

# **Federal Renewable Energy Certificate Guide**

**Office of Federal Sustainability  
Council on Environmental Quality**

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# 1 Introduction

The Federal Renewable Energy Certificate Guide provides basic information for Federal staff who are new to the concept of renewable energy and renewable energy certificates (RECs), and are seeking to better understand the options for using RECs to meet Federal renewable energy targets. Section 3(c) of Executive Order (E.O.) 13693 calls for agencies to obtain at least 30 percent of their electricity from renewable electric energy by 2025. This exceeds the 7.5 percent government-wide minimum called for by the Energy Policy Act of 2005 (EPAAct2005). Progress towards this renewable electricity goal is one of the three main publicly-reported metrics<sup>1</sup> of progress under this E.O. (see [www.performance.gov](http://www.performance.gov)), and agencies are encouraged to capture and report all electricity use that counts towards this goal.

This guide serves as the “CEQ REC Guidance” referenced in the E.O. 13693 implementing instructions and is intended to assist agencies in understanding the use of RECs to meet the statutory and Executive Order goals for renewable energy. It does not specifically address the process for agencies to report renewable energy consumption. Agencies should refer to the most recent Department of Energy reporting guidance<sup>2</sup> for instructions on how to report renewable energy consumption.

The discussion below is targeted for a general Federal audience, and may not reflect limitations on agency authorities to contract for electricity and renewable energy supply<sup>3</sup>. This Guide may be used as a companion document to other Federal resources for renewable energy procurement, some of which go into much greater detail on the use of specific contracting tools for acquiring renewable energy and several of which are referenced in footnotes within this document. For example, the Environmental Protection Agency provides a detailed guide on buying green power.<sup>4</sup>

Throughout this document, the term “renewable energy” refers to electric rather than thermal energy, unless noted. Although the discussion of RECs in this document pertains to renewable electric energy rather than renewable thermal energy, many of the principles discussed herein can be applied to procurements for renewable thermal energy.

This document is for informational purposes and does not replace, substitute, or modify any statutory or regulatory requirements. Federal users of this document should consult with the appropriate counsel and contracting authorities within their agencies prior to purchasing and using RECs toward achievement of their E.O. 13693 renewable energy goal. Agencies may also consult with the Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) on the most appropriate mechanisms for using RECs to achieve these goals.

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<sup>1</sup> The Climate Change Cross Agency Priority (CAP) Goal quarterly reports on the public [Performance.gov](http://Performance.gov) website are maintained by the Office of Management and Budget (OMB).

<sup>2</sup> In September, of every fiscal year, the Department of Energy’s Federal Energy Management Program issues *Reporting Guidance for Federal Agency Annual Report on Energy Management*, which builds on the Implementing Instructions for Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*, issued in June 2015.

<sup>3</sup> See *Federal Agency Authority to Contract for Electric Power and Renewable Energy Supply*, Congressional Research Service Report R41960; August 15, 2011.

<sup>4</sup> EPA, “Guide to Purchasing Green Power,” available at: [https://www.epa.gov/sites/production/files/2016-01/documents/purchasing\\_guide\\_for\\_web.pdf](https://www.epa.gov/sites/production/files/2016-01/documents/purchasing_guide_for_web.pdf)

## 2 What is a REC?

A Renewable Energy Certificate (REC) is a tradable commodity created when a renewable energy source generates one megawatt-hour (MWh) of electricity.<sup>5</sup> Each REC represents ownership of the environmental and other non-power attributes of one MWh of renewable generation. Many RECs have a unique identification number, and each includes data regarding the generation that created it, such as:

- 1) **Renewable Resource** – the type of renewable energy that produced the electricity associated with the REC;
- 2) **Emissions** – the renewable generator’s associated greenhouse gas (GHG) emissions (if any);
- 3) **REC Vintage** – the date on or timeframe within which the electricity associated with the REC was produced;
- 4) **Placed in Service Date** – the date the renewable generator associated with the REC became operational; and
- 5) **Location** – the location of the renewable generator associated with the REC.<sup>6</sup>

RECs are an instrument that serves both compliance and voluntary energy markets, and they influence electricity market dynamics by allowing the expression and aggregation of consumer demand and preferences for specific sources and forms of energy from renewables. They can incentivize new renewable energy project development, and serve as the instrument through which renewable energy and environmental claims are substantiated. Note that Federal agencies (as a buyer) do not participate in compliance markets, but can buy RECs within voluntary markets.

Electricity and RECs are distinct products. They can be sold separately as unbundled products; or together as a bundled product. All renewable energy supply options involve a REC. Under the unbundled approach, the customer buys electricity from their electricity service provider, but purchases the renewable energy certificates from a separate REC supplier.

Purchasing bundled and unbundled REC products accomplish the same goal, but follow different paths. In a bundled REC product transaction, the electric utility or an authorized electricity supplier provide the buyer a REC from a renewable energy project that is bundled or sold with the utility’s underlying electricity service to the customer, who only receives one bill from the supplier. In this transaction, the power provider generally retires the RECs associated with the renewable electricity purchased by the customer. The electricity and RECs are bundled as a single green electricity product. RECs need to be sourced from the same electricity market as where the customer operationally uses the electricity. The entire U.S. is considered a single electricity market.

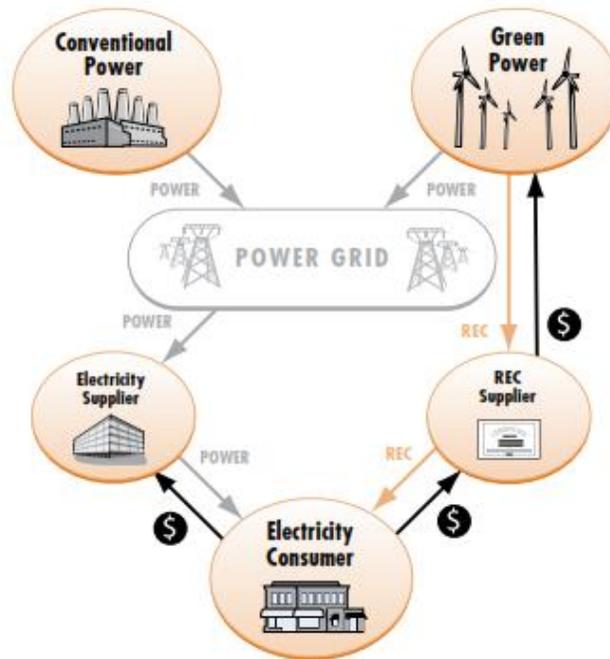
**Figure 1** depicts a transaction involving unbundled RECs.<sup>7</sup>

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<sup>5</sup> See EO 13693 Sec 19 (u): “renewable energy certificate” means the technology and environmental (non-energy) attributes that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource, that can be sold separately from the underlying generic electricity with which they are associated, and that, for the purposes of section 3(d)(iii) and (iv) of this order, were produced by sources of renewable energy Placed into Service within 10 years prior to the start of the fiscal year.

<sup>6</sup> See *Green Power Partnership: Renewable Energy Certificates* for more detail. Available at [www.epa.gov/greenpower/renewable-energy-certificates-recs](http://www.epa.gov/greenpower/renewable-energy-certificates-recs)

<sup>7</sup> *Guide to Purchasing Green Power: Renewable Electricity, Renewable Energy Certificates, and On-Site Renewable Generation*. U.S. Department of Energy Office of Energy Efficiency and Renewable Energy, EPA Green Power Partnership, World Resources Institute, Center for Resource Solutions. March 2010. Available at [www.epa.gov/greenpower/documents/purchasing\\_guide\\_for\\_web.pdf](http://www.epa.gov/greenpower/documents/purchasing_guide_for_web.pdf).



**Figure 1: Unbundled Renewable Energy Certificate (REC) Transaction Path in a Voluntary Green Power Market.**

RECs are generally used to demonstrate compliance with state mandates, such as renewable portfolio standards (RPS)<sup>8</sup>, or to substantiate consumers' renewable energy use and environmental claims that are often driven by the desire to meet voluntary, aspirational goals (e.g., corporations wishing to show environmental leadership). By retaining RECs from self-generation or by purchasing RECs from renewable electricity projects, Federal agencies can use RECs to demonstrate renewable energy consumption to meet the renewable energy targets established in E.O. 13693 as well as EPAAct2005 and to make associated environmental claims (e.g., claims regarding GHG emissions from Federal energy use).

Since RECs are a tradeable instrument used to document claims of renewable energy use, their cost/price can vary between the voluntary or compliance markets in which they are transacted. Prices for RECs can vary significantly based on a range of factors including, but not limited to, the resource, local supply and demand, and regulations in compliance markets.

**Resource:** REC buyers exhibit preferences for specific renewable energy resources for a variety of reasons, including marketing and brand value. These preferences affect the pricing of RECs. For example, RECs from wind farms are generally less expensive on average than RECs from solar.

**Supply and demand:** Green power purchasers sometimes prefer RECs produced locally as a way of demonstrating support for local renewable energy projects businesses and communities. This can result in higher REC prices in areas where production capacity is limited or where demand is high.

<sup>8</sup> A renewable portfolio standard (RPS) is a policy, typically enacted by states, requiring electric utility companies to supply a share of their electricity from renewable energy. Additional details on RPS programs are available at [http://www.nrel.gov/tech\\_deployment/state\\_local\\_governments/basics\\_portfolio\\_standards.html](http://www.nrel.gov/tech_deployment/state_local_governments/basics_portfolio_standards.html).

**Regulations:** RECs in compliance markets are generally more expensive than in voluntary markets. Regulations that prescribe renewables volume, technology requirements, and penalties for non-compliance can significantly affect the cost of RECs in a given market. The higher value of RECs in compliance markets may influence Agency decisions on monetizing the RECs from a Federal project.

**Box 1** provides an example of how pricing for RECs vary depending on whether they serve compliance markets or voluntary markets.

**Box 1: Example of Compliance (District of Columbia RPS) Market Price Exceeding Voluntary Market Price.**

The District of Columbia's Renewable Portfolio Standard (RPS) requires retail electricity suppliers to obtain a share of their electricity from eligible DC-based solar energy sources. In lieu of meeting the minimum RPS targets, retail electricity suppliers would be required to pay an alternative compliance payment (ACP), which is currently set at \$500 per MWh until 2018. This compliance penalty encourages utilities in DC to meet their regulatory obligation with solar REC (SREC) purchases, which increases pressure on prices for SRECs that are eligible for the DC RPS. In addition, in 2011 the DC City Council issued a decision to limit eligibility of SRECs for RPS compliance to only those that are generated within the District. The consequence of this decision was not only to constrain supply to the District but was further impacted by the relatively few feasible site opportunities to install solar in the District. As a result, RECs from DC-based solar power generators are distinguished by the District's RPS market and are referred to as DC RPS Solar RECs (or "DC SRECs"). These DC SRECs have at times exceeded wholesale prices of \$400 per SREC.

In contrast, voluntary consumers of renewable electricity who wish to buy RECs from solar or other eligible renewable resources to make voluntary environmental or marketing claims can do so by buying nationally-sourced RECs at wholesale prices cost as little as \$1 per MWh<sup>9</sup>. With no ACP pricing influence or restricted supply, voluntary RECs tend to transact at much lower price points.

Companies and organizations buy unbundled RECs because they are the only instrument to substantiate use and ownership of renewable energy on a shared grid and can also play an important role in demonstrating demand for renewable energy in the market. They can be attractive to customers particularly when other REC-based supply options are not available, when those available do not meet the customer's preferences, or when direct project engagement (e.g., on- or off-site project development) is not feasible due to project economics. By purchasing RECs, customers do not need to alter existing power contracts to obtain green power. Additionally, RECs are not limited by geographic boundaries or transmission constraints. For Federal agencies with facilities in multiple states, a consolidated REC procurement can be part of a strategy to meet overall clean energy goals.

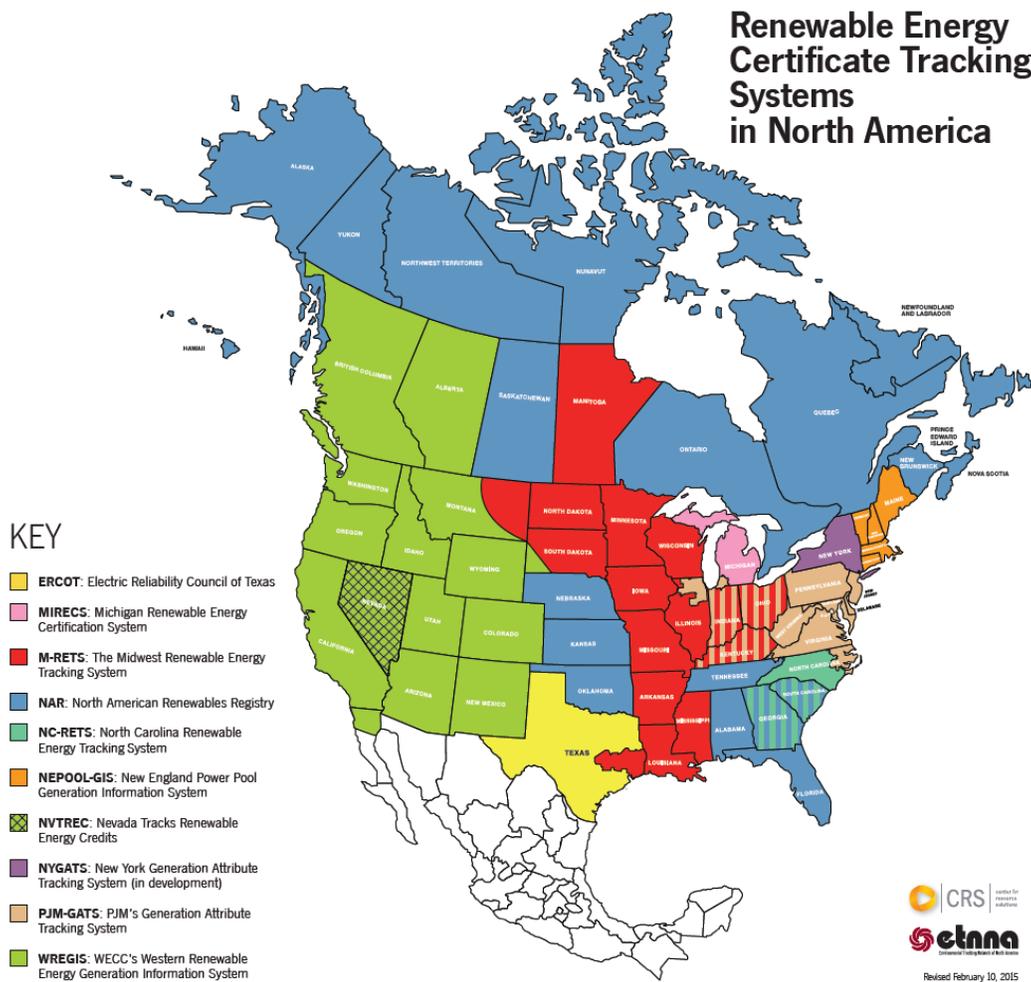
### 3 How RECs are Issued, Traded and Retired

Since RECs can be sold separately from the underlying electricity, the possibility for fraud can exist unless the RECs are tracked from their point of creation to their final point of use. Tracking minimizes the risk of more than

<sup>9</sup> See the Department Of Energy's Green Power Network page on REC pricing:  
<http://apps3.eere.energy.gov/greenpower/markets/certificates.shtml?page=5>

one party laying claim to a REC, whether that electricity is placed on the grid or consumed off-grid at a customer’s site. Tracking can occur through tracking systems, or through bilateral contract methods.

A tracking system is an electronic database that is used to track the ownership of RECs, much like an online bank account. A tracking system issues a uniquely numbered certificate for each MWh of electricity produced by a generation facility registered in the system, records the ownership of certificates as they are traded, and can retire the certificates once a usage claim is made. Because each MWh has a unique identification number and can only be in one owner’s account at any time, this reduces ownership disputes and the potential for double counting. Regional tracking systems in the US are shown in **Figure 2**.<sup>10</sup>



**Figure 3: REC Tracking Systems are Regionally Based, Cover Entire U.S.**

<sup>10</sup> Environmental Tracking Network of North America (ETNNA) periodically updates this map. See [www.etnna.org](http://www.etnna.org) for the most recent version.

As mentioned earlier, it is also possible to buy RECs from outside your state or region. In these situations, a tracking system is useful to protect against double sales, as their data is often used by third party certification and verification entities and other auditing authorities.

When a REC is “retired” in a respective tracking system, either by the buyer directly or by the seller on behalf of the buyer, it can no longer be exchanged between tracking system account holders. Note that a REC is also retired once a claim is made that the REC instrument would substantiate (e.g., renewable energy use or environmental claim). **Box 2** provides a sample of how REC issuance, transfer, and retirement might occur.

**Box 2: Illustrative Example of REC Issuance, Transfer, and Retirement.**

Consider a hypothetical wind farm in Kansas that produced 300,000 MWh of electricity in 2014. The company, *Wind Farm X*, has an account with its regional tracking system, the North American Renewables Registry (NAR), and submits evidence of 300,000 MWh of wind power produced in the 2014 calendar year.

NAR reviews *Wind Farm X*'s data, validates the reported production, and issues 300,000 new RECs with unique serial numbers to *Wind Farm X*'s NAR account.

*Wind Farm X* then sells the unbundled RECs to another NAR account holder, *REC Trader 1*. After receiving notice of this sale, NAR transfers the 300,000 RECs from *Wind Farm X*'s account to *REC Trader 1*'s account.

*REC Trader 1* is a REC trading business and agrees to sell the 300,000 RECs to a group of U.S. Department of Veterans Affairs (VA) facilities in Minnesota. These VA facilities open a joint account with the Midwest Renewable Energy Tracking System (MM-RETS).

As a result of the sale, NAR transfers the 300,000 RECs to M-RETS (preserving the original data and attributes from NAR). M-RETS then deposits those RECs into the VA account.

VA subsequently retires within its M-RETS account the RECs that are being used to substantiate the VA's annual renewable energy claims towards its goal.

The best way to ensure the credibility of RECs is to purchase those certified by an independent third party. Certifiers attest that renewable electricity products meet strict environmental and consumer protection standards, which ensure the electricity and its associated RECs are produced by the purported renewable generation facility, delivered in the amount specified, and not claimed by more than one party.<sup>11</sup>

## 4 How Federal Agencies can Purchase RECs

There are several ways Federal agencies can purchase renewable energy and the associated RECs. Section 3(d) of E.O. 13693 lists methods in order of preference.

While this hierarchy is intended to direct an agency to consider the higher priority methods first, another choice may be made if the more preferred methods are found to be, for example, less practical or cost-effective. The

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<sup>11</sup> Note that the Federal Trade Commission has issued guidance on environmental claims associated with RECs clarifying that once a REC is sold the original holder can no longer make claims associated with the renewable electricity that generated the REC. See Federal Trade Commission (FTC) information at: <https://www.ftc.gov/news-events/press-releases/2012/10/ftc-issues-revised-green-guides>

potential budgetary requirements and other legal considerations for using any of the options described below will depend on the specific facts of a given procurement. Therefore, agencies should consult with counsel and with CEQ and OMB when considering using RECs or other ways to meet the renewable energy targets of E.O. 13693.

Specifically, the methods for obtaining renewable energy in priority order as articulated in Section 3(d) of E.O.13693 are:

- 1) Installing agency-funded renewable energy on site at Federal facilities and retaining corresponding RECs or obtaining equal value replacement RECs;
- 2) Contracting for the purchase of energy that includes the installation of renewable energy on site at a Federal facility or off site from a Federal facility and the retention of corresponding RECs or obtaining equal value replacement RECs for the term of the contract;
- 3) Purchasing electricity and corresponding RECs or obtaining equal value replacement RECs<sup>12</sup>; and
- 4) Purchasing RECs.

Each of these options is discussed below in Sections 3.1 – 3.4.

It is important to note that not all RECs may be eligible for credit toward renewable energy targets defined in E.O. 13693. To be eligible, RECs acquired by Federal agencies must meet the following requirements:

- 1) **Renewable Resource** – As specified in E.O. 13693, electricity must have been generated by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, geothermal heat pumps, microturbines<sup>13</sup>, municipal solid waste, or new hydroelectric generation capacity at an existing hydroelectric site.<sup>14</sup>
- 2) **REC Vintage** – As consistent with EPA’s Green Power Partnership<sup>15</sup>, electricity must have been produced within a set period before and after the end of a fiscal year for its RECs to be counted toward that fiscal year. As of June 2016, to count toward FY 2015, the electricity associated with the REC must have been produced between April 1, 2014, and January 1, 2016.
- 3) **Placed in Service Date** – As specified in E.O. 13693 and the associated implementing instructions, the renewable generator (e.g., the wind farm or solar array) associated with a purchased REC (bundled with electricity or separate) must have been placed in service no more than 10 years prior to the fiscal year in which it is used for credit. For instance, the renewable generator for any RECs credited toward an agency’s FY 2015 target must have been placed in service on or after October 1, 2004. Exceptions to this Placed in Service Date requirement are briefly discussed in Section 4.
- 4) **Location** – As consistent with EPA’s Green Power Partnership<sup>16</sup>, the renewable generator must be located in the United States, Tribal Land, or U.S. Territories.<sup>17</sup>

<sup>12</sup> Throughout this document the phrase “equal value replacement RECs” means RECs of equivalent MWh eligible to meet the renewable energy targets defined in E.O. 13693, which are usually cheaper than the corresponding RECs.

<sup>13</sup> See E.O. 13693 implementing instructions for discussion of qualification criteria for geothermal heat pumps and microturbines - [https://www.whitehouse.gov/sites/default/files/docs/eo\\_13693\\_implementing\\_instructions\\_june\\_10\\_2015.pdf](https://www.whitehouse.gov/sites/default/files/docs/eo_13693_implementing_instructions_june_10_2015.pdf).

<sup>14</sup> For hydroelectric, "New" means placed in service after 1/1/1999 as is consistent with the definition of new hydroelectric generation capacity in Sec. 2852 of the National Defense Authorization Act for Fiscal Year 2007 as amended by section 2842 of the National Defense Authorization Act for Fiscal Year 2010. See 10 U.S.C. § 2911(e). As such, the Placed in Service Date for eligible hydro is 1/1/1999 or later.

<sup>15</sup> See <https://www.epa.gov/greenpower/green-power-partnership-renewable-generation-vintage-requirements>.

<sup>16</sup> See [https://www.epa.gov/sites/production/files/2016-01/documents/gpp\\_partnership\\_reqs.pdf](https://www.epa.gov/sites/production/files/2016-01/documents/gpp_partnership_reqs.pdf).

<sup>17</sup> DoD bases, embassies and other Federal facilities located outside the United States may purchase RECs (or equivalent renewable energy instruments) bundled with electricity or unbundled REC instruments from local suppliers to meet renewable energy targets if these facilities are included in agency energy reporting and the purchases convey the same key attributes as U.S. based RECs (i.e., environmental, technology, location, vintage and placed in service information).

**Note that an agency cannot count electricity obtained from a renewable project towards the renewable electricity goals if the Agency does not retain the RECs or does not purchase replacement RECs.** Also, within the context of the E.O., a Federal Agency could monetize the RECs into a compliance market from a project they own and then buy replacement RECs from a voluntary market to meet Federal renewable energy goals.

Sometimes it is impractical to enroll RECs from an agency-owned system or a project supplying energy to an agency under a direct contract. For example, in some cases, a tracking system may be too expensive; or a system may not recognize certain technologies or fuels (e.g. geothermal heat pumps). Sometimes projects are small scale or remote and impractical to meter or not consistent with the REC tracking system standards. In these cases the RECs and renewable electricity production data should be audited by an independent third-party (e.g., an accounting firm or recognized REC certification/verification program) to confirm that the environmental attributes are authentic, meet Federal eligibility requirements, and are not being sold to and/or claimed by more than one party. However, if neither REC tracking nor third-party audits are appropriate for a particular source of renewable electric energy, then agencies should specify exclusive ownership of all environmental and non-energy attributes in contracts if the system is not owned by the agency. They should also verify and retain records that systems are operational (for unmetered systems) or of energy production (metered systems) to confirm the quantity and ownership of the renewable energy and its attributes.

**Bonus Credit:** Consistent with current statute (42 U.S.C. § 15852(c)), the Implementing Instructions for E.O. 13693, and previous Federal policy on renewable electricity, a bonus equivalent to doubling the amount of renewable electric energy used or purchased is available for any renewable electric energy that was generated on a Federal facility or on Federal or Tribal land and used at a Federal facility (as demonstrated by RECs, third-party audit, or agency records). Projects that convert renewable fuels, such as biomass, into useful electric energy will be considered on-site projects that can qualify for the bonus if the primary equipment for converting the fuel to usable energy is located on Federal or Indian lands, even if all or a portion of the fuel is delivered from non-Federal lands (see 42 U.S.C. § 15852(c)). Note that RECs purchased from projects located on Federal or Tribal land are not exempt from the Placed in Service Date requirement.

#### 4.1 Installing agency-funded renewable energy on-site at Federal facilities and retaining corresponding RECs or obtaining equal number replacement RECs

Agency-funded on-site renewable energy projects are paid for with agency appropriations and installed on a Federal facility or on Federal or Tribal land, pursuant to and consistent with an agency's statutory authority. In this method, the agency pays upfront capital and installation costs and owns the renewable generation equipment and associated electricity and other renewable energy attributes (e.g., RECs).

The agency has two options for what to do with the RECs:

- 1) Retain them; or
- 2) Convey them to a third-party (e.g., the company that installs the renewable generating equipment) and then buy an equal number (i.e., the same number of MWhs worth) of replacement RECs so that the project can be counted toward the renewable energy target. It is important to note that the agency cannot count the renewable generation toward its renewable energy target if the RECs convey to a third-party and replacement RECs are not purchased.

Because Option 2 above could be construed as the disposition of federal property, agencies considering the use of RECs to meet the goals of E.O. 13693 should also consult appropriate counsel and with CEQ and OMB to get further guidance on the appropriate legal authorities, contracting mechanisms and budget implications.

#### 4.2 Contracting for purchase of energy that includes installation of renewable energy on-site at a Federal facility or off-site from a Federal facility and retaining corresponding RECs or obtaining equal number of replacement RECs for the term of the contract

In some cases, agencies can execute contracts whereby a third-party pays the upfront costs for a renewable energy installation that delivers bundled electricity and RECs. There are three general models or contracting approaches: a power purchase agreement (PPA), an energy savings performance contract (ESPC), and a utility energy service contract (UESC). Given the potential budgetary requirements and other legal considerations applicable to these contract types, agencies should consult with counsel and with CEQ, OMB, and DOE/FEMP when considering and planning for use of these contracting vehicles.

**Power Purchase Agreement (PPA).** Generally under a PPA, an agency buys power from a new renewable generator at a set price for multiple years. This power procurement often includes the associated RECs in order for the Agency to make renewable electricity use claims. PPAs can be an effective way for Federal agencies to procure renewable energy from the development of renewable energy projects, particularly on federal or Indian land, since a third-party owns the generator and pays upfront for the cost of system installation, operation, and maintenance based on the federal commitment to purchase power.

In other cases, PPAs are signed with renewable generators located on private land. Renewable energy generators that are located offsite and that feed electricity to the grid generally register their RECS with a tracking system to ensure that RECs are appropriately issued and tracked, and that the Federal agency is the only party making a claim on the environmental attributes.

**Energy Savings Performance Contract (ESPC).** Under an ESPC, the energy service contractor pays the upfront capital and installation costs and remains responsible for the onsite renewable energy generation equipment during the contract performance period with ownership of the assets transferring to the Federal agency by the end of the contract.<sup>18</sup> A portion of the Agency's guaranteed electricity savings from the onsite renewable generator is used to pay the ESPC contractor. Under an ESPC, the REC ownership can be assigned (or conveyed) to either the Federal agency or the contractor. If the contractor retains the RECs, then the ESPC pricing should account for the value of the contractor's potential revenue from REC sales. The ESPC could require the purchase and retirement of low-cost replacement RECs on behalf of the Agency.

**Utility Energy Service Contracts (UESC).** A utility energy service contract (UESC) is a limited-source contract between a Federal agency and its serving electric, natural gas, or water utility for energy- and water-efficiency improvements and demand-reduction services. Such contracts may provide upfront project financing for energy efficiency, water conservation, and renewable energy investments, thereby allowing Federal agencies to pay for the services over time from the savings produced by the improvements. UESCs which are financed must provide equipment performance assurance or performance guarantees and monitoring and verification (M&V) of energy

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<sup>18</sup> See OMB Memorandum M-98-13 and OMB Memorandum M-12-21.

savings through commissioning or retro-commissioning. Under a UESC, the ownership of the financed equipment and therefore any associated RECS may be held by the contractor during the term of the contract. However, it must be transferred to the Government before the end of the contract term. This arrangement would allow the contractor to sell the RECs and reduce the cost of the project to the Government. The UESC could also require the utility to purchase and retire low-cost replacement RECs on behalf of the Agency.

### 4.3 Purchasing electricity and corresponding RECs or obtaining equal number of replacement RECs

As described in Section 1, some utility companies offer bundled RECs from existing renewable energy generators as part of their voluntary green power product offerings.<sup>19</sup> These purchases may count toward an Agency's achievement of renewable energy goals if proof can be furnished that the RECs associated with the Agency's purchase convey exclusively to the Agency. Renewable energy bought from green power product offerings are also subject to the Placed in Service Date requirement for eligible Federal RECs. In other cases, PPAs are signed with renewable generators located on private land. This type of renewable energy is often called "grid-based green power." RECs from grid-based green power should be registered with a tracking system to ensure the Federal agency is the only party making a claim on the environmental attributes. Third party certification and verification generally serves to demonstrate that RECs sold through a utility program will not convey to anybody but the buyer (Agency).

GSA, DOD (DLA Energy), and DOE are authorized to purchase power for the Federal government and have experience with such purchases. Federal agencies are encouraged to partner with these Agencies, and other Federal agencies in the region to consolidate demand for electricity from renewable energy sources.

### 4.4 Purchasing Unbundled RECs

Most RECs purchased by Federal agencies have historically been unbundled RECs from generators that are typically on private land and are not associated with any direct government investment. Agencies may conduct their own procurements for these RECs, can request GSA or DLA Energy to purchase these RECs on their behalf, or can work with other Agencies to execute bulk purchases. The DOE EERE Green Power Network<sup>20</sup> and EPA Green Power Partnership Buying Green Power page<sup>21</sup> include additional references and information on suppliers and markets.

## 5 Special Cases

As is expected with an enterprise as large and diverse as the Federal government, special cases and exceptions have arisen in the past. Some examples are listed briefly below for your reference.

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<sup>19</sup> A "green power product" refers to renewable energy that is offered by a utility company that also sells conventional electricity. See the discussion of "Utility Products" at <https://www.epa.gov/greenpower/green-power-supply-options> for more details.

<sup>20</sup> [http://apps3.eere.energy.gov/greenpower/buying/buying\\_power.shtml](http://apps3.eere.energy.gov/greenpower/buying/buying_power.shtml)

<sup>21</sup> <https://www.epa.gov/greenpower/switch-green-power>

- **Agencies Allocating RECs.** In some cases, RECs obtained from a specific contract may be allocated to several agencies. Interagency agreements are recommended so that the allocations are documented for current and future reporting.
- **Placed in Service Date Exceptions.** E.O. 13693 requires that RECs (bundled with electricity or unbundled as explained in Sections 3.3 and 3.4) can only be purchased from renewable generators placed in service less than 10 years prior to the beginning of the Fiscal Year for which the RECs are being counted. However, there are some exemptions to the Place in Service Date requirement that apply to particular types of renewable generation (e.g. Agency owned renewable generators located on Federal or Tribal lands, including purchases from systems owned by other agencies or Tribes, such as qualified Federal hydropower; Agency-owned renewable energy used for remote power applications that are not on Federal or Tribal land (i.e., communications repeaters, security systems, navigational aids, environmental monitors); Long-term purchase (10 years or greater, including option years) of bundled electricity and RECs from newly built, third-party-owned renewable generators located on or off of Federal property (see Section 3.3)).
- **Refurbishments, Repowering, and Co-Firing.** There are special considerations for determining the Placed in Service Date for renewable generators that are refurbished, repowered, or converted to co-fire renewable and fossil fuels, specifically:
  - The Placed in Service Date of a refurbished or modified facility occurs when refurbishment or modification is complete. In addition, the refurbishment/replacement must involve at least 80% of the post-refurbishment market value of the facility.
  - The Placed in Service date of a fossil fuel facility repowered to use renewable fuel occurs when the facility begins generating power with renewable fuel.
  - The Placed in Service Date of a fossil fuel facility converted to co-firing renewable and fossil fuel occurs when co-fired electricity production begins.

As this document is intended to be a general guide to RECs, please contact FEMP, OMB, or CEQ should you have questions or require additional details and guidance for your Agency needs.

## 6 Resources Available to Federal Agencies

In many cases, Agencies may not have the in-house expertise to develop, negotiate, and execute these types of contracts. The Department of Defense (DOD) Defense Logistics Agency (DLA) Energy, General Services Administration (GSA), and the Department of Energy's Federal Energy Management Program (FEMP) and Western Area Power Administration (WAPA<sup>22</sup>) all have significant experience with renewable energy and REC contracts and can provide support to other agencies. The U.S. Environmental Protection Agency (USEPA) also has experience with Green Power markets and with the use and trading of RECs.

Office and/or individual points of contact are:

Defense Logistics Agency Energy (DLA Energy):

DLA Energy

<sup>22</sup> NOTE: WAPA's ability to support is limited to agencies in their region and who are already receiving services from WAPA, unlike GSA and DLA Energy that have a broader authority.

Renewables and ESPC Division  
Individuals: Andrea Kincaid (andrea.kincaid@dla.mil)  
Email: dlaenergy.rteam@dla.mil (central office e-mail)

Department of Energy/Federal Energy Management Program (DOE/FEMP):

DOE/FEMP  
Renewables and Performance Contracting  
Individuals: Tracy (Logan) Niro (RECs, PPAs), Kurmit Rockwell (ESPCs), David McAndrew (UESCs), Rachel Shepherd (Renewable Energy)  
Phone: 202-586-5772 (central office phone number)

Western Area Power Administration (WAPA):

WAPA  
Renewable Resources for Federal Agencies Program (RRFA)  
Individuals: Randolph Manion (manion@wapa.gov)  
Phone: 602-605-2628 (individual office number)  
RRFA Program website:  
<https://www.wapa.gov/Renewables/ForFederalAgencies/Pages/federal-agencies.aspx>

General Services Administration (GSA):

GSA Energy  
Individuals: Ken Shutika (ken.shutika@gsa.gov), Kinga Porst (kinga.porst@gsa.gov)  
Email: energy@gsa.gov (central office e-mail)

U.S. Environmental Protection Agency (USEPA):

USEPA  
Green Power Partnership  
Email: [epa.gov/greenpower/forms/contact-us-about-green-power-partnership](http://epa.gov/greenpower/forms/contact-us-about-green-power-partnership) (central e-mail)