

**2007 Federal Energy Management
Program (FEMP)
Renewable Energy Requirement
Guidance for EPACT 2005 and
Executive Order 13423
Final**

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**Federal Renewable Energy Requirement Guidance for EPACT
2005 and EO 13423
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Federal Renewable Energy Requirement Guidance Under EPACT 2005 and Executive Order 13423

1. Authority

The authority for this guidance is based on Section 203, FEDERAL PURCHASE REQUIREMENT of the Energy Policy Act of 2005 (42 U.S.C. 15852) and Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (72 FR 3919; January 24, 2007), and the instructions and guidance distributed by the Chairman of the Council for Environmental Quality for the implementation of the Executive Order.

1.1 Energy Policy Act of 2005

The Energy Policy Act of 2005 (“EPACT 2005;” Pub. L. 109-58) requires, in part, that the President, acting through the Secretary of Energy, shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of electric energy the Federal government consumes during any fiscal year, the following amounts shall be renewable energy:

- a) Not less than 3 percent in fiscal years 2007 through 2009
- b) Not less than 5 percent in fiscal years 2010 through 2012
- c) Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter

Section 203 (a) of EPACT 2005. (42 U.S.C. 15852(a))

1.2 Executive Order 13423

Executive Order (EO)13423 requires that agencies:

[E]nsure that (i) at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources, and (ii) to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use.

1.3 Guidance

This guidance, promulgated by the Department of Energy’s Federal Energy Management Program (FEMP), specifies the conditions for agencies to meet the EO13423 and the EPACT 2005 Requirements. Each agency should meet the EO13423 Requirement as well as the EPACT 2005 Requirement.

2. Definitions

2.1 Overview of Renewable Energy Sources and Conversion Factors

The EPACT 2005 and EO13423 Requirements will be based on the “total amount of electric energy the Federal government consumes during any fiscal year”¹ for all facilities, those subject to EPACT 2005 goals and excluded, domestic and international. This is consistent with Federal energy management requirements in Title V of the National Energy Conservation Policy Act (“NECPA”; Pub. L. 95-619), which specifically apply to Federal buildings, meaning: “any building, structure, or facility, or part thereof, including the associated energy consuming support systems, which is constructed, renovated, leased, or purchased in whole or in part for use by the Federal Government and which consumes energy; such term also means a collection of such buildings, structures, or facilities and the energy consuming support systems for such collection.”²

For purposes of this guidance and reporting energy use under section 543 of NECPA³ and EO13423, small on-site, renewable energy generation projects that do not incur fuel costs, are un-metered, and are located on the customer side of a facility’s energy meter impact purchased energy in the same manner as an energy conservation project. Therefore they will not be included in the total Btu per gross square foot calculations used for energy efficiency goals.

2.2. Renewable Energy Sources Qualified to Count Toward the EPACT 2005 and EO13423 Requirement

The following sections explain how EPACT 2005 and EO13423 Requirements apply to different types of renewable energy sources.

2.2.1 Renewable Energy Sources of Electricity Qualified to Count Toward the EPACT 2005 Requirement

Electric energy from all of the renewable energy sources that satisfy the definitions and qualifications explained in sections 2.2.3 through 2.2.13 may be counted towards the EPACT 2005 Requirement.

2.2.2 New Renewable Energy Sources Qualified to Count Towards the EO13423 Requirement

Electric energy from all of the renewable energy sources that satisfy the definitions and qualifications explained in sections 2.2.3 through 2.2.13 may be counted towards the EO13423 Requirement. Agencies may also count qualified non-electric energy from new renewable energy sources of the types detailed in sections 2.2.3 through 2.2.13. Examples include but are not limited to thermal energy from solar ventilation pre-heat systems, solar heating and cooling systems, solar water heating, ground source heat pumps, biomass heating and cooling, thermal uses of geothermal and ocean resources. Examples of mechanical energy include pumps driven by wind power and mechanical

¹ Section 203 (a) of EPACT 2005 (42 U.S.C. 15852(a))

² Section 8259 of NECPA (42 U.S.C. 8259(6))

³ Section 543(a)(1) of NECPA (42 U.S.C. 8253(a)(1))

applications of qualified hydro resources. Lighting examples include daylighting technologies.

2.2.2.1 New Renewable Energy Sources

In order for a renewable energy source, either electric or non-electric, to qualify as a new renewable energy source for the purpose of meeting the EO13423 Requirement, the renewable energy source must be placed into service after January 1, 1999.⁴

2.2.2.2 Conversion to Electric Energy Equivalent

Conversion of non-electric energy to an electric equivalent will be based on methods described in DOE's reporting guidance for the Annual Report on Federal Government Energy Management (www.eere.energy.gov/femp/about/reporting_guidance.html).

2.2.3 Biomass

Under the definition in section 203 of EPACT 2005, the term "biomass" means any lignin waste material that is segregated from other waste materials and is determined to be non-hazardous by the Administrator of the Environmental Protection Agency, and any solid, non-hazardous cellulosic material that is derived from the following:

- a) Any of the following forest-related resources: mill residues, precommercial thinnings, slash, and brush, or nonmerchantable material
- b) Solid wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste (garbage), gas derived from the bio-degradation of solid waste, or paper that is commonly recycled
- c) Agricultural wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues, and livestock waste nutrients
- d) A plant that is grown exclusively as a fuel for the production of electricity

Section 203 (b)(1) of EPACT 2005 (42 U.S.C. 15852(b)(1))

2.2.4 Waste to Energy

Municipal solid waste and refuse-derived fuels are included.

2.2.5 Landfill Gas

Landfill gas is the methane generated as waste decomposes. Wastewater treatment digester gas and other gas derived from the bio-degradation of waste also qualify under this category.

2.2.6 Geothermal Energy

This category includes electric energy from geothermal sources.

⁴ –Executive Order 13423, Sec. 9(g)

2.2.7 Solar Energy

Solar energy for production of electrical energy includes but is not limited to photovoltaics and concentrating solar power.

2.2.8 Ocean Energy

Ocean Energy includes but is not limited to electric energy from tidal, wave, current, and ocean thermal energy conversion (OTEC).

2.2.9 Hydropower

For the purpose of the EPACT 2005 requirement, hydropower energy qualifies as renewable energy if it is from new hydroelectric generation capacity achieved from increased efficiency or addition of new capacity at an existing hydroelectric project. Hydroelectric generation capacity is “new” if it was placed in service after January 1, 1999, consistent with the definition of new in EO13423.⁵

2.2.10 Hydrokinetic

Hydrokinetic energy technology extracts energy from moving water without relying on dams to create hydrostatic energy potential. Hydrokinetic energy is also known as ‘run of river’. Hydrokinetic energy used as electricity qualifies as renewable energy for meeting the EPACT 2005 and EO13423 Requirement.⁶

2.2.11 Wind Energy

All sources of wind energy are included.

2.2.12 Renewable Energy Certificates or RECs From Qualifying Sources

Renewable Energy Certificates (RECs) -- also known as green tags, green energy certificates, renewable energy credits, or tradable renewable certificates, -- represent the technology and environmental (non-energy) attributes of energy generated from renewable sources.⁷ Renewable energy credits for electricity are usually sold in 1 megawatt-hour (MWh) units. A certificate can be sold separately from the mega-watt hour of generic electricity with which it is associated. This flexibility enables customers to offset a percentage of their annual energy use with certificates generated elsewhere. RECs provided to meet the requirements of this Guidance must come from sources that meet all requirements of this guidance. RECs from renewable sources of electricity defined in this section may be used to meet the EPACT 2005 Goal and EO13423 goal. RECS from “new” renewable sources of electricity may be used to meet the requirement of EO13423.

RECs from non-electric sources of renewable energy may also be used to meet the EO13423 Requirement concerning new sources of renewable energy. Their contribution will be reported under the EO13423 Requirement, but they cannot be used to meet the EPACT 2005 Requirement.

⁵ Executive Order 13423, Section 9(g)

⁶ March 29, 2007 Instructions for Implementing Executive Order 13423 at http://www.ofee.gov/eo/eo13423_instructions.pdf.

⁷ See EPA definition at www.epa.gov/greenpower/whatis/glossary.htm

2.2.13 Non-energy Attributes

Non-energy attributes of renewable energy include, but are not limited to, the following:

- a) any avoided emissions of pollutants to the air, soil, or water such as sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and mercury;
- b) any other pollutant that is now or may in the future be regulated under the pollution control laws of the United States; and
- c) avoided emissions of carbon dioxide (CO₂) and any other greenhouse gas, along with the RECs reporting rights to these avoided emissions.⁸

3. Requirements for Renewable Energy from Projects, Purchases, and RECs to Qualify as Federal Renewable Energy Consumption

3.1 Introduction

3.1.1 New Renewable Energy Requirement of EO13423

Section 2 (b) of EO13423 requires that at least half of the statutorily required renewable energy consumed by an agency in a fiscal year comes from new renewable sources. In practice this means that in any fiscal year, for purposes of compliance with EO13423, agencies can report the use of electricity from qualified renewable energy sources placed in service on or *before* January 1, 1999 to meet the following percentages of their total electricity use: 1.5% from 2007 to 2009, 2.5% from 2009 to 2013, and 3.75% from 2013 onward. They can meet the requirement for new sources by:

1. using electricity from qualified new renewable sources of electricity built after January 1, 1999 and/or
2. using non-electric energy from qualified new renewable sources built after January 1, 1999;

3.1.2 How the EO13423 Requirement Impacts the EPACT 2005 Goal

EO13423 requires that agencies use new renewable energy sources equal to half of the EPACT 2005 renewable energy requirement. While EPACT 2005 only allows **electricity** from renewable energy sources, EO13423 allows agencies to use new non-electric renewable energy sources to meet the requirement for new renewable energy. However, these non-electric renewable energy sources cannot be used to meet the EPACT 2005 requirement. The table below shows the differences between the two requirements.

⁸ Based on Bonneville Environmental Foundation public comments to ERT Uniform National Certification Standard for EcoPower RECs, submitted to DOE in support of BEF comments.

Comparison of EO13423 and EPACT 2005 Renewable Energy Goals

| | 2007-2009 | 2009-2012 | 2013 onward | Can include new non-electrical? | New or old source? |
|---|------------------|------------------|--------------------|--|---------------------------|
| EO13423 <i>new</i> renewable energy sources <i>minimum</i> requirements | 1.5% | 2.5% | 3.75% | Yes | No, exclusively new |
| EPACT 2005 total minimum renewable energy requirements | 3% | 5% | 7.5% | No | Yes |

For example, using only electricity from renewable energy sources an agency can meet the EO13423 and EPACT 2005 requirement in 2008 with 1.5% of its electricity from new renewable energy sources of electricity and 1.5% from old renewable energy sources of electricity, for total renewable energy use of 3%. At the other extreme, in 2008 an agency could use new non-electric renewable energy sources equivalent to 1.5% of its electricity use to satisfy the EO13423 requirement, and then use only old renewable energy sources of electricity to meet 3% of its electricity use to satisfy the EPACT 2005 requirement, for a total of an equivalent of 4.5% of its electricity use from renewable energy. In between these extremes agencies can use any combination of new non-electric and electric renewable energy sources necessary to meet the EO13423 requirement.

These goals represent minimums only; agencies are encouraged to establish higher internal goals (see section 3.6). Once an agency has met EO13423's Requirement for new source renewable energy and EPACT 2005 Requirement for total renewable energy, agencies should report any amount of new or old renewable electricity consumption that exceeds the goal.

3.1.3 Consumption Requirement

Section 203 of EPACT 2005 specifies that renewable energy must be consumed to be credited toward the Requirement. (42 U.S.C. 15852(a)) The following paragraphs describe how projects and purchases qualify as consumed or used electricity in order to be counted toward the EPACT 2005 Requirement.

Non-electric renewable energy used to meet the EO13423 Requirement for new renewable energy must also be consumed, therefore non-electric energy from renewable sources must meet the same qualifications as electricity from renewable energy described in the following paragraphs.

3.1.4 Double Counting

3.1.4.1 Avoiding Double Counting

RECs that count toward the EPACT 2005 and EO13423 Requirements cannot be double counted except under the bonus specified in EPACT 2005 section 203, subsection (c). (42 U.S.C. 15852(c)) The statutory "bonus" is discussed in sections 3.1.4.3 and 3.4 below. It is important to protect the credibility of RECs in the general market where they are traded, and double counting could jeopardize that credibility.

3.1.4.2 Double Counting Defined

Double counting occurs when

- a) more than one party at the same time claims the renewable energy attributes from renewable energy generation (as either RECs or as renewable energy), i.e., the renewable energy is "double sold" to other customers; or
- b) the renewable energy counted toward the agency's goal is also used to meet a renewable portfolio standard or other federal, state, or local regulatory requirement, except for the exemptions provided to projects initiated prior to final publication of this guidance; or
- c) non-energy attributes such as emissions credits/allowances or other environmental attributes are further disaggregated from the renewable attributes by the renewable energy/REC supplier and sold separately.

3.1.4.3. Bonus under Section 203 of EPACT 2005

Section 3.4 of this guidance discusses the bonus credits that are allowed under section 203(c) of EPACT 2005. The bonus allowed by section 203(c) of EPACT 2005 is not considered double counting. The bonus will be implemented by accounting for it in agency reporting. This bonus is specified by law, addresses only accounting internal to the Federal government, and should not negatively impact the general REC market.

The bonus is not available to non-electric renewable energy sources used by agencies to meet the EO13423 Requirement for use of renewable energy generated from new sources.

3.1.5 Including Non-energy Attributes in Renewable Energy and RECs

For Renewable Energy or RECs to count under the EPACT 2005 Requirement or the EO13423 Requirement, both the renewable attributes and the non-energy attributes must be retained by the agency, retired, or precluded from transfer to a third party.

3.2 On-site Renewable Energy Projects, Government-Owned Projects and Distributed Generation

Executive Order 13423 section 2 (b)(ii) requires that to the extent feasible, agencies implement renewable generation projects on agency property for agency use. The instructions for EO13423 include guidance on increasing use of renewable energy in Energy Savings Performance Contracts (ESPCs) and Utility Energy Savings Contracts (UESCs) including bundling measures with short and long-term paybacks to create cost-effective contracts to expand on-site renewable energy projects. Where life-cycle cost effective, each agency shall implement distributed generation systems in new construction or retrofit projects, including renewable systems such as solar electric, solar lighting, geo (or ground coupled) thermal, small wind turbines, as well as other generation systems such as fuel cell, cogeneration, or highly efficient alternatives. In addition, agencies are encouraged to use distributed generation systems when a substantial contribution is made toward enhancing energy reliability or security. More information is available in the March 29 EO13423 instructions at http://www.ofee.gov/eo/eo13423_instructions.pdf.

3.2.1 REC Retention Requirements

It is expected that Federal renewable energy use under EPACT 2005 and EO13423 will result in renewable energy use beyond the existing state renewable portfolio standard (RPS) goals. Any RECs sold or relinquished to meet State RPS goals or corporate renewable energy goals that are not replaced with other RECs do not contribute to the goals established by EPACT 2005 and EO13423. This is to prevent Federal agencies from claiming credit for renewable energy attributes that are also claimed by other parties such as states or corporations (see Section 3.1.4.2). Therefore agencies are required to retain ownership of the RECs from projects in order to count them towards the EPACT 2005 or EO13423 Requirements. These requirements also apply to all sources of RECs, including non-electric renewable energy sources.

Renewable energy from projects built on-site at a Federal facility or owned by a Federal agency but installed on non-Federal land or waterways may qualify to be counted toward the EPACT 2005 or EO13423 Requirements where

- a) (i) the renewable energy is produced and used on-site (i.e., the renewable energy produced by the project is on the facility side of the meter and the power/energy is not sold to others), or
 - (ii) the renewable energy is produced by a renewable energy project owned by a Federal agency but installed on private land or waterways (for example, off-grid installations that power remote sensing equipment or buoys) and
- b) the renewable energy and non-energy attributes are not sold or otherwise allowed to be transferred from the site.

Retention of a REC that explicitly states that the Federal agency retains or precludes transfer to other parties of all renewable energy and non-energy attributes of the project is the best evidence of meeting this standard.

Existing projects where the agency can show that it uses the energy produced but where there is no agreement or contract that addresses the disposition of the RECs and non-energy attributes of the project shall receive full credit so long as the RECs and/or non-energy attributes are not explicitly sold or transferred in the future. See Section 3.4 for a discussion on how bonuses for these on-site projects are credited and the treatment of RECs from these projects. For non-electric on-site projects, for example thermal projects where there is no market for RECs, a document or clause stating that the Federal agency retains or precludes transfer to other parties of all renewable energy and non-energy attributes of any renewable energy produced by on-site projects is recommended.

3.2.2 REC Trading

The requirement to retain RECs does not preclude trading or swapping RECs. Agencies may arrange for the sale of RECs from on-site renewable projects and arrange for the proceeds to be used to acquire RECs from other locations and/or renewable resources. Agencies may also arrange for direct swaps of RECs with other renewable energy projects. This "REC Swap" option is designed to encourage innovative projects and to improve project cost-effectiveness, while retaining the concept that a specific REC is not double counted, except as specified in EPACT 2005 Section 203 (c). See Section 3.4 for

a discussion on how bonuses for these on-site projects are credited and the treatment of RECs from these projects.

3.2.2.1 REC Swaps Allowed at Agency Level

Swaps may be arranged at the reporting agency level, but must be documented. Swaps will not be allowed between reporting agencies, although agencies may arrange purchases of RECs from each other. This allows an agency to apply RECs purchased from other sources to cover the renewable energy production from any on-site project in the agency even if the RECs from the project were not retained, and to claim any bonus credit available because the project is on Federal or Indian land. For the EPACT 2005 Requirement the RECs an agency receives in a swap or trade must come from qualified renewable energy sources of electricity.

3.2.2.2 REC Swaps and Non-Electric Renewable Energy Sources

To meet the new renewable energy provisions of the EO13423 Requirement agencies may swap RECs from non-electric renewable energy sources. However, non-electric renewable energy sources produced on Federal or Indian lands cannot receive a bonus even if they are swapped or traded for RECs from a renewable source of electricity. RECs for renewable sources of non-electric energy must come from projects placed in service after January 1, 1999, to qualify for the new renewable energy provisions of the EO13423 Requirement, and to be reported as progress toward meeting the EO13423 Requirement.

3.2.2.3 REC Swap Example for Electric Renewable Energy Sources

Under the EPACT 2005 Requirement if an agency has a project that produces 100 MWh of qualified renewable energy on its lands but sold the RECs for the project, it would not receive credit for the 100 MWh produced or the 100 MWh of bonuses for siting the project on Federal lands. However, the agency can purchase 100 MWhs of RECs from other sources of renewable electricity to swap for the RECs it sold. The agency could then count the 100 MWh produced by the project and covered by the purchased RECs and claim the 100 MWh bonus, for a total of 200 MWh, including the RECs. This energy would also count toward the EO13423 Requirement.

3.2.2.4 REC Swap Example for Non-Electric Renewable Energy Sources

Under the EO13423 Requirement, if an agency has a project that produces BTUs, mechanical energy or light that is the equivalent of 100 MWh of qualified renewable energy from a new source of non-electric energy placed in service after January 1, 1999, but sold the RECs for the project, it would not receive credit for the 100 MWh equivalent in meeting the new renewable energy provisions of the EO13423 Requirement. However, the agency can purchase 100 MWhs of RECs from other new renewable sources of electric, mechanical or thermal energy placed in service after January 1, 1999 to swap for the RECs it sold. However, because the original project on Federal lands was a renewable source of non-electric energy, it cannot qualify for any bonus. The most the agency can claim toward meeting the new renewable energy requirement under the EO13423 Requirement is 100 MWh. This provision allows agencies to swap high-value RECs from an agency project for less expensive RECs to help reduce project costs. If the thermal project was placed in service on or before January 1, 1999, it cannot contribute to the EO13423 Requirement at all.

3.2.3 Grandfathering Exemption for Projects Initiated Before Final Publication of This Guidance

As a transition, renewable energy from on-site or government-owned projects initiated before final publication of this guidance will not have to meet the REC retention requirements stated in section 3.2.1, as long as they comply with the other requirements in this guidance. The best proof that a project was initiated prior to the publication of guidance is an issued request for proposal for the project. Projects that can be shown to be part of a documented acquisition plan approved prior to publication of this guidance will also be grandfathered.

Projects initiated prior to final publication of this guidance that will produce and use renewable energy on-site or that are owned by the government are exempted from the REC retention requirement in order to accommodate situations where the agency cannot meet the requirement.

These projects count toward the EPACT 2005 and EO13423 Requirement even if the RECs must be transferred to a state, locality, or utility to obtain support for the project from a renewable portfolio standard or incentive program.

Agencies should make clear in any document concerning RECs from projects initiated before final publication of this guidance, that the RECs cannot be transferred by the agency or utility into the voluntary market beyond the original recipient because their renewable energy and non-energy attributes have already been claimed under the EPACT 2005 Requirement or the EO13423 Requirement.

Projects based on new renewable energy sources of non-electric energy may also be grandfathered under these provisions, but can only be counted toward the EO13423 Requirement.

All Grandfathering exemptions will expire as of September 30, 2011.

3.2.4 On-Site Projects No Longer Restricted by January 1, 1990 Start Date.

EO13423 revoked EO13123 and therefore revoked its accompanying guidance which required that all renewable energy claimed for the Federal renewable energy goal must come from projects built after January 1, 1990. All on-site renewable energy projects that produce electricity can count toward the EPACT 2005 Requirement regardless of their installation date, provided the agency meets the requirements in section 3.1.1 of this guidance and section 2 (b) of EO13423 that directs agencies to meet half of their statutory goal with new renewable resources placed in service after January 1, 1999. See section 3.4 of this guidance for a discussion of how this relates to the bonus for installation on Federal or Indian lands.

For renewable sources of non-electric energy used to meet the EO13423 Requirement, only projects placed in service after January 1, 1999 can be counted.

3.3 Purchases of Renewable Energy/RECs

For purposes of the EPACT 2005 and EO13423 Requirements, purchases of RECs are treated the same as renewable energy purchases. This is an established, standard practice within the private sector. This also means that a REC must be from a qualified renewable source of electricity to count toward the EPACT 2005 Goal. RECs from qualified renewable sources of non-electric energy can only be used to meet the EO13423 Requirement.

3.3.1 Purchases Qualified for Credit

Purchased renewable energy and RECs may only be counted against the EPACT 2005 or EO13423 Requirements when the renewable and non-energy attributes are retained by the agency, retired, or precluded from transfer to a third party. Therefore, agency purchases of renewable energy/RECs should include contract language that explicitly states that the Federal agency retains or precludes transfer to other parties of all renewable energy and non-energy attributes of any renewable energy/RECs that they purchase.

Guidance and sample language regarding this requirement will be updated periodically as industry practice and market conditions change over time and will be available on the FEMP website at <http://www1.eere.energy.gov/femp/about/legislation.html>.

3.3.2 Grandfather Clause for Purchases Before Guidance Issue Date

RECs or renewable energy purchases contracted prior to final publication of this guidance that do not currently meet these requirements, but do comply with the guidance previously provided under Executive Order 13123, are allowed as grandfathered. However, any RECs or renewable energy purchases obtained under a contract following changes to that existing contract other than exercising existing options are not grandfathered and must comply with these requirements to be counted against the EPACT 2005 or EO13423 Requirements.

REC or renewable energy purchases that are acquired through a Request for Proposal (RFP) issued prior to publication of this guidance will also be grandfathered. Projects that can be shown to be part of a documented acquisition plan approved prior to publication of this guidance will also be grandfathered. All Grandfathering exemptions will expire as of September 30, 2011.

Purchases based on new renewable energy sources of non-electric energy may also be grandfathered under these provisions, but can only be counted toward the EO13423 Requirement.

3.3.3 Purchases Not Qualified for Credit

That portion of renewable energy/RECs that is used by another party (including electric service providers who claim ownership of renewable energy attributes to meet renewable portfolio standards), or transferred or sold by the Federal agency to a third party, cannot be counted toward the EPACT 2005 or EO13423 Requirement.

Agencies may not count renewable energy or REC purchases from resources that are included in the utility's normal generation mix. Agencies may not count renewable energy or REC purchases that have been paid for by captive utility ratepayers unless the revenue from the further sale of the renewable energy or RECs is returned to those ratepayers or used for new renewable energy development.

Note that a REC supplier may retire RECs on the Federal government's behalf in those states with REC tracking systems that allow RECs to be retired by the supplier on behalf of the purchaser.

3.3.4 "Vintage" Requirements

RECs purchased for use in a given contract year must meet REC "vintage" requirements, i.e., the energy they represent must be generated during the same

defined contract year. They may also be generated six (6) months immediately preceding each contract year of the period of performance, or three (3) months immediately following each contract year of the period of performance. This is consistent with recommended practice for the EPA Green Power Partnerships.⁹

Guidance and sample language regarding this requirement will be updated periodically as industry practice and market conditions change over time and will be available on the FEMP website at <http://www1.eere.energy.gov/femp/about/legislation.html>.

3.3.5 Third-Party Verification

Requests for Proposals (RFPs) shall include provisions that address the issues discussed in this guidance, and suppliers should certify that their product meets the requirements of this guidance. RFPs shall also include a “Third Party Verification” requirement as described below:

All Federal agency renewable energy/REC RFPs must include Third Party Verification audit requirements for the purchase. The purpose of this requirement is to prevent fraud, to ensure that Federal renewable energy/REC purchases are not double-counted, to ensure that the Federal government receives the renewable energy and non-energy benefits associated with their renewable energy/REC purchases, to ensure that vintage and other requirements of this guidance are met, and to help standardize industry best practices.

Guidance and sample language regarding this requirement will be updated periodically as industry practice and market conditions change over time and will be available on the FEMP website at <http://www1.eere.energy.gov/femp/about/legislation.html>.

3.3.6 Purchases from Federal and Tribal Lands

See Section 3.4 for a discussion on how purchases from Federal land and tribal lands receive a bonus under EPCACT 2005.

3.4 Bonuses for Qualifying Renewable Energy

In accord with section 203 (c) of EPCACT 2005¹⁰, a bonus equivalent to doubling the amount of renewable energy used or purchased is available if any of the following conditions are met:

- a) the renewable energy is produced and used on-site at a Federal facility;
- b) the renewable energy is produced on Federal lands and used at a Federal facility;
- c) the renewable energy is produced on Indian land as defined in title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.) and used at a Federal facility;
or¹¹

⁹ More information on vintage requirements and best practices can be found in this document: http://www.epa.gov/greenpower/pdf/gpp_partnership_reqs.pdf

¹⁰ 42 U.S.C. 15825(c) Projects or purchases that qualify for the bonus may report double the renewable energy used or purchased by the Federal agency.

- d) the electricity produced on-site at a Federal facility is sold to a third party, but the power purchase contract explicitly states that the Federal agency retains ownership of the related RECs and non-energy attributes. Moreover, the energy buyer is precluded from representing that such purchased energy is “renewable” for any purpose (e.g., to meet a state renewable portfolio standard, in public disclosure statements, press releases, or bill inserts, etc). All renewable energy and non-energy attributes must be retained by the site.

The bonus is only available to qualified renewable energy sources that produce electricity on Federal or Indian lands. Non-electric energy from renewable sources is not eligible for the bonus.

3.4.1 Bonus Transferability Between Agencies

If one Federal agency transfers the renewable energy and the associated RECs produced on its land to another Federal agency, the purchasing agency may receive double credit for each kWh purchased. The agencies may also negotiate other divisions of the RECs and bonus credits between the agencies, as long as the total does not exceed the amount of renewable energy generated plus the bonus and the division is clearly documented.

3.4.2 Bonus and REC Transfers to Parties Outside the Federal Government

If an agency transfers the RECs for a project that otherwise qualifies for the bonus to a party outside the Federal government, it also gives up its right to count that amount of renewable energy for its goal. It also gives up the right to claim the bonus for the energy and renewable attributes associated with the RECs it sells unless RECs purchased from other sources are used to cover the renewable energy production from the on-site project as referenced in Section 3.2.2.

3.4.3 Bonus Limited to New Renewable Energy Sources

The intent of the bonus is to encourage the development of on-site renewable energy projects. Therefore, this guidance honors that intent by limiting the bonus to new renewable energy projects. To qualify for the bonus, projects and purchases must come from new renewable energy sources placed in service after January 1, 1999. They must also meet the other requirements specified in this guidance. Projects placed in service on or before January 1, 1999 will not receive any bonus.

3.4.4 Bonus Available to Refurbished Facilities

A project originally placed in service on or before January 1, 1999 but that is rebuilt, refurbished or modified significantly – involving greater than 80% of the original equipment or changes that equal 80% or more of the original costs of the facility – will be considered new for purposes of the bonus calculation under EPCACT 2005 and the new renewable energy requirement under EO13423.

3.4.5 Bonus Provisions for Projects that Convert Renewable Fuels to Electricity

Projects placed in service after January 1, 1999 that convert renewable fuels into useful electric energy will be considered on-site projects that can qualify for the bonus if the

¹¹ Requirements a), b) and c) are from Section 203 (c) of the Energy Policy Act of 2005, (42 U.S.C. 15825(c)). Item d) addresses a possibility created by this guidance.

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.

3.4.6 Bonus Impact on Greenhouse Gas Intensity and Information on Future Guidance

Bonuses for renewable energy generation will not be used in calculating reductions in agency greenhouse gas intensity.

Guidance and sample language regarding this requirement will be updated periodically as industry practice and market conditions change over time and will be available on the FEMP website at <http://www1.eere.energy.gov/femp/about/legislation.html>.

3.5 Encouragement for Long-Term Contracts

Agencies are encouraged to enter into long-term contracts (10 years or longer) for the purchase of renewable energy if the contract directly supports the development of new renewable energy resources.

Where not prohibited by law, agencies are encouraged to enter into long-term power purchase contracts for the supply of renewable energy that meet the requirements below. Such a contract should be for a term of 10 years or longer and substantially contribute to the development, financing, construction, and operation of a new renewable project. In this situation, “substantially” means more than 10 percent of a project or the equivalent of purchasing production of 3 MW of new renewable capacity

3.6 Internal Agency Renewable Energy Goals

The EPACT 2005 and EO13423 Requirements do not preclude agencies from setting more aggressive renewable energy goals for themselves. Federal agencies are encouraged to exceed the EPACT 2005 and EO13423 Requirements and establish higher internal renewable energy goals.

4. Counting Renewable Energy Purchase Goals for Reducing Energy Intensity

During FY 2007, agencies will continue to receive credit toward their energy reduction goal from purchases of qualified electric and non-electric renewable energy sources. From FY 2008 through FY 2011, the credit will gradually be reduced to zero as shown in the table below.

Purchases of renewable energy or Renewable Energy Certificates (RECs) may only contribute up to 60 percent of the annual energy reduction goal for FY 2008, and gradually be reduced to zero by 2012.

Long-term REC purchases of 10 years or more of renewable energy that contribute to the development of new renewable energy resources may only contribute up to 80 percent of the annual energy reduction goal for FY 2008 and gradually be reduced to zero in 2012, as shown in the table below.

| Fiscal Year | Energy Reduction Goal | Maximum Contribution of Renewable Energy and REC Purchases toward Energy Goal | Maximum Contribution of <u>Long-Term</u> Renewable Energy and REC Purchases toward Energy Goal[*] |
|--------------------|------------------------------|--|---|
| 2003 | Base Year | RECs and purchases not applied in Base Year | RECs and purchases not applied in Base Year |
| 2007 | 4% | No limit | Not applicable |
| 2008 | 9% | 5.4% | 7.2% |
| 2009 | 12% | 4.8% | 7.2% |
| 2010 | 15% | 3.0% | 6.0% |
| 2011 | 18% | 1.8% | 3.6% |
| 2012 | 21% | 0.0% | 0.0% |

^{*}The combined total of both regular and long-term renewable purchases may not contribute more than the percentages shown in column 4 above.

Agencies will continue to receive appropriate credit for reducing greenhouse gas emissions for all the renewable energy they use.

The phase out for counting renewable energy and REC purchases toward energy intensity goals does not impact how agencies count these purchases toward renewable energy goals.

5. Reporting

In accordance with Section 203(d) of EPACT 2005, the Secretary of Energy shall provide a report to Congress on the progress of the Federal Government in meeting the goals established by Section 203. (42 U.S.C. 15825(d)) To facilitate the development of this report, agencies will annually submit a report to the Department of Energy detailing their progress toward meeting the EPACT 2005 and EO13423 Requirements as part of their regular annual energy data reporting. For the purposes of reporting energy reduction goal progress, agencies should refer to DOE's reporting guidance for the Annual Report on Federal Government Energy Management (www.eere.energy.gov/femp/about/reporting_guidance.html). This guidance has been updated to reflect reporting requirements for FY 2007 and in subsequent years will reflect the provisions for phasing out the renewable energy credit toward energy intensity goals.

Renewable sources of non-electric energy are included in calculating progress toward the EO13423 Requirement for new renewable energy sources, but the EPACT 2005 Requirement specifies renewable electricity in the statutory language. Therefore, progress in expanding renewable energy use will be reported without non-electric sources of renewable energy for the EPACT 2005 Requirement. For the EO13423 Requirement non-electric renewable energy will be counted by converting to kilowatt-hours (kWh) using methods explained and updated in DOE's reporting guidance for the Annual Report on Federal Government Energy Management (www.eere.energy.gov/femp/about/reporting_guidance.html).

Agencies may, for a variety of reasons, have renewable projects or purchases that do not meet the requirements of this guidance, including non-electric renewable energy. Agencies are encouraged to include a section in their reports under this guidance describing the actions they have taken to promote renewable energy production beyond those accounted for under this guidance. FEMP will work with the agencies to develop consistent formats and methods for reporting.