



NYSERDA

New York Generation Attribute Tracking System (NYGATS) Stakeholder Meeting

April 13, 2017

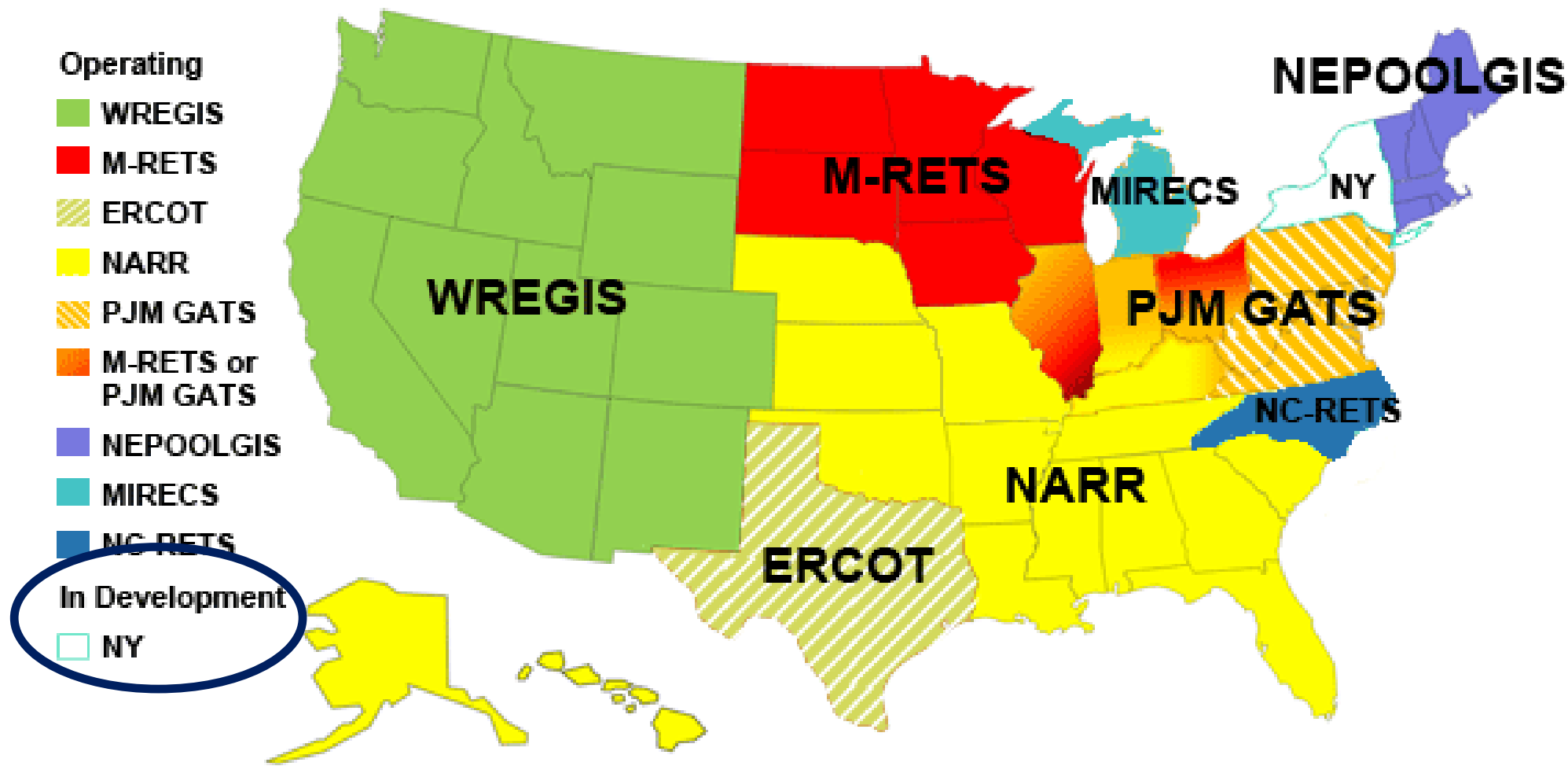
Introduction

Agenda












1. Background on NYGATS – *Maureen Leddy, NYSERDA*
2. NYGATS Aspects of Regulatory Items
 - Environmental Disclosure Program – *Peter Sheehan, NY Department of Public Service*
 - Value of Distributed Energy Resources – *Ted Kelly, NY Department of Public Service*
 - Clean Energy Standard – *Doreen Harris, NYSERDA*
3. Questions and Answers
4. NYGATS Operating Rules Revisions – *Maureen Leddy, NYSERDA*
5. Import/Export Functionality – *Bryan Gower, APX*
6. Questions and Answers
7. Next Steps

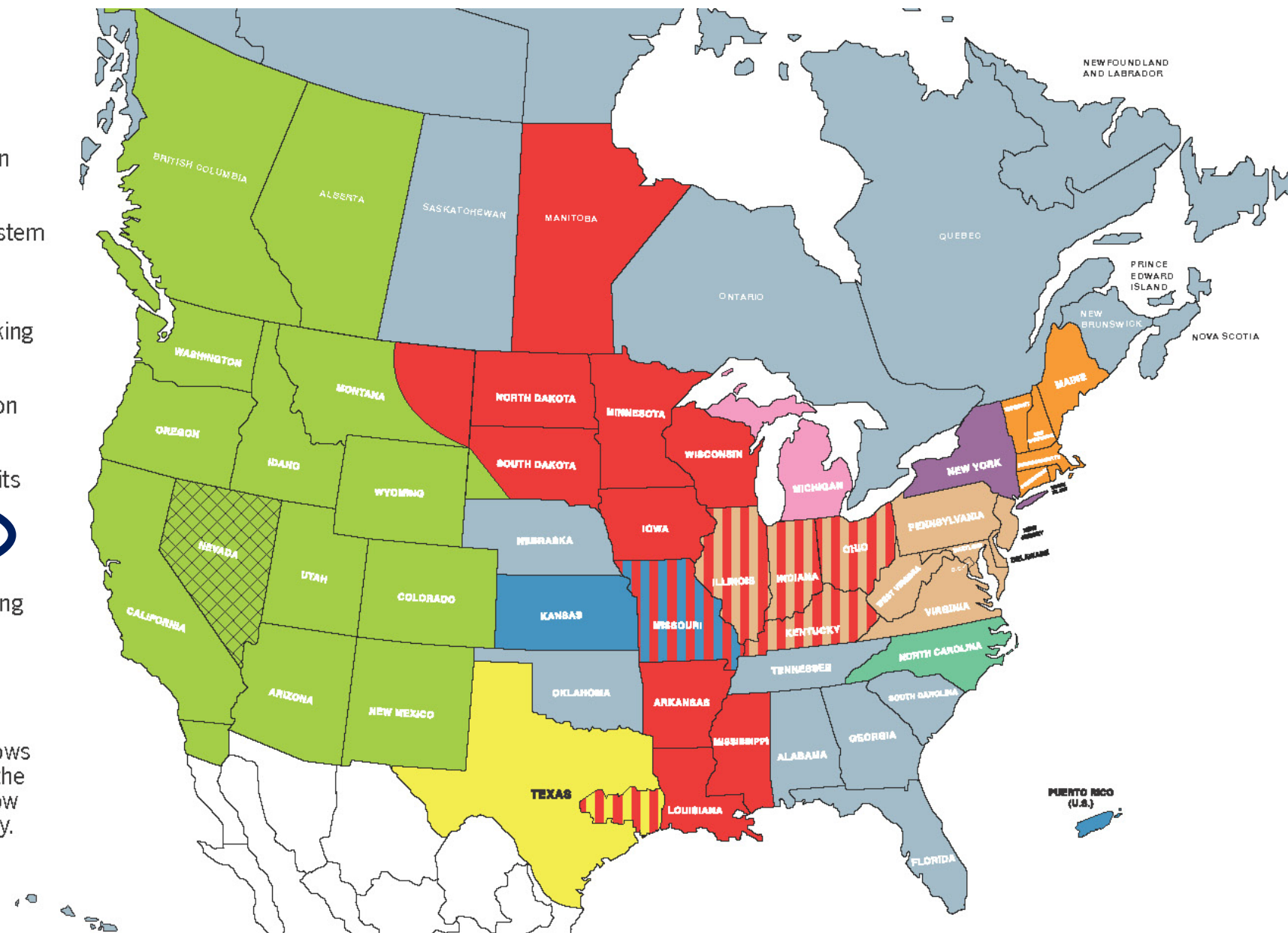
Background on NYGATS

- **2012** – Governor Cuomo signs into law Bill #S03872C requiring NYSERDA to develop a Generation Attribute Tracking System
- **2015** – APX Inc. awarded a contract to design, implement, and administer New York Generation Attribute Tracking System (NYGATS)
- **July 2016** – NYGATS launched and begins tracking data from January 2016



KEY

-  **ERCOT:** Electric Reliability Council of Texas
-  **MIRECS:** Michigan Renewable Energy Certification System
-  **M-RETS:** Midwest Renewable Energy Tracking System
-  **NAR:** North American Renewables Registry
-  **NC-RETS:** North Carolina Renewable Energy Tracking System
-  **NEPOOL-GIS:** New England Power Pool Generation Information System
-  **NVTREC:** Nevada Tracks Renewable Energy Credits
-  **NYGATS:** New York Generation Attribute Tracking System
-  **PJM-GATS:** PJM EIS's Generation Attribute Tracking System
-  **WREGIS:** Western Renewable Energy Generation Information System
-  **No tracking system formally adopted.** NAR allows registration from generators located anywhere in the U.S. and Canada. Other tracking systems may allow registrations from outside their geographic territory.



NYSERDA

- A nationally recognized leader in the development, commercialization, and implementation of advanced energy technologies
- A public benefit corporation helping New York State meet its goals to:
 - Reduce energy consumption and increase energy efficiency
 - Create a clean energy economy
 - Grow diverse, renewable energy supplies
 - Protect the environment
 - Provide experienced leadership in planning and policy
- NYGATS Administrator
- Central Administrator of the Clean Energy Standard

NYGATS

- Track all generation and associated emissions
- Create certificates for in-state generation and imports
- Retire certificates for voluntary purposes, regulatory compliance programs, and exports
- Support the Environmental Disclosure Program (EDP)
- Facilitate the Renewable Energy Markets
- Platform for applying for Renewable Energy Standard (RES) Tier 1 certification and demonstrating RES and ZEC compliance

NYGATS Demo

Environmental Disclosure Program

EDP Process

Migration from Conversion Transaction-based process based on Spot Market (LBMP) attributes to the NYGATS certificate-based system

- 2016 is the first year of EDP Labels in NYGATS
- Comparison of the two methodologies will be conducted
- DPS-released SAPA notice dated 1/10/15 provides EDP background/issues and implementation considerations
 - Case 15-E-0696 – In the Matter of the Environmental Disclosure Labeling Program

Settlement and Creation of Labels

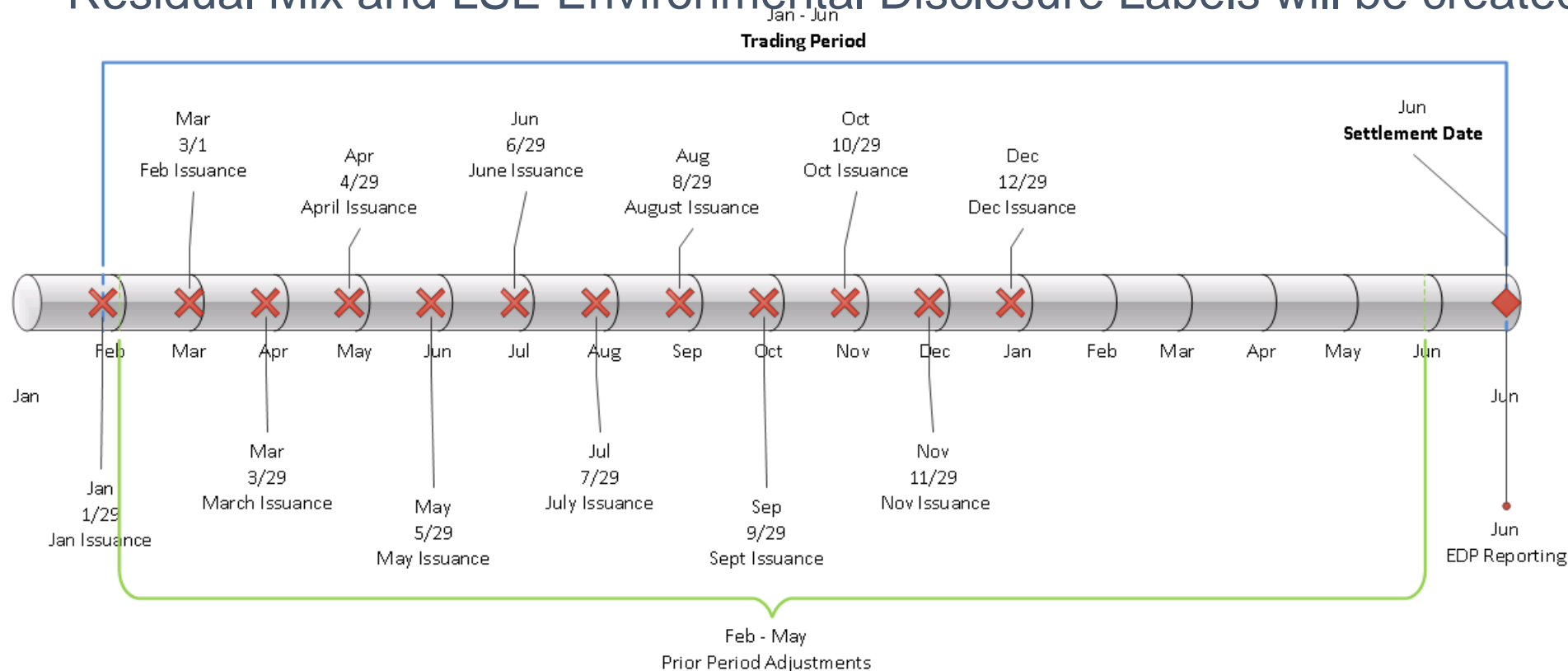
Environmental Disclosure Label

Following the end of the Settlement period, the NYGATS Administrator will create an Environmental Disclosure Label for each load-serving entity (LSE). The Disclosure Label can be printed and exported and will be available via an LSE General Account Holder's Account Holder reports

Field	Rules
Account Holder	<ul style="list-style-type: none"> • The name of the LSE
Electricity Product	<ul style="list-style-type: none"> • Product name or descriptor, if more than one
Period	<ul style="list-style-type: none"> • Annual settlement period
Fuel Mix	<ul style="list-style-type: none"> • Each fuel type used and the percentage for that fuel type
Emissions by pollutant (in lbs/MWh)	<ul style="list-style-type: none"> • Calculated for the selected period

Settlement and Creation of Labels

- Generation data reporting for 2016 ends on May 31, 2017
- NYGATS Account Holders will be allowed to trade and retire 2016 Certificates until 11:59:59 p.m. Eastern prevailing time on June 30, 2017
- At Settlement, all Unsettled Certificates from 2016 will be converted to Residual Mix and LSE Environmental Disclosure Labels will be created



Emissions Data

- The DEC and EPA will supply emissions data at the generator level on an annual basis
- Certificates will be created using default emission rates initially, based on the latest data available from the either DEC or EPA at the time of Certificate creation
- The Account Holder can review the default emissions and elect to change this during the Account Holder Review Period
- The following emissions are supplied in pounds/MWh:
 - Carbon dioxide
 - Nitrogen oxides
 - Sulfur dioxide

APX demo of EDP label creation

Value of Distributed Energy Resources

Renewable Energy Certificates (RECS)

NEM customers without a RPS or RES contract may still receive non-transferrable RECs

- Effective immediately, NYSERDA shall relinquish all rights to any environmental claims, certificates, attributes, or other embodiments or memorializations of those claims for energy produced by any system to which it provided financial incentives under the CST and NY-Sun programs
- Information on NYGATS processes for these projects can be found on the NYGATS informational website:
<https://www.nyserda.ny.gov/AllPrograms/Programs/NYGATS/Renewable-Energy-Credits-Policy-Change>

Phase 1 NEM projects will not be eligible for Tier 1 solicitations or tradable RECs

- They can receive non-transferrable RECs
- For CDG projects, non-transferrable RECs will go to utility by default, but can be ascribed to customer instead

Renewable Energy Certificates (RECS)

For any VDER project: receiving the value stack; ineligible for Tier 1 solicitations; or transferrable RECs, there are two options:

- **Default Interconnecting-LSE-Option:** Utility (LSE) receives non-transferrable RECs and customers receive environmental value component in value stack (“E”)
- **Customer-Retention-Option:** Customers may permanently opt into Customer-Retention-Option at time of interconnection. The customers receive non-transferrable RECs but forfeit “E” in the value stack

Customers who register their project in NYGATS and provide generation data will be entitled to receive one REC for each MWh of generation reported

- NYGATS can create RECs retroactively to January 1, 2016, but only if the system owner completes the registration process and provides the associated generation data by May 31, 2017

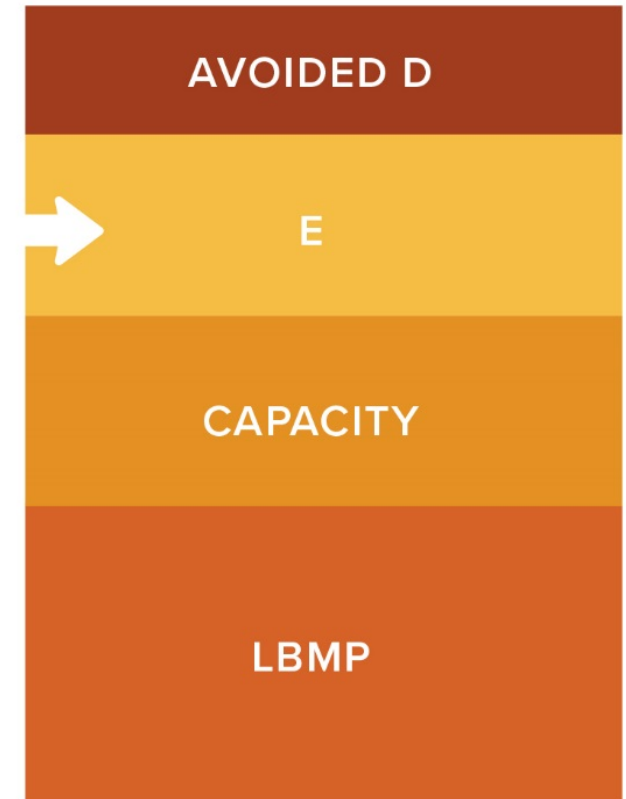
By default, environmental value for VDER projects is calculated as follows:

For technologies (such as PV) that would be eligible for Renewable Energy Standard Tier 1 Renewable Energy Credits (RECs), environmental compensation is the higher of:

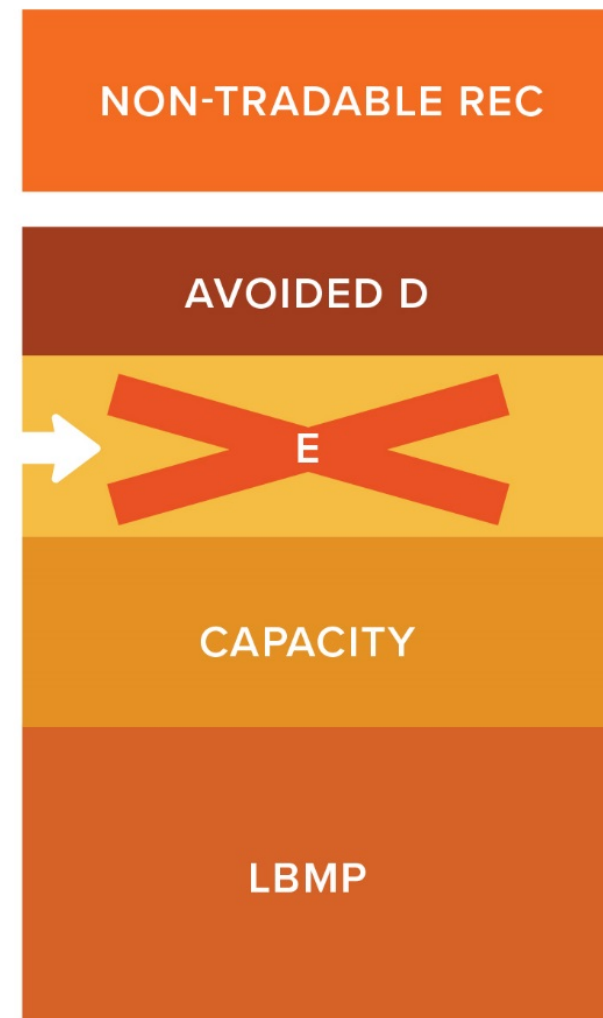
- the applicable Tier 1 REC price per kWh generated injected (currently \$0.02424 per kWh), or
- the Social Cost of Carbon (SCC) per kWh value minus RGGI
- This value will be fixed for the Value Stack term and is locked in at interconnection

Projects receiving “E” will be ineligible to bid in RES Tier 1 solicitations conducted by NYSERDA, and the interconnecting utility will receive all the Certificates in NYGATS

- These Certificates may be Tier 1 eligible but will not be transferrable (i.e., un-tradable, unsellable, non-monetizable)



- Customers can make a one-time, irreversible decision to opt out of the Interconnection-LSE-Option and not accept compensation for the Environmental Value component of the Value Stack
- For the Customer-Retention-Option, the customers will be required to return that Environmental Value compensation to the utility in order to gain an opportunity to participate in voluntary market including environmental and sustainability certification programs
- These transactions would be conducted seamlessly by the utility's billing system and the customer bills need only reflect the net result
- Projects that decline "E" will be ineligible to bid in RES Tier 1 solicitations conducted by NYSERDA and the project owner will receive all the Certificates in NYGATS
- These Certificates will not be Tier 1 eligible and will not be transferrable, but can be retired



Distributed Energy Resource Eligibility

Summary Table 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 NYSERDA 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 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 NYSERDA)*	Yes	Yes**	No	No	Yes
			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
			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-on, 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

Adapted from DPS Order on the Value of Distributed Energy Resources, Appendix B

* All pre-existing NEM projects that are eligible to bid into RES Tier 1 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.

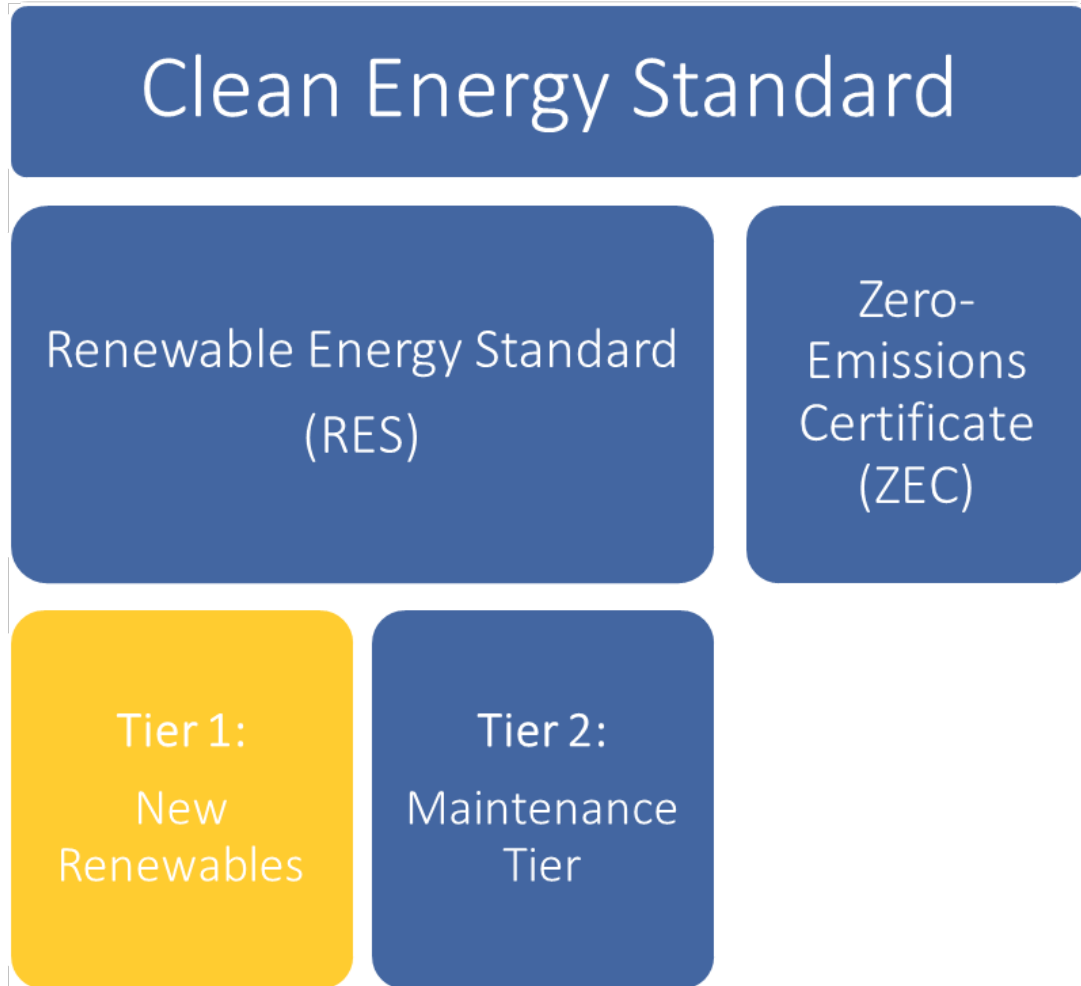
** The Certificates will be transferable to NYSERDA pursuant to contract who may then transfer them to Load Serving Entities.

Clean Energy Standard

New York's Clean Energy Standard (CES)

- By Order issued August 1, 2016, the New York Public Service Commission adopted the Clean Energy Standard (CES) which mandates the State Energy Plan (SEP) 50% by 2030 goal
- The CES includes obligations upon LSEs and opportunities for voluntary contributions
- The Order provides for two mandated requirements:
 - Renewable Energy Standard (RES)
 - Zero-Emissions Credit (ZEC)

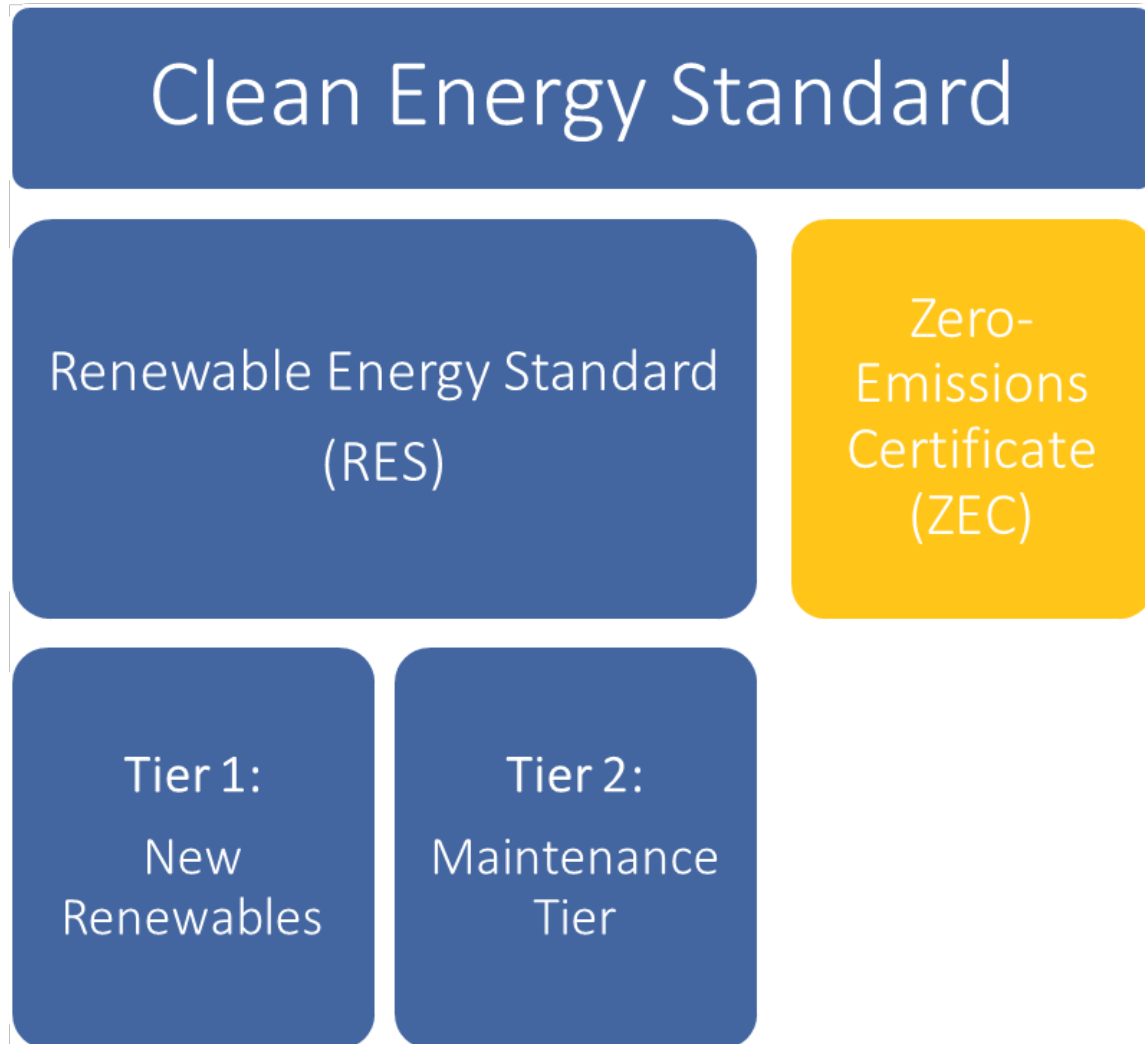
Renewable Energy Standard (RES) Tier 1



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
 - COD 1/1/2015 or after
 - Adjacent control areas eligible (require energy deliverability)
- ❖ Long term contracting by NYSERDA

Zero Emissions Certificate (ZEC) Program



- ❖ Multi-year contract from NYSERDA
- ❖ LSE Obligation
 - Compliance through acquisition of ZECs (tracked through NYGATS)
 - Additional to the 50% Renewable Energy Standard
- ❖ Eligibility:
 - Existing at-risk nuclear zero-emissions attributes

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 creates ZECs and Tier 1 RECs
 - NYGATS reports used for demonstration of compliance
- State Compliance Reporting

REC and ZEC Banking

- ZECs – No banking allowed
- Tier 1 RECs
 - LSEs and NYSERDA can bank for two years
 - Certificates can be banked for 24 month from vintage date
 - After 24 months they are moved to Active and can not be banked again
 - If not used for compliance, they will be included in residual mix
 - LSE's can bank up to 60% of the certificates needed by the LSE for compliance in the year in which they were generated

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
 - If Certification is dated on or before May 31, 2017, the NYGATS certificates minted from January 1, 2017 to the Certification date will be retroactively made RES Tier 1 eligible, assuming the eligible portion of the facility commenced operation on or before January 1, 2017.
- Provisional Certification -- non-operational projects -- pre-requisite for participation in RES Procurements
- Public reports available on RES Tier 1 Operational and Provisional Certification

RES Tier 1 Certification – Public Reports

RES Tier 1 Eligibility for Imported Energy

- Project must first be approved as eligible through the Tier 1 Certification Process
- Imports for the RES Tier 1 certified import project must use the Unit-Specific Energy Scheduled and Delivered Import Process in NYGATS
- RECs must be retired in originating tracking system prior to being created in NYGATS

Provision of Data in NYGATS

- Electric Distribution Utilities to report generation data for wholesale-type generators in their service territories
 - Generation that does not transact through NYISO
- Increase accuracy of load data for CES and EDP

Questions?

NYGATS Operating Rules Revisions

Changes to NYGATS Operating Rules

- Behind the Meter generation, funded by NYSERDA, is now able to register their projects in NYGATS
- New Project Registration fields
 - Tariff type
 - NYSERDA funding
- Removed NYS RPS eligibility as a flag
 - Replaced with NYSERDA funding field

Changes to NYGATS Operating Rules

New Eligibility Flags

- RES Tier 1 (January 2017 generation)
- Percentage of certificates issued with RES Tier 1 flag is determined by the certification process
- ZEC (beginning with April 2017 generation data)

Fuel Type Selected:	Hydroelectric
State/Provincial/Voluntary Eligibilities:	
Tier 1:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Tier 1 Percent Eligible:	<input type="text"/> (format: x.xx)
ZEC:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Green-e Energy Eligible:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Verification/Certification #:	<input type="text"/>
LIHI Certified:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Verification/Certification #:	<input type="text"/>

Percentage of certificates issued with RES Tier 1 flag is set at project level through the certification process

Changes to NYGATS Operating Rules

RES Tier 1 Certification

- NYGATS Fuel Type descriptions for Biomass re-organized for compatibility with RES Tier 1 certification
- NYGATS eligibilities did not change

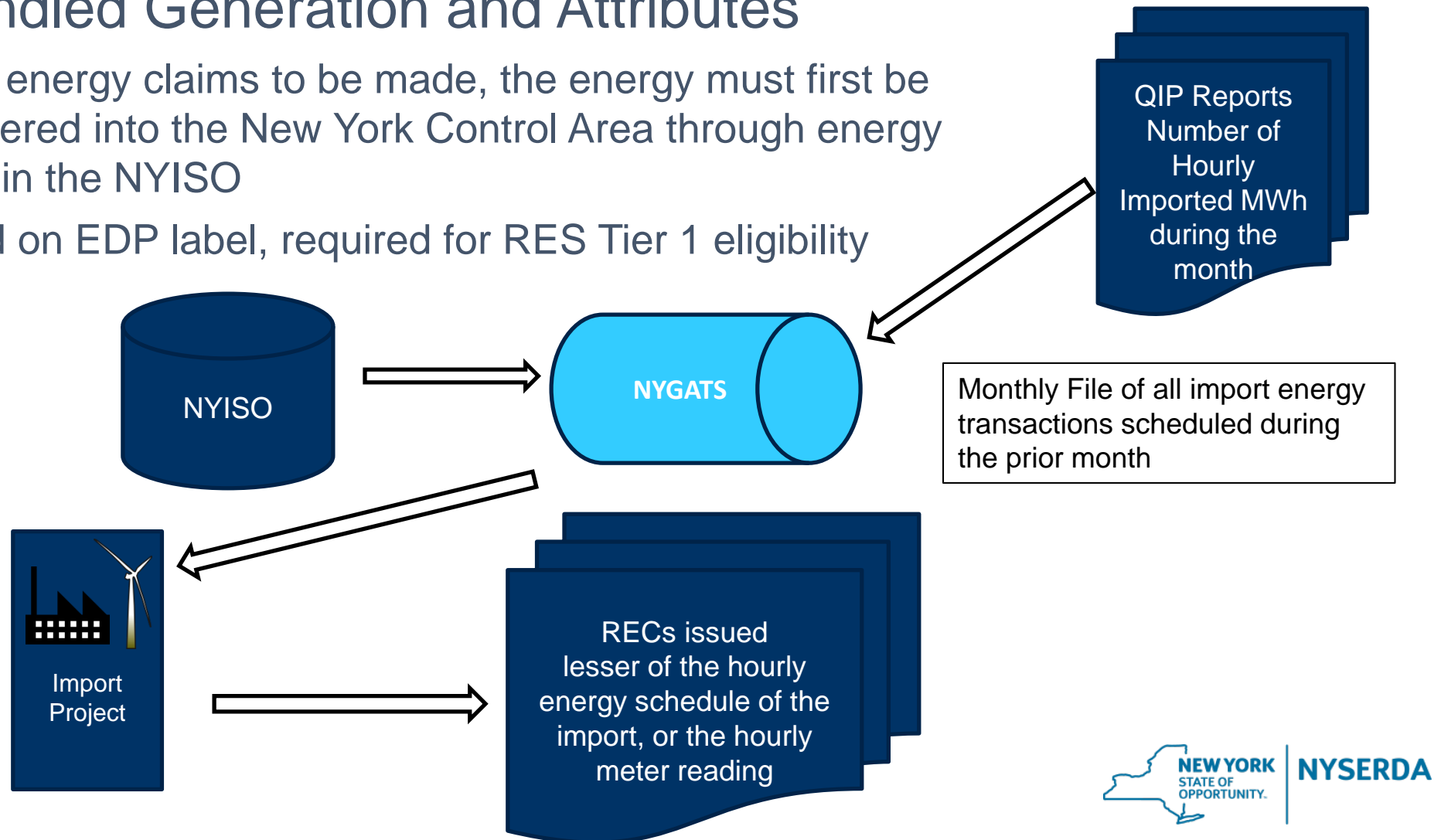
Banking Rules

- Previously Banking only permitted for voluntary retirements
- Banking expanded to accommodate RES Tier 1

Imports and Exports

Process for Bundled Generation and Attributes

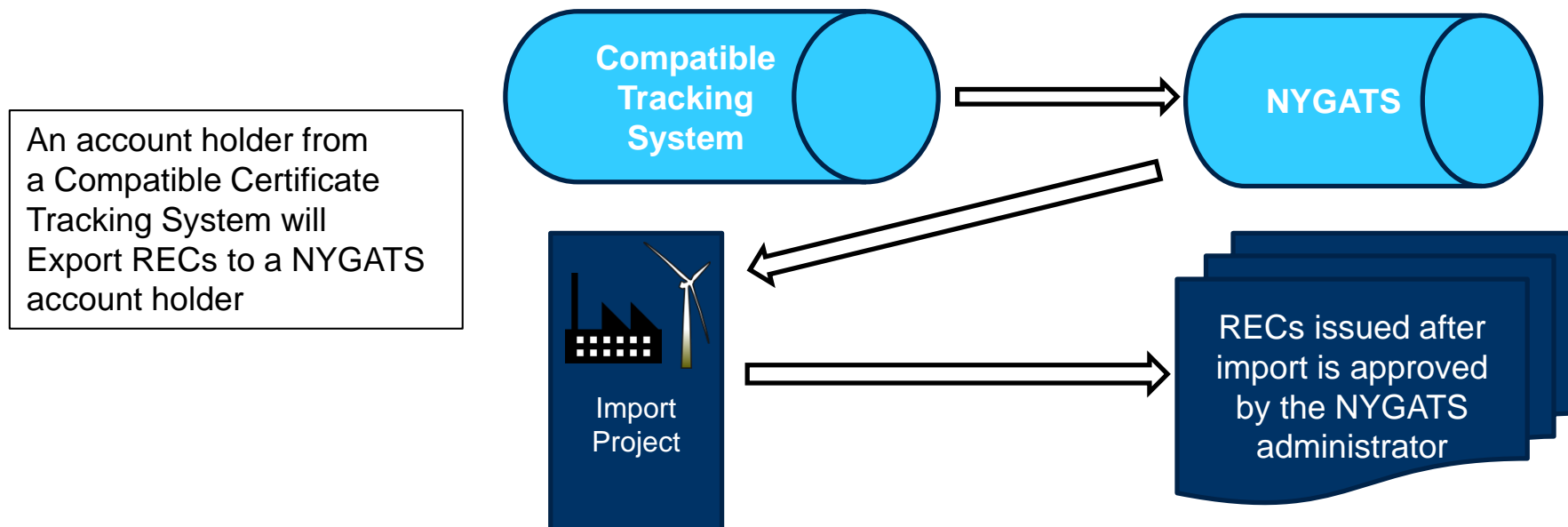
- Unit-Specific Import energy claims to be made, the energy must first be scheduled and delivered into the New York Control Area through energy transactions placed in the NYISO
- Certificates included on EDP label, required for RES Tier 1 eligibility



Imports and Exports

Process for unbundled certificates

- Unbundled certificates will only be transferred from a Compatible Certificate Tracking System
- Certificates are excluded from EDP label
- Energy delivery delayed method for imports
 - Developed to accommodate renewable generators that can't schedule unit-specific imports
 - NYGATS account holder demonstrates that certificates are associated with delivered power
 - NYGATS administrator determines if sufficient energy flows from the exporting control area into the NYCA during the year support the claim
 - Certificates included on EDP label; certificates not eligible for RES Tier 1



Automation of import and export process with neighboring control areas

APX is working to build an automated import/export process for NYGATS and neighboring control areas that will reduce claiming timeline and improve accuracy

Questions?

Next Steps

Next Steps

- Feedback on the topics covered are welcomed at nygats@nyserda.ny.gov
- User Feedback on the system is encouraged -- send written comments to nygats@nyserda.ny.gov
- NYGATS Stakeholder Engagement format
 - Format
 - Frequency

Thank you!

<https://www.nyserda.ny.gov/All-Programs/Programs/NYGATS>

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