

CLEAN ENERGY STANDARDS UPDATE - IMPACT ON SUNY SCHOOLS



Merrill L. Kramer
Chair, Sustainable Energy Practice
Sullivan & Worcester, LLP

Sarah Zemanick
Director Of Campus Sustainability
Cornell University

NOVEMBER 2, 2016

Sullivan & Worcester LLP

- ◎ Global Law Firm - Boston, New York, Washington, D.C., London and Tel Aviv
- ◎ Leading Energy and Finance Firm
- ◎ Advise over 100 energy projects representing \$30 billion in capital
- ◎ Advising Colleges and Universities in Implementation of Renewable Energy and Carbon Reduction Programs

COALITION OF ON-SITE RENEWABLE ENERGY USERS (CORE)

◎ Who is CORE?

- An ad-hoc coalition of renewable energy users and commercial developers of distributed, clean renewable generating facilities such as wind, solar and geothermal
- CORE formed to monitor and participate in ongoing proceedings to restructure New York's electric utility markets, including its Reforming the Energy Vision (REV) and Clean Energy Standards (CES) proceedings



KEY PROCEEDINGS AFFECTING ON-SITE GENERATORS

- ◎ NYSERDA Attempt to claim title to REC's owned by on-site generators
- ◎ Interim Successor Tariff to NEM
- ◎ NEM Grandfathering Rules
- ◎ Clean Energy Standards
 - 50% Renewable Generation by 2030 (50 x 30)
 - 40% Reduction in Greenhouse Gas by 2030
- ◎ NYGATS

RENEWABLE ENERGY CERTIFICATES (RECS)

What are RECs?

“A market-based instrument that represents the property rights to the environmental, social and other non-power attributes of renewable electricity generation.”

“RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource.”

(U.S. EPA)

How Are REC's Used?

- ◎ To measure and verify environmental claims in markets
- ◎ Used by non-governmental organizations (“NGO”) such as U.S. EPA’s Green Power Partnership, Second Nature, World Resources Institute (“WRI”), Carbon Disclosure Project (“CDP”) and Carbon War Room
- ◎ NGO’s require *exclusive ownership* of the REC’s to make environmental claims
- ◎ Used by credit rating agencies such as Moody’s and Standard & Poor’s for providing green bond ratings to securities offerings
- ◎ NGO disclosure system fundamental to efforts to measure, manage and make claims toward achievement of environmental targets
- ◎ Key requirement is legal right of entities to claim the “greenness” of electricity produced from specified renewable resource.
- ◎ Under rules, *ownership of REC evidences right to claim the green attributes of the energy resource.*

U.S. FEDERAL TRADE COMMISSION RULES

- ◎ FTC has established rules governing use of REC's to ensure integrity of claims in green markets
 - Intended to prevent persons from engaging in unfair or deceptive acts and practices (Section 5 of the FTC Act).
 - FTC rules, as well as guidelines issued by the National Association of Attorneys General (“NAAG”), provide regulatory basis for bringing complaints against companies making false statements or otherwise publishing false information
- ◎ FTC rules provide that:
 1. REC's associated with a renewable power project represent “greenness” of the electricity generated or consumed by the generator or consumer;
 2. The REC embodies the right to claim the green attributes of the renewable energy project; and
 3. *The environmental attributes of a renewable energy project may only be claimed once - by the entity that holds the REC's.*

Example of FTC and CRS (Green-E) Rules

- ⦿ Company builds wind project to meet its electricity consumption needs and then sells or transfers the RECs to a third party.
- ⦿ Under those circumstances:
 - Company loses right to make claims as to the “greenness” of the power it consumes from that project.
 - Instead, electrical output from the project must be characterized as “null” power and is assigned attributes of the average system mix and average emissions of local generation
 - Without the RECs:
 - Owner does not consume renewable energy from the project
 - Cannot characterize its electricity as renewable, nor
 - Credit the energy’s environmental attributes toward its reduced carbon footprint and GHG reductions.

NYSERDA Petition for Clarification

- ◎ NYSERDA on August 25, 2016 filed Petition with PSC seeking confirmation that RECs associated with BTM projects receiving funding from NYSERDA under NY-Sun belong to NYSERDA or LSE's.
- ◎ NYSERDA specifically requested ruling on whether:
 1. Under RES mandate NYSERDA should count as part of the utility's obligation, electrical load served by behind-the-meter ("BTM") renewable energy projects, and
 2. Whether environmental attributes of BTM projects should be credited against the LSE's mandatory renewable obligations "without further action by the LSE's." (PSC Staff Characterization)

CORE OPPOSITION

- ◎ CORE and Second Nature only Parties to Oppose NYSERDA's Request.
- ◎ CORE argued that NYSERDA's proposal:
 - Deprives universities, corporations and others that have made voluntary commitments of their ability to meet their sustainability and climate goals and commitments
 - Constitutes a breach of contract by NYSERDA
 - Is unconstitutional taking of property
 - Undermines creation of a voluntary green market in New York
 - Undermines future on-site projects in New York – Chilling effect on New York investment

Tension Between Voluntary and Mandatory Renewable Programs

- ◎ NYSERDA's Petition highlights ongoing tension between:
 1. New York State's 50 by 30 goal, and
 2. University, corporate and municipal goals to voluntarily reduce greenhouse gas ("GHG") emissions and carbon footprint by as much as 100 percent and use up to 100 percent renewable energy
- ◎ Should Not Be An "either-or" Proposition
- ◎ CORE Response has heightened State awareness of issue, described by Governor's office as "Serious"

EXPECTED RESOLUTION

- ◎ Recent Staff DER Report Suggests Outcome:

2.3.10 DER Incentives

DER technologies eligible for the Phase One tariff [including payment for environmental attributes] may also be eligible for a number of other incentives, *including incentives offered by NYSERDA... receipt of any of these incentives will not impact their eligibility for or compensation under NEM or the Phase One tariff.* These incentives were designed to meet a variety of policy goals and were instituted while NEM compensation was applicable to eligible generating facilities. The designers of those programs therefore clearly intended them to supplement, rather than replace, NEM...For that reason, *altering Phase One compensation based on the availability of other incentives would go against the intent of those incentives as a supplement to NEM.*

EXPECTED RESOLUTION?

- ① 50 by 30 goal is a cumulative outcome to be achieved through a combination of voluntary activities and the RES mandatory obligation
- ① CST project owners/users retain RECs from their projects
- ① CST customers may register their renewable projects in NYGATs
- ① REC's retained by CST projects will be counted as voluntary contributions made toward achieving the State's 50 by 30 clean energy goals
- ① LSE RES obligation reduced by BTM load
- ① As owners of the REC's, CST customers can apply for voluntary set asides under the RGGI program

Unresolved REC Issues

- ⦿ Ability of CST Projects to trade or arbitrage their RECs
- ⦿ Ability of CST Projects to sell their RECs
- ⦿ Ability of SUNY Schools to self-supply RECs

Impact of PSC Ruling on Assumptions Underlying SUNY Cost Study

◎ Assumptions in Study:

- On-Site Behind-The-Meter(BTM) generation, e.g., solar roof panels, does not count as SUNY generation, nor as a renewable resource for purposes of meeting CES
- Projects with grant funding from NYSERDA, including remote net metering, will not receive any RECs associated with their generation
- NYSERDA owns the right to the RECs and other green attributes
- Campuses cannot self-supply RECs to EBG or their electricity supplier
- REC's purchased by campuses to meet their own carbon emission requirements do not count toward the CES requirement

IMPACT OF PSC RULING ON SUNY COST STUDY

- ◎ SUNY spends about \$127 million a year for electricity, excluding community colleges - more than any other State agency
- ◎ EBG Responsible for 46% of SUNY Electricity Purchases (24 campuses)
- ◎ Study projects EBG power expenses alone will increase
 - \$712,000 in 2017
 - \$7.1 Million Over First 5 Years
- ◎ Outcome of PSC Decision will have Significant Impact on SUNY Budget, Purchase Decisions and Decisions on installing On-Site (or Virtual) Renewable Projects

OTHER SUNY MANDATES

◎ Governor's BuildSmart Initiative

- 20% increased efficiency in school buildings over 2010/11 baseline by 2020
- 30% fossil fuel reduction on campuses by 2020
- SUNY to install solar and other renewable energy sources on each of its 64 campuses by 2020
- Governor calling on private colleges and universities to join SUNY in this effort
- NYPA to provide *\$1.5 billion* to campuses and municipal buildings for these purposes



Compliance with Clean Energy Standards

- ◎ Each SUNY campus is responsible for making its own electricity purchases. Options include:
 - Purchases from local utility
 - Purchases from an ESCO
 - Purchases directly on the wholesale market
 - Self-Generation or Third Party Power Purchase Arrangements
- ◎ 24 campuses purchase a portion of their energy through membership in the SUNY Energy Buying Group (EBG)

Staff DER Report on Successor Tariff to Net Energy Metering

- ⦿ Legacy projects: Projects in-service @ Order receive NEM for 20 yrs. from in-service date
- ⦿ Opt-in Right: NEM customers can opt-in to Interim Tariff, but need a meter that can report net hourly exported generation
- ⦿ Monetary crediting will be used
- ⦿ Credits will carryover indefinitely, but will not be paid out to customer

Interim Successor Tariff

$$\text{LMP} + \text{D} + \text{E}$$

- ⦿ Applies to exported generation, netted on an hourly basis.
- ⦿ $E = \text{Tier 1 REC price OR SCC (whichever is higher)}$
- ⦿ If a DER project is compensated through Interim Tariff, it cannot sell RECs to LSEs
- ⦿ RECs can be retired for voluntary certifications
- ⦿ BTM generation will count toward CES, but not RES Mandatory Obligation

Grandfathering under NEM

- ⦿ Projects already in-service
- ⦿ All mass market and small wind, installed before 1/1/2020 subject to cap “trigger”
- ⦿ RNM receiving monetary credits (previously grandfathered)
- ⦿ Eligible projects in development if they pay 25% of interconnection costs or sign Standard Interconnection Contract within 90 business days of issuance of Order

Community Power Model

- Also Known as Shared Solar or Solar Gardens
- A Grid-connected Solar Array that provides Electricity to Multiple Customers or “Subscribers”
- Subscribers purchase or lease solar panels in array
- Utility treats Panels as if they were on User’s own rooftop
 - Subscribers receive credit on utility bill for power from their panels
 - Excess generation “banked” and credited against future use; sometimes monetized
 - Must be located in same service or control area
 - Available to residences, businesses, local governments, non-profits
- Customer Receives REC’s
- Similar to Virtual Net Metering



Synthetic or Virtual PPA's

1. Financial Contract – does not involve physical delivery of energy
2. Project Developer/Owner builds renewable project in location with superior resource and/or nodal value
3. Customer and Project Owner agree to a fixed (settlement) price for the Energy
4. Customer receives the REC's
5. Project Owner Delivers Energy to the Grid
 - Receives the wholesale market price (LMP) for the energy
6. Parties settle the difference between the wholesale market price (LMP) and the fixed PPA price:
 - Project owner pays corporation when price rise above benchmark
 - Corporation pays project owner when price falls below benchmark

Synthetic PPA's Contracts for Differences

Utility

Payment Utility Rate

Corporate
Energy
Buyer

Energy

Tariff Price	Strike Price	Corporate Buyer	Renewable Project
\$0.12 kW/h	\$0.10 kW/h	Receives \$0.02 kW/h	Pays Corporate \$0.02 kW/h
\$0.08 kW/h	\$0.10 kW/h	Pays Seller \$0.02 kW/h	Receives \$0.02 kW/h

RECS

Energy
Price
Settlement

RTO

Selling
Energy
at LMP

Renewable
Project
Owner

CORE NEEDS YOUR SUPPORT!

- ◎ CORE is only advocacy group participating in DPS proceedings and in Albany on behalf of BTM on-site generators, developers and users
- ◎ SUNY is a direct beneficiary of our efforts
- ◎ Broad-based coalition strengthens our ability to influence outcomes
- ◎ Cost-Effective way to participate and have your interests represented

Questions?

Merrill L. Kramer
Chair, Sustainable Energy Practice
Sullivan & Worcester, LLP
202-775-1224
mkramer@sandw.com

Sarah Zemanick
Director Of Campus Sustainability
Cornell University
607-254-2818
sarahzemanick@cornell.edu