

Arizona Public Service's (APS's) Track and Record Proposal Brief Sheet - PART II

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The essentials

- Arizona's Renewable Energy Standard & Tariff (REST) requires that 4.5% of electricity comes from distributed generation (DG) systems such as rooftop solar.
- Regulated utilities demonstrate compliance with the REST by collecting Renewable Energy Credits (RECs) from their customers who have installed DG systems, in exchange for upfront cash incentives meant to help customers finance the installation of the DG system.
- With the rising demand for DG installations since the start of the REST, the Arizona Corporation Commission agreed to significantly reduce upfront incentives. As a result, the regulated electric utilities lost their guaranteed source of RECs that are needed to demonstrate compliance.
- During June 2012, Arizona Public Service (APS), Tucson Electric, & Power (TEP), and UNS Electric (UNS) proposed a Track and Record option that would allow utilities to demonstrate compliance by tracking and counting towards compliance any new DG connection added within each service territory, independent of REC ownership.
- On February 24, 2014, the [ACC issued an order](#) indicating that good cause exists for authorizing a one-year waiver to the regulated utilities' (APS, TEP, and UNS) 4.5% DG requirement. The purpose of this waiver is to allow the ACC time to develop a new method to track utility compliance with REST.

Background on RECs in Arizona

In 2006, the Arizona Corporation Commission implemented the [Renewable Energy Standard & Tariff \(REST\)](#), a set of rules meant to encourage the generation of power from renewable energy sources. The REST is unique because it includes a "distributed generation (DG) carve-out." This carve-out mandates that 30% of a utility's total annual renewable energy retail load comes from DG, as opposed to utility-scale power plants. The ACC tracks a utility's compliance by considering the Renewable Energy Credits (RECs) collected by utilities from customers with DG systems. (See our brief sheet "[What is a Renewable Energy Credit](#)" to learn more.) To ensure its success, REST required utilities to provide upfront cash incentives to help finance DG installations.

The elimination of incentives poses a fundamental compliance problem

[In January 2009, APS had 900 rooftop solar systems installed in its service territory; by June 2013, 19,000 rooftop solar systems had been installed in the same territory.](#) With this increase of DG installations, APS accumulated enough

DG RECs to meet REST standards for years into the future, and as a result found it unnecessary to continue providing incentives for installations.

The ACC agreed with APS and, in 2013, eliminated most of the upfront cash incentives to DG customers ([view brief sheet on decision](#)). However, this action has created a new problem. Without providing upfront incentives, utilities are not entitled to any RECs created by new DG systems. Therefore, despite having a large number of DG systems in its service territory, utilities may be unable to demonstrate compliance with the DG carve-out.

Arizona Public Service (APS), Tucson Electric, & Power (TEP), and UNS Electric (UNS) offered an initial proposal to address this problem, the "Track and Record" option ([view brief sheet on Track and Record proposal](#)). Several [alternatives](#) have also been proposed, including:

- **WAIVER PROPOSAL**: Allows a one-year waiver from the DG carve-out requirement, as needed. Under the proposal, utilities would track renewable energy generated from DG units within its service territory. The requirement to produce RECs to show compliance with the DG carve-out would be waived by a corresponding amount.
- **STANDARD OFFER PROPOSAL**: This proposal would require utilities to continue to acquire RECs through compliance and voluntary markets. This option would preserve the integrity of RECs and the DG carve-out, arguably at the unnecessary expense of ratepayers.

Neither the Track and Record proposal nor any of the alternatives have been adopted by the Commission to address the problem. Instead, on February 24, 2014, the [ACC issued an order](#) authorizing a full permanent waiver to APS, TEP, and UNS's DG carve-out requirement for one year. The waiver is "full and permanent" in that the requirement is fully waived for the year as opposed to simply rolling over the requirement into the next year. This waiver is meant to allow the ACC adequate time to address whether RECs provide the best path to show compliance with REST and whether the DG carve-out is still necessary.

Are there property rights at issue?

A REC signifies a [property right](#) in the added benefits that accompany renewable energy generation, beyond the actual electricity. Such benefits include energy price stability, brand development and the reduced need for fossil fuels. Under Arizona's current policy, the owner of a solar rooftop unit retains title to the REC generated, while the actual electricity generated from that unit enters the grid.

Although the issue is relatively new, a few courts have already addressed whether RECs constitute property rights and have found that they do. Specifically, the Second Circuit, in 2008, found that "RECs are inventions of state property law whereby the renewable energy attributes are "unbundled" from the energy itself and sold separately." *Wheelabrator Lisbon, Inc. v. Connecticut Dept. of*

Public Utility Control, 531 F.3d 183, 186. More recently, in 2013, the Armed Services Board of Contract Appeals (ASBCA) found that RECs constitute personal property due to their "exclusive nature and transferability" ([pg. 10](#)). If RECs do constitute property rights, their devaluation, when caused by government action (such that undermines the integrity of a REC), may result in an exercise of the government's eminent domain power without due compensation.

What government created the value of the REC?

In Arizona, when the Commission developed REST, RECs were developed as a tracking mechanism that belongs to the owner of the DG system, until the owner chose to transfer the REC away. If RECs were not meant to have value, the incentive to voluntarily transfer them would be lacking. It was, therefore, the ACC, in implementing REST, who created the value of the REC in Arizona's compliance market.

Two voluntary markets facilitate the sale and transfer of RECs. A compliance market (or mandatory market) is one that is created through the implementation of a state's Renewable Portfolio Standard (RPS), such as Arizona's REST. RECs not purchased in the compliance market may also have value in the voluntary market. This market is driven by consumer preference and allows consumers to help renewable generation exceed the amount required by an RPS. Within the voluntary market, RECs can be purchased by out-of-state utilities, corporations, or individuals who would like to support renewable energy but lack the means to generate it themselves. RECs may provide value to companies who own them, whether the purpose is for sale on the market or as part of its corporate strategy. As the figure below shows, voluntary markets have continued to grow alongside compliance markets.

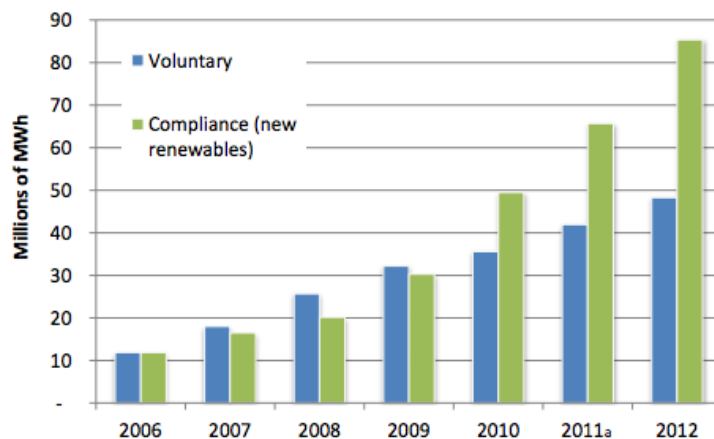


Figure 1. Comparison of compliance and voluntary markets for new renewable energy, 2005–2012

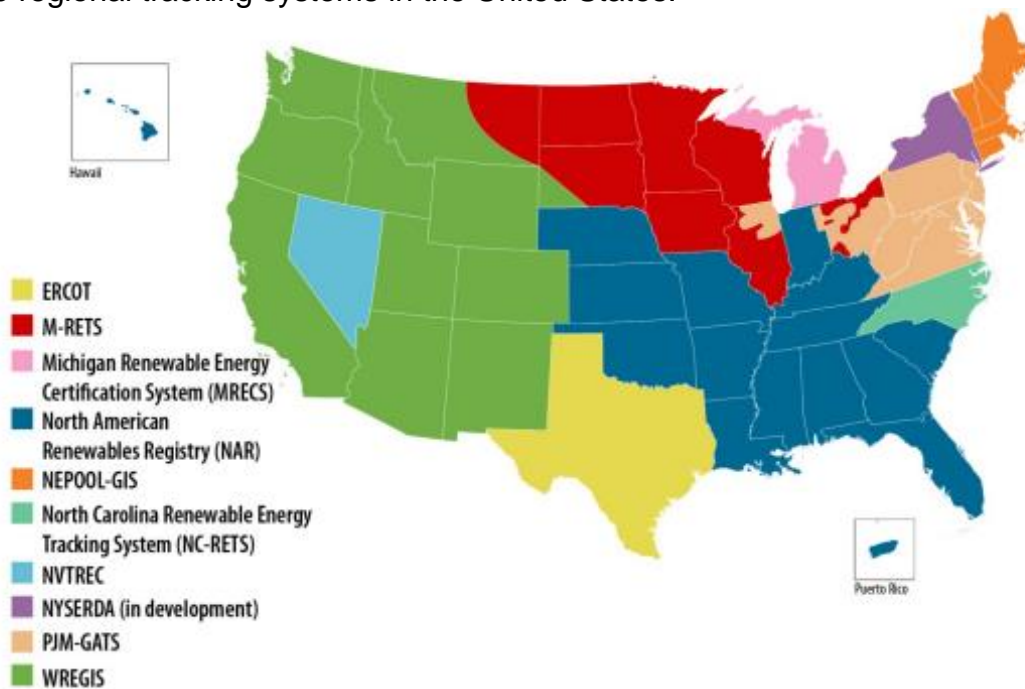
Source: - ["Green Power Marketing in the United States: A Status Report \(2008 Data\) by Lori Bird, Claire Krecyik, and Barry Friedman; National Renewable Energy Laboratory](#)

Are RECs sold in interstate commerce, and if so, in which markets could Arizonans sell RECs?

Currently, no fully functioning nationwide REC tracking and trading system is in place. However, there are a number of sophisticated regional REC tracking systems. According to a [2013 report by National Renewable Energy Laboratory](#), these systems assign a "unique serial number to each megawatt-hour of renewable energy generation" and thereby track each REC to ensure that it is only retired once.

Arizona is within the trading territory of Western Renewable Energy Generation Information Systems ([WREGIS](#)). WREGIS is one of the founding members of Environmental Tracking Network of North America ([ETNNA](#)), which seeks to develop a nationwide tracking system. This nationwide tracking system will allow RECs to be sold across the country. As the demand for RECs continues to grow in conjunction with increasing RPS requirements, it can be expected that trading markets will become easier to enter and use across longer distances.

The regional tracking systems in the United States:



Source: Updated from ETNNA 2011

Note: NAR covers states not covered by a APX, Inc. tracking system

Note: Nevada uses both NVTREC and WREGIS

Source: ["Renewable Energy Certificate \(REC\) Tracking Systems: Costs & Verification Issues" by J. Heeter, Oct. 13, 2013; National Renewable Energy Laboratory](#)

By stating the total number of RECs that exist in Arizona, what claim, if any, is that taking away from REC owners?

If a REC is already functioning to establish compliance with a state's RPS, there is no further value to be gained by an additional purchaser in the compliance or voluntary market. The same environmental attributes can, obviously, not be used to show compliance with the RPS of two different states. Likewise, a purchaser in the voluntary market is not further incentivizing renewable energy that is being generated with or without additional investment. The regional REC tracking organizations, mentioned above, have emerged, in part, to protect buyers from purchasing RECs that have already been "counted" or "retired", a practice commonly referred to as "double counting". Preventing a REC from being double counted preserves the integrity of the market. It allows consumers, who elect to pay a premium for electricity with "environmental attributes," to actually help promote renewable energy beyond what is required by a state-mandated RPS.

How many kWh or RECs are there in the United States?

In 2008, 23 billion kWh worth of RECs were acquired through compliance markets to meet RPS standards while 24 billion kWh worth of RECs were sold on the voluntary market ([pp. 6-7](#)). Although the voluntary market does continue to grow, the compliance market is growing even faster as RPS standards continue to increase around the country. By 2015, compliance demand for renewable energy based on existing RPS policies will reach 140 billion kWh ([pg. 4](#)).

Will reaching 15% compliance based on reporting capacity mean that Arizona will actually be reducing its compliance standard?

APS has argued that utilities should demonstrate compliance by reporting how many, and what size, DG systems are connected to the grid within the utility's service territory. Under this plan, utilities could count renewable generation for compliance purposes that it could not before consider. Because some DG customers retained their RECs, more renewable energy was being generated in Arizona than was being reported for compliance. Now, instead of incentivizing more renewable energy generation, utilities instead would be able to rely on previously inapplicable DG generation to show compliance.

Learn more

To find the ACC e-docket for APS 2013 REST Implementation Plan

Go to: <http://edocket.azcc.gov/default.aspx>

Search for: E-01345A-12-0290

Latest developments

The ACC staff has proposed [seven options for new rules](#). See docket number RE-00000C-14-0112 The Commission will address a Notice of Proposed Rulemaking during an open meeting in May 2014, or soon thereafter.