



# San Miguel Power Association Net Metering White Paper: Renewable Energy Credits (RECs)

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## Overview

A Renewable Energy Credit, or REC, is the non-tangible and marketable, “green” component of renewable energy. One REC represents proof that one megawatt-hour (MWh) of electricity was generated from an “eligible” renewable energy source. A REC is separate from the actual energy produced, and it is the REC itself—not the energy—that legally embodies the environmental attributes that are associated with the electricity that came from a renewable energy source. The environmental attributes are the environmental benefits—such as fewer carbon emissions and less pollution—that a clean, renewable resource has over a traditional resource like fossil fuels. RECs may be marketed separately from the energy or kept bundled with it.

It is important to note that the RECs also encompass the “claim” to the environmental attributes. That is, one may not make statements or claims about the environmental benefits of the energy if the RECs associated with that energy have been transferred to another party. Once RECs have been separated from the energy, the energy loses all legal and marketable claims to the environmental attributes.

A wealth of information about RECs can be acquired from organizations like Green-e, which specializes in certifying environmental commodities like RECs. See, [www.green-e.org](http://www.green-e.org)

## REC Markets

The value of a REC, like most commodities, is subject to the demand for RECs. Demand is largely driven by two separate markets for RECs, the compliance market and the voluntary market.

The compliance market usually centers around state requirements that utilities acquire RECs to maintain a certain percentage of renewables in their generation portfolio. In most cases utilities will seek out the least expensive option for acquiring RECs and with the lowest transaction cost. For specifics on Colorado regulatory REC compliance see references below.

The Voluntary market encompasses RECs that are bought and sold outside of any regulatory mandate. One such example is SMPA’s Totally Green and Green Blocks program in which members purchase RECs from SMPA in order to establish the energy they use as renewable and green.

The value of RECs is also influenced by transaction costs and economies of scale. The trouble of creating contracts and documents to verify and transfer title of the RECs may make bringing just a few RECs to the market not worth the effort; whereas, dealing with a larger volume (hundreds or thousands of RECs) will typically pencil out.

### RECs and Net Metering

Net meter system owners often seek the benefit of reducing their electric bill by generating their own electricity. They may also feel good about getting their power from a renewable resource (SMPA’s net metering policy only allows for renewable power generation sources, as defined by the state of Colorado).

While net meter system owners own the energy their system produces and can take advantage of this by reducing their electric bills, through the SMPA net metering agreement, the RECs that are produced by most net meter systems are assigned to SMPA. On an annual basis, SMPA “retires” the net meter RECs on behalf of the net meter system owners. This allows for each net meter system owner to publicly claim avoidance of carbon emissions or make statements that their power comes from a renewable source.

Remember, one REC equals one MWh of production, so if a net meter system generates 1,000 kWhs then 1 REC is accounted for and retired by SMPA.

### Totally Green

SMPA owns the RECs from a fleet of local solar and hydro projects as well as purchases of RECs from large wind farms in Colorado. These RECs are made available to SMPA members who sign up for Totally Green. Remember, whoever owns the RECs gets to claim the environmental attributes of the renewable energy. The RECs that SMPA owns are “retired” on behalf of each Totally Green participant in proportion to their monthly kWh consumption. That’s how Totally Green can provide 100% renewable sourced electricity to each participant.

One of the best features of the Totally Green program is that all of the proceeds from Totally Green/Green Block sales go into the SMPA Green Fund. Dollars from the Green Fund are used to promote more renewables in our

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service territory, for example, through the funding of Solar PV rebates. The Green Fund is one of the biggest factors that have enabled SMPA to maintain a strong solar rebate program while most other utilities have dropped their rebate programs.

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Signing up for Totally Green is a great way for SMPA members to affordably support the development of more local renewable energy. Participation in Totally Green is voluntary and guarantees 100% renewable power and costs only 1c per kWh. It’s simple and automatic.

<http://smpa.com/content/sign-totally-green>

### Green Blocks

For members who want to support the SMPA Green Fund program with additional REC purchases we have our Green Blocks program. Each Green Block represents 100 kilowatt-hours (kWh) of renewable energy and costs only \$1; they are purchased monthly by members who participate in the program. Members can purchase as many Green Blocks as they wish.

SMPA tracks all of the RECs in our Green Blocks program and retires these RECs on behalf of the SMPA members that purchase them. For more information on Green Blocks see, <https://smpa.com/renewable-energy>

### Reference

1 REC = 1 megawatt-hour (MWh) of renewable energy generation.

1 megawatt-hour (MWh) = 1,000 kilowatt-hours (kWh)

1 Green Block = 100 kWh of green energy

Colorado regulatory REC compliance: CCR 723-3 Ru

4les 3650-3668 covers the Renewable Energy Standard for Colorado.

Rule 3659 specifically covers Renewable Energy Credits RECs.