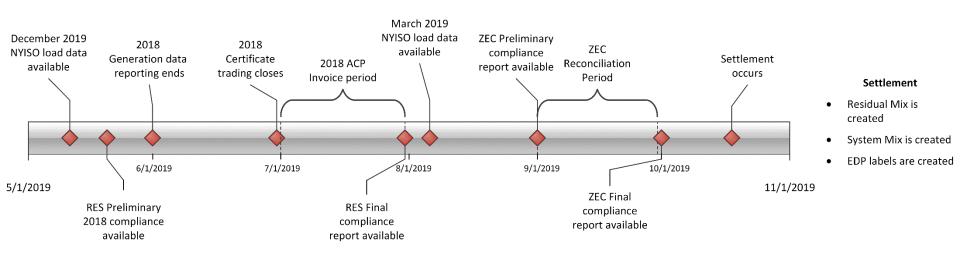


2018 Settlement Timeline





2018 NYGATS Settlement



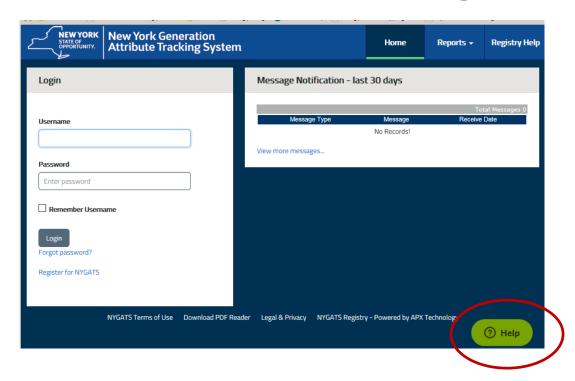


Registry Administration Updates





NYGATS Help Knowledge base







Certificate Imports and Exports

Facilitating Bundled and Unbundled Transactions

- Bundled = a transaction of Energy and Attributes; requires the schedule and physical flow of energy into (or out of) New York Control Area
- Unbundled = a transaction of Attributes only (aka "Certificate-Only" transaction)

Current Direct Linkage

- PJM Bundled and Unbundled imports into NYGATS only
- Export function provided, but not linked to PJM-GATS
- NAR Bundled and Unbundled imports into NYGATS; Unbundled exports
- GIS Bundled exports out of NYGATS

Improvements/Growth of Connectivity

- GIS Automation of bundled and unbundled imports into NYGATS
- PJM Bundled and Unbundled exports out of NYGATS
- Continued growth in the voluntary markets will drive additional linkage to other NEW YORK registries for unbundled transactions

Questions?



Thank you!

https://www.nyserda.ny.gov/NYGATS

Marci Brunner Marci.Brunner@nyserda.ny.gov 518-862-1090, x3415

Mark Gundrum @nyserda.ny.gov 518-862-1090, x3256

Maureen Leddy

Maureen.Leddy@nyserda.ny.gov
518-862-1090, x3318

Jennifer Phelps

Jennifer.Phelps@nyserda.ny.gov

518-862-1090, x3569

Peter Sheehan NYS Dept. of Public Service, Office of Clean Energy Peter.Sheehan@dps.ny.gov 518-473-9891

Bradford Tito

Bradford.Tito@nyserda.ny.gov

518-862-1090, x3545

Devon Walton
NYGATS Registry Administrator, APX Inc.
nygats@apx.com
408-517-2139