

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

## Part XX CO<sub>2</sub> Budget Trading Program

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2  
3 **Subpart XX-1 CO<sub>2</sub> Budget Trading Program General Provisions**

4  
5 **XX-1.1 Purpose**

6  
7 This Part establishes the NAME OF RELEVANT RGGI STATE component of the  
8 CO<sub>2</sub> Budget Trading Program, which is designed to stabilize and then reduce  
9 anthropogenic emissions of CO<sub>2</sub>, a greenhouse gas, from CO<sub>2</sub> budget sources in an  
10 economically efficient manner.

11  
12 **XX-1.2 Definitions.**

13  
14 (a) *Account number.* The identification number given by the REGULATORY  
15 AGENCY or its agent to each CO<sub>2</sub> Allowance Tracking System account.

16  
17 (b) *Administrator.* Administrator means the Administrator of the United States  
18 Environmental Protection Agency or the Administrator's authorized representative.

19  
20 (c) *Allocate or allocation.* The determination by the REGULATORY AGENCY of  
21 the number of CO<sub>2</sub> allowances to be initially credited to a CO<sub>2</sub> budget unit, an allocation  
22 set-aside account, the consumer benefit or strategic energy purpose account, or the  
23 general account of the sponsor of an approved CO<sub>2</sub> emissions offset project. **[The**  
24 **reference to the consumer benefit or strategic energy purpose account illustrates**  
25 **how this account could be labeled and does not necessarily represent what an**  
26 **individual RGGI State will propose.]**

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1  
2 (d) *Allocation year.* A calendar year for which the REGULATORY AGENCY  
3 allocates CO<sub>2</sub> allowances pursuant to Subparts XX-5 and XX-10. The allocation year of  
4 each CO<sub>2</sub> allowance is reflected in the unique identification number given to the allowance  
5 pursuant to subdivision XX-6.4(c).  
6

7 (e) *Attribute.* A characteristic associated with electricity generated using a  
8 particular renewable fuel, such as its generation date, facility geographic location, unit  
9 vintage, emissions output, fuel, state program eligibility, or other characteristic that can be  
10 identified, accounted, and tracked.  
11

12 (f) *Attribute credit.* An attribute credit represents the attributes related to one  
13 megawatt-hour of electricity generation.  
14

15 (g) *Automated data acquisition and handling system or DAHS.* That component  
16 of the continuous emissions monitoring system, or other emissions monitoring system  
17 approved for use under Subpart XX-8, designed to interpret and convert individual output  
18 signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and  
19 other component parts of the monitoring system to produce a continuous record of the  
20 measured parameters in the measurement units required by Subpart XX-8.  
21

22 (h) *Billing meter.* To qualify as a billing meter, the measurement device must be  
23 used to measure electric or thermal output for commercial billing under a contract. The  
24 facility selling the electric or thermal output must have different owners from the owners of  
25 the party purchasing the electric or thermal output.  
26

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1 (i) *Boiler.* An enclosed fossil or other fuel-fired combustion device used to  
2 produce heat and to transfer heat to recirculating water, steam, or other medium.

3  
4 (j) *CO<sub>2</sub> allowance.* A limited authorization by the REGULATORY AGENCY  
5 under the CO<sub>2</sub> Budget Trading Program to emit up to one ton of CO<sub>2</sub>, subject to all  
6 applicable limitations contained in this Part. No provision of this regulation shall be  
7 construed to limit the authority of the REGULATORY AGENCY to terminate or limit such  
8 authorization to emit. This limited authorization does not constitute a property right.

9  
10 (k) *CO<sub>2</sub> allowance deduction or deduct CO<sub>2</sub> allowances.* The permanent  
11 withdrawal of CO<sub>2</sub> allowances by the REGULATORY AGENCY or its agent from a CO<sub>2</sub>  
12 Allowance Tracking System compliance account to account for the number of tons of CO<sub>2</sub>  
13 emitted from a CO<sub>2</sub> budget source for a control period, determined in accordance with  
14 Subpart XX-8, or for the forfeit or retirement of CO<sub>2</sub> allowances as provided by this Part.

15  
16 (l) *CO<sub>2</sub> allowance price.* The price for CO<sub>2</sub> allowances in the CO<sub>2</sub> Budget  
17 Trading Program for a particular time period as determined by the REGULATORY  
18 AGENCY or its agent, calculated based on a volume-weighted average of transaction  
19 prices reported to the REGULATORY AGENCY or its agent, and taking into account prices  
20 as reported publicly through reputable sources.

21  
22 (m) *CO<sub>2</sub> allowances held or hold CO<sub>2</sub> allowances.* The CO<sub>2</sub> allowances recorded  
23 by the REGULATORY AGENCY or its agent, or submitted to the REGULATORY AGENCY  
24 or its agent for recordation, in accordance with Subparts XX-6 and XX-7, in a CO<sub>2</sub>  
25 Allowance Tracking System account.

26

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1           (n) *CO<sub>2</sub> Allowance Tracking System*. The system by which the REGULATORY  
2 AGENCY or its agent records allocations, deductions, and transfers of CO<sub>2</sub> allowances  
3 under the CO<sub>2</sub> Budget Trading Program. The tracking system may also be used to track  
4 CO<sub>2</sub> emissions offset projects, CO<sub>2</sub> allowance prices and emissions from affected sources.

5  
6           (o) *CO<sub>2</sub> Allowance Tracking System account*. An account in the CO<sub>2</sub> Allowance  
7 Tracking System established by the REGULATORY AGENCY or its agent for purposes of  
8 recording the allocation, holding, transferring, or deducting of CO<sub>2</sub> allowances.

9  
10          (p) *CO<sub>2</sub> allowance transfer deadline*. Midnight of the March 1 occurring after the  
11 end of the relevant control period or, if that March 1 is not a business day, midnight of the  
12 first business day thereafter and is the deadline by which CO<sub>2</sub> allowances must be  
13 submitted for recordation in a CO<sub>2</sub> budget source's compliance account in order to meet  
14 the source's CO<sub>2</sub> budget emissions limitation for the control period immediately preceding  
15 such deadline.

16  
17          (q) *CO<sub>2</sub> authorized account representative*. For a CO<sub>2</sub> budget source and each  
18 CO<sub>2</sub> budget unit at the source, the natural person who is authorized by the owners and  
19 operators of the source and all CO<sub>2</sub> budget units at the source, in accordance with Subpart  
20 XX-2, to represent and legally bind each owner and operator in matters pertaining to the  
21 CO<sub>2</sub> Budget Trading Program or, for a general account, the natural person who is  
22 authorized, under Subpart XX-6, to transfer or otherwise dispose of CO<sub>2</sub> allowances held  
23 in the general account.

24  
25          (r) *CO<sub>2</sub> budget emissions limitation*. For a CO<sub>2</sub> budget source, the tonnage  
26 equivalent of the CO<sub>2</sub> allowances required for compliance deduction for the source for a  
27 control period.

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1  
2 (s) *CO<sub>2</sub> budget permit.* The portion of the legally binding permit issued by the  
3 REGULATORY AGENCY pursuant to **[Insert Reference to State's Permitting**  
4 **Regulation(s)]** to a CO<sub>2</sub> budget source or CO<sub>2</sub> budget unit which specifies the CO<sub>2</sub>  
5 Budget Trading Program requirements applicable to the CO<sub>2</sub> budget source, to each CO<sub>2</sub>  
6 budget unit at the CO<sub>2</sub> budget source, and to the owners and operators and the CO<sub>2</sub>  
7 authorized account representative of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit.  
8

9 (t) *CO<sub>2</sub> budget source.* A source that includes one or more CO<sub>2</sub> budget units.  
10

11 (u) *CO<sub>2</sub> Budget Trading Program.* A multi-state CO<sub>2</sub> air pollution control and  
12 emissions reduction program established pursuant to this Part and corresponding  
13 regulations in other states as a means of reducing emissions of CO<sub>2</sub> from CO<sub>2</sub> budget  
14 sources.  
15

16 (v) *CO<sub>2</sub> budget unit.* A unit that is subject to the CO<sub>2</sub> Budget Trading Program  
17 requirements under section XX-1.4.  
18

19 (w) *CO<sub>2</sub> equivalent.* The quantity of a given greenhouse gas multiplied by its  
20 global warming potential (GWP).  
21

22 (x) *CO<sub>2</sub> offset allowance.* A CO<sub>2</sub> allowance that is awarded to the sponsor of a  
23 CO<sub>2</sub> emissions offset project pursuant to section XX-10.7 and is subject to the relevant  
24 compliance deduction limitations of section XX-6.5(a)(3).  
25



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1           (y) *Combined cycle system.* A system comprised of one or more combustion  
2 turbines, heat recovery steam generators, and steam turbines configured to improve  
3 overall efficiency of electricity generation or steam production.

4  
5           (z) *Combustion turbine.* An enclosed fossil or other fuel-fired device that is  
6 comprised of a compressor (if applicable), a combustor, and a turbine, and in which the  
7 flue gas resulting from the combustion of fuel in the combustor passes through the turbine,  
8 rotating the turbine.

9  
10          (aa) *Commence commercial operation.* With regard to a unit that serves a  
11 generator, to have begun to produce steam, gas, or other heated medium used to  
12 generate electricity for sale or use, including test generation. For a unit that is a CO<sub>2</sub>  
13 budget unit under section XX-1.4 of this Subpart on the date the unit commences  
14 commercial operation, such date shall remain the unit's date of commencement of  
15 commercial operation even if the unit is subsequently modified, reconstructed, or  
16 repowered. For a unit that is not a CO<sub>2</sub> budget unit under section XX-1.4 of this Subpart  
17 on the date the unit commences commercial operation, the date the unit becomes a CO<sub>2</sub>  
18 budget unit under section XX-1.4 of this Subpart shall be the unit's date of commencement  
19 of commercial operation.

20  
21          (ab) *Commence operation.* To begin any mechanical, chemical, or electronic  
22 process, including, with regard to a unit, start-up of a unit's combustion chamber. For a  
23 unit that is a CO<sub>2</sub> budget unit under section XX-1.4 of this Subpart on the date of  
24 commencement of operation, such date shall remain the unit's date of commencement of  
25 operation even if the unit is subsequently modified, reconstructed, or repowered. For a  
26 unit that is not a CO<sub>2</sub> budget unit under section XX-1.4 of this Subpart on the date of  
27 commencement of operation, the date the unit becomes a CO<sub>2</sub> budget unit under section

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1 XX-1.4 of this Subpart shall be the unit's date of commencement of operation

2  
3 (ac) *Compliance account.* A CO<sub>2</sub> Allowance Tracking System account,  
4 established by the REGULATORY AGENCY or its agent for a CO<sub>2</sub> budget source under  
5 Subpart XX-6, in which the CO<sub>2</sub> allowance allocations for the source are initially recorded  
6 and in which are held CO<sub>2</sub> allowances available for use by the source for a control period  
7 for the purpose of meeting the source's CO<sub>2</sub> budget emissions limitation.

8  
9 (ad) *Consumer benefit or strategic energy purpose account.* A general account  
10 established by the CONSUMER BENEFIT OR STRATEGIC ENERGY PURPOSE FUND  
11 ADMINISTRATOR from which allowances will be sold or distributed in order to provide  
12 funds to encourage and foster the following: promotion of energy efficiency measures,  
13 direct mitigation of electricity ratepayer impacts attributable to the implementation of the  
14 CO<sub>2</sub> Budget Trading Program, promotion of renewable or non-carbon-emitting energy  
15 technologies, stimulation or reward of investment in the development of innovative carbon  
16 emissions abatement technologies with significant carbon reduction potential, and/or the  
17 administration of NAME OF RELEVANT RGGI STATE component of the CO<sub>2</sub> Budget  
18 Trading Program. **[This definition for the consumer benefit or strategic energy  
19 purpose account illustrates how this account could be defined and does not  
20 necessarily represent what an individual RGGI State will propose.]**

21  
22 (ae) *Continuous emissions monitoring system or CEMS.* The equipment required  
23 under Subpart XX-8 to sample, analyze, measure, and provide, by means of readings  
24 recorded at least once every 15 minutes (using an automated DAHS), a permanent record  
25 of stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon  
26 dioxide concentration (as applicable), in a manner consistent with 40 CFR Part 75 and  
27 Subpart XX-8. The following systems are the principal types of continuous emissions

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1 monitoring systems required under Subpart XX-8.

2  
3 (1) A flow monitoring system, consisting of a stack flow rate monitor and  
4 an automated data acquisition and handling system and providing a permanent,  
5 continuous record of stack gas volumetric flow rate, in standard cubic feet per hour (scfh);  
6

7 (2) A nitrogen oxides emissions rate (or NO<sub>x</sub>-diluent) monitoring system,  
8 consisting of a NO<sub>x</sub> pollutant concentration monitor, a diluent gas (CO<sub>2</sub> or O<sub>2</sub>) monitor, and  
9 an automated data acquisition and handling system and providing a permanent,  
10 continuous record of NO<sub>x</sub> concentration, in parts per million (ppm), diluent gas  
11 concentration, in percent CO<sub>2</sub> or O<sub>2</sub>; and NO<sub>x</sub> emissions rate, in pounds per million British  
12 thermal units (lb/MMBtu);  
13

14 (3) A moisture monitoring system, as defined in 40 CFR 75.11(b)(2) and  
15 providing a permanent, continuous record of the stack gas moisture content, in percent  
16 H<sub>2</sub>O;  
17

18 (4) A carbon dioxide monitoring system, consisting of a CO<sub>2</sub> pollutant  
19 concentration monitor (or an oxygen monitor plus suitable mathematical equations from  
20 which the CO<sub>2</sub> concentration is derived) and an automated data acquisition and handling  
21 system and providing a permanent, continuous record of CO<sub>2</sub> emissions, in percent CO<sub>2</sub>;  
22 and  
23

24 (5) An oxygen monitoring system, consisting of an O<sub>2</sub> concentration  
25 monitor and an automated data acquisition and handling system and providing a  
26 permanent, continuous record of O<sub>2</sub>, in percent O<sub>2</sub>.  
27

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1 (af) *Control period.* The control period is a three-calendar-year time period,  
2 unless extended to four years upon occurrence of a stage two trigger event. The first  
3 control period is from January 1, 2009 to December 31, 2011, inclusive, provided if a stage  
4 two trigger event occurs during the first control period, then the first control period will be  
5 extended one-year to December 31, 2012, inclusive. Each subsequent sequential three-  
6 calendar-year period is a separate control period that is subject to one one-year extension  
7 upon occurrence of a stage two trigger event during the control period. In no event may a  
8 control period be longer than four calendar years.

9  
10 (ag) *Eligible Biomass.* Eligible biomass includes sustainably harvested woody  
11 and herbaceous fuel sources that are available on a renewable or recurring basis  
12 (excluding old-growth timber), including dedicated energy crops and trees, agricultural food  
13 and feed crop residues, aquatic plants, unadulterated wood and wood residues, animal  
14 wastes, other clean organic wastes not mixed with other solid wastes, biogas, and other  
15 neat liquid biofuels derived from such fuel sources. Sustainably harvested will be  
16 determined by the REGULATORY AGENCY.

17  
18 (ah) *Excess emissions.* Any tonnage of CO<sub>2</sub> emitted by a CO<sub>2</sub> budget source  
19 during a control period that exceeds the CO<sub>2</sub> budget emissions limitation for the source.  
20

21 (ai) *Fossil fuel.* Natural gas, petroleum, coal, or any form of solid, liquid, or  
22 gaseous fuel derived from such material.

23  
24 (aj) *Fossil fuel-fired.*

25  
26 (i) With regard to a unit that commenced operation prior to January 1, 2005,  
27 the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil

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1 fuel combusted comprises, or is projected to comprise, more than 50 percent of the annual  
2 heat input on a Btu basis during any year.

3  
4 (ii) With regard to a unit that commences operation on or after January 1,  
5 2005, the combustion of fossil fuel, alone or in combination with any other fuel, where the  
6 fossil fuel combusted comprises, or is projected to comprise, more than 5 percent of the  
7 annual heat input on a Btu basis during any year.

8  
9 (ak) *General account.* A CO<sub>2</sub> Allowance Tracking System account, established  
10 under Subpart XX-6, that is not a compliance account.

11  
12 (al) *Global warming potential (GWP).* A measure of the radiative efficiency  
13 (heat-absorbing ability) of a particular gas relative to that of carbon dioxide (CO<sub>2</sub>) after  
14 taking into account the decay rate of each gas (the amount removed from the atmosphere  
15 over a given number of years) relative to that of CO<sub>2</sub>. Global warming potentials used in  
16 this Part are consistent with the values used in the Intergovernmental Panel on Climate  
17 Change, Third Assessment Report.

18  
19 (am) *Gross generation.* The electrical output (in MWe) at the terminals of the  
20 generator.

21  
22 (an) *Life-of-the-unitcontractual arrangement.* A unit participation power sales  
23 agreement under which a customer reserves, or is entitled to receive, a specified amount  
24 or percentage of nameplate capacity and/or associated energy from any specified unit  
25 pursuant to a contract:

26  
27 (1) for the life of the unit;

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1  
2 (2) for a cumulative term of no less than 25 years, including contracts  
3 that permit an election for early termination; or  
4

5 (3) for a period equal to or greater than 20 years or 70 percent of the  
6 economic useful life of the unit determined as of the time the unit is built, with option rights  
7 to purchase or release some portion of the nameplate capacity and associated energy  
8 generated by the unit at the end of the period.  
9

10 (ao) *Market settling period.* The first fourteen months of any control period.  
11

12 (ap) *Maximum design heat input.* The ability of a unit to combust a stated  
13 maximum amount of fuel per hour on a steady state basis, as determined by the physical  
14 design and physical characteristics of the unit.  
15

16 (aq) *Maximum potential hourly heat input.* An hourly heat input used for reporting  
17 purposes when a unit lacks certified monitors to report heat input. If the unit intends to use  
18 appendix D of 40 CFR Part 75 to report heat input, this value should be calculated, in  
19 accordance with 40 CFR Part 75, using the maximum fuel flow rate and the maximum  
20 gross calorific value. If the unit intends to use a flow monitor and a diluent gas monitor, this  
21 value should be reported, in accordance with 40 CFR Part 75, using the maximum  
22 potential flowrate and either the maximum carbon dioxide concentration (in percent CO<sub>2</sub>)  
23 or the minimum oxygen concentration (in percent O<sub>2</sub>).  
24

25 (ar) *Monitoring system.* Any monitoring system that meets the requirements of  
26 Subpart XX-8, including a continuous emissions monitoring system, an excepted

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1 monitoring system, or an alternative monitoring system.

2  
3 (as) **NAME OF RELEVANT RGGI STATE CO<sub>2</sub> Budget Trading Program Base**  
4 **Budget.** The annual amount of CO<sub>2</sub> tons available in NAME OF RELEVANT RGGI STATE  
5 for allocation in a given allocation year, in accordance with the CO<sub>2</sub> Budget Trading  
6 Program. CO<sub>2</sub> offset allowances allocated to project sponsors are separate from and  
7 additional to CO<sub>2</sub> allowances allocated from the NAME OF RELEVANT RGGI STATE CO<sub>2</sub>  
8 Budget Trading Program Base Budget.

9  
10 (at) **Nameplate capacity.** The maximum electrical output (in MWe) that a  
11 generator can sustain over a specified period of time when not restricted by seasonal or  
12 other deratings as measured in accordance with the United States Department of Energy  
13 standards.

14  
15 (au) **Operator.** Any person who operates, controls, or supervises a CO<sub>2</sub> budget  
16 unit or a CO<sub>2</sub> budget source and shall include, but not be limited to, any holding company,  
17 utility system, or plant manager of such a unit or source.

18  
19 (av) **Owner.** Any of the following persons:

20  
21 (1) any holder of any portion of the legal or equitable title in a CO<sub>2</sub>  
22 budget unit; or

23  
24 (2) any holder of a leasehold interest in a CO<sub>2</sub> budget unit, other than  
25 a passive lessor, or a person who has an equitable interest through such lessor, whose  
26 rental payments are not based, either directly or indirectly, upon the revenues or income  
27 from the CO<sub>2</sub> budget unit; or

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1  
2 (3) any purchaser of power from a CO<sub>2</sub> budget unit under a life-of-the-  
3 unit contractual arrangement in which the purchaser controls the dispatch of the unit; or  
4

5 (4) with respect to any general account, any person who has an  
6 ownership interest with respect to the CO<sub>2</sub> allowances held in the general account and  
7 who is subject to the binding agreement for the CO<sub>2</sub> authorized account representative to  
8 represent that person's ownership interest with respect to the CO<sub>2</sub> allowances.  
9

10 (aw) *Participating state.* A state that has established a corresponding regulation  
11 as part of the CO<sub>2</sub> Budget Trading Program.  
12

13 (ax) *Receive or receipt of.* When referring to the REGULATORY AGENCY or its  
14 agent, to come into possession of a document, information, or correspondence (whether  
15 sent in writing or by authorized electronic transmission), as indicated in an official  
16 correspondence log, or by a notation made on the document, information, or  
17 correspondence, by the REGULATORY AGENCY or its agent in the regular course of  
18 business.  
19

20 (ay) *Recordation, record, or recorded.* With regard to CO<sub>2</sub> allowances, the  
21 movement of CO<sub>2</sub> allowances by the REGULATORY AGENCY or its agent from one CO<sub>2</sub>  
22 Allowance Tracking System account to another, for purposes of allocation, transfer, or  
23 deduction.  
24

25 (az) *Serial number.* When referring to CO<sub>2</sub> allowances, the unique identification  
26 number assigned to each CO<sub>2</sub> allowance by the REGULATORY AGENCY or its agent



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1 under section XX-6.4(c).

2  
3 (ba) *Source.* Any governmental, institutional, commercial, or industrial structure,  
4 installation, plant, building, or facility that emits or has the potential to emit any air  
5 pollutant. A “source,” including a “source” with multiple units, shall be considered a single  
6 “facility.”

7  
8 (bb) *Stage one threshold price.* The monetary amount, established as of the first  
9 day of each calendar year, derived annually from use of the following formula:

10  
11 
$$S1TP(2005+n) = S1TP(2005) \times [1 + (CPI(2005+n) - CPI(2005)) / CPI(2005)]$$

12 where:

13 “S1TP” is the stage one threshold price;

14 “S1TP(2005)” is \$7;

15 “n” is the number of years since 2005; and

16 “CPI” means, for purposes of the CO<sub>2</sub> Budget Trading Program, the U.S.  
17 Department of Labor, Bureau of Labor Statistics unadjusted Consumer Price Index for All  
18 Urban Consumers for the U.S. city average, for All Items on the latest reference base, or if  
19 such index is no longer published, such other index as the REGULATORY AGENCY  
20 determines is appropriate. The CPI for any calendar year is the twelve-month average of  
21 the CPI published by the United States Department of Labor, as of the close of the twelve-  
22 month period ending on August thirty-first of each calendar year.

23  
24 (bc) *Stage one trigger event.* The occurrence of any twelve month period that  
25 completely transpires following the market settling period and is characterized by an  
26 average CO<sub>2</sub> allowance price that is equal to or greater than the stage one threshold price.  
27

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1 (bd) *Stage two threshold price.* The monetary amount, established as of the first  
2 day of each calendar year, derived annually from use of the following formula:

$$3$$
$$4 \quad S2TP(2005+n) = [ S2TP(2005+(n-1)) \times \left[ \frac{CPI(2005+(n-1)) - CPI(2005+(n-2))}{CPI(2005+(n-2))} + 0.02 \right] + S2TP(2005+(n-1))$$

5  
6 where:

7 "S2TP" is the stage two threshold price;

8 "S2TP(2005)" is \$10; and

9 "n" is the number of years since 2005.

10 "CPI" means, for purposes of the CO<sub>2</sub> Budget Trading Program, the U.S.  
11 Department of Labor, Bureau of Labor Statistics unadjusted Consumer Price Index for All  
12 Urban Consumers for the U.S. city average, for All Items on the latest reference base, or if  
13 such index is no longer published, such other index as the REGULATORY AGENCY  
14 determines is appropriate. The CPI for any calendar year is the twelve-month average of  
15 the CPI published by the United States Department of Labor, as of the close of the twelve-  
16 month period ending on August thirty-first of each calendar year.

17  
18 (be) *Stage two trigger event.* The occurrence of any twelve month period that  
19 completely transpires following the market settling period and is characterized by an  
20 average CO<sub>2</sub> allowance price that is equal to or greater than the stage two threshold price.

21  
22 (bf) *State.* A State, the District of Columbia, the Commonwealth of Puerto Rico,  
23 the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the  
24 Northern Mariana Islands.

25  
26 (bg) *Submit or serve.* To send or transmit a document, information, or  
27 correspondence to the person specified in accordance with the applicable regulation:

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1  
2 (1) in person;

3  
4 (2) by United States Postal Service; or

5  
6 (3) by other means of dispatch or transmission and delivery.  
7

8 Compliance with any “submission,” “service,” or “mailing” deadline shall be determined by  
9 the date of dispatch, transmission, or mailing and not the date of receipt.  
10

11 (bh) *Ton or tonnage.* Any “short ton”, or 2,000 pounds. For the purpose of  
12 determining compliance with the CO<sub>2</sub> budget emissions limitation, total tons for a control  
13 period shall be calculated as the sum of all recorded hourly emissions (or the tonnage  
14 equivalent of the recorded hourly emissions rates) in accordance with Subpart XX-8, with  
15 any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal one ton  
16 and any fraction of a ton less than 0.50 ton deemed to equal zero tons. A short ton is  
17 equal to 0.9072 metric tons.  
18

19 (bi) *Twelve month period.* A period of twelve consecutive months determined on  
20 a rolling basis where a new twelve month period begins on the first day of each calendar  
21 month.  
22

23 (bj) *Unit.* A fossil fuel-fired stationary boiler, combustion turbine, or combined  
24 cycle system.  
25

26 (bk) *Unit operating day.* A calendar day in which a unit combusts any fuel.  
27

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1 (b) *[OPTIONAL] Voluntary renewable energy purchase.* A purchase of electricity  
2 from renewable energy generation or renewable energy attribute credits by a retail  
3 electricity customer on a voluntary basis. Renewable energy includes electricity generated  
4 from biomass, wind, solar thermal, photovoltaic, geothermal, hydroelectric facilities  
5 certified by the Low Impact Hydropower Institute, wave and tidal action, and fuel cells  
6 powered by renewable fuels. The renewable energy generation or renewable energy  
7 attribute credits related to such purchases may not be used by the generator or purchaser  
8 to meet any regulatory mandate, such as a renewable portfolio standard.

### 9 10 **XX-1.3 Measurements, abbreviations and acronyms.**

11  
12 Measurements, abbreviations, and acronyms used in this Part are defined as  
13 follows:

- 14  
15 (a) *CO<sub>2</sub>-carbon dioxide.*  
16  
17 (b) *hr-hour.*  
18  
19 (c) *lb-pounds.*  
20  
21 (d) *MWe-megawatt electrical.*  
22

### 23 **XX-1.4 Applicability.**

24  
25 (a) *Units.* Any unit that, at any time on or after January 1, 2005, serves an  
26 electricity generator with a nameplate capacity equal to or greater than 25 MWe shall be a

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1 CO<sub>2</sub> budget unit, and any source that includes one or more such units shall be a CO<sub>2</sub>  
2 budget source, subject to the requirements of this Part.

3  
4 **[The following subdivision is optional. The text of this subdivision illustrates how a**  
5 **participating state might provide for an exemption for units with electrical output to**  
6 **the electric grid restricted by permit conditions. Upon exemption, the tons**  
7 **attributable to sources in a state's initial inventory shall be removed the state's**  
8 **budget under Section XX-5.3.]**

9  
10 (b) *Limited exemption for units with electrical output to the electric grid restricted*  
11 *by permit conditions.*

12  
13 (1) *Applicability.* Notwithstanding subdivision (a) of this section, a unit  
14 under subdivision (a) of this section that has a permit containing a condition restricting the  
15 supply of the unit's annual electrical output to the electric grid to less than or equal to 10  
16 percent of the annual gross generation of the unit, and which complies with the provisions  
17 in paragraph (b)(3) of this section, shall be exempt from the requirements of this Part,  
18 except for the provisions of this section, section XX-1.2, section XX-1.3, section XX-1.6  
19 and, if applicable because of the allocation of CO<sub>2</sub> allowances during the pre-exemption  
20 time period, Subparts XX-5, XX-6 and XX-7.

21  
22 (2) *Effective date.* The exemption under paragraph (b)(1) of this section  
23 shall become effective as of the January 1 that is on or after the date on which the  
24 restriction on the percentage of annual gross generation that may be supplied to the  
25 electric grid and the provisions in the permit required under paragraph (b)(1) of this section  
26 become final.

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1 (3) *Compliance*

2  
3 (i) A unit exempt under paragraph (b)(1) of this section shall  
4 comply with the restriction on percentage of annual gross generation that may be supplied  
5 to the electric grid described in paragraph (b)(1) of this section.  
6

7 (ii) A unit exempt under paragraph (b)(1) shall report the amount of  
8 annual gross generation and the amount of annual gross generation supplied to the  
9 electric grid during the year by the following February 1.  
10

11 (iii) For a period of 10 years from the date the records are created,  
12 the owners and operators of a unit exempt under paragraph (b)(1) of this section shall  
13 retain, at the source that includes the unit, records demonstrating that the conditions of the  
14 permit under paragraph (b)(1) of this section were met. The 10-year period for keeping  
15 records may be extended for cause, at any time prior to the end of the period, in writing by  
16 the REGULATORY AGENCY. The owners and operators bear the burden of proof that the  
17 unit met the restriction on the percentage of annual gross generation that may be supplied  
18 to the electric grid.  
19

20 (iv) The owners and operators and, to the extent applicable, the  
21 CO<sub>2</sub> authorized account representative of a unit exempt under paragraph (b)(1) of this  
22 section shall comply with all the requirements of this Part concerning all time periods for  
23 which the exemption is not in effect, even if such requirements arise, or must be complied  
24 with, after the exemption takes effect.  
25

26 (v) On the earlier of the following dates, a unit exempt under  
27 paragraph (b)(1) of this section shall lose its exemption:

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1  
2 (a) the date on which the restriction on the percentage of  
3 annual gross generation that may be supplied to the electric grid described in paragraph  
4 (b)(1) of this section is removed from the unit's permit or otherwise becomes no longer  
5 applicable in any year that commences on or after January 1, 2009; or

6  
7 (b) the first date on which the unit fails to comply, or on  
8 which the owners and operators fail to meet their burden of proving that the unit is  
9 complying, with the restriction on the percentage of annual gross generation that may be  
10 supplied to the electric grid described in paragraph (b)(1) of this section during any year  
11 that commences on or after January 1, 2009.

12  
13 (vi) A unit that loses its exemption in accordance with  
14 subparagraph (b)(3)(v) of this section shall be subject to the requirements of this Part. For  
15 the purpose of applying permitting requirements under Subpart XX-3, allocating  
16 allowances under Subpart XX-5, and applying monitoring requirements under Subpart XX-  
17 8, the unit shall be treated as commencing operation on the date the unit loses its  
18 exemption.

19  
20 (4) *Deduction of tons from NAME OF RELEVANT RGGI STATE CO<sub>2</sub> Budget*  
21 *Trading Program limited exemption set-aside account.* In the event that the  
22 REGULATORY AGENCY grants an exemption under this subdivision to a CO<sub>2</sub> source,  
23 with on or more units that on January 1, 2005, serves an electricity generator with a  
24 nameplate capacity equal to or greater than 25 Mwe, the REGULATORY AGENCY shall  
25 retire the number of CO<sub>2</sub> tons equal to the exempt source's average annual emissions over  
26 the most recent three calendar for which data are available. The retired tons shall be  
27 taken from the set-aside established for such purpose under section XX-5.3.

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1  
2 **XX-1.5 Standard requirements.**

3  
4 (a) *Permit requirements.* **[Each state’s text for this subdivision will likely be**  
5 **different because the states have unique permitting requirements. The text below**  
6 **illustrates how this subdivision could be drafted and does not necessarily represent**  
7 **what an individual RGGI state will propose.]**

8  
9 (1) The CO<sub>2</sub> authorized account representative of each CO<sub>2</sub> budget source  
10 required to have an operating permit pursuant to **[Insert Reference to state’s Permitting**  
11 **Regulation(s)]** of this Title and each CO<sub>2</sub> budget unit required to have an operating permit  
12 pursuant to **[Insert Reference to state’s Permitting Regulation(s)]** of this Title shall:

13  
14 (i) submit to the REGULATORY AGENCY a complete CO<sub>2</sub> budget  
15 permit application under section XX-3.3 in accordance with the deadlines specified in  
16 section XX-3.2; and

17  
18 (ii) submit in a timely manner any supplemental information that  
19 the REGULATORY AGENCY determines is necessary in order to review the CO<sub>2</sub> budget  
20 permit application and issue or deny a CO<sub>2</sub> budget permit.

21  
22 (2) The owners and operators of each CO<sub>2</sub> budget source required to  
23 have an operating permit pursuant to **[Insert Reference to state’s Permitting**  
24 **Regulation(s)]** of this Title and each CO<sub>2</sub> budget unit required to have an operating permit  
25 pursuant to **[Insert Reference to state’s Permitting Regulation(s)]** of this Title for the  
26 source shall have a CO<sub>2</sub> budget permit and operate the CO<sub>2</sub> budget source and the CO<sub>2</sub>  
27 budget unit at the source in compliance with such CO<sub>2</sub> budget permit.



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1  
2 (b) *Monitoring requirements.*

3  
4 (1) The owners and operators and, to the extent applicable, the CO<sub>2</sub>  
5 authorized account representative of each CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit  
6 at the source shall comply with the monitoring requirements of Subpart XX-8.

7  
8 (2) The emissions measurements recorded and reported in accordance  
9 with Subpart XX-8 shall be used to determine compliance by the unit with the CO<sub>2</sub> budget  
10 emissions limitation under subdivision (c) of this section.

11  
12 (c) *CO<sub>2</sub> requirements.*

13  
14 (1) The owners and operators of each CO<sub>2</sub> budget source and each CO<sub>2</sub>  
15 budget unit at the source shall hold CO<sub>2</sub> allowances available for compliance deductions  
16 under section XX-6.5, as of the CO<sub>2</sub> allowance transfer deadline, in the source's  
17 compliance account in an amount not less than the total CO<sub>2</sub> emissions for the control  
18 period from all CO<sub>2</sub> budget units at the source, as determined in accordance with Subparts  
19 XX-6 and XX-8.

20  
21 (2) Each ton of CO<sub>2</sub> emitted in excess of the CO<sub>2</sub> budget emissions  
22 limitation shall constitute a separate violation of this Part and applicable state law.

23  
24 (3) A CO<sub>2</sub> budget unit shall be subject to the requirements under  
25 paragraph (c)(1) of this section starting on the later, of January 1, 2009 or the date on  
26 which the unit commences operation.  
27

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1 (4) CO<sub>2</sub> allowances shall be held in, deducted from, or transferred among  
2 CO<sub>2</sub> Allowance Tracking System accounts in accordance with Subparts XX-5, XX-6, and  
3 XX-7, and section XX-10.7.

4  
5 (5) A CO<sub>2</sub> allowance shall not be deducted, in order to comply with the  
6 requirements under paragraph (c)(1) of this section, for a control period that ends prior to  
7 the year for which the CO<sub>2</sub> allowance was allocated. A CO<sub>2</sub> offset allowance shall not be  
8 deducted, in order to comply with the requirements under paragraph (c)(1) of this section,  
9 beyond the applicable percent limitations set out in paragraph XX-6.5(a)(3).

10  
11 (6) A CO<sub>2</sub> allowance allocated by the REGULATORY AGENCY under the  
12 CO<sub>2</sub> Budget Trading Program is a limited authorization to emit one ton of CO<sub>2</sub> in  
13 accordance with the CO<sub>2</sub> Budget Trading Program. No provision of the CO<sub>2</sub> Budget  
14 Trading Program, the CO<sub>2</sub> budget permit application, or the CO<sub>2</sub> budget permit or any  
15 provision of law shall be construed to limit the authority of the State to terminate or limit  
16 such authorization.

17  
18 (7) A CO<sub>2</sub> allowance allocated by the REGULATORY AGENCY under the  
19 CO<sub>2</sub> Budget Trading Program does not constitute a property right.

20  
21 (d) *Excess emissions requirements.* The owners and operators of a CO<sub>2</sub> budget  
22 source that has excess emissions in any control period shall:

23  
24 (1) forfeit the CO<sub>2</sub> allowances required for deduction under paragraph XX-  
25 6.5(d)(1), provided CO<sub>2</sub> offset allowances may not be used to cover any part of such  
26 excess emissions; and  
27

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1                   (2)     pay any fine, penalty, or assessment or comply with any other remedy  
2 imposed under paragraph XX-6.5(d)(3).

3  
4                   (e)     *Recordkeeping and reporting requirements.*

5  
6                   (1)     Unless otherwise provided, the owners and operators of the CO<sub>2</sub>  
7 budget source and each CO<sub>2</sub> budget unit at the source shall keep on site at the source  
8 each of the following documents for a period of 10 years from the date the document is  
9 created. This period may be extended for cause, at any time prior to the end of 10 years,  
10 in writing by the REGULATORY AGENCY.

11  
12                   (i)     The account certificate of representation for the CO<sub>2</sub> authorized  
13 account representative for the source and each CO<sub>2</sub> budget unit at the source and all  
14 documents that demonstrate the truth of the statements in the account certificate of  
15 representation, in accordance with section XX-2.4; provided that the certificate and  
16 documents shall be retained on site at the source beyond such 10-year period until such  
17 documents are superseded because of the submission of a new account certificate of  
18 representation changing the CO<sub>2</sub> authorized account representative.

19  
20                   (ii)    All emissions monitoring information, in accordance with  
21 Subpart XX-8.

22  
23                   (iii)   Copies of all reports, compliance certifications, and other  
24 submissions and all records made or required under the CO<sub>2</sub> Budget Trading Program.

25

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1                   (iv) Copies of all documents used to complete a CO<sub>2</sub> budget permit  
2 application and any other submission under the CO<sub>2</sub> Budget Trading Program or to  
3 demonstrate compliance with the requirements of the CO<sub>2</sub> Budget Trading Program.  
4

5                   (2) The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget source  
6 and each CO<sub>2</sub> budget unit at the source shall submit the reports and compliance  
7 certifications required under the CO<sub>2</sub> Budget Trading Program, including those under  
8 Subparts XX-4.  
9

10                  (f) *Liability.*  
11

12                   (1) No permit revision shall excuse any violation of the requirements of  
13 the CO<sub>2</sub> Budget Trading Program that occurs prior to the date that the revision takes  
14 effect.  
15

16                   (2) Any provision of the CO<sub>2</sub> Budget Trading Program that applies to a  
17 CO<sub>2</sub> budget source (including a provision applicable to the CO<sub>2</sub> authorized account  
18 representative of a CO<sub>2</sub> budget source) shall also apply to the owners and operators of  
19 such source and of the CO<sub>2</sub> budget units at the source.  
20

21                   (3) Any provision of the CO<sub>2</sub> Budget Trading Program that applies to a  
22 CO<sub>2</sub> budget unit (including a provision applicable to the CO<sub>2</sub> authorized account  
23 representative of a CO<sub>2</sub> budget unit) shall also apply to the owners and operators of such  
24 unit.  
25

26                  (g) *Effect on other authorities.*  
27

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1 (1) No provision of the CO<sub>2</sub> Budget Trading Program, a CO<sub>2</sub> budget  
2 permit application, or a CO<sub>2</sub> budget permit, shall be construed as exempting or excluding  
3 the owners and operators and, to the extent applicable, the CO<sub>2</sub> authorized account  
4 representative of a CO<sub>2</sub> budget source or CO<sub>2</sub> budget unit from compliance with any other  
5 provisions of applicable State and federal law and regulations.  
6

### 7 **XX-1.6 Computation of time.**

8  
9 (a) Unless otherwise stated, any time period scheduled, under the CO<sub>2</sub> Budget  
10 Trading Program, to begin on the occurrence of an act or event shall begin on the day the  
11 act or event occurs.  
12

13 (b) Unless otherwise stated, any time period scheduled, under the CO<sub>2</sub> Budget  
14 Trading Program, to begin before the occurrence of an act or event shall be computed so  
15 that the period ends the day before the act or event occurs.  
16

17 (c) Unless otherwise stated, if the final day of any time period, under the CO<sub>2</sub>  
18 Budget Trading Program, falls on a weekend or a State or Federal holiday, the time period  
19 shall be extended to the next business day.  
20

### 21 **XX-1.7 Severability.**

22  
23 If any provision of this Part, or its application to any particular person or  
24 circumstances, is held invalid, the remainder of this Part, and the application thereof to  
25 other persons or circumstances, shall not be affected thereby.  
26  
27

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

## 1      **Subpart XX-2      CO<sub>2</sub> Authorized Account Representative for CO<sub>2</sub> Budget Sources**

### 2      **XX-2.1      Authorization and responsibilities of the CO<sub>2</sub> authorized account** 3      **representative.** 4

5            (a)      Except as provided under section XX-2.2, each CO<sub>2</sub> budget source, including  
6 all CO<sub>2</sub> budget units at the source, shall have one and only one CO<sub>2</sub> authorized account  
7 representative, with regard to all matters under the CO<sub>2</sub> Budget Trading Program  
8 concerning the source or any CO<sub>2</sub> budget unit at the source.  
9

10           (b)      The CO<sub>2</sub> authorized account representative of the CO<sub>2</sub> budget source shall  
11 be selected by an agreement binding on the owners and operators of the source and all  
12 CO<sub>2</sub> budget units at the source.  
13

14           (c)      Upon receipt by the REGULATORY AGENCY or its agent of a complete  
15 account certificate of representation under section XX-2.4, the CO<sub>2</sub> authorized account  
16 representative of the source shall represent and, by his or her representations, actions,  
17 inactions, or submissions, legally bind each owner and operator of the CO<sub>2</sub> budget source  
18 represented and each CO<sub>2</sub> budget unit at the source in all matters pertaining to the CO<sub>2</sub>  
19 Budget Trading Program, notwithstanding any agreement between the CO<sub>2</sub> authorized  
20 account representative and such owners and operators. The owners and operators shall  
21 be bound by any decision or order issued to the CO<sub>2</sub> authorized account representative by  
22 the REGULATORY AGENCY or a court regarding the source or unit.  
23

24           (d)      No CO<sub>2</sub> budget permit shall be issued, and no CO<sub>2</sub> Allowance Tracking  
25 System account shall be established for a CO<sub>2</sub> budget source, until the REGULATORY  
26 AGENCY or its agent has received a complete account certificate of representation under  
27 section XX-2.4 for a CO<sub>2</sub> authorized account representative of the source and the CO<sub>2</sub>  
28 budget units at the source.

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1  
2 (e) Each submission under the CO<sub>2</sub> Budget Trading Program shall be submitted,  
3 signed, and certified by the CO<sub>2</sub> authorized account representative for each CO<sub>2</sub> budget  
4 source on behalf of which the submission is made. Each such submission shall include  
5 the following certification statement by the CO<sub>2</sub> authorized account representative: "I am  
6 authorized to make this submission on behalf of the owners and operators of the CO<sub>2</sub>  
7 budget sources or CO<sub>2</sub> budget units for which the submission is made. I certify under  
8 penalty of law that I have personally examined, and am familiar with, the statements and  
9 information submitted in this document and all its attachments. Based on my inquiry of  
10 those individuals with primary responsibility for obtaining the information, I certify that the  
11 statements and information are to the best of my knowledge and belief true, accurate, and  
12 complete. I am aware that there are significant penalties for submitting false statements  
13 and information or omitting required statements and information, including the possibility of  
14 fine or imprisonment."

15  
16 (f) The REGULATORY AGENCY or its agent will accept or act on a submission  
17 made on behalf of owners or operators of a CO<sub>2</sub> budget source or a CO<sub>2</sub> budget unit only if  
18 the submission has been made, signed, and certified in accordance with subdivision (e) of  
19 this section.

### 20 21 **XX-2.2 Alternate CO<sub>2</sub> authorized account representative.**

22  
23 (a) An account certificate of representation may designate one and only one  
24 alternate CO<sub>2</sub> authorized account representative who may act on behalf of the CO<sub>2</sub>  
25 authorized account representative. The agreement by which the alternate CO<sub>2</sub> authorized  
26 account representative is selected shall include a procedure for authorizing the alternate

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1 CO<sub>2</sub> authorized account representative to act in lieu of the CO<sub>2</sub> authorized account  
2 representative.

3  
4 (b) Upon receipt by the REGULATORY AGENCY or its agent of a complete  
5 account certificate of representation under section XX-2.4, any representation, action,  
6 inaction, or submission by the alternate CO<sub>2</sub> authorized account representative shall be  
7 deemed to be a representation, action, inaction, or submission by the CO<sub>2</sub> authorized  
8 account representative.

9  
10 (c) Except in this section and subdivision XX-2.1(a), section XX-2.3, section XX-  
11 2.4, and section XX-6.2, whenever the term “CO<sub>2</sub> authorized account representative” is  
12 used in this Part, the term shall be construed to include the alternate CO<sub>2</sub> authorized  
13 account representative.

14  
15 **XX-2.3 Changing the CO<sub>2</sub> authorized account representative and the alternate**  
16 **CO<sub>2</sub> authorized account representative; changes in the owners and**  
17 **operators.**  
18

19 (a) *Changing the CO<sub>2</sub> authorized account representative.* The CO<sub>2</sub> authorized  
20 account representative may be changed at any time upon receipt by the REGULATORY  
21 AGENCY or its agent of a superseding complete account certificate of representation  
22 under section XX-2.4. Notwithstanding any such change, all representations, actions,  
23 inactions, and submissions by the previous CO<sub>2</sub> authorized account representative prior to  
24 the time and date when the REGULATORY AGENCY or its agent receives the  
25 superseding account certificate of representation shall be binding on the new CO<sub>2</sub>  
26 authorized account representative and the owners and operators of the CO<sub>2</sub> budget source  
27 and the CO<sub>2</sub> budget units at the source.  
28



# REGIONAL GREENHOUSE GAS INITIATIVE

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1           (b) *Changing the alternate CO<sub>2</sub> authorized account representative.* The  
2 alternate CO<sub>2</sub> authorized account representative may be changed at any time upon receipt  
3 by the REGULATORY AGENCY or its agent of a superseding complete account certificate  
4 of representation under section XX-2.4. Notwithstanding any such change, all  
5 representations, actions, inactions, and submissions by the previous alternate CO<sub>2</sub>  
6 authorized account representative prior to the time and date when the REGULATORY  
7 AGENCY or its agent receives the superseding account certificate of representation shall  
8 be binding on the new alternate CO<sub>2</sub> authorized account representative and the owners  
9 and operators of the CO<sub>2</sub> budget source and the CO<sub>2</sub> budget units at the source.

10  
11           (c) *Changes in the owners and operators.*

12  
13           (1) In the event a new owner or operator of a CO<sub>2</sub> budget source or a  
14 CO<sub>2</sub> budget unit is not included in the list of owners and operators submitted in the account  
15 certificate of representation, such new owner or operator shall be deemed to be subject to  
16 and bound by the account certificate of representation, the representations, actions,  
17 inactions, and submissions of the CO<sub>2</sub> authorized account representative and any  
18 alternate CO<sub>2</sub> authorized account representative of the source or unit, and the decisions,  
19 orders, actions, and inactions of the REGULATORY AGENCY, as if the new owner or  
20 operator were included in such list.

21  
22           (2) Within 30 days following any change in the owners and operators of a  
23 CO<sub>2</sub> budget source or a CO<sub>2</sub> budget unit, including the addition of a new owner or  
24 operator, the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account  
25 representative shall submit a revision to the account certificate of representation amending  
26 the list of owners and operators to include the change.

27

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1     **XX-2.4     Account certificate of representation.**

2  
3           (a)     A complete account certificate of representation for a CO<sub>2</sub> authorized  
4     account representative or an alternate CO<sub>2</sub> authorized account representative shall include  
5     the following elements in a format prescribed by the REGULATORY AGENCY or its agent:

6  
7                   (1)     identification of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at  
8     the source for which the account certificate of representation is submitted;

9  
10                   (2)     the name, address, e-mail address, telephone number, and facsimile  
11     transmission number of the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub>  
12     authorized account representative;

13  
14                   (3)     a list of the owners and operators of the CO<sub>2</sub> budget source and of  
15     each CO<sub>2</sub> budget unit at the source;

16  
17                   (4)     the following certification statement by the CO<sub>2</sub> authorized account  
18     representative and any alternate CO<sub>2</sub> authorized account representative: "I certify that I  
19     was selected as the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized  
20     account representative, as applicable, by an agreement binding on the owners and  
21     operators of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source. I certify that I  
22     have all the necessary authority to carry out my duties and responsibilities under the CO<sub>2</sub>  
23     Budget Trading Program on behalf of the owners and operators of the CO<sub>2</sub> budget source  
24     and of each CO<sub>2</sub> budget unit at the source and that each such owner and operator shall be  
25     fully bound by my representations, actions, inactions, or submissions and by any decision  
26     or order issued to me by the REGULATORY AGENCY or a court regarding the source or  
27     unit."; and

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1  
2 (5) the signature of the CO<sub>2</sub> authorized account representative and any  
3 alternate CO<sub>2</sub> authorized account representative and the dates signed.  
4

5 (b) Unless otherwise required by the REGULATORY AGENCY or its agent,  
6 documents of agreement referred to in the account certificate of representation shall not be  
7 submitted to the REGULATORY AGENCY or its agent. Neither the REGULATORY  
8 AGENCY nor its agent shall be under any obligation to review or evaluate the sufficiency  
9 of such documents, if submitted.  
10

## 11 **XX-2.5 Objections concerning the CO<sub>2</sub> authorized account representative.**

12

13 (a) Once a complete account certificate of representation under section XX-2.4  
14 has been submitted and received, the REGULATORY AGENCY and its agent will rely on  
15 the account certificate of representation unless and until the REGULATORY AGENCY or  
16 its agent receives a superseding complete account certificate of representation under  
17 section XX-2.4.  
18

19 (b) Except as provided in subdivision XX-2.3(a) or (b), no objection or other  
20 communication submitted to the REGULATORY AGENCY or its agent concerning the  
21 authorization, or any representation, action, inaction, or submission of the CO<sub>2</sub> authorized  
22 account representative shall affect any representation, action, inaction, or submission of  
23 the CO<sub>2</sub> authorized account representative or the finality of any decision or order by the  
24 REGULATORY AGENCY or its agent under the CO<sub>2</sub> Budget Trading Program.  
25

26 (c) Neither the REGULATORY AGENCY nor its agent will adjudicate any private  
27 legal dispute concerning the authorization or any representation, action, inaction, or

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1 submission of any CO<sub>2</sub> authorized account representative, including private legal disputes  
2 concerning the proceeds of CO<sub>2</sub> allowance transfers.

3  
4 **XX-2.6 Delegation by CO<sub>2</sub> authorized account representative and alternate CO<sub>2</sub>**  
5 **authorized account representative**

6  
7 (a) A CO<sub>2</sub> authorized account representative may delegate, to one or more  
8 natural persons, his or her authority to make an electronic submission to the  
9 REGULATORY AGENCY or its agent under this Part.

10  
11 (b) An alternate CO<sub>2</sub> authorized account representative may delegate, to one or  
12 more natural persons, his or her authority to make an electronic submission to the  
13 REGULATORY AGENCY or its agent under this part.

14  
15 (c) In order to delegate authority to make an electronic submission to the  
16 REGULATORY AGENCY or its agent in accordance with subdivision (a) and (b) of this  
17 section, the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account  
18 representative, as appropriate, must submit to the REGULATORY AGENCY or its agent a  
19 notice of delegation, in a format prescribed by the REGULATORY AGENCY that includes  
20 the following elements:

21  
22 (1) The name, address, e-mail address, telephone number, and facsimile  
23 transmission number of such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub>  
24 authorized account representative;

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1           (2)    The name, address, e-mail address, telephone number and facsimile  
2 transmission number of each such natural person, herein referred to as the “electronic  
3 submission agent”;

4  
5           (3)    For each such natural person, a list of the type of electronic  
6 submissions under subdivision (a) or (b) of this section for which authority is delegated to  
7 him or her; and

8  
9           (4)    The following certification statements by such CO<sub>2</sub> authorized account  
10 representative or alternate CO<sub>2</sub> authorized account representative:

11  
12           (i)     “I agree that any electronic submission to the REGULATORY  
13 AGENCY or its agent that is by a natural person identified in this notice of delegation and  
14 of a type listed for such electronic submission agent in this notice of delegation and that is  
15 made when I am a CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized  
16 account representative, as appropriate, and before this notice of delegation is superseded  
17 by another notice of delegation under subdivision XX-2.6(d) shall be deemed to be an  
18 electronic submission by me.”

19  
20           (ii)    “Until this notice of delegation is superseded by another notice  
21 of delegation under subdivision XX-2.6(d), I agree to maintain an e-mail account and to  
22 notify the REGULATORY AGENCY or its agent immediately of any change in my e-mail  
23 address unless all delegation authority by me under section XX-2.6 is terminated.”

24  
25           (d)    A notice of delegation submitted under under subdivision (c) of this section  
26 shall be effective, with regard to the CO<sub>2</sub> authorized account representative or alternate  
27 CO<sub>2</sub> authorized account representative identified in such notice, upon receipt of such

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1 notice by the REGULATORY AGENCY or its agent and until receipt by the REGULATORY  
2 AGENCY or its agent of a superseding notice of delegation by such CO<sub>2</sub> authorized  
3 account representative or alternate CO<sub>2</sub> authorized account representative as appropriate.  
4 The superseding notice of delegation may replace any previously identified electronic  
5 submission agent, add a new electronic submission agent, or eliminate entirely any  
6 delegation of authority.

7  
8 (e) Any electronic submission covered by the certification in subparagraph  
9 (c)(4)(i) of this section and made in accordance with a notice of delegation effective  
10 undersubdivision (d) of this section shall be deemed to be an electronic submission by the  
11 CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative  
12 submitting such notice of delegation.

## 13 14 **Subpart XX-3 Permits**

15  
16 **[Each state's text for this Subpart will likely be different because states have unique**  
17 **permitting requirements. The text below illustrates how this Subpart could be**  
18 **drafted and does not necessarily represent what an individual RGGI state will**  
19 **propose.]**

### 20 21 **XX-3.1 General CO<sub>2</sub> budget permit requirements.**

22  
23 (a) Each CO<sub>2</sub> budget source must have a permit issued by the REGULATORY  
24 AGENCY pursuant to **[Insert Reference to State's Permitting Regulation(s)]** of this  
25 Title.  
26

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1 (b) Each CO<sub>2</sub> budget permit shall contain all applicable CO<sub>2</sub> Budget Trading  
2 Program requirements and shall be a complete and distinguishable portion of the permit  
3 under subdivision (a) of this section.  
4

## 5 **XX-3.2 Submission of CO<sub>2</sub> budget permit applications.**

6  
7 For any CO<sub>2</sub> budget source, the CO<sub>2</sub> authorized account representative shall submit  
8 a complete CO<sub>2</sub> budget permit application under section XX-3.3 covering such CO<sub>2</sub> budget  
9 source to the REGULATORY AGENCY by the later of January 1, 2009 or 12 months  
10 before the date on which the CO<sub>2</sub> budget source, or a new unit at the source, commences  
11 operation.  
12

## 13 **XX-3.3 Information requirements for CO<sub>2</sub> budget permit applications.**

14  
15 (a) A complete CO<sub>2</sub> budget permit application shall include the following  
16 elements concerning the CO<sub>2</sub> budget source for which the application is submitted, in a  
17 format prescribed by the REGULATORY AGENCY:  
18

19 (1) identification of the CO<sub>2</sub> budget source, including plant name and the  
20 ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by  
21 the Energy Information Administration of the United States Department of Energy, if  
22 applicable;  
23

24 (2) identification of each CO<sub>2</sub> budget unit at the CO<sub>2</sub> budget source; and  
25

26 (3) the standard requirements under section XX-1.5.  
27

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1     **Subpart XX-4       Compliance Certification**

2  
3     **XX-4.1        Compliance certification report.**

4  
5         (a)     *Applicability and deadline.* For each control period in which a CO<sub>2</sub> budget  
6 source is subject to the CO<sub>2</sub> budget emissions limitation, the CO<sub>2</sub> authorized account  
7 representative of the source shall submit to the REGULATORY AGENCY by the March 1  
8 following the relevant control period, a compliance certification report.

9  
10        (b)     *Contents of report.* The CO<sub>2</sub> authorized account representative shall include  
11 in the compliance certification report under subdivision (a) of this section the following  
12 elements, in a format prescribed by the REGULATORY AGENCY:

13  
14           (1)     identification of the source and each CO<sub>2</sub> budget unit at the source;

15  
16           (2)     at the CO<sub>2</sub> authorized account representative's option, the serial  
17 numbers of the CO<sub>2</sub> allowances that are to be deducted from the source's compliance  
18 account under section XX-6.5 for the control period, including the serial numbers of any  
19 CO<sub>2</sub> offset allowances that are to be deducted subject to the limitations of paragraph XX-  
20 6.5(a)(3); and

21  
22           (3)     the compliance certification under subdivision (c) of this section.

23  
24         (c)     *Compliance certification.* In the compliance certification report under  
25 subdivision (a) of this section, the CO<sub>2</sub> authorized account representative shall certify,  
26 based on reasonable inquiry of those persons with primary responsibility for operating the  
27 source and the CO<sub>2</sub> budget units at the source in compliance with the CO<sub>2</sub> Budget Trading



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1 Program, whether the source and each CO<sub>2</sub> budget unit at the source for which the  
2 compliance certification is submitted was operated during the calendar years covered by  
3 the report in compliance with the requirements of the CO<sub>2</sub> Budget Trading Program ,  
4 including:

5  
6 (1) whether the source was operated in compliance with the CO<sub>2</sub> budget  
7 emissions limitation;

8  
9 (2) whether the monitoring plan applicable to each unit at the source has  
10 been maintained to reflect the actual operation and monitoring of the unit, and contains all  
11 information necessary to attribute CO<sub>2</sub> emissions to the unit, in accordance with Subpart  
12 XX-8;

13  
14 (3) whether all the CO<sub>2</sub> emissions from the units at the source were  
15 monitored or accounted for through the missing data procedures and reported in the  
16 quarterly monitoring reports, including whether conditional data were reported in the  
17 quarterly reports in accordance with Subpart XX-8. If conditional data were reported, the  
18 owner or operator shall indicate whether the status of all conditional data has been  
19 resolved and all necessary quarterly report resubmissions have been made;

20  
21 (4) whether the facts that form the basis for certification under Subpart  
22 XX-8 of each monitor at each unit at the source, or for using an excepted monitoring  
23 method or alternative monitoring method approved under Subpart XX-8, if any, have  
24 changed; and

25  
26 (5) if a change is required to be reported under paragraph (c)(4) of this  
27 section, specify the nature of the change, the reason for the change, when the change

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1 occurred, and how the unit's compliance status was determined subsequent to the change,  
2 including what method was used to determine emissions when a change mandated the  
3 need for monitor recertification.

## 4 5 **XX-4.2 REGULATORY AGENCY's action on compliance certifications.**

6  
7 (a) The REGULATORY AGENCY or its agent may review and conduct  
8 independent audits concerning any compliance certification or any other submission under  
9 the CO<sub>2</sub> Budget Trading Program and make appropriate adjustments of the information in  
10 the compliance certifications or other submissions.

11  
12 (b) The REGULATORY AGENCY or its agent may deduct CO<sub>2</sub> allowances from  
13 or transfer CO<sub>2</sub> allowances to a source's compliance account based on the information in  
14 the compliance certifications or other submissions, as adjusted under subdivision (a) of  
15 this section.

## 16 17 **Subpart XX-5 CO<sub>2</sub> Allowance Allocations**

### 18 19 **XX-5.1 NAME OF RELEVANT RGGI STATE CO<sub>2</sub> trading program base budget.**

20  
21 (a) For the 2009 through 2014 allocation years, the NAME OF RELEVANT  
22 RGGI STATE CO<sub>2</sub> Budget Trading Program annual base budget is \_\_\_\_\_ tons.

23  
24 (b) For the 2015 allocation year, the NAME OF RELEVANT RGGI STATE CO<sub>2</sub>  
25 Budget Trading Program annual base budget is \_\_\_\_\_ tons.

26

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1 (c) For the 2016 allocation year, the NAME OF RELEVANT RGGI STATE CO<sub>2</sub>  
2 Budget Trading Program annual base budget is \_\_\_\_\_ tons.

3  
4 (d) For the 2017 allocation year, the NAME OF RELEVANT RGGI STATE CO<sub>2</sub>  
5 Budget Trading Program annual base budget is \_\_\_\_\_ tons.

6  
7 (e) For the 2018 allocation year and each succeeding allocation year, the NAME  
8 OF RELEVANT RGGI STATE CO<sub>2</sub> Budget Trading Program annual base budget is  
9 \_\_\_\_\_ tons.

## 10 11 **XX-5.2 Timing requirements for CO<sub>2</sub> allowance allocations.**

12  
13 (a) By January 1, 2009, the REGULATORY AGENCY will determine the CO<sub>2</sub>  
14 allowance allocations, in accordance with section XX-5.3, for the 2009, 2010, 2011, and  
15 2012 allocation years.

16  
17 (b) By January 1, 2010 and January 1 of each year thereafter, the  
18 REGULATORY AGENCY will allocate CO<sub>2</sub> allowances, in accordance with section XX-5.3,  
19 for the allocation year that commences in the year that is three years after the applicable  
20 deadline for allocation under this subdivision (b).

## 21 22 **XX-5.3 CO<sub>2</sub> allowance allocations.**

23  
24 (a) *General allocations.* **[Allocation provisions will vary from state to state,**  
25 **provided at least 25% of the allocations will go to a consumer benefit or strategic**  
26 **energy purpose].**

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1 (b) *Consumer benefit or strategic energy purpose allocation.* The  
2 REGULATORY AGENCY will allocate a minimum of twenty-five percent of the NAME OF  
3 RELEVANT RGGI STATE CO<sub>2</sub> Budget Trading Program base budget to the consumer  
4 benefit or strategic energy purpose set-aside account. **[The reference to the consumer  
5 benefit or strategic energy purpose account illustrates how this account could be  
6 labeled and does not necessarily represent what an individual RGGI state will  
7 propose.]**

8  
9 (c) *Early reduction CO<sub>2</sub> allowances.* The REGULATORY AGENCY may award  
10 early reduction CO<sub>2</sub> allowances (ERAs) to a CO<sub>2</sub> budget source for reductions in the CO<sub>2</sub>  
11 budget source's CO<sub>2</sub> emissions (inclusive of all emissions from CO<sub>2</sub> budget units at the  
12 CO<sub>2</sub> budget source) that are achieved by the source during the early reduction period  
13 (2006, 2007, and 2008), subject to the requirements of this subdivision. Total facility  
14 shutdowns shall not be eligible for ERAs.

15  
16 (1) The CO<sub>2</sub> budget source must submit its application for the award of  
17 ERAs by May 1, 2009.

18  
19 (2) The CO<sub>2</sub> budget source must demonstrate that all CO<sub>2</sub> budget units  
20 that existed at the source during the baseline period (2003, 2004, and 2005) are included  
21 as CO<sub>2</sub> budget units for the early reduction period. New CO<sub>2</sub> budget units added at the  
22 CO<sub>2</sub> budget source must also be accounted for during the early reduction period.

23  
24 (3) The REGULATORY AGENCY will calculate the number of ERAs to be  
25 awarded to a particular CO<sub>2</sub> budget source for the early reduction period pursuant to the  
26 following methodology:  
27

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1 (i) If total heat input to all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget  
2 source during the early reduction period is less than or equal to the total heat input to all  
3 the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the baseline period, then:

4  
5 (a) ERAs shall be calculated as follows:

$$6 \quad ERAs = ((AEER_{BASELINE} - AEER_{ERP}) \times (EO_{ERP} + (TO_{ERP} / 3.413))) / 2000$$

7 where:

8 "AEER<sub>BASELINE</sub>" is the average CO<sub>2</sub> emissions rate resulting from electric energy  
9 output and thermal energy output for all of the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source  
10 during the baseline period (in pounds of CO<sub>2</sub>/MWh<sub>th+e</sub>);

11 "AEER<sub>ERP</sub>" is the average CO<sub>2</sub> emissions rate resulting from electric energy output  
12 and thermal energy output for all of the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during  
13 the early reduction period (in pounds of CO<sub>2</sub>/ MWh<sub>th+e</sub>);

14 "EO<sub>ERP</sub>" is the total electric energy output from all CO<sub>2</sub> budget units at the CO<sub>2</sub>  
15 budget source during the early reduction period (in MWh<sub>e</sub>);

16 "TO<sub>ERP</sub>" is the total useful thermal energy output from all CO<sub>2</sub> budget units at the  
17 CO<sub>2</sub> budget source during the early reduction period (in MMBtu);

18  
19  
20 (b) For the purposes of this section, thermal energy output will  
21 be converted to units of MWh by the conversion factor 1 MWh = 3.413 MMBtu.

22  
23 (c) For the purposes of this section, output shall be monitored  
24 in accordance with Subpart XX-8.

25

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1 (ii) If total heat input to all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget  
2 source during the early reduction period is greater than or equal to the total heat input to all  
3 the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the baseline period, then:

4  
5 
$$\text{ERAs} = E_{\text{BASELINE}} - E_{\text{ERP}}$$

6 where:

7 “E<sub>BASELINE</sub>” are total CO<sub>2</sub> emissions from the all of the CO<sub>2</sub> budget units at the CO<sub>2</sub>  
8 budget source during the baseline period (in tons); and

9 “E<sub>ERP</sub>” are total CO<sub>2</sub> emissions from the all of the CO<sub>2</sub> budget units at the CO<sub>2</sub>  
10 budget source during the early reduction period (in tons).

11  
12 (4) The CO<sub>2</sub> budget source must demonstrate that the data submitted in  
13 support of the early reduction application was recorded in compliance with the  
14 requirements of Subpart XX-8 for all of the baseline years (2003, 2004 and 2005) and the  
15 early reduction years (2006, 2007, and 2008) for which the CO<sub>2</sub> budget source was  
16 required to report CO<sub>2</sub> data pursuant to 40 CFR part 75. A CO<sub>2</sub> budget source is not  
17 required to submit CO<sub>2</sub> data pursuant to 40 CFR part 75 for any of the years contained in  
18 the baseline period or early reduction period may petition the REGULATORY AGENCY as  
19 part of its application under this Subpart for the use of an alternative data source or  
20 sources for the calculation of early reduction allowances.

21  
22 (5) Once the REGULATORY AGENCY confirms a CO<sub>2</sub> budget source’s  
23 early reductions of CO<sub>2</sub> emissions, it will allocate the ERAs to the CO<sub>2</sub> budget source’s  
24 compliance account by December 31, 2009.

25  
26 **[The following subdivision is an optional voluntary renewable energy set-aside**  
27 **provision. It represents one way a state could implement such a set-aside.]**

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1  
2 (d) *Voluntary renewable energy market set-aside allocation.* For each control  
3 period, the REGULATORY AGENCY shall allocate to the voluntary renewable set-aside  
4 account a certain number of tons, calculated as set forth in this subdivision, from the CO<sub>2</sub>  
5 Budget Trading Program annual base budget set forth in section XX-5.1, as applicable.  
6 The REGULATORY AGENCY shall administer the voluntary renewable energy set-aside  
7 in accordance with this subdivision.

8  
9 (1) The REGULATORY AGENCY will open and manage a general  
10 account for the voluntary renewable set-aside for each control period.

11  
12 (2) The number of tons that will be allocated to the voluntary renewable  
13 set-aside account in a specific control period will be determined as set out in this  
14 paragraph.

15  
16 (i) Any person may submit data to the REGULATORY AGENCY  
17 documenting purchases of voluntary renewable energy that meet the requirements of this  
18 subdivision by no later than the July 30 prior to the beginning of a control period. Such  
19 data must be from reputable sources, which may include retail electricity providers,  
20 organizations that certify renewable energy products, and other parties as determined by  
21 the REGULATORY AGENCY. To be considered, data must be verifiable and document  
22 the following for voluntary renewable energy purchases:

23  
24 (a) Documentation of voluntary renewable energy or  
25 renewable energy attribute credit purchases by retail customers, by customer class, in the  
26 State during the most recent three-year period for which data are available.  
27

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1 (b) Documentation that the renewable energy or renewable  
2 energy attributes related to voluntary renewable energy or renewable energy attribute  
3 credit sales was procured by the retail provider.

4  
5 (c) Time period when the retail purchase(s) was made.

6  
7 (d) State where the electricity was generated or the  
8 renewable energy attribute credit was created, including documentation of facility name,  
9 unique generator identification number, and fuel type.

10  
11 (e) Time period when the electricity was generated or the  
12 renewable energy attribute credit was created.

13  
14 (ii) Subject to the timely receipt of adequate data pursuant to  
15 subparagraph (i) of this paragraph, and based on such data, the REGULATORY AGENCY  
16 shall project the voluntary renewable energy purchases in the State during a control period  
17 that represents renewable energy generation in one or more participating states. The  
18 megawatt-hours (MWh) of projected voluntary renewable energy purchases in a control  
19 period shall be multiplied by the marginal CO<sub>2</sub> emissions rate (lbs. CO<sub>2</sub>/MWh) in the  
20 control area where the generation occurred, as determined by the REGULATORY  
21 AGENCY. If data to determine the marginal emissions rate is unavailable, the average  
22 emissions rate shall be used, as determined by the REGULATORY AGENCY.

23  
24 (iii) The CO<sub>2</sub> tons to be allocated to the voluntary renewable energy  
25 set-aside account shall be calculated as follows:

26  
27 
$$\text{CO}_2 \text{ tons} = \text{MP} \times \text{EF}$$



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1 where:

2 CO<sub>2</sub> tons, rounded down to the nearest whole ton, is the number of  
3 allowances to be placed in the reserve account.

4 MP is the projected MWh of voluntary renewable energy purchases  
5 in the State during the future control period that meets the requirements of this subdivision.

6 EF is the CO<sub>2</sub> emissions factor for the control area where the  
7 electricity represented by the sale was generated.

8  
9 (iv) If after the retirement of CO<sub>2</sub> allowances following a control  
10 period called for in paragraph 3 of this subdivision, the number of CO<sub>2</sub> allowances  
11 allocated to the voluntary renewable energy set-aside account is less than the number of  
12 CO<sub>2</sub> tons represented by the actual MWh of voluntary renewable energy purchases during  
13 the control period, the REGULATORY AGENCY will add the difference between actual  
14 sales and CO<sub>2</sub> allowances held in the reserve account to the projection for the following  
15 control period, pursuant to paragraph (3) of this subdivision. If after the retirement of CO<sub>2</sub>  
16 allowances following a control period called for in paragraph 3 of this subdivision, the  
17 number of CO<sub>2</sub> allowances allocated to the voluntary renewable energy set-aside account  
18 is greater than the number of CO<sub>2</sub> tons represented by the actual MWh of voluntary  
19 renewable energy purchases during the control period, the REGULATORY AGENCY will  
20 subtract the difference between actual sales and CO<sub>2</sub> allowances held in the reserve  
21 account to the projection for the following control period, pursuant to paragraph (3) of this  
22 subdivision. In no event shall the size of the voluntary renewable set-aside exceed  
23 \_\_\_\_\_ tons.

24  
25 (3) As of the January 1 that is after the end of a control period for which  
26 an allocation has been made to the voluntary renewable energy set-aside account, the

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1 REGULATORY AGENCY shall determine the actual MWh of voluntary renewable energy  
2 purchases that occurred during the control period. The REGULATORY AGENCY shall  
3 retire CO<sub>2</sub> allowances in the voluntary renewable energy set-aside account in an amount  
4 up to the number of tons of CO<sub>2</sub> represented by actual voluntary renewable energy  
5 purchases, based on actual MWh purchases and the emissions factor determined  
6 pursuant to paragraph (2) of this subdivision.

7  
8  
9 **[The following subdivision is an optional set-aside provision for states that adopt**  
10 **the optional section XX-1.4(b). It represents one way a state could implement such**  
11 **a set-aside.]**

12  
13 (e) *Limited industrial exemption set-aside allocation.* The limited exemption set-  
14 aside allocation will consist of \_\_\_\_\_ tons from the CO<sub>2</sub> Budget Trading Program  
15 annual base budget set forth in section XX-5.1, as applicable. For each control period, the  
16 REGULATORY AGENCY will determine CO<sub>2</sub> allowance distributions in accordance with  
17 the following procedures.

18  
19 (1) The REGULATORY AGENCY will open and manage a general  
20 account for the limited exemption set-aside for each control period.

21  
22 (2) As of the January 1 that is after the date that an exemption under  
23 subdivision XX-1.4(b) has been granted, the REGULATORY AGENCY will retire CO<sub>2</sub>  
24 allowances in the limited exemption set-aside general account as determined pursuant to

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1 paragraph XX-1.4(b)(4).

2  
3 (3) After making deductions for compliance under subdivisions XX-6.5(b),  
4 (d), (e) and (f) for a control period, the REGULATORY AGENCY determine whether any  
5 CO<sub>2</sub> allowances remain in the limited exemption set-aside general account for the control  
6 period. The REGULATORY AGENCY will transfer any such remaining CO<sub>2</sub> allowances  
7 from the limited exemption set-aside allocation general account to the compliance account  
8 of each CO<sub>2</sub> budget source that was allocated allowances pursuant to subdivision (a) of  
9 this section using the following methodology:

10  
11 Existing CO<sub>2</sub> budget unit's share of the CO<sub>2</sub> allowances remaining in the limited  
12 exemption set-aside general account = Total CO<sub>2</sub> allowances remaining in the limited  
13 exemption set-aside general account x (The individual CO<sub>2</sub> budget unit's CO<sub>2</sub> allowance  
14 allocation determined in accordance with subdivision (a) of this section ÷ The CO<sub>2</sub> Budget  
15 Trading Program annual base budget, as applicable)

16  
17 Where:

18 "Total CO<sub>2</sub> allowances remaining in the limited exemption set-aside allocation  
19 general account" is the total number of CO<sub>2</sub> allowances remaining in the limited exemption  
20 set-aside allocation general account (established under (e)(1) of this section) for the  
21 particular control period to which the limited exemption set-aside allocation applies; and

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1  
2           “The individual CO<sub>2</sub> budget unit’s CO<sub>2</sub> allowance allocation” is the number of CO<sub>2</sub>  
3 allowances allocated under subdivision (a) of this section to the individual CO<sub>2</sub> budget unit  
4 for the control period to which the limited exemption set-aside allocation applies.

5  
6           The REGULATORY AGENCY will only transfer CO<sub>2</sub> allowances in whole ton increments,  
7           The REGULATORY AGENCY will continue to hold any fractional shares of CO<sub>2</sub>  
8 allowances in the name of the CO<sub>2</sub> unit as banked CO<sub>2</sub> allowances until they may be  
9 combined with other fractional shares of CO<sub>2</sub> allowances in future years and then  
10 transferred as whole ton increments.

## 11 12           **Subpart XX-6           CO<sub>2</sub> Allowance Tracking System**

### 13 14           **XX-6.1           CO<sub>2</sub> Allowance Tracking System accounts.**

15  
16           (a)   *Nature and function of compliance accounts.* Consistent with subdivision  
17 XX-6.2(a), the REGULATORY AGENCY or its agent will establish one compliance account  
18 for each CO<sub>2</sub> budget source. Allocations of CO<sub>2</sub> allowances pursuant to Subpart XX-5 and  
19 deductions or transfers of CO<sub>2</sub> allowances pursuant to sections XX-4.2, XX-6.5, XX-6.7, or  
20 Subpart XX-7 will be recorded in the compliance accounts in accordance with this Subpart.

21  
22           (b)   *Nature and function of general accounts.* Consistent with subdivision XX-  
23 6.2(b), the REGULATORY AGENCY or its agent will establish, upon request, a general  
24 account for any person. Transfers of CO<sub>2</sub> allowances pursuant to Subpart XX-7 will be

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1 recorded in the general account in accordance with this Subpart.  
2

## 3 **XX-6.2 Establishment of accounts.** 4

5 (a) *Compliance accounts.* Upon receipt of a complete account certificate of  
6 representation under section XX-2.4, the REGULATORY AGENCY or its agent will  
7 establish a compliance account for each CO<sub>2</sub> budget source for which the account  
8 certificate of representation was submitted.  
9

### 10 (b) *General accounts.* 11

12 (1) *Application for general account.* Any person may apply to open a  
13 general account for the purpose of holding and transferring CO<sub>2</sub> allowances. An  
14 application for a general account may designate one and only one CO<sub>2</sub> authorized account  
15 representative and one and only one alternate CO<sub>2</sub> authorized account representative who  
16 may act on behalf of the CO<sub>2</sub> authorized account representative. The agreement by which  
17 the alternate CO<sub>2</sub> authorized account representative is selected shall include a procedure  
18 for authorizing the alternate CO<sub>2</sub> authorized account representative to act in lieu of the  
19 CO<sub>2</sub> authorized account representative. A complete application for a general account shall  
20 be submitted to the REGULATORY AGENCY or its agent and shall include the following  
21 elements in a format prescribed by the REGULATORY AGENCY or its agent:  
22

23 (i) name, address, e-mail address, telephone number, and  
24 facsimile transmission number of the CO<sub>2</sub> authorized account representative and any  
25 alternate CO<sub>2</sub> authorized account representative;  
26

27 (ii) at the option of the CO<sub>2</sub> authorized account representative,

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1 organization name and type of organization;

2  
3 (iii) a list of all persons subject to a binding agreement for the CO<sub>2</sub>  
4 authorized account representative or any alternate CO<sub>2</sub> authorized account representative  
5 to represent their ownership interest with respect to the CO<sub>2</sub> allowances held in the  
6 general account;

7  
8 (iv) the following certification statement by the CO<sub>2</sub> authorized  
9 account representative and any alternate CO<sub>2</sub> authorized account representative: "I certify  
10 that I was selected as the CO<sub>2</sub> authorized account representative or the CO<sub>2</sub> alternate  
11 authorized account representative, as applicable, by an agreement that is binding on all  
12 persons who have an ownership interest with respect to CO<sub>2</sub> allowances held in the  
13 general account. I certify that I have all the necessary authority to carry out my duties and  
14 responsibilities under the CO<sub>2</sub> Budget Trading Program on behalf of such persons and that  
15 each such person shall be fully bound by my representations, actions, inactions, or  
16 submissions and by any order or decision issued to me by the REGULATORY AGENCY or  
17 its agent or a court regarding the general account.";

18  
19 (v) the signature of the CO<sub>2</sub> authorized account representative and  
20 any alternate CO<sub>2</sub> authorized account representative and the dates signed; and

21  
22 (vi) unless otherwise required by the REGULATORY AGENCY or  
23 its agent, documents of agreement referred to in the application for a general account shall  
24 not be submitted to the REGULATORY AGENCY or its agent. Neither the REGULATORY  
25 AGENCY nor its agent shall be under any obligation to review or evaluate the sufficiency  
26 of such documents, if submitted.  
27

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1                   (2)     *Authorization of CO<sub>2</sub> authorized account representative.*

2  
3                   (i)     Upon receipt by the REGULATORY AGENCY or its agent of a  
4 complete application for a general account under paragraph (b)(1) of this section:

5  
6                   (a)     The REGULATORY AGENCY or its agent will establish  
7 a general account for the person or persons for whom the application is submitted.

8  
9                   (b)     The CO<sub>2</sub> authorized account representative and any  
10 alternate CO<sub>2</sub> authorized account representative for the general account shall represent  
11 and, by his or her representations, actions, inactions, or submissions, legally bind each  
12 person who has an ownership interest with respect to CO<sub>2</sub> allowances held in the general  
13 account in all matters pertaining to the CO<sub>2</sub> Budget Trading Program, notwithstanding any  
14 agreement between the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub>  
15 authorized account representative and such person. Any such person shall be bound by  
16 any order or decision issued to the CO<sub>2</sub> authorized account representative or any alternate  
17 CO<sub>2</sub> authorized account representative by the REGULATORY AGENCY or its agent or a  
18 court regarding the general account.

19  
20                   (c)     Any representation, action, inaction, or submission by  
21 any alternate CO<sub>2</sub> authorized account representative shall be deemed to be a  
22 representation, action, inaction, or submission by the CO<sub>2</sub> authorized account  
23 representative.

24  
25                   (ii)    Each submission concerning the general account shall be  
26 submitted, signed, and certified by the CO<sub>2</sub> authorized account representative or any  
27 alternate CO<sub>2</sub> authorized account representative for the persons having an ownership

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1 interest with respect to CO<sub>2</sub> allowances held in the general account. Each such  
2 submission shall include the following certification statement by the CO<sub>2</sub> authorized  
3 account representative or any alternate CO<sub>2</sub> authorized account representative: “I am  
4 authorized to make this submission on behalf of the persons having an ownership interest  
5 with respect to the CO<sub>2</sub> allowances held in the general account. I certify under penalty of  
6 law that I have personally examined, and am familiar with, the statements and information  
7 submitted in this document and all its attachments. Based on my inquiry of those  
8 individuals with primary responsibility for obtaining the information, I certify that the  
9 statements and information are to the best of my knowledge and belief true, accurate, and  
10 complete. I am aware that there are significant penalties for submitting false statements  
11 and information or omitting required statements and information, including the possibility of  
12 fine or imprisonment.”

13  
14 (iii) The REGULATORY AGENCY or its agent will accept or act on  
15 a submission concerning the general account only if the submission has been made,  
16 signed, and certified in accordance with subparagraph (b)(2)(ii) of this section.

17  
18 (3) *Changing CO<sub>2</sub> authorized account representative and alternate CO<sub>2</sub>*  
19 *authorized account representative; changes in persons with ownership interest.*

20  
21 (i) The CO<sub>2</sub> authorized account representative for a general  
22 account may be changed at any time upon receipt by the REGULATORY AGENCY or its  
23 agent of a superseding complete application for a general account under paragraph (b)(1)  
24 of this section. Notwithstanding any such change, all representations, actions, inactions,  
25 and submissions by the previous CO<sub>2</sub> authorized account representative prior to the time  
26 and date when the REGULATORY AGENCY or its agent receives the superseding  
27 application for a general account shall be binding on the new CO<sub>2</sub> authorized account



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1 representative and the persons with an ownership interest with respect to the CO<sub>2</sub>  
2 allowances in the general account.

3  
4 (ii) The alternate CO<sub>2</sub> authorized account representative for a  
5 general account may be changed at any time upon receipt by the REGULATORY  
6 AGENCY or its agent of a superseding complete application for a general account under  
7 paragraph (b)(1) of this section. Notwithstanding any such change, all representations,  
8 actions, inactions, and submissions by the previous alternate CO<sub>2</sub> authorized account  
9 representative prior to the time and date when the REGULATORY AGENCY or its agent  
10 receives the superseding application for a general account shall be binding on the new  
11 alternate CO<sub>2</sub> authorized account representative and the persons with an ownership  
12 interest with respect to the CO<sub>2</sub> allowances in the general account.

13  
14 (iii) In the event a new person having an ownership interest with  
15 respect to CO<sub>2</sub> allowances in the general account is not included in the list of such persons  
16 in the application for a general account, such new person shall be deemed to be subject to  
17 and bound by the application for a general account, the representations, actions, inactions,  
18 and submissions of the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub>  
19 authorized account representative, and the decisions, orders, actions, and inactions of the  
20 REGULATORY AGENCY or its agent, as if the new person were included in such list.

21  
22 (iv) Within 30 days following any change in the persons having an  
23 ownership interest with respect to CO<sub>2</sub> allowances in the general account, including the  
24 addition of persons, the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub>  
25 authorized account representative shall submit a revision to the application for a general  
26 account amending the list of persons having an ownership interest with respect to the CO<sub>2</sub>  
27 allowances in the general account to include the change.

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1  
2 (4) Objections concerning CO<sub>2</sub> authorized account representative.

3  
4 (i) Once a complete application for a general account under  
5 paragraph (b)(1) of this section has been submitted and received, the REGULATORY  
6 AGENCY or its agent will rely on the application unless and until a superseding complete  
7 application for a general account under paragraph (b)(1) of this section is received by the  
8 REGULATORY AGENCY or its agent.

9  
10 (ii) Except as provided in subparagraphs (b)(3)(i) and (ii) of this  
11 section, no objection or other communication submitted to the REGULATORY AGENCY or  
12 its agent concerning the authorization, or any representation, action, inaction, or  
13 submission of the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized  
14 account representative for a general account shall affect any representation, action,  
15 inaction, or submission of the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub>  
16 authorized account representative or the finality of any decision or order by the  
17 REGULATORY AGENCY or its agent under the CO<sub>2</sub> Budget Trading Program.

18  
19 (iii) Neither the REGULATORY AGENCY nor its agent will  
20 adjudicate any private legal dispute concerning the authorization or any representation,  
21 action, inaction, or submission of the CO<sub>2</sub> authorized account representative or any  
22 alternate CO<sub>2</sub> authorized account representative for a general account, including private  
23 legal disputes concerning the proceeds of CO<sub>2</sub> allowance transfers.

24  
25 (5) Delegation by CO<sub>2</sub> authorized account representative and alternate  
26 CO<sub>2</sub> authorized account representative.  
27

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1 (i) A CO<sub>2</sub> authorized account representative may delegate, to one  
2 or more natural persons, his or her authority to make an electronic submission to the  
3 REGULATORY AGENCY or its agent provided for under Subparts XX-6 and XX-7 of this  
4 Part.

5  
6 (ii) An alternate CO<sub>2</sub> authorized account representative may  
7 delegate, to one or more natural persons, his or her authority to make an electronic  
8 submission to the REGULATORY AGENCY or its agent provided for under Subparts XX-6  
9 and XX-7.

10  
11 (iii) In order to delegate authority to make an electronic submission  
12 to the REGULATORY AGENCY or its agent in accordance with subparagraphs (i) and (ii)  
13 of this paragraph, the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized  
14 account representative, as appropriate must submit to the REGULATORY AGENCY or its  
15 agent a notice of delegation, in a format prescribed by the REGULATORY AGENCY that  
16 includes the following elements:

17  
18 (a) The name, address, e-mail address, telephone number,  
19 and facsimile transmission number of such CO<sub>2</sub> authorized account representative or  
20 alternate CO<sub>2</sub> authorized account representative;

21  
22 (b) The name, address, e-mail address, telephone number  
23 and facsimile transmission number of each such natural person, herein referred to as  
24 “electronic submission agent”;

25

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1                                   (c)     For each such natural person, a list of the type of  
2 electronic submissions under subdivision (a) or (b) of this section for which authority is  
3 delegated to him or her; and

4  
5                                   (d)     The following certification statements by such CO<sub>2</sub>  
6 authorized account representative or alternate CO<sub>2</sub> authorized account representative:

7  
8                                   (1)     “I agree that any electronic submission to the  
9 REGULATORY AGENCY or its agent that is by a natural person identified in this notice of  
10 delegation and of a type listed for such electronic submission agent in this notice of  
11 delegation and that is made when I am a CO<sub>2</sub> authorized account representative or  
12 alternate CO<sub>2</sub> authorized account representative, as appropriate, and before this notice of  
13 delegation is superseded by another notice of delegation under subparagraph XX-  
14 6.2(b)(5)(iv) shall be deemed to be an electronic submission by me.”

15  
16                                   (2)     “Until this notice of delegation is superseded by  
17 another notice of delegation under subparagraph XX-6.2(b)(5)(iv), I agree to maintain an  
18 e-mail account and to notify the REGULATORY AGENCY or its agent immediately of any  
19 change in my e-mail address unless all delegation authority by me under paragraph XX-  
20 6.2(b)(5) is terminated.”

21  
22                                   (iv)     A notice of delegation submitted under under subparagraph  
23 (iii) of this paragraph shall be effective, with regard to the CO<sub>2</sub> authorized account  
24 representative or alternate CO<sub>2</sub> authorized account representative identified in such notice,  
25 upon receipt of such notice by the REGULATORY AGENCY or its agent and until receipt  
26 by the REGULATORY AGENCY or its agent of a superseding notice of delegation by such  
27 CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative

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1 as appropriate. The superseding notice of delegation may replace any previously  
2 identified electronic submission agent, add a new electronic submission agent, or eliminate  
3 entirely any delegation of authority.

4  
5 (v) Any electronic submission covered by the certification in  
6 subclause (iii)(d)(1) of this paragraph and made in accordance with a notice of delegation  
7 effective under subparagraph (iv) of this paragraph shall be deemed to be an electronic  
8 submission by the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized  
9 account representative submitting such notice of delegation.

10  
11 (c) *Account identification.* The REGULATORY AGENCY or its agent will assign  
12 a unique identifying number to each account established under subdivisions (a) or (b) of  
13 this section.

## 14 15 **XX-6.3 CO<sub>2</sub> Allowance Tracking System responsibilities of CO<sub>2</sub>** 16 **authorized account representative.**

17  
18 Following the establishment of a CO<sub>2</sub> Allowance Tracking System account, all  
19 submissions to the REGULATORY AGENCY or its agent pertaining to the account,  
20 including, but not limited to, submissions concerning the deduction or transfer of CO<sub>2</sub>  
21 allowances in the account, shall be made only by the CO<sub>2</sub> authorized account  
22 representative for the account.

## 23 24 **XX-6.4 Recordation of CO<sub>2</sub> allowance allocations.**

25  
26 (a) By January 1, 2009, the REGULATORY AGENCY or its agent will record the  
27 CO<sub>2</sub> allowances for the allocation years of 2009, 2010, 2011, and 2012 in each CO<sub>2</sub>

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1 budget source's compliance account the CO<sub>2</sub> allowances allocated for CO<sub>2</sub> budget units at  
2 the source (if any), and in the consumer benefit or strategic energy purpose account as  
3 allocated under Subpart XX-5. **[Should states wish to establish other set-aside**  
4 **allocations (for new sources, for example), they would be referred to (at least**  
5 **generically) in this subdivision.]**  
6

7 (b) Each year the REGULATORY AGENCY or its agent will record CO<sub>2</sub>  
8 allowances, as allocated to the unit under Subpart XX-5, in the compliance account for the  
9 year after the last year for which CO<sub>2</sub> allowances were previously allocated to the  
10 compliance account. Each year, the REGULATORY AGENCY or its agent will also record  
11 CO<sub>2</sub> allowances, as allocated under Subpart XX-5, in the allocation set-aside for the year  
12 after the last year for which CO<sub>2</sub> allowances were previously allocated to an allocation set-  
13 aside.  
14

15 (c) *Serial numbers for allocated CO<sub>2</sub> allowances.* When allocating CO<sub>2</sub>  
16 allowances to and recording them in an account, the REGULATORY AGENCY or its agent  
17 will assign each CO<sub>2</sub> allowance a unique identification number that will include digits  
18 identifying the year for which the CO<sub>2</sub> allowance is allocated.  
19

## 20 **XX-6.5 Compliance.**

21  
22 (a) *Allowances available for compliance deduction.* CO<sub>2</sub> allowances that meet  
23 the following criteria are available to be deducted for compliance with a CO<sub>2</sub> budget  
24 source's CO<sub>2</sub> budget emissions limitation for a control period.  
25

26 (1) The CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, are of  
27 allocation years that fall within a prior control period or the same control period for which

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1 the allowances will be deducted.  
2

3 (2) The CO<sub>2</sub> allowances are held in the CO<sub>2</sub> budget source's compliance  
4 account as of the CO<sub>2</sub> allowance transfer deadline for that control period or are transferred  
5 into the compliance account by a CO<sub>2</sub> allowance transfer correctly submitted for  
6 recordation under section XX-7.1 by the CO<sub>2</sub> allowance transfer deadline for that control  
7 period.  
8

9 (3) For CO<sub>2</sub> offset allowances, the number of CO<sub>2</sub> offset allowances that  
10 are available to be deducted for compliance with a CO<sub>2</sub> budget source's CO<sub>2</sub> budget  
11 emissions limitation for a control period may not exceed the number of tons representing  
12 the following percentages of the CO<sub>2</sub> budget source's CO<sub>2</sub> emissions for that control  
13 period, as determined in accordance with Subparts XX-6 and XX-8:  
14

15 (i) unless the provisions of subparagraphs (ii) or (iii) of this  
16 paragraph apply, 3.3 percent;  
17

18 (ii) if the REGULATORY AGENCY determines that there has been  
19 a stage one trigger event, 5 percent;  
20

21 (iii) if the REGULATORY AGENCY determines that there has been  
22 a stage two trigger event, 10 percent.  
23

24 (4) The CO<sub>2</sub> allowances are not necessary for deductions for excess  
25 emissions for a prior control period under subdivision (d) of this section.  
26

27 (b) *Deductions for compliance.* Following the recordation, in accordance with

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1 section XX-7.2, of CO<sub>2</sub> allowance transfers submitted for recordation in the CO<sub>2</sub> budget  
2 source's compliance account by the CO<sub>2</sub> allowance transfer deadline for a control period,  
3 the REGULATORY AGENCY or its agent will deduct CO<sub>2</sub> allowances available under  
4 subdivision (a) of this section to cover the source's CO<sub>2</sub> emissions (as determined in  
5 accordance with Subpart XX-8) for the control period, as follows:

6  
7 (1) until the amount of CO<sub>2</sub> allowances deducted equals the number of  
8 tons of total CO<sub>2</sub> emissions, less any CO<sub>2</sub> emissions attributable to the burning of eligible  
9 biomass, determined in accordance with Subpart XX-8 of this Part, from all CO<sub>2</sub> budget  
10 units at the CO<sub>2</sub> budget source for the control period; or

11  
12 (2) if there are insufficient CO<sub>2</sub> allowances to complete the deductions in  
13 paragraph (b)(1) of this section, until no more CO<sub>2</sub> allowances available under subdivision  
14 (a) of this section remain in the compliance account.

15  
16 (c) *Identification of available CO<sub>2</sub> allowances by serial number; default*  
17 *compliance deductions.*

18  
19 (1) The CO<sub>2</sub> authorized account representative for a source's compliance  
20 account may request that specific CO<sub>2</sub> allowances, identified by serial number, in the  
21 compliance account be deducted for emissions or excess emissions for a control period in  
22 accordance with subdivision (b), or (d) of this section. Such identification shall be made in  
23 the compliance certification report submitted in accordance with section XX-4.1.

24  
25 (2) The REGULATORY AGENCY or its agent will deduct CO<sub>2</sub> allowances  
26 for a control period from the CO<sub>2</sub> budget source's compliance account, in the absence of  
27 an identification or in the case of a partial identification of available CO<sub>2</sub> allowances by



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1 serial number under paragraph (c)(1) of this section, in the following descending order:

2  
3 (i) any CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, that are  
4 available for deduction under subdivision (a) of this section and were allocated to the units  
5 at the source, in the order of recordation; and then

6  
7 (ii) any CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, that are  
8 available for deduction under subdivision (a) of this section and were allocated other than  
9 to units at the source and transferred and recorded in the compliance account pursuant to  
10 Subpart XX-7, in the order of recordation; and then

11  
12 (iii) subject to the relevant compliance deduction limitations under  
13 XX-6.5(a)(3), any CO<sub>2</sub> offset allowances allocated, transferred and recorded in the  
14 compliance account pursuant to Subpart XX-7, in the order of recordation.

15  
16 (d) *Deductions for excess emissions.*

17  
18 (1) After making the deductions for compliance under subdivision (b) of  
19 this section, the REGULATORY AGENCY or its agent will deduct from the CO<sub>2</sub> budget  
20 source's compliance account a number of CO<sub>2</sub> allowances, allocated for allocation years  
21 that occur after the control period in which the source has excess emissions, equal to three  
22 times the number of the source's excess emissions. In the event that a source has  
23 insufficient CO<sub>2</sub> allowances to cover three times the number of the source's excess  
24 emissions, the source shall be required to immediately transfer sufficient allowances into  
25 its compliance account. No CO<sub>2</sub> offset allowances may be deducted to account for the  
26 source's excess emissions.  
27

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1           (2) Any CO<sub>2</sub> allowance deduction required under paragraph (d)(1) of this  
2 section shall not affect the liability of the owners and operators of the CO<sub>2</sub> budget source  
3 or the CO<sub>2</sub> units at the source for any fine, penalty, or assessment, or their obligation to  
4 comply with any other remedy, for the same violation, as ordered under applicable State  
5 law. The following guidelines will be followed in assessing fines, penalties or other  
6 obligations.

7  
8           (i) For purposes of determining the number of days of violation, if  
9 a CO<sub>2</sub> budget source has excess emissions for a control period, each day in the control  
10 period constitutes a day in violation unless the owners and operators of the unit  
11 demonstrate that a lesser number of days should be considered.

12  
13           (ii) Each ton of excess emissions is a separate violation.

14  
15           (3) The propriety of the REGULATORY AGENCY's determination that a  
16 CO<sub>2</sub> budget source had excess emissions and the concomitant deduction of CO<sub>2</sub>  
17 allowances from that CO<sub>2</sub> budget source's account may be later challenged in the context  
18 of the initial administrative enforcement, or any civil or criminal judicial action arising from  
19 or encompassing that excess emissions violation. The commencement or pendency of  
20 any administrative enforcement, or civil or criminal judicial action arising from or  
21 encompassing that excess emissions violation will not act to prevent the REGULATORY  
22 AGENCY or its agent from initially deducting the CO<sub>2</sub> allowances resulting from the  
23 REGULATORY AGENCY's original determination that the relevant CO<sub>2</sub> budget source has  
24 had excess emissions. Should the REGULATORY AGENCY's determination of the  
25 existence or extent of the CO<sub>2</sub> budget source's excess emissions be revised either by a  
26 settlement or final conclusion of any administrative or judicial action, the REGULATORY  
27 AGENCY will act as follows.

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1  
2 (i) In any instance where the REGULATORY AGENCY's  
3 determination of the extent of excess emissions was too low, the REGULATORY AGENCY  
4 will take further action under paragraphs (d)(1) and (2) of this section to address the  
5 expanded violation.

6  
7 (ii) In any instance where the REGULATORY AGENCY's  
8 determination of the extent of excess emissions was too high, the REGULATORY  
9 AGENCY will distribute to the relevant CO<sub>2</sub> budget source a number of CO<sub>2</sub> allowances  
10 equaling the number of CO<sub>2</sub> allowances deducted which are attributable to the difference  
11 between the original and final quantity of excess emissions. Should such CO<sub>2</sub> budget  
12 source's compliance account no longer exist, the CO<sub>2</sub> allowances will be provided to a  
13 general account selected by the owner or operator of the CO<sub>2</sub> budget source from which  
14 they were originally deducted.

15  
16 (e) The REGULATORY AGENCY or its agent will record in the appropriate  
17 compliance account all deductions from such an account pursuant to subdivisions (b) and  
18 (d) of this section.

19  
20 (f) *Action by the REGULATORY AGENCY on submissions.*

21  
22 (1) The REGULATORY AGENCY may review and conduct independent  
23 audits concerning any submission under the CO<sub>2</sub> Budget Trading Program and make  
24 appropriate adjustments of the information in the submissions.

25  
26 (2) The REGULATORY AGENCY may deduct CO<sub>2</sub> allowances from or  
27 transfer CO<sub>2</sub> allowances to a source's compliance account based on information in the

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1 submissions, as adjusted under paragraph (f)(1) of this section.  
2

## 3 **XX-6.6 Banking.** 4

5 Each CO<sub>2</sub> allowance that is held in a compliance account or a general account will  
6 remain in such account unless and until the CO<sub>2</sub> allowance is deducted or transferred  
7 under this section, section XX-4.2, section XX-6.5, section XX-6.7, or Subpart XX-7.  
8

## 9 **XX-6.7 Account error.** 10

11 The REGULATORY AGENCY or its agent may, at its sole discretion and on his or  
12 her own motion, correct any error in any CO<sub>2</sub> Allowance Tracking System account. Within  
13 10 business days of making such correction, the REGULATORY AGENCY or its agent will  
14 notify the CO<sub>2</sub> authorized account representative for the account.  
15

## 16 **XX-6.8 Closing of general accounts.** 17

18 (a) A CO<sub>2</sub> authorized account representative of a general account may instruct  
19 the REGULATORY AGENCY or its agent to close the account by submitting a statement  
20 requesting deletion of the account from the CO<sub>2</sub> Allowance Tracking System and by  
21 correctly submitting for recordation under section XX-7.1 a CO<sub>2</sub> allowance transfer of all  
22 CO<sub>2</sub> allowances in the account to one or more other CO<sub>2</sub> Allowance Tracking System  
23 accounts.  
24

25 (b) If a general account shows no activity for a period of six years or more and  
26 does not contain any CO<sub>2</sub> allowances, the REGULATORY AGENCY or its agent may  
27 notify the CO<sub>2</sub> authorized account representative for the account that the account will be

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1 closed and deleted from the CO<sub>2</sub> Allowance Tracking System following 20 business days  
2 after the notice is sent. The account will be closed after the 20-day period unless before  
3 the end of the 20-day period the REGULATORY AGENCY or its agent receives a correctly  
4 submitted transfer of CO<sub>2</sub> allowances into the account under section XX-7.1 or a statement  
5 submitted by the CO<sub>2</sub> authorized account representative demonstrating to the satisfaction  
6 of the REGULATORY AGENCY or its agent good cause as to why the account should not  
7 be closed.

## 8 9 **Subpart XX-7 CO<sub>2</sub> Allowance Transfers**

### 10 11 **XX-7.1 Submission of CO<sub>2</sub> allowance transfers.**

12  
13 The CO<sub>2</sub> authorized account representatives seeking recordation of a CO<sub>2</sub>  
14 allowance transfer shall submit the transfer to the REGULATORY AGENCY or its agent.  
15 To be considered correctly submitted, the CO<sub>2</sub> allowance transfer shall include the  
16 following elements in a format specified by the REGULATORY AGENCY or its agent:

- 17
- 18 (a) the numbers identifying both the transferor and transferee accounts;
  - 19
  - 20 (b) a specification by serial number of each CO<sub>2</sub> allowance to be transferred;
  - 21
  - 22 (c) the printed name and signature of the CO<sub>2</sub> authorized account representative  
23 of the transferor account and the date signed;
  - 24
  - 25 (d) the date of the completion of the last sale or purchase transaction for the  
26 allowance, if any; and
  - 27

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1 (e) the purchase or sale price of the allowance that is the subject of a sale or  
2 purchase transaction under subdivision (d) of this section.

### 3 4 **XX-7.2 Recordation.**

5  
6 (a) Within 5 business days of receiving a CO<sub>2</sub> allowance transfer, except as  
7 provided in subdivision (b) of this section, the REGULATORY AGENCY or its agent will  
8 record a CO<sub>2</sub> allowance transfer by moving each CO<sub>2</sub> allowance from the transferor  
9 account to the transferee account as specified by the request, provided that:

10  
11 (1) the transfer is correctly submitted under section XX-7.1; and

12  
13 (2) the transferor account includes each CO<sub>2</sub> allowance identified by  
14 serial number in the transfer.

15  
16 (b) A CO<sub>2</sub> allowance transfer that is submitted for recordation following the CO<sub>2</sub>  
17 allowance transfer deadline and that includes any CO<sub>2</sub> allowances that are of allocation  
18 years that fall within a control period prior to or the same as the control period to which the  
19 CO<sub>2</sub> allowance transfer deadline applies will not be recorded until after completion of the  
20 process of recordation of CO<sub>2</sub> allowance allocations in subdivision XX-6.4(b).

21  
22 (c) Where a CO<sub>2</sub> allowance transfer submitted for recordation fails to meet the  
23 requirements of subdivision (a) of this section, the REGULATORY AGENCY or its agent  
24 will not record such transfer.

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1     **XX-7.3       Notification.**

2  
3           (a)     *Notification of recordation.* Within 5 business days of recordation of a CO<sub>2</sub>  
4 allowance transfer under section XX-7.2, the REGULATORY AGENCY or its agent will  
5 notify each party to the transfer. Notice will be given to the CO<sub>2</sub> authorized account  
6 representatives of both the transferor and transferee accounts.

7  
8           (b)     *Notification of non-recordation.* Within 10 business days of receipt of a CO<sub>2</sub>  
9 allowance transfer that fails to meet the requirements of subdivision XX-7.2(a), the  
10 REGULATORY AGENCY or its agent will notify the CO<sub>2</sub> authorized account  
11 representatives of both accounts subject to the transfer of:

12  
13                   (1)     a decision not to record the transfer, and

14  
15                   (2)     the reasons for such non-recordation.

16  
17           (c)     Nothing in this section shall preclude the submission of a CO<sub>2</sub> allowance  
18 transfer for recordation following notification of non-recordation.

19  
20     **Subpart XX-8       Monitoring and Reporting**

21  
22     **XX-8.1       General requirements.**

23  
24           The owners and operators, and to the extent applicable, the CO<sub>2</sub> authorized account  
25 representative of a CO<sub>2</sub> budget unit, shall comply with the monitoring, recordkeeping and  
26 reporting requirements as provided in this Subpart and all applicable sections of 40 CFR  
27 part 75. For purposes of complying with such requirements, the definitions in XX-1.2 and in

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1 40 CFR 72.2 shall apply, and the terms “affected unit,” “designated representative,” and  
2 “continuous emissions monitoring system” (or “CEMS”) in 40 CFR part 75 shall be  
3 replaced by the terms “CO<sub>2</sub> budget unit,” “CO<sub>2</sub> authorized account representative,” and  
4 “continuous emissions monitoring system” (or “CEMS”), respectively, as defined in XX-1.2.

5  
6 (a) *Requirements for installation, certification, and data accounting.* The owner  
7 or operator of each CO<sub>2</sub> budget unit must meet the following requirements.

8  
9 (1) Install all monitoring systems required under this Subpart for  
10 monitoring CO<sub>2</sub> mass emissions. This includes all systems required to monitor CO<sub>2</sub>  
11 concentration, stack gas flow rate, O<sub>2</sub> concentration, heat input, and fuel flow rate, as  
12 applicable, in accordance with 40 CFR 75.13, 75.71 and 75.72 and all portions of appendix  
13 G of 40 CFR part 75, except for equation G-1 in 40 CFR Part 75. Equation G-1 in  
14 Appendix G shall not be used to determine CO<sub>2</sub> emissions under this Part.

15  
16 (2) Successfully complete all certification tests required under section XX-  
17 8.2 and meet all other requirements of this Subpart and 40 CFR part 75 applicable to the  
18 monitoring systems under paragraphs (a)(1) of this section.

19  
20 (3) Record, report and quality-assure the data from the monitoring  
21 systems under paragraphs (a)(1) of this section.

22  
23 (b) *Compliance dates.* The owner or operator shall meet the monitoring system  
24 certification and other requirements of paragraphs (a)(1) through (a)(3) of this section on or  
25 before the following dates. The owner or operator shall record, report and quality-assure  
26 the data from the monitoring systems under paragraph (a)(1) of this section on and after  
27 the following dates:



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1  
2           (1)     The owner or operator of a CO<sub>2</sub> budget unit, except for a CO<sub>2</sub> budget  
3 unit under paragraph (b)(1) of this section, that commences commercial operation before  
4 July 1, 2008, must comply with the requirements of this Subpart by January 1, 2009.

5  
6           (2)     The owner or operator of a CO<sub>2</sub> budget unit that commences  
7 commercial operation on or after July 1, 2008 must comply with the requirements of this  
8 Subpart by the later of the following dates:

9  
10                   (i)     January 1, 2009; or

11  
12                   (ii)    The earlier of:

13  
14                           (a)    90 operating days after the date on which the unit  
15 commences commercial operation or,

16  
17                           (b)    180 calendar days after the date on which the unit  
18 commences commercial operation.

19  
20           (3)     For the owner or operator of a CO<sub>2</sub> budget unit for which construction  
21 of a new stack or flue installation is completed after the applicable deadline under  
22 paragraph (b)(1), (b)(2) or (b)(3) of this section by the earlier of:

23  
24                   (i)     90 unit operating days after the date on which emissions first  
25 exit to the atmosphere through the new stack or flue; or

26

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1                   (ii)     180 calendar days after the date on which emissions first exit to  
2 the atmosphere through the new stack or flue.

3  
4                   (c)     *Reporting data.*

5  
6                   (1)     Except as provided in paragraph (c)(3) of this section, the owner or  
7 operator of a CO<sub>2</sub> budget unit that does not meet the applicable compliance date set forth in  
8 paragraphs (b)(2) and (b)(3) of this section for any monitoring system under paragraph  
9 (a)(1) of this section shall, for each such monitoring system, determine, record, and report  
10 maximum potential (or as appropriate minimum potential) values for CO<sub>2</sub> concentration,  
11 CO<sub>2</sub> emissions rate, stack gas moisture content, fuel flow rate and any other parameter  
12 required to determine CO<sub>2</sub> mass emissions and heat input in accordance with 40 CFR  
13 75.31(b)(2) or (c)(3), section 2.4 of appendix D of 40 CFR part 75 or section 2.5 of  
14 appendix F of 40 CFR part 75 as applicable.

15  
16                   (2)     The owner or operator of a CO<sub>2</sub> budget unit that does not meet the  
17 applicable compliance date set forth in paragraph (b)(3) of this section for any monitoring  
18 system under paragraph (a)(1) of this section shall, for each such monitoring system,  
19 determine, record, and report substitute data using the applicable missing data procedures  
20 in Subpart D, or appendix D or appendix E of 40 CFR part 75, in lieu of the maximum  
21 potential (or as appropriate minimum potential) values for a parameter if the owner or  
22 operator demonstrates that there is continuity between the data streams for that parameter  
23 before and after the construction or installation under paragraph (b)(3) of this section.

24  
25                   (d)     *Prohibitions.*  
26

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1           (1) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit  
2 monitored under 40 CFR 75.72(b)(2)(ii) shall use any alternative monitoring system,  
3 alternative reference method, or any other alternative for the required continuous emissions  
4 monitoring system without having obtained prior written approval in accordance with  
5 section XX-8.6.

6  
7           (2) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit  
8 monitored under 40 CFR 75.72(b)(2)(ii) shall operate the unit so as to discharge, or allow to  
9 be discharged, CO<sub>2</sub> emissions to the atmosphere without accounting for all such emissions  
10 in accordance with the applicable provisions of this Subpart and 40 CFR part 75.

11  
12           (3) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit  
13 monitored under 40 CFR 75.72(b)(2)(ii) shall disrupt the continuous emissions monitoring  
14 system, any portion thereof, or any other approved emissions monitoring method, and  
15 thereby avoid monitoring and recording CO<sub>2</sub> mass emissions discharged into the  
16 atmosphere, except for periods of recertification or periods when calibration, quality  
17 assurance testing, or maintenance is performed in accordance with the applicable  
18 provisions of this Subpart and 40 CFR part 75.

19  
20           (4) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit  
21 monitored under 40 CFR 75.72(b)(2)(ii) shall retire or permanently discontinue use of the  
22 continuous emissions monitoring system, any component thereof, or any other approved  
23 emissions monitoring system under this Subpart, except under any one of the following  
24 circumstances:

25  
26           (i) The owner or operator is monitoring emissions from the unit with  
27 another certified monitoring system approved, in accordance with the applicable provisions

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1 of this Subpart and 40 CFR part 75, by the REGULATORY AGENCY for use at that unit  
2 that provides emissions data for the same pollutant or parameter as the retired or  
3 discontinued monitoring system; or

4  
5 (ii) The CO<sub>2</sub> authorized account representative submits notification  
6 of the date of certification testing of a replacement monitoring system in accordance with  
7 paragraph XX-8.2(b)(2).

## 8 9 **XX-8.2 Initial certification and recertification procedures.**

10  
11 (a) The owner or operator of a CO<sub>2</sub> budget unit shall be exempt from the initial  
12 certification requirements of this section for a monitoring system under paragraph XX-  
13 8.1(a)(1) if the following conditions are met:

14  
15 (1) The monitoring system has been previously certified in accordance  
16 with 40 CFR part 75; and

17  
18 (2) The applicable quality-assurance and quality-control requirements of  
19 40 CFR 75.21 and appendix B, appendix D and appendix E of 40 CFR part 75 are fully met  
20 for the certified monitoring system described in paragraph (a)(1) of this section.

21  
22 (b) The recertification provisions of this section shall apply to a monitoring system  
23 under paragraph XX-8.1(a)(1) exempt from initial certification requirements under  
24 subdivision (a) of this section.

25  
26 (c) If the administrator has previously approved a petition under 40 CFR 75.17(a)  
27 or (b) for apportioning the CO<sub>2</sub> emissions rate measured in a common stack or a petition

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1 under 40 CFR 75.66 of this chapter for an alternative requirement in 40 CFR 75.12, 40  
2 CFR 75.17 or Subpart H of 40 CFR part 75, the CO<sub>2</sub> authorized account representative  
3 shall resubmit the petition to the administrator under subdivision XX-8.6(a) to determine  
4 whether the approval applies under this program.

5  
6 (d) Except as provided in subdivision (a) of this section, the owner or operator of  
7 a CO<sub>2</sub> budget unit shall comply with the following initial certification and recertification  
8 procedures for a continuous emissions monitoring system and an excepted monitoring  
9 system under appendices D and E of 40 CFR part 75 and under paragraph XX-8.1(a)(1).  
10 The owner or operator of a unit that qualifies to use the low mass emissions excepted  
11 monitoring methodology in 40 CFR 75.19 or that qualifies to use an alternative monitoring  
12 system under Subpart E of 40 CFR part 75 shall comply with the procedures in paragraph  
13 (c) or (d) of this section.

14  
15 (1) *Requirements for initial certification.* The owner or operator shall  
16 ensure that each continuous emissions monitoring system required under paragraph XX-  
17 8.2(a)(1) (which includes the automated data acquisition and handling system) successfully  
18 completes all of the initial certification testing required under 40 CFR 75.20 by the  
19 applicable deadlines specified in XX-8.1(b). In addition, whenever the owner or operator  
20 installs a monitoring system in order to meet the requirements of this Subpart in a location  
21 where no such monitoring system was previously installed, initial certification in accordance  
22 with 40 CFR 75.20 is required.

23  
24 (2) *Requirements for recertification.* Whenever the owner or operator  
25 makes a replacement, modification, or change in a certified continuous emissions  
26 monitoring system under paragraph XX-8.2(a)(1) that the Administrator or the  
27 REGULATORY AGENCY determines significantly affects the ability of the system to

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1 accurately measure or record CO<sub>2</sub> mass emissions or heat input or to meet the quality-  
2 assurance and quality-control requirements of 40 CFR 75.21 or appendix B to 40 CFR part  
3 75, the owner or operator shall recertify the monitoring system according to 40 CFR  
4 75.20(b). Furthermore, whenever the owner or operator makes a replacement,  
5 modification, or change to the flue gas handling system or the unit's operation that the  
6 Administrator or the REGULATORY AGENCY determines to significantly change the flow  
7 or concentration profile, the owner or operator shall recertify the continuous emissions  
8 monitoring system according to 40 CFR 75.20(b). Examples of changes which require  
9 recertification include: replacement of the analyzer, change in location or orientation of the  
10 sampling probe or site, or changing of flow rate monitor polynomial coefficients.

11  
12 (3) *Approval process for initial certifications and recertification.*

13  
14 (i) *Notification of certification.* The CO<sub>2</sub> authorized account  
15 representative shall submit to the REGULATORY AGENCY or its agent, the appropriate  
16 EPA Regional Office and the Administrator a written notice of the dates of certification in  
17 accordance with XX-8.4.

18  
19 (ii) *Certification application.* The CO<sub>2</sub> authorized account  
20 representative shall submit to the REGULATORY AGENCY or its agent a certification  
21 application for each monitoring system. A complete certification application shall include the  
22 information specified in 40 CFR 75.63.

23  
24 (iii) *Provisional certification data.* The provisional certification date  
25 for a monitor shall be determined in accordance with 40 CFR 75.20(a)(3). A provisionally  
26 certified monitor may be used under the CO<sub>2</sub> budget Trading Program for a period not to  
27 exceed 120 days after receipt by the REGULATORY AGENCY of the complete certification

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1 application for the monitoring system or component thereof under paragraph (b)(3)(ii) of  
2 this section. Data measured and recorded by the provisionally certified monitoring system  
3 or component thereof, in accordance with the requirements of 40 CFR part 75, will be  
4 considered valid quality-assured data (retroactive to the date and time of provisional  
5 certification), provided that the REGULATORY AGENCY does not invalidate the provisional  
6 certification by issuing a notice of disapproval within 120 days of receipt of the complete  
7 certification application by the REGULATORY AGENCY.

8  
9 (iv) *Certification application approval process.* The REGULATORY  
10 AGENCY will issue a written notice of approval or disapproval of the certification application  
11 to the owner or operator within 120 days of receipt of the complete certification application  
12 under paragraph (d)(3)(ii) of this section. In the event the REGULATORY AGENCY does  
13 not issue such a notice within such 120-day period, each monitoring system which meets  
14 the applicable performance requirements of 40 CFR part 75 and is included in the  
15 certification application will be deemed certified for use under the CO<sub>2</sub> budget Trading  
16 Program.

17  
18 (a) *Approval notice.* If the certification application is  
19 complete and shows that each monitoring system meets the applicable performance  
20 requirements of 40 CFR part 75, then the REGULATORY AGENCY will issue a written  
21 notice of approval of the certification application within 120 days of receipt.

22  
23 (b) *Incomplete application notice.* If the certification  
24 application is not complete, then the REGULATORY AGENCY will issue a written notice of  
25 incompleteness that sets a reasonable date by which the CO<sub>2</sub> authorized account  
26 representative must submit the additional information required to complete the certification  
27 application. If the CO<sub>2</sub> authorized account representative does not comply with the notice of

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1 incompleteness by the specified date, then the REGULATORY AGENCY may issue a  
2 notice of disapproval under paragraph (d)(3)(iv)(c) of this section. The 120 day review  
3 period shall not begin before receipt of a complete certification application  
4

5 (c) *Disapproval notice.* If the certification application shows  
6 that any monitoring system or component thereof does not meet the performance  
7 requirements of 40 CFR part 75, or if the certification application is incomplete and the  
8 requirement for disapproval under paragraph (d)(3)(iv)(b) of this section is met, then the  
9 REGULATORY AGENCY will issue a written notice of disapproval of the certification  
10 application. Upon issuance of such notice of disapproval, the provisional certification is  
11 invalidated by the REGULATORY AGENCY and the data measured and recorded by each  
12 uncertified monitoring system or component thereof shall not be considered valid quality  
13 assured data beginning with the date and hour of provisional certification. The owner or  
14 operator shall follow the procedures for loss of certification in paragraph (d)(3)(v) of this  
15 section for each monitoring system or component thereof, which is disapproved for initial  
16 certification.  
17

18 (d) *Audit decertification.* The REGULATORY AGENCY may  
19 issue a notice of disapproval of the certification status of a monitor in accordance with  
20 subdivision XX-8.3(b).  
21

22 (v) *Procedures for loss of certification.* If the REGULATORY  
23 AGENCY issues a notice of disapproval of a certification application under paragraph  
24 (d)(3)(iv)(c) of this section or a notice of disapproval of certification status under paragraph  
25 (d)(3)(iv)(d) of this section, then:  
26



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1 (a) The owner or operator shall substitute the following  
2 values for each disapproved monitoring system, for each hour of unit operation during the  
3 period of invalid data beginning with the date and hour of provisional certification and  
4 continuing until the time, date, and hour specified under 40 CFR 75.20(a)(5)(i) or 40 CFR  
5 75.20(g)(7):

6  
7 (1) For units using or intending to monitor for CO<sub>2</sub>  
8 mass emissions using heat input or for units using the low mass emissions excepted  
9 methodology under 40 CFR 75.19, the maximum potential hourly heat input of the unit.

10  
11 (2) For units intending to monitor for CO<sub>2</sub> mass  
12 emissions using a CO<sub>2</sub> pollutant concentration monitor and a flow monitor, the maximum  
13 potential concentration of CO<sub>2</sub> and the maximum potential flow rate of the unit under  
14 section 2.1 of appendix A of 40 CFR part 75;

15  
16 (b) The CO<sub>2</sub> authorized account representative shall submit  
17 a notification of certification retest dates and a new certification application in accordance  
18 with paragraphs (d)(3)(i) and (ii) of this section; and

19  
20 (c) The owner or operator shall repeat all certification tests  
21 or other requirements that were failed by the monitoring system, as indicated in the  
22 REGULATORY AGENCY's notice of disapproval, no later than 30 unit operating days after  
23 the date of issuance of the notice of disapproval.

24  
25 (e) *Initial certification and recertification procedures for low mass emissions units*  
26 *using the excepted methodologies under 40 CFR 75.19.* The owner or operator of a unit  
27 qualified to use the low mass emissions excepted methodology under 40 CFR 75.19 shall

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1 meet the applicable certification and recertification requirements of 40 CFR 75.19, 40 CFR  
2 75.20(h) and Subpart XX-8.2. If the owner or operator of such a unit elects to certify a fuel  
3 flow meter system for heat input determinations, the owner or operator shall also meet the  
4 certification and recertification requirements in 40 CFR 75.20.

5  
6 (f) *Certification/recertification procedures for alternative monitoring systems.*

7 The CO<sub>2</sub> authorized account of each unit for which the owner or operator intends to use an  
8 alternative monitoring system approved by the Administrator and, if applicable, the  
9 REGULATORY AGENCY under Subpart E of 40 CFR part 75 shall apply for certification to  
10 the REGULATORY AGENCY prior to use of the system under the CO<sub>2</sub> Budget Trading  
11 Program. The CO<sub>2</sub> authorized account representative shall apply for recertification following  
12 a replacement, modification or change according to the procedures in paragraph (b) of this  
13 section. The owner or operator of an alternative monitoring system shall comply with the  
14 notification and application requirements for certification according to the procedures  
15 specified in paragraph (d)(3) of this section and 40 CFR 75.20(f).

16  
17 **XX-8.3 Out-of-control periods.**

18  
19 (a) Whenever any monitoring system fails to meet the quality assurance and  
20 quality control requirements or data validation requirements of 40 CFR part 75, data shall  
21 be substituted using the applicable procedures in Subpart D, appendix D, or appendix E of  
22 40 CFR part 75.

23  
24 (b) *Audit decertification.* Whenever both an audit of a monitoring system and a  
25 review of the initial certification or recertification application reveal that any monitoring  
26 system should not have been certified or recertified because it did not meet a particular  
27 performance specification or other requirement under Subpart XX-8.2 or the applicable

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1 provisions of 40 CFR part 75 , both at the time of the initial certification or recertification  
2 application submission and at the time of the audit, the REGULATORY AGENCY or  
3 Administrator will issue a notice of disapproval of the certification status of such monitoring  
4 system. For the purposes of this paragraph, an audit shall be either a field audit or an audit  
5 of any information submitted to the REGULATORY AGENCY or the Administrator. By  
6 issuing the notice of disapproval, the REGULATORY AGENCY or Administrator revokes  
7 prospectively the certification status of the monitoring system. The data measured and  
8 recorded by the monitoring system shall not be considered valid quality-assured data from  
9 the date of issuance of the notification of the revoked certification status until the date and  
10 time that the owner or operator completes subsequently approved initial certification or  
11 recertification tests for the monitoring system. The owner or operator shall follow the initial  
12 certification or recertification procedures in Subpart XX-8.2 for each disapproved monitoring  
13 system.

## 14 15 **XX-8.4 Notifications.**

16  
17 The CO<sub>2</sub> authorized account representative for a CO<sub>2</sub> budget unit shall submit  
18 written notice to the REGULATORY AGENCY and the Administrator in accordance with 40  
19 CFR 75.61.

## 20 21 **XX-8.5 Recordkeeping and reporting.**

22  
23 (a) *General provisions.* The CO<sub>2</sub> authorized account representative shall comply  
24 with all recordkeeping and reporting requirements in this section, the applicable record  
25 keeping and reporting requirements under 40 CFR 75.73 and with the requirements of  
26 subdivision XX-2.1(e).  
27

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1           (b)    *Monitoring plans.* The owner or operator of a CO<sub>2</sub> budget unit shall comply  
2 with requirements of 40 CFR 75.62.

3  
4           (c)    *Certification applications.* The CO<sub>2</sub> authorized account representative shall  
5 submit an application to the REGULATORY AGENCY within 45 days after completing all  
6 initial certification or recertification tests required under Subpart XX-8.2 including the  
7 information required under CFR 75.63 and 40 CFR 75.73 (c) and (e) .

8  
9           (d)    *Quarterly reports.* The CO<sub>2</sub> authorized account representative shall submit  
10 quarterly reports, as follows:

11  
12           (1)    The CO<sub>2</sub> authorized account representative shall report the CO<sub>2</sub> mass  
13 emissions data and heat input data for the CO<sub>2</sub> budget unit, in an electronic format  
14 prescribed by the Administrator for each calendar quarter beginning with:

15  
16                   (i)    For a unit that commences commercial operation before July 1,  
17 2008, the calendar quarter covering January 1, 2009 through March 31, 2009; or

18  
19                   (ii)   For a unit commencing commercial operation on or after July 1,  
20 2008, the calendar quarter corresponding to, the earlier of the date of provisional  
21 certification or the applicable deadline for initial certification under subdivision XX-8.2(b) or,  
22 unless that quarter is the third or fourth quarter of 2008, in which case reporting shall  
23 commence in the quarter covering January 1, 2009 through March 31, 2009.

24  
25           (2)    The CO<sub>2</sub> authorized account representative shall submit each quarterly  
26 report to the REGULATORY AGENCY or its agent within 30 days following the end of the  
27 calendar quarter covered by the report. Quarterly reports shall be submitted in the manner

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1 specified in Subpart H of 40 CFR part 75 and 40 CFR 75.64. Quarterly reports shall  
2 include all of the data and information required in Subpart H of 40 CFR part 75 for each  
3 CO<sub>2</sub> budget unit (or group of units using a common stack) as well as information required in  
4 Subpart G of 40 CFR part 75, except for opacity and SO<sub>2</sub> provisions.

5  
6 (3) *Compliance certification.* The CO<sub>2</sub> authorized account representative  
7 shall submit to the REGULATORY AGENCY or its agent a compliance certification in  
8 support of each quarterly report based on reasonable inquiry of those persons with primary  
9 responsibility for ensuring that all of the unit's emissions are correctly and fully monitored.  
10 The certification shall state that:

11  
12 (i) The monitoring data submitted were recorded in accordance  
13 with the applicable requirements of this Subpart and 40 CFR part 75, including the quality  
14 assurance procedures and specifications; and

15  
16 (ii) For a unit with add-on CO<sub>2</sub> emissions controls and for all hours  
17 where data are substituted in accordance with 40 CFR 75.34(a)(1) , the add-on emissions  
18 controls were operating within the range of parameters listed in the quality  
19 assurance/quality control program under appendix B of 40 CFR part 75 and the substitute  
20 values do not systematically underestimate CO<sub>2</sub> emissions; and

21  
22 (iii) The CO<sub>2</sub> concentration values substituted for missing data  
23 under Subpart D of 40 CFR part 75 do not systematically underestimate CO<sub>2</sub> emissions.  
24  
25

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1     **XX-8.6     Petitions.**

2  
3           (a)     The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that is  
4 subject to a CO<sub>2</sub> budget emissions limitation may submit a petition to the Administrator  
5 requesting approval to apply an alternative to any requirement of this Subpart.  
6

7           (1)     Application of an alternative to any requirement of this Subpart is in  
8 accordance with this Subpart only to the extent that the petition is approved in writing by  
9 the Administrator, in consultation with the REGULATORY AGENCY.  
10

11           (2)     Notwithstanding paragraph (a)(1) of this section, if the petition requests  
12 approval to apply an alternative to a requirement concerning any additional CEMS required  
13 under the common stack provisions of 40 CFR 75.72, the petition is governed by paragraph  
14 (b) of this section.  
15

16           (b)     The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that is not  
17 subject to a CO<sub>2</sub> budget emissions limitation may submit a petition to the Administrator  
18 requesting approval to apply an alternative to any requirement of this Subpart.  
19

20           (1)     The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that is  
21 subject to an CO<sub>2</sub> budget emissions limitation may submit a petition to the Administrator  
22 requesting approval to apply an alternative to a requirement concerning any additional  
23 CEMS required under the common stack provisions of 40 CFR 75.72 or a CO<sub>2</sub>  
24 concentration CEMS used under 40 CFR 75.71(a)(2).  
25

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1                   (2)     Application of an alternative to any requirement of this Subpart is in  
2 accordance with this Subpart only to the extent the petition under paragraph (b) of this  
3 section is approved in writing by both the REGULATORY AGENCY and the Administrator.  
4

5 **XX-8.7        CO<sub>2</sub> budget units that co-fire eligible biomass.**  
6

7                   (a)     The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that co-fires  
8 eligible biomass as a compliance mechanism under this Part, shall report the following  
9 information to the REGULATORY AGENCY or its agent for each calendar quarter:  
10

- 11                   (1)     chemical analysis of eligible biomass fired, including carbon content;
- 12
- 13                   (2)     moisture content of eligible biomass for each shipment received for  
14 firing at the CO<sub>2</sub> budget unit;
- 15
- 16                   (3)     total eligible biomass fuel input (tons) to the CO<sub>2</sub> budget unit;
- 17
- 18                   (4)     total eligible biomass heat input on an as-fired basis to the CO<sub>2</sub> budget  
19 unit;
- 20
- 21                   (5)     heat input rate of eligible biomass to the CO<sub>2</sub> budget unit (MMBtu/hr);
- 22
- 23                   (6)     fuel feed rate of eligible biomass to the CO<sub>2</sub> budget unit (tons/hr);
- 24
- 25                   (7)     total operating hours for which eligible biomass was co-fired;
- 26

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1 (8) CO<sub>2</sub> tons emitted from the CO<sub>2</sub> budget unit due to firing of eligible  
2 biomass;

3  
4 (9) description and documentation of fuel sampling frequency and  
5 methodology; and

6  
7 (10) description and documentation of monitoring technology employed.  
8

9 (b) An owner or operator of a CO<sub>2</sub> budget unit shall calculate and submit to the  
10 REGULATORY AGENCY on a quarterly basis the as-fired biomass CO<sub>2</sub> emissions factor  
11 for the CO<sub>2</sub> budget unit, represented as CO<sub>2</sub> lbs./MMBtu of biomass heat input. The as-  
12 fired CO<sub>2</sub> emissions factor shall be the lower of the following:

13  
14 (1) as measured and recorded by the continuous emissions monitor during  
15 all periods when firing eligible biomass alone; or

16  
17 (2) CO<sub>2</sub> lbs./MMBtu = ((C x F<sub>IN</sub>)/HI) (44/12)

18 where:

19 C = Carbon content of biomass (percent by weight)

20 F<sub>IN</sub> = Biomass fuel input (lbs.)

21 HI = Total heat input, as-fired (MMBtu), derived as follows:

$$22 \text{ HHV}_{\text{AS-FIRED}} = \text{HHV}_{\text{DRY}} (1 - \text{MCW}_{\text{AS-FIRED}})$$

23 where:

24 HHV = Higher heating value (MMBtu)

25 MCW = Moisture content wet basis (percent) for each fuel

26 shipment  
27



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1 (c) CO<sub>2</sub> emissions due to firing of eligible biomass shall be determined  
2 as follows:

3  
4 
$$\text{CO}_2 \text{ tons} = \sum_{i=1}^n (\text{B}_{\text{HI-}i} \times \text{B}_{\text{EF-}i})/2000$$
  
5

6 where:

7 CO<sub>2</sub> = CO<sub>2</sub> emissions due to firing of eligible biomass for the reporting quarter

8 B<sub>HI-*i*</sub> = Eligible biomass heat input on an as-fired basis (MMBtu) for the  
9 reporting quarter for each distinct type *i* of eligible biomass fired

10 B<sub>EF-*i*</sub> = Eligible biomass emissions factor for the reporting quarter (lbs.  
11 CO<sub>2</sub>/MMBtu) for each distinct type *i* of eligible biomass fired

12  
13 (d) Fuel sampling methods and fuel sampling technology shall be consistent with  
14 the New York State Renewable Portfolio Standard Biomass Guidebook, 2005.

15  
16 **XX-8.8 Additional requirements to provide output data.**

17  
18 (a) A CO<sub>2</sub> budget unit in a state that requires the use of information submitted to  
19 the Independent System Operator (ISO) to document megawatt-hours (MWh) the CO<sub>2</sub>  
20 budget unit shall submit to the REGULATORY AGENCY or its agent the same MWh value  
21 submitted to the ISO and a statement certifying that the MWh of electrical output reported  
22 reflects the total actual electrical output for all CO<sub>2</sub> budget units at the facility used by the  
23 ISO to determine settlement resources of energy market participants.

24  
25 (b) A CO<sub>2</sub> budget unit in a state that requires gross output to be used that also  
26 reports gross hourly MW to the Administrator, shall use the same electronic data report  
27 (EDR) gross output (in MW), as submitted to the Administrator, for the hour times operating  
28 time in the hour, added for all hours in a year. A CO<sub>2</sub> budget unit that does not report gross

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1 hourly MW to the Administrator shall submit to the REGULATORY AGENCY or its agent  
2 information in accordance with paragraph XX-8.8(e)(1).

3  
4 (c) A CO<sub>2</sub> budget unit in a state that requires net electrical output, shall submit to  
5 the REGULATORY AGENCY or its agent information in accordance with paragraph XX-  
6 8.8(e)(1). A CO<sub>2</sub> budget source whose electrical output is not used in ISO energy market  
7 settlement determinations shall propose to the REGULATORY AGENCY a method for  
8 quantification of net electrical output.

9  
10 (d) *CO<sub>2</sub> budget sources selling steam should use billing meters to determine net*  
11 *steam output.* A CO<sub>2</sub> budget source whose steam output is not measured by billing meters  
12 or whose steam output is combined with output from a non-CO<sub>2</sub> budget unit prior to  
13 measurement by the billing meter shall propose to the REGULATORY AGENCY an  
14 alternative method for quantification of net steam output. If data for steam output is not  
15 available, the CO<sub>2</sub> budget source may report heat input providing useful steam output as a  
16 surrogate for steam output.

17  
18 (e) *Monitoring.* The owner or operator of each CO<sub>2</sub> budget unit, in a state that  
19 requires the CO<sub>2</sub> budget unit's net output, must meet the following requirements. Each  
20 CO<sub>2</sub> budget source must submit an output monitoring plan. The output monitoring plan  
21 must include a description and diagram as stated below.

22  
23 (1) Submit a diagram of the electrical and/or steam system for which  
24 output is being monitored, specifically including:

25  
26 (i) If the CO<sub>2</sub> budget unit monitors net electric output, the diagram  
27 should contain all CO<sub>2</sub> budget units and all generators served by each CO<sub>2</sub> budget unit and

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1 the relationship between CO<sub>2</sub> budget units and generators. If a generator served by a CO<sub>2</sub>  
2 budget unit is also served by a non-affected unit, the non-affected unit and its relationship  
3 to each generator should be indicated on the diagram as well. The diagram should indicate  
4 where the net electric output is measured and should include all electrical inputs and  
5 outputs to and from the plant. If net electric output is determined using a billing meter, the  
6 diagram should show each billing meter used to determine net sales of electricity and  
7 should show that all electricity measured at the point of sale is generated by the CO<sub>2</sub>  
8 budget units.

9  
10 (ii) If the CO<sub>2</sub> budget unit monitors net thermal output, the diagram  
11 should include all steam or hot water coming into the net steam system, including steam  
12 from CO<sub>2</sub> budget units and non-affected units, and all exit points of steam or hot water from  
13 the net steam system. In addition, each input and output stream will have an estimated  
14 temperature, pressure and phase indicator, and an enthalpy in Btu/lb. The diagram of the  
15 net steam system should identify all useful loads, house loads, parasitic loads, any other  
16 steam loads and all boiler feedwater returns. The diagram will represent all energy losses  
17 in the system as either usable or unusable losses. The diagram will also indicate all flow  
18 meters, temperature or pressure sensors or other equipment used to calculate gross  
19 thermal output. If a sales agreement is used to determine net thermal output, the diagram  
20 should show the monitoring equipment used to determine the sales of steam.

21  
22 (2) Submit a description of each output monitoring system. The  
23 description of the output monitoring system should include a written description of the  
24 output system and the equations used to calculate output. For net thermal output systems  
25 descriptions and justifications of each useful load should be included.

26

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1           (3)     Submit a detailed description of all quality assurance/quality control  
2 activities that will be performed to maintain the output system in accordance with  
3 subdivision XX-8.8(g).

4  
5           (4)     Submit documentation supporting any output value(s) to be used as a  
6 missing data value should there be periods of invalid output data. The missing data output  
7 value must be either zero or an output value that is likely to be lower than a measured  
8 value and that is approved as part of the monitoring plan required under this subdivision.

9  
10          (f)     *Initial Certification.* A certification statement must be submitted by the CO<sub>2</sub>  
11 authorized account representative stating that either the output monitoring system consists  
12 entirely of billing meters or that the output monitoring system meets one of the accuracy  
13 requirements for non-billing meters paragraph XX-8.8(f)(1).

14  
15          (1)     *Billing Meters.* The billing meter must record the electric or thermal  
16 output. Any electric or thermal output values that the facility reports must be the same as  
17 the values used in billing for the output. Any output measurement equipment used as a  
18 billing meter in commercial transactions requires no additional certification or testing.

19  
20          (2)     *Non-Billing Meters.* For non-billing meters, the output monitoring  
21 system must either meet an accuracy of 10% of the reference value, or each component  
22 monitor for the output system must meet an accuracy of 3% of the full scale value,  
23 whichever is less stringent.

24  
25          (i)     *System approach to accuracy.* The system approach to  
26 accuracy must include a determination of how the system accuracy of 10% is achieved  
27 using the individual components in the system and should include data loggers and any

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1 wattmeters used to calculate the final net electric output data and/or any flowmeters for  
2 steam or condensate, temperature measurement devices, absolute pressure measurement  
3 devices, and differential pressure devices used for measuring thermal energy.

4  
5 (ii) *Component approach to accuracy.* If testing a piece of output  
6 measurement equipment shows that the output readings are not accurate to within 3.0  
7 percent of the full scale value, then the equipment should be repaired or replaced to meet  
8 that requirement. Data shall remain invalid until the output measurement equipment  
9 passes an accuracy test or is replaced with another piece of equipment that passes the  
10 accuracy test.

11  
12 (g) *Ongoing QA/QC.* Ongoing quality assurance/quality control activities must be  
13 performed in order to maintain the output system.

14  
15 (1) *Billing Meters.* In the case where billing meters are used to determine  
16 output, no QA/QC activities beyond what are already performed are required.

17  
18 (2) *Non-Billing Meters.* Certain types of equipment such as potential  
19 transformers, current transformers and the primary element of an orifice plate only require  
20 an initial certification of calibration and do not require periodic recalibration unless the  
21 equipment is physically changed. However, the pressure and temperature transmitters  
22 accompanying an orifice plate will require periodic retesting. For other types of equipment,  
23 either recalibrate or re-verify the meter accuracy at least once every two years (i.e., every  
24 eight calendar quarters), unless a consensus standard allows for less frequent calibrations  
25 or accuracy tests.

26

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1 (i) The system approach to accuracy as outlined in subparagraph  
2 XX-8.8(f)(2)(i).

3  
4 (ii) A component approach to accuracy as outlined in subparagraph  
5 XX-8.8(f)(2)(i). If testing a piece of output measurement equipment shows that the output  
6 readings are not accurate to within 3.0 percent of the full scale value, then the equipment  
7 should be repaired or replaced to meet that requirement.

8  
9 (3) *Out-of-Control Periods.* If testing a piece of output measurement  
10 equipment shows that the output readings are not accurate to the certification value, data  
11 remain invalid until the output measurement equipment passes an accuracy test or is  
12 replaced with another piece of equipment that passes the accuracy test. All invalid data  
13 shall be replaced by either zero or an output value that is likely to be lower than a  
14 measured value and that is approved as part of the monitoring plan required under  
15 subdivision XX-8.8(e).

16  
17 (h) *Recordkeeping and Reporting.*

18  
19 (1) *General provisions.* The CO<sub>2</sub> authorized account representative shall  
20 comply with all recordkeeping and reporting requirements in this section and with the  
21 requirements of subdivision XX-1.5(e).

22  
23 (2) *Recordkeeping.* Facilities shall retain data used to monitor, determine,  
24 or calculate net generation for ten years.

25  
26 (3) *Annual reports.* The CO<sub>2</sub> authorized account representative shall  
27 submit annual net output reports, as follows: The data must be sent both electronically and

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1 in hardcopy by March 1 for the immediately preceding control period to the REGULATORY  
2 AGENCY or its agent. The annual report shall include unit level MWh, all useful steam  
3 output and the following: a certification statement from the CO<sub>2</sub> authorized account  
4 representative stating, "I am authorized to make this submission on behalf of the owners  
5 and operators of the CO<sub>2</sub> budget sources or CO<sub>2</sub> budget units for which the submission is  
6 made. I certify under penalty of law that I have personally examined, and am familiar with,  
7 the statements and information submitted in this document and all its attachments. Based  
8 on my inquiry of those individuals with primary responsibility for obtaining the information, I  
9 certify that the statements and information are to the best of my knowledge and belief true,  
10 accurate, and complete. I am aware that there are significant penalties for submitting false  
11 statements and information or omitting required statements and information, including the  
12 possibility of fine or imprisonment."

13  
14 **Subpart XX-9**                      **RESERVED**

15  
16 **Subpart XX-10**                      **CO<sub>2</sub> Emissions Offset Projects**

17  
18 **XX-10.1**              **Purpose**

19  
20              The REGULATORY AGENCY will provide for the award of CO<sub>2</sub> offset allowances to  
21 sponsors of CO<sub>2</sub> emissions offset projects or CO<sub>2</sub> emissions credit retirements that have  
22 reduced or avoided atmospheric loading of CO<sub>2</sub> or CO<sub>2</sub> equivalent or sequestered carbon  
23 as demonstrated in accordance with the applicable provisions of this Subpart. The  
24 requirements of this Subpart seek to ensure that CO<sub>2</sub> offset allowances awarded represent  
25 CO<sub>2</sub> equivalent emission reductions or carbon sequestration that are real, additional,  
26 verifiable, enforceable, and permanent within the framework of a standards-based  
27 approach. Subject to the relevant compliance deduction limitations of paragraph XX-

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1 6.5(a)(3), CO<sub>2</sub> offset allowances may be used by any CO<sub>2</sub> budget source for compliance  
2 purposes.

## 3 4 **XX-10.2 Definitions**

5  
6 (a) *Anaerobic digester.* A device that promotes the decomposition of organic  
7 material to simple organics and gaseous biogas products, usually accomplished by means  
8 of controlling temperature and volume, and including a methane recovery system.

9  
10 (b) *Anaerobic digestion.* The degradation of organic material including manure  
11 brought about through the action of microorganisms in the absence of elemental oxygen.

12  
13 (c) *Anaerobic storage.* Storage of organic material in an oxygen-free  
14 environment, or under oxygen-free conditions, including but not limited to, holding tanks,  
15 ponds, and lagoons.

16  
17 (d) *ANSI.* American National Standards Institute.

18  
19 (e) *ASHRAE.* American Society of Heating, Refrigerating and Air-Conditioner  
20 Engineers.

21  
22 (f) *Biogas.* Gas resulting from the decomposition of organic matter under  
23 anaerobic conditions. The principle constituents are methane and carbon dioxide.

24  
25 (g) *Boiler (commercial).* A self contained, low-pressure appliance for supplying  
26 steam or hot water to a commercial building.

27



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1           (h)    *Boiler (residential)*. A self contained, low-pressure appliance for supplying  
2 steam or hot water to a residential building.

3  
4           (i)    *Building envelope*. The elements of a building that separate conditioned  
5 space from unconditioned space, or that enclose semi-heated space, through which  
6 thermal energy may be transferred to or from the exterior, unconditioned space, or  
7 conditioned space. Includes all elements that separate the interior of a building from the  
8 outdoor environment, including walls, windows, foundation, basement slab, ceiling, roof,  
9 and insulation.

10  
11           (j)    CO<sub>2</sub>e. CO<sub>2</sub>e means carbon dioxide equivalent.

12  
13           (k)    *Commercial building*. A building to which the provisions of  
14 ANSI/ASHRAE/IESNA Standard 90.1 apply, which includes buildings except low-rise  
15 residential buildings. Low-rise residential buildings include single family homes, multifamily  
16 structures of three stories or fewer above grade, and manufactured homes (modular and  
17 mobile).

18  
19           (l)    *Conflict of interest*. A situation that may arise with respect to an individual in  
20 relation to any specific project sponsor, CO<sub>2</sub> emissions offset project or category of offset  
21 projects, such that the individual's other activities or relationships with other persons or  
22 organizations render or may render the individual incapable of providing an impartial  
23 certification opinion, or otherwise compromise the individual's objectivity in performing  
24 certification functions.

25

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1 (m) *Condensing mode.* The design and operation of furnaces or boilers in a  
2 mode that leads to the production of condensate in flue gases.

3  
4 (n) *Cooperating regulatory agency.* A regulatory agency in a state or United  
5 States jurisdiction that is not a participating state that has entered into a memorandum of  
6 understanding with the REGULATORY AGENCY to carry out certain obligations relative to  
7 CO<sub>2</sub> emissions offset projects in that state or United States jurisdiction, including but not  
8 limited to the obligation to perform audits of offset project sites, and report violations of this  
9 Subpart.

10  
11 (o) *Energy conservation measure (ECM) or energy efficiency measure (EEM).* A  
12 set of activities designed to increase the energy efficiency of a building or improve the  
13 management of energy demand. An ECM/EEM may involve one or more of the following:  
14 physical changes to facility equipment, modifications to a building, revisions to operating  
15 and maintenance procedures, software changes, or new means of training or managing  
16 users of the building or operations and maintenance staff.

17  
18 (p) *Energy performance.* A measure of the relative energy efficiency of a  
19 building, building equipment, or building components, as measured by the amount of  
20 energy required to provide building services. For building equipment and components, a  
21 relative measure of the impact of equipment or components on building energy usage.

22  
23 (q) *Energy services.* Provision of useful services to building occupants, such as  
24 heating and hot water, cooling, and lighting.

25  
26 (r) *Forested condition.* Land shall be deemed to be in a forested condition if it  
27 is:

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1           (1)     at least 1.0 acre in size and 120.0 feet wide measured stem-to-stem  
2 from the outer-most edge. Forested strips must be 120.0 feet wide for a continuous length  
3 of at least 363.0 feet in order to meet the acre threshold; and

4  
5           (2)     meets at least one of the two following stocking criteria:

6  
7           (i)     the condition is at least 10-percent stocked by trees of any size  
8 or has been at least 10-percent stocked in the past, and the condition is not subject to non-  
9 forest use(s) that prevent normal tree regeneration and succession such as regular  
10 mowing, intensive grazing, or recreation activities; or

11  
12           (ii)    in several western woodland species where stocking cannot be  
13 determined, the condition has at least 5-percent crown cover by trees of any size, or has  
14 had at least 5-percent cover in the past, and the condition is not subject to non-forest use  
15 that prevents normal regeneration and succession such as regular mowing, chaining, or  
16 recreation activities.

17  
18           (s)     *Furnace (commercial)*. A self-contained, indirect-fired appliance that supplies  
19 heated air to a commercial building through ducts to conditioned spaces.

20  
21           (t)     *Furnace (residential)*. A self-contained, indirect-fired appliance that supplies  
22 heated air to a residential building through ducts to conditioned spaces.

23  
24           (u)     *HVAC system*. The system or systems that provide, either collectively or  
25 individually, heating, ventilation, or air conditioning to a building, including the equipment,  
26 distribution network, and terminals.

27

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1 (v) *IESNA*. Illuminating Engineering Society of North America.

2  
3 (w) *Independent verifier*. An individual that has been approved by the  
4 REGULATORY AGENCY or its agent to conduct verification activities.

5  
6 (x) *Market penetration rate*. A measure of the diffusion of a technology, product,  
7 or practice in a defined market, as represented by the percentage of annual sales for a  
8 product or practice, or as a percentage of the existing installed stock for a product or  
9 category of products, or as the percentage of existing installed stock that utilizes a practice.  
10 The REGULATORY AGENCY may determine an appropriate market definition and market  
11 penetration metric for a category of technology, product or practice, and may issue  
12 guidance specifying the technologies, products or practices that meet a specified market  
13 penetration rate.

14  
15 (y) *Non-forested condition*. Land that does not meet the definition of "forested  
16 condition." Non-forested land includes areas used for crops, improved pasture, residential  
17 areas, city parks, improved roads of any width and adjoining rights-of-way, power line  
18 clearings of any width, and non-census water. If intermingled in forest areas, unimproved  
19 roads and non-forest strips must be more than 120.0 feet wide, and clearings more than  
20 one acre in size, to qualify as non-forest land.

21  
22 (z) *Offset project*. An offset project includes all equipment, materials, items, or  
23 actions directly related to the reduction of CO<sub>2</sub> equivalent emissions or the sequestration of  
24 carbon specified in a consistency application submitted pursuant to section XX-10.4.  
25 Equipment, materials, items, or actions unrelated to an offset project reduction of CO<sub>2</sub>  
26 equivalent emissions or the sequestration of carbon, but occurring at a location where an  
27 offset project occurs, shall not be considered part of an offset project, unless specified at

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1 section XX-10.5.

2  
3 (aa) *On-site combustion.* The combustion of fossil fuel at a building to provide  
4 building services, such as heating, hot water, or electricity.

5  
6 (ab) *Passive solar.* A combination of building design features and building  
7 components that utilize solar energy to reduce or eliminate the need for mechanical heating  
8 and cooling and daytime artificial lighting.

9  
10 (ac) *Permanently retired.* A greenhouse gas allowance or credit has been  
11 “permanently retired” if it has been placed in a retirement account controlled by the  
12 jurisdiction that generated the allowance or credit, or has been placed in an allowance  
13 retirement account controlled by the REGULATORY AGENCY, or is otherwise determined  
14 by the REGULATORY AGENCY to have been rendered unusable.

15  
16 (ad) *Project commencement.* For an offset project involving physical construction,  
17 other work at an offset project site, or installation of equipment or materials, the date of the  
18 beginning of such activity. For an offset project that involves the implementation of a  
19 management activity or protocol, the date on which such activity is first implemented or  
20 such protocol first utilized.

21  
22 (ae) *Regional-type anaerobic digester.* An anaerobic digester using feedstock  
23 from more than one agricultural operation, or importing feedstock from more than one  
24 agricultural operation. Also commonly referred to as a “community digester” or “centralized  
25 digester.”  
26

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1            (af) *Renewable portfolio standard.* A statutory or regulatory requirement that a  
2 load-serving entity provide a certain portion of the electricity it supplies to its customers  
3 from renewable energy sources, or any other statutory or regulatory requirement that a  
4 certain portion of electricity supplied to the electricity grid be generated from renewable  
5 energy sources.

6  
7            (ag) *Residential building.* A low-rise residential building to which the provisions of  
8 ANSI/ASHRAE/IESNA Standard 90.1 do not apply. Includes single family homes,  
9 multifamily structures of three stories or fewer above grade, and manufactured homes  
10 (modular and mobile).

11  
12            (ah) *RESNET.* Residential Energy Services Network.

13  
14            (ai) *SF<sub>6</sub>-containing operating equipment.* Any equipment used for the  
15 transmission and distribution of electricity that contains SF<sub>6</sub>.

16  
17            (aj) *System benefit fund.* Any fund collected directly from retail electricity or  
18 natural gas ratepayers.

19  
20            (ak) *Total solids.* Total solids are the total of all solids in a sample. They include  
21 the total suspended solids, total dissolved solids, and volatile suspended solids.

22  
23            (al) *Transmission and/or distribution entity.* The assets and equipment used to  
24 transmit and distribute electricity from an electric generator to the electrical load of a  
25 customer. Includes all related assets and equipment located within the service territory of  
26 the entity, defined as the service territory of a load-serving entity specified by the applicable

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1 state regulatory agency.

2  
3 (am) *Verification*. The third-party verification by an independent verifier that  
4 certain parts of a CO<sub>2</sub> emissions offset project consistency application and/or  
5 measurement, monitoring or verification report conforms to the requirements of this  
6 Subpart.

7  
8 (an) *Volatile solids*. The fraction of total solids that is comprised primarily of  
9 organic matter.

10  
11 (ao) *Whole-building energy performance*. The overall energy performance of a  
12 building, taking into account the integrated impact on energy usage of all building  
13 components and systems.

14  
15 (ap) *Whole-building retrofit*. Any building project that involves the replacement of  
16 more than one building system, or set of building components, and also requires a building  
17 permit.

18  
19 (aq) *Zero net energy building*. A building designed to produce as much energy  
20 using renewable energy sources as the building is projected to use, as measured on an  
21 annual basis.

## 22 23 **XX-10.3 General requirements**

24  
25 (a) *Eligible CO<sub>2</sub> emissions offset projects*. The REGULATORY AGENCY may  
26 award CO<sub>2</sub> emissions offset allowances to the sponsor of any of the following offset  
27 projects that have satisfied all the applicable requirements of this Subpart.

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1  
2 (1) *Offset project types.* The following types of offset projects are eligible  
3 for the award of CO<sub>2</sub> emissions offset allowances.

4  
5 (i) Landfill methane capture and destruction;

6  
7 (ii) Reduction in emissions of sulfur hexafluoride (SF<sub>6</sub>);

8  
9 (iii) Sequestration of carbon due to afforestation;

10  
11 (iv) Reduction or avoidance of CO<sub>2</sub> emissions from natural gas, oil,  
12 or propane end-use combustion due to end-use energy efficiency; and

13  
14 (v) Avoided methane emissions from agricultural manure  
15 management operations.

16  
17 (2) *Offset project locations.* Eligible offset projects may be located in any  
18 of the following locations:

19  
20 (i) in any participating state; and

21  
22 (ii) in any state or other United States jurisdiction in which a  
23 cooperating regulatory agency has entered into a memorandum of understanding with the  
24 REGULATORY AGENCY to carry out certain obligations relative to CO<sub>2</sub> emissions offset  
25 projects in that state or U.S. jurisdiction, including but not limited to the obligation to  
26 perform audits of offset project sites, and report violations of this Subpart.  
27



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1 (b) *Eligible CO<sub>2</sub> emissions credit retirements.* The REGULATORY AGENCY may  
2 award CO<sub>2</sub> offset allowances to the sponsor of a CO<sub>2</sub> emissions credit retirement that has  
3 satisfied all the applicable requirements of this Subpart.

4  
5 (1) CO<sub>2</sub> emissions credit retirements include the permanent retirement of  
6 greenhouse gas allowances or credits issued pursuant to any governmental mandatory  
7 carbon constraining program outside the United States that places a specific tonnage limit  
8 on greenhouse gas emissions, or certified greenhouse gas emissions reduction credits  
9 issued pursuant to the United Nations Framework Convention on Climate Change  
10 (UNFCCC) or protocols adopted through the UNFCCC process.

11  
12 (2) The REGULATORY AGENCY may award CO<sub>2</sub> offset allowances for  
13 CO<sub>2</sub> emissions credit retirements only after the occurrence of a stage two trigger event.

14  
15 (c) *Project sponsor.* Any person may act as the sponsor of an eligible CO<sub>2</sub>  
16 emissions offset project or CO<sub>2</sub> emissions credit retirement.

17  
18 (d) *General additionality requirements.* Except as provided with respect to  
19 specific offset project standards in section XX-10.5, the following general requirements  
20 shall apply.

21  
22 (1) CO<sub>2</sub> emissions offset allowances shall not be awarded to an offset  
23 project or CO<sub>2</sub> emissions credit retirement that is required pursuant to any local, state or  
24 federal law, regulation, or administrative or judicial order. If an offset project receives a  
25 consistency determination under section XX-10.4 and is later required by local, state or  
26 federal law, regulation, or administrative or judicial order, then the offset project shall

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1 remain eligible for the award of CO<sub>2</sub> emissions offset allowances until the end of its current  
2 allocation period but its eligibility shall not be extended for an additional allocation period.

3  
4 (2) CO<sub>2</sub> emissions offset allowances shall not be awarded to an offset  
5 project that includes an electric generation component, unless the project sponsor transfers  
6 legal rights to any and all attribute credits (other than the CO<sub>2</sub> emissions offset allowances  
7 issued under section XX-10.7) generated from the operation of the offset project that may  
8 be used for compliance with a renewable portfolio standard or other regulatory requirement,  
9 to the REGULATORY AGENCY or its agent.

10  
11 (3) CO<sub>2</sub> emissions offset allowances shall not be awarded to an offset  
12 project that receives funding or other incentives from any system benefit fund, or funds or  
13 other incentives provided through the consumer benefit or strategic energy purpose  
14 allocation required pursuant to subdivision XX-5.3(b).

15  
16 (4) CO<sub>2</sub> emissions offset allowances shall not be awarded to an offset  
17 project or CO<sub>2</sub> emissions credit retirement that is awarded credits or allowances under any  
18 other mandatory or voluntary greenhouse gas program.

19  
20 (e) *Maximum allocation periods for CO<sub>2</sub> emissions offset projects.*

21  
22 (1) *Maximum allocation periods.* Except as provided in paragraph (e)(2) of  
23 this section, the REGULATORY AGENCY may award CO<sub>2</sub> offset allowances under section  
24 XX-10.7 for an initial 10-year allocation period. At the end of the initial 10-year allocation  
25 period, the REGULATORY AGENCY may award CO<sub>2</sub> offset allowances for a second 10-  
26 year allocation period, provided the offset sponsor has submitted a consistency application  
27 pursuant to section XX-10.4 prior to the expiration of the initial allocation period, and the

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1 REGULATORY AGENCY has issued a consistency determination pursuant to paragraph  
2 XX-10.4(e)(2).

3  
4 (2) *Maximum afforestation allocation period.* The REGULATORY  
5 AGENCY may award CO<sub>2</sub> offset allowances under section XX-10.7 for any afforestation  
6 offset project for an initial 20-year allocation period. At the end of the initial 20-year  
7 allocation period, the REGULATORY AGENCY may award CO<sub>2</sub> offset allowances for a  
8 second 20-year allocation period, provided the offset sponsor has submitted a consistency  
9 application for the afforestation offset project pursuant to section XX-10.4 prior to the  
10 expiration of the initial allocation period, and the REGULATORY AGENCY has issued a  
11 consistency determination pursuant to paragraph XX-10.4(e)(2). At the end of the second  
12 20-year allocation period, the REGULATORY AGENCY may award CO<sub>2</sub> offset allowances  
13 for a third 20-year allocation period, provided the offset sponsor has submitted a  
14 consistency application for the afforestation offset project pursuant to section XX-10.4 prior  
15 to the expiration of the second allocation period, and the REGULATORY AGENCY has  
16 issued a consistency determination pursuant to paragraph XX-10.4(e)(2). In no event may  
17 an afforestation offset project be awarded CO<sub>2</sub> offset allowances for more than a total of 60  
18 allocation years.

19  
20 (f) *Timing of offset projects.* The REGULATORY AGENCY may award CO<sub>2</sub>  
21 offset allowances under section XX-10.7 only for offset projects that are initially  
22 commenced on or after December 20, 2005.

23  
24 (g) *Offset project audit.* Project sponsors shall provide the REGULATORY  
25 AGENCY or its agent access to the physical location of the offset project to inspect for  
26 compliance with this Subpart. For offset projects located in any state or other U.S.  
27 jurisdiction that is not a participating state, project sponsors shall also provide the

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1 cooperating regulatory agency with access to the physical location of the offset project to  
2 inspect for compliance with this Subpart.

3  
4 (h) *Ineligibility due to noncompliance.* If at any time the REGULATORY  
5 AGENCY determines that a project sponsor has not complied with the requirements of this  
6 Subpart, then the REGULATORY AGENCY may revoke and retire any and all offset  
7 allowances in the project sponsor's account. If at any time the REGULATORY AGENCY  
8 determines that an offset project does not comply with the requirements of this Subpart,  
9 then the REGULATORY AGENCY may revoke any approvals it has issued relative to an  
10 offset project.

## 11 12 **XX-10.4 Application process**

13  
14 (a) *Establishment of general account.* The sponsor of an offset project or CO<sub>2</sub>  
15 emissions credit retirement must establish a general account under subdivision XX-6.2(b).  
16 All submissions to the REGULATORY AGENCY required for the award of CO<sub>2</sub> offset  
17 allowances under this Subpart must be from the CO<sub>2</sub> authorized account representative for  
18 the general account of the sponsor of the relevant offset project or CO<sub>2</sub> emissions credit  
19 retirement.

20  
21 (b) *Consistency application deadlines.*

22  
23 (1) For offset projects commenced prior to January 1, 2009, the project  
24 sponsor must submit the consistency application by June 30, 2009.

25  
26 (2) For offset projects commenced on or after January 1, 2009, the  
27 consistency application must be submitted by the date that is 6 months after the offset

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1 project is commenced.

2  
3 (3) Any consistency application that fails to meet the deadlines of this  
4 subdivision will result in the denial of the consistency application and the continued  
5 ineligibility of the subject offset project.

6  
7 (c) *Consistency application contents.*

8  
9 (1) For an offset project, the consistency application must include the  
10 following information.

11  
12 (i) The project's sponsor's name, address, e-mail address,  
13 telephone number, and facsimile transmission number to the extent they are different from  
14 those of the project sponsor's CO<sub>2</sub> authorized account representative.

15  
16 (ii) The offset project description as required by the relevant  
17 provisions of section XX-10.5.

18  
19 (iii) A demonstration that the offset project meets all applicable  
20 requirements set forth in this Subpart.

21  
22 (iv) The emissions baseline determination as required by the  
23 relevant provisions of section XX-10.5.

24  
25 (v) An explanation of how the projected reduction or avoidance of  
26 atmospheric loading of CO<sub>2</sub> or CO<sub>2</sub> equivalent or the sequestration of carbon is to be

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1 quantified, monitored, and verified as required by the relevant provisions of section XX-10.5.

2  
3 (vi) A completed consistency application agreement that reads as  
4 follows: “The undersigned project sponsor recognizes and accepts that the application for,  
5 and the receipt of, CO<sub>2</sub> emissions offset allowances under the CO<sub>2</sub> Budget Trading Program  
6 is predicated on the project sponsor following all the requirements of Subpart XX-10. The  
7 undersigned project sponsor holds the legal rights to the offset project, or has been granted  
8 the right to act on behalf of a party that holds the legal rights to the offset project. I  
9 understand that eligibility for the award of CO<sub>2</sub> emissions offset allowances under Subpart  
10 XX-10 is contingent on meeting the requirements of Subpart XX-10. I authorize the  
11 REGULATORY AGENCY or its agent to audit this offset project for purposes of verifying  
12 that the offset project, including the monitoring and verification plan, has been implemented  
13 as described in this application. I understand that this right to audit shall include the right to  
14 enter the physical location of the offset project. I submit to the legal jurisdiction of [RGGI  
15 PARTICIPATING STATE].”

16  
17 (vii) A statement and certification report signed by the offset project  
18 sponsor certifying that all offset projects for which the sponsor has received CO<sub>2</sub> offset  
19 allowances under this Subpart (or similar provisions in the rules of other participating  
20 states), under the sponsor’s ownership or control (or under the ownership or control of any  
21 entity which controls, is controlled by, or has common control with the sponsor) are in  
22 compliance with all applicable requirements of the CO<sub>2</sub> Budget Trading Program in all  
23 participating states.

24  
25 (viii) A verification report and certification statement drafted and  
26 signed by an independent verifier accredited pursuant to section XX-10.6 that expresses  
27 that the independent verifier has reviewed the entire application and evaluated the following

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1 in relation to the applicable requirements at sections XX-10.3 and 10.5, and any applicable  
2 guidance issued by the REGULATORY AGENCY.

3  
4 (a) The adequacy and validity of information supplied by the  
5 project sponsor to demonstrate that the offset project meets the applicable eligibility  
6 requirements of sections XX-10.3 and 10.5.

7  
8 (b) The adequacy and validity of information supplied by the  
9 project sponsor to demonstrate baseline emissions pursuant to the applicable requirements  
10 at section XX-10.5.

11  
12 (c) The adequacy of the monitoring and verification plan  
13 submitted pursuant to the applicable requirements at section XX-10.5.

14  
15 (d) Such other evaluations and statements as may be  
16 required by the REGULATORY AGENCY.

17  
18 (viii) Disclosure of any voluntary or mandatory programs, other than  
19 the CO<sub>2</sub> Budget Trading Program, to which greenhouse gas emissions data related to the  
20 offset project has been, or will be reported.

21  
22 (ix) For offset projects located in a state or United States jurisdiction  
23 that is not a participating state, a demonstration that the project sponsor has complied with  
24 all requirements of the cooperating regulatory agency in the state or United States  
25 jurisdiction where the offset project is located.  
26

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1           (2) For a CO<sub>2</sub> emissions credit retirement, the consistency application  
2 must include sufficient information to demonstrate that the CO<sub>2</sub> emissions credit is eligible  
3 pursuant to subdivision XX-10.3(b), was lawfully held by the project sponsor, and has been  
4 permanently and irrevocably retired.

5  
6           (d) *Place for filing consistency application.*

7  
8           (1) For an offset project located in one participating state (in whole or in  
9 part), the consistency application must be filed with the appropriate regulatory agency in  
10 that State.

11  
12           (2) For an offset project located wholly outside all participating states, the  
13 consistency application may be filed with the appropriate regulatory agency in any one  
14 participating state, provided a copy of the consistency application shall be filed with the  
15 cooperating regulatory agency in the state or United States jurisdiction where the offset  
16 project is located.

17  
18           (3) For an offset project located in more than one participating state, the  
19 consistency application must be filed in the participating state where the larger part of the  
20 CO<sub>2</sub> equivalent emissions reduction or carbon sequestration due to the offset project is  
21 projected to occur.

22  
23           (4) For CO<sub>2</sub> emissions credit retirements, the consistency application may  
24 be filed with the appropriate regulatory agency in any one participating state.

25  
26           (e) *REGULATORY AGENCY action on consistency applications.*

27



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1           (1) *Completeness determination.* Within 30 days following receipt of the  
2 consistency application filed pursuant to subdivision (b) of this section, the REGULATORY  
3 AGENCY will notify the project sponsor whether the consistency application is complete. A  
4 complete consistency application is one that is in an approved form and is determined by  
5 the REGULATORY AGENCY to be complete for the purpose of commencing review of the  
6 consistency application. In no event shall a completeness determination prevent the  
7 REGULATORY AGENCY from requesting additional information in order to enable the  
8 REGULATORY AGENCY to make a consistency determination under paragraph (2) of this  
9 subdivision.

10  
11           (2) *Consistency determination.* Within 90 days of making the  
12 completeness determination under paragraph (1) of this subdivision, the REGULATORY  
13 AGENCY will issue a determination as to whether the offset project is consistent with the  
14 requirements of sections XX-10.3 and XX-10.4 and the requirements of the applicable  
15 offset project standard of section XX-10.5. For any offset project found to lack consistency  
16 with these requirements, the REGULATORY AGENCY will inform the project sponsor of  
17 the offset project's deficiencies.

## 18 19 **XX-10.5      CO<sub>2</sub> emissions offset project standards**

20  
21           (a) *Landfill methane capture and destruction.* Offset projects that capture and  
22 destroy methane from landfills may qualify for the award of CO<sub>2</sub> emissions offset  
23 allowances under this Subpart, provided they meet the requirements of this subdivision.

24  
25           (1) *Eligibility.* Eligible offset projects shall occur at landfills that are not  
26 subject to the New Source Performance Standards (NSPS) for municipal solid waste  
27 landfills, 40 CFR Part 60, Subpart Cc and Subpart WWW.

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1  
2 (2) *Offset project description.* The offset project sponsor shall provide a  
3 detailed narrative of the offset project actions to be taken, including documentation that the  
4 offset project meets the eligibility requirements of paragraph (1) of this subdivision. The  
5 project narrative shall include the following information.

6  
7 (i) Owner and operator of the offset project;

8  
9 (ii) Location and specifications of the landfill where the offset  
10 project will occur, including waste in place;

11  
12 (iii) Owner and operator of the landfill where the offset project will  
13 occur; and

14  
15 (iv) Specifications of the equipment to be installed and a technical  
16 schematic of the offset project.  
17

18 (3) *Emissions baseline determination.* The emissions baseline shall  
19 represent the potential fugitive landfill emissions of CH<sub>4</sub> (in tons of CO<sub>2</sub>e), as represented  
20 by the CH<sub>4</sub> collected and metered for thermal destruction as part of the offset project, and  
21 calculated in accordance with this paragraph.

22  
23 Emissions (tons CO<sub>2</sub>e) = (V x M x (1-OX) x GWP)/2000

24 where:

25 V = Volume of CH<sub>4</sub> collected (ft<sup>3</sup>)

26 M = Mass of CH<sub>4</sub> per cubic foot (0.04246 lbs/ft<sup>3</sup> default value at 1 atmosphere  
27 and 20° C)

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1                   OX = Oxidation factor (0.10), representing estimated portion of collected CH<sub>4</sub>  
2 that would have eventually oxidized to CO<sub>2</sub> if not collected

3                   GWP = CO<sub>2</sub>e global warming potential of CH<sub>4</sub> (23)

4  
5                   (4)    *Calculating emissions reductions.* Emissions reductions shall be  
6 determined based on potential fugitive CH<sub>4</sub> emissions that would have occurred at the  
7 landfill if metered CH<sub>4</sub> collected from the landfill for thermal destruction as part of the offset  
8 project was not collected and destroyed. CO<sub>2</sub>e emissions reductions shall be calculated as  
9 follows:

10  
11                   Emissions Reductions (tons CO<sub>2</sub>e) = (V x M x (1 - OX) x C<sub>ef</sub> x GWP)/2000

12                   where:

13                   V = Volume of CH<sub>4</sub> collected (ft<sub>3</sub>)

14                   M = Mass of CH<sub>4</sub> per cubic foot (0.0416 lbs/ft<sup>3</sup> default value at 1 atmosphere  
15 and 20° C)

16                   OX = Oxidation factor (0.10), representing estimated portion of collected CH<sub>4</sub>  
17 that would have eventually oxidized to CO<sub>2</sub> if not collected

18                   C<sub>ef</sub> = Combustion efficiency of methane control technology (0.98)

19                   GWP = CO<sub>2</sub>e global warming potential of CH<sub>4</sub> (23)

20  
21                   (5)    *Monitoring and verification requirements.* Offset projects shall employ  
22 a landfill gas collection system that provides continuous metering and data computation of  
23 landfill gas volumetric flow rate and CH<sub>4</sub> concentration. Monitoring and verification reports  
24 shall include monthly volumetric flow rate and CH<sub>4</sub> concentration data, including  
25 documentation that the CH<sub>4</sub> was actually supplied to the combustion source. Monitoring  
26 and verification is also subject to the following requirements.  
27

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1 (i) The project sponsor shall submit a monitoring and verification  
2 plan as part of the consistency application that includes a quality assurance and quality  
3 control program associated with equipment used to determine landfill gas volumetric flow  
4 rate and CH<sub>4</sub> composition. The monitoring and verification plan shall also include  
5 provisions for ensuring that measuring and monitoring equipment is maintained, operated,  
6 and calibrated based on manufacturer recommendations, as well as provisions for the  
7 retention of maintenance records for audit purposes. The monitoring and verification plan  
8 shall be certified by an independent verifier accredited pursuant to section XX-10.6.

9  
10 (ii) The project sponsor shall annually verify landfill gas CH<sub>4</sub>  
11 composition through landfill gas sampling and independent laboratory analysis using  
12 applicable U.S. Environmental Protection Agency laboratory test methods.

13  
14 (b) *Reduction in emissions of sulfur hexafluoride (SF<sub>6</sub>)*. Offset projects that  
15 prevent emissions of sulfur hexafluoride to the atmosphere from equipment in the electricity  
16 transmission and distribution sector, through capture and storage, recycling, or destruction,  
17 may qualify for the award of CO<sub>2</sub> emissions offset allowances under this Subpart, provided  
18 they meet the requirements of this subdivision.

19  
20 (1) *Eligibility.*

21  
22 (i) Eligible offset projects shall consist of incremental actions  
23 beyond those taken during the baseline year to achieve a reduction in SF<sub>6</sub> emissions  
24 relative to the baseline year. Eligible actions may include an expansion of existing actions.  
25 The identified actions to be taken shall be consistent with the guidance provided in  
26 International Electrotechnical Commission (IEC) 1634, "High-voltage switchgear and  
27 control gear—Use and handling of sulfur hexafluoride (SF<sub>6</sub>) in high-voltage switchgear and

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1 control gear,” (CEI/IEC 1634, 1995-04), and Electric Power Research Institute (EPRI),  
2 “Practical Guide to SF<sub>6</sub> Handling Practices,” (TR-113933, 2002).

3  
4 (ii) Except as provided in subparagraph (1)(iii) of this subdivision,  
5 eligible offset projects shall have an SF<sub>6</sub> entity-wide emissions rate for the baseline year  
6 that is less than the applicable emissions rate in Table 1. The entity-wide SF<sub>6</sub> emissions  
7 rate shall be calculated as follows:

8  
9 
$$\text{SF}_6 \text{ Emissions Rate (\%)} = \frac{\text{Total SF}_6 \text{ Emissions for Reporting Year}}{\text{Total SF}_6 \text{ Nameplate Capacity at End of Reporting Year}}$$

10  
11 where:

12 *SF<sub>6</sub> Nameplate Capacity* refers to all SF<sub>6</sub>-containing equipment owned  
13 and/or operated by the entity, at full and proper SF<sub>6</sub> charge of the equipment rather than  
14 the actual charge of the equipment (which may reflect leakage).  
15

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Table 1

## SF<sub>6</sub> Emissions Rate Performance Standards

### A. Emission Regions

Region A	Region B	Region C	Region D	Region E
Connecticut	Alabama	Colorado	Arkansas	Alaska
Delaware	District of Columbia	Illinois	Iowa	Arizona
Maine	Florida	Indiana	Kansas	California
Massachusetts	Georgia	Michigan	Louisiana	Hawaii
New Jersey	Kentucky	Minnesota	Missouri	Idaho
New York	Maryland	Montana	Nebraska	Nevada
New Hampshire	Mississippi	North Dakota	New Mexico	Oregon
Pennsylvania	North Carolina	Ohio	Oklahoma	Washington
Rhode Island	South Carolina	South Dakota	Texas	
Vermont	Tennessee	Utah		
	Virginia	Wisconsin		
	West Virginia	Wyoming		

### B. Emissions Rate Performance Standards

Region	Emission Rate <sup>a</sup>
Region A	9.68%
Region B	5.22%
Region C	9.68%
Region D	5.77%
Region E	3.65%
U.S. (National)	9.68%

<sup>a</sup> Based on weighted average 2004 emissions rates for U.S. EPA SF<sub>6</sub> Partnership utilities in each region. If the weighted average emissions rate in a region is higher than the national weighted average, the default performance standard is the national weighted average emissions rate.

(iii) An SF<sub>6</sub> offset project shall be eligible even if the SF<sub>6</sub> entity-wide emissions rate in the baseline year exceeds the applicable rate in subparagraph (b)(1)(ii) of

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1 this subdivision, provided that the project sponsor demonstrates and the REGULATORY  
2 AGENCY determines that the project is being implemented at a transmission and/or  
3 distribution entity serving a predominantly urban service territory and that at least two of the  
4 following factors prevent optimal management of SF<sub>6</sub>.

5  
6 (a) The entity is comprised of older than average installed  
7 transmission and distribution equipment in relation to the national average age of  
8 equipment.

9  
10 (b) A majority of the entity's electricity load is served by  
11 equipment that is located underground, and poor accessibility of such underground  
12 equipment precludes management of SF<sub>6</sub> emissions through regular ongoing maintenance.

13  
14 (c) The inability to take a substantial portion of equipment  
15 out of service, as such activity would impair system reliability.

16  
17 (d) Required equipment purpose or design for a substantial  
18 portion of entity transmission and distribution equipment results in inherently leak-prone  
19 equipment.

20  
21 (2) *Offset project description.* The offset project sponsor shall provide a  
22 detailed narrative of the offset project actions to be taken, including documentation that the  
23 offset project meets the eligibility requirements of paragraph (1) of this subdivision. The  
24 offset project narrative shall include the following information.

25  
26 (i) Description of the transmission and/or distribution entity suitable  
27 in detail to specify the service territory served by the entity.

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1  
2 (ii) Owner and operator of the transmission and/or distribution  
3 entity.

4  
5 (3) *Emissions baseline determination.* Baseline SF<sub>6</sub> emissions shall be  
6 determined based on annual entity-wide reporting of SF<sub>6</sub> emissions for the calendar year  
7 immediately preceding the calendar year in which the consistency application is filed  
8 (designated the baseline year). If the consistency application is filed prior to 2009, the  
9 baseline year may be 2005, but no earlier. The reporting entity shall systematically track  
10 and account for all entity-wide uses of SF<sub>6</sub> in order to determine entity-wide emissions of  
11 SF<sub>6</sub>. The scope of such tracking and accounting shall include all electric transmission and  
12 distribution assets and all SF<sub>6</sub>-containing and SF<sub>6</sub>-handling equipment owned and/or  
13 operated by the reporting entity.

14  
15 (i) Emissions shall be determined based on the following mass  
16 balance method:

17  
18 
$$\text{SF}_6 \text{ Emissions (lbs.)} = (\text{SF}_6 \text{ Change in Inventory}) + (\text{SF}_6 \text{ Purchases and}$$

19  $\text{Acquisitions}) - (\text{SF}_6 \text{ Sales and Disbursements}) - (\text{Change in Total SF}_6 \text{ Nameplate Capacity}$ 

20  $\text{of Equipment})$

21 where:

22 *Change in Inventory* is the difference between the quantity of SF<sub>6</sub> gas in  
23 storage at the beginning of the reporting year and the quantity in storage at the end of the  
24 reporting year. The term “quantity in storage” includes all SF<sub>6</sub> gas contained in cylinders  
25 (such as 115-pound storage cylinders), gas carts, and other storage containers. It does not  
26 refer to SF<sub>6</sub> gas held in SF<sub>6</sub>-using operating equipment. The change in inventory will be  
27 negative if the quantity of SF<sub>6</sub> gas in storage increases over the course of the year.



# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1           *Purchases and Acquisitions of SF<sub>6</sub>* is the sum of all the SF<sub>6</sub> gas acquired from  
2 other parties during the reporting year, as contained in storage containers or SF<sub>6</sub>-using  
3 operating equipment.

4           *Sales and disbursements of SF<sub>6</sub>* is the sum of all the SF<sub>6</sub> gas sold or  
5 otherwise disbursed to other parties during the reporting year, as contained in storage  
6 containers and SF<sub>6</sub>-using operating equipment.

7           *Change in Total SF<sub>6</sub> Nameplate Capacity of Equipment* is the net change in  
8 the total volume of SF<sub>6</sub>-containing operating equipment during the reporting year. The net  
9 change in nameplate capacity is equal to new equipment nameplate capacity, minus retired  
10 equipment nameplate capacity. This quantity will be negative if the retired equipment has a  
11 total nameplate capacity larger than the total nameplate capacity of the new equipment.  
12 “Total nameplate capacity” refers to the full and proper SF<sub>6</sub> charge of the equipment rather  
13 than to the actual charge, which may reflect leakage.

14  
15           (ii) Emissions shall be calculated as follows:

16  
17           Emissions (tons CO<sub>2</sub>e) = [(V<sub>iby</sub> – V<sub>iey</sub>) + (PA<sub>psd</sub> + PA<sub>e</sub> + PA<sub>rre</sub>) – (SD<sub>op</sub> + SD<sub>rs</sub> +  
18 SD<sub>df</sub> + SD<sub>sor</sub>) – (CNP<sub>ne</sub> – CNP<sub>rse</sub>)] x GWP/2000

19           where (all SF<sub>6</sub> values in lbs.):

20           V<sub>iby</sub> = SF<sub>6</sub> inventory in cylinders, gas carts, and other storage containers (not  
21 SF<sub>6</sub>-containing operating equipment) at the beginning of the reporting year

22           V<sub>iey</sub> = SF<sub>6</sub> inventory in cylinders, gas carts, and other storage containers (not  
23 SF<sub>6</sub>-containing operating equipment) at the end of the reporting year

24           PA<sub>psd</sub> = SF<sub>6</sub> purchased from suppliers or distributors in cylinders

25           PA<sub>e</sub> = SF<sub>6</sub> provided by equipment manufacturers with or inside SF<sub>6</sub>-containing  
26 operating equipment

27           PA<sub>rre</sub> = SF<sub>6</sub> returned to the reporting entity after off-site recycling

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1                     $SD_{op}$  = Sales of SF<sub>6</sub> to other parties, including gas left in SF<sub>6</sub>-containing  
2 operating equipment that is sold

3                     $SD_{rs}$  = Returns of SF<sub>6</sub> to supplier (producer or distributor)

4                     $SD_{df}$  = SF<sub>6</sub> sent to destruction facilities

5                     $SD_{sor}$  = SF<sub>6</sub> sent off-site for recycling

6                     $CNP_{ne}$  = Total SF<sub>6</sub> nameplate capacity of new SF<sub>6</sub>-containing operating  
7 equipment at proper full charge

8                     $CNP_{rse}$  = Total SF<sub>6</sub> nameplate capacity of retired or sold SF<sub>6</sub>-containing  
9 operating equipment at proper full charge

10                    $GWP$  = CO<sub>2e</sub> global warming potential of SF<sub>6</sub> (22,200)

11  
12                   (iii) As part of the consistency application required pursuant to  
13 subdivision XX-10.4(b) and in annual monitoring and verification reports required pursuant  
14 to subdivision XX-10.7(b-c), the project sponsor shall provide the documentation required  
15 at subparagraph (5)(i-iii) of this subdivision to support emissions calculations.

16  
17                   (4) *Calculating emissions reductions.* Emissions reductions shall  
18 represent the annual entity-wide emissions reductions of SF<sub>6</sub> for the reporting entity,  
19 relative to emissions in the baseline year. Emissions reductions shall be determined as  
20 follows, using the quantification method outlined in subparagraph (3)(ii) of this subdivision  
21 to determine emissions in both the baseline year and reporting year(s):

22  
23                   Emissions Reduction (tons CO<sub>2e</sub>) = (Total Pounds of SF<sub>6</sub> Emissions in  
24 Baseline Reporting Year) – (Total Pounds of SF<sub>6</sub> Emissions in Reporting Year) x  
25  $GWP/2000$

26                   where:

27                    $GWP$  = CO<sub>2e</sub> global warming potential of SF<sub>6</sub> (22,200)

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1  
2 (5) *Monitoring and verification requirements.* The annual monitoring and  
3 verification report shall include supporting material detailing the calculations and data used  
4 to determine SF<sub>6</sub> emissions reductions, and shall also provide the following documentation.  
5

6 (i) The project sponsor shall identify a facility(ies) managed by the  
7 entity from which all SF<sub>6</sub> gas is procured and disbursed and maintain an entity-wide log of  
8 all SF<sub>6</sub> gas procurements and disbursements. The entity-wide log shall include the weight of  
9 each cylinder transported before shipment from the facility(ies) and the weight of each  
10 cylinder after return to the facility(ies). A specific cylinder log shall also be maintained for  
11 each cylinder that is used to fill equipment with SF<sub>6</sub> or reclaim SF<sub>6</sub> from equipment. The  
12 cylinder log shall be retained with the cylinder and indicate the location and specific  
13 identifying information of the equipment being filled, or from which SF<sub>6</sub> is reclaimed, and  
14 the weight of the cylinder before and after this activity. The cylinder log shall be returned  
15 with the cylinder to the facility when the activity is complete or the cylinder is empty.  
16

17 (ii) A current entity-wide inventory of all SF<sub>6</sub>-containing operating  
18 equipment and all other SF<sub>6</sub>-related items, including cylinders, gas carts, and other storage  
19 containers used by the entity. The inventory shall be certified by an independent verifier  
20 accredited pursuant to section XX-10.6.  
21

22 (iii) The project sponsor shall provide a monitoring and verification  
23 plan as part of the consistency application, which shall include an SF<sub>6</sub> inventory  
24 management and auditing protocol and a process for quality assurance and quality control  
25 of inventory data. The monitoring and verification plan shall be certified by an independent  
26 verifier accredited pursuant to section XX-10.6.  
27

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1           (c)    *Sequestration of carbon due to afforestation.* Offset projects that sequester  
2 carbon through the conversion of land from a non-forested to forested condition may qualify  
3 for the award of CO<sub>2</sub> emissions offset allowances under this Subpart, provided they meet  
4 the requirements of this subdivision.

5  
6           (1)    *Eligibility.*

7  
8                   (i)    Eligible offset projects shall occur on land that has been in a  
9 non-forested state for at least 10 years preceding the commencement of the offset project.

10  
11                   (ii)   Eligible offset projects shall be managed in accordance with  
12 widely accepted environmentally sustainable forestry practices and designed to promote  
13 the restoration of native forests by using mainly native species and avoiding the  
14 introduction of invasive non-native species. If commercial timber harvest activities are to  
15 occur, certification must be obtained, prior to any harvest activities at the site, through the  
16 Forest Stewardship Council (FSC), Sustainable Forestry Institute (SFI), American Tree  
17 Farm System (ATFS), or such other similar organizations as may be approved by the  
18 REGULATORY AGENCY.

19  
20           (2)    *Offset project description.* The offset project sponsor shall provide a  
21 detailed narrative of the offset project actions to be taken, including documentation that the  
22 offset project meets the eligibility requirements of paragraph (1) of this subdivision. The  
23 offset project narrative shall include the following information.

24  
25                   (i)    Owner of the land within the offset project boundary;

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1 (ii) Detailed map of the land within the offset project boundary and  
2 areas adjacent to the offset project boundary;

3  
4 (iii) A copy of the permanent conservation easement required  
5 pursuant to paragraph (6) of this subdivision;

6  
7 (iv) For offset projects located in a state or United States jurisdiction  
8 that is not a participating state, a written legal opinion from an attorney licensed to practice  
9 in the state where the offset project is located, or from the cooperating regulatory agency,  
10 confirming the enforceability of the permanent conservation easement; and

11  
12 (v) Plant species to be planted or established via natural  
13 regeneration, and a forest management plan consistent with the requirements at  
14 subparagraph (1)(ii) of this subdivision.

15  
16 (3) *Carbon sequestration baseline determination.* The existing  
17 sequestered carbon within the offset project boundary shall be calculated prior to  
18 commencement of the offset project. The carbon sequestration baseline shall be  
19 determined based on a sum of measurements, made no more than 12 months prior to  
20 offset project commencement, of the carbon content of the following carbon pools.

21  
22 (i) Carbon content shall be calculated for the following required  
23 carbon pools:

24  
25 (a) live above-ground tree biomass;

26  
27 (b) live below-ground tree biomass;

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(c) soil carbon; and

(d) dead organic matter, coarse woody debris, unless the baseline measurement for this carbon pool is at or near zero, in which case measurement of this carbon pool during the allocation period is optional.

(ii) Carbon content may be calculated for the following optional carbon pools:

(a) live above-ground non-tree biomass; and

(b) dead organic matter, forest floor.

(iii) Carbon content shall be calculated individually for each carbon pool within the offset project boundary.

(iv) To increase the accuracy of measurement and verification, the area within the offset project boundary shall be divided into sub-populations that form relatively homogenous units. When defining sub-populations, the project sponsor shall consider vegetation and tree species (including existing vegetation and trees and those to be utilized as part of the offset project activity) and site factors (soil type, elevation, slope, age class, and other factors as warranted).

(v) Calculation of sequestered carbon for each carbon pool in each reporting sub-population shall be based on the following:

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1             $CO_2 \text{ tons} = [(A \times C/ha)(44/12)] / 0.9072$

2            where:

3            A = Area in hectares within each reporting sub-population

4            C = Carbon content (metric tons of carbon for each carbon pool)

5            C/ha = Mean carbon content per hectare for each carbon pool

6  
7            (vi) Total carbon contained within the offset project boundary  
8 (represented in CO<sub>2</sub> tons, calculated pursuant to subparagraph (3)(v) of this subdivision)  
9 shall be calculated as follows:

10  
11             $TC_{pb} = TC_{latb} + TC_{lbtb} + TC_s [+ TC_{lantb} + TC_{doff} + TC_{docwd}]$

12            where:

13             $TC_{pb}$  = Total carbon content within the offset project boundary (sum of  
14 carbon content of all carbon pools in all reporting sub-populations)

15             $TC_{latb}$  = Sum of carbon content of live above-ground tree biomass in all  
16 reporting sub-populations

17             $TC_{lbtb}$  = Sum of carbon content of live below-ground tree biomass in all  
18 reporting sub-populations

19             $TC_s$  = Sum of carbon content of soil carbon in all reporting sub-populations

20             $TC_{lantb}$  [option] = Sum of carbon content of live above-ground non-tree  
21 biomass in all reporting sub-populations

22             $TC_{doff}$  [option] = Sum of carbon content of dead organic matter, forest floor in  
23 all reporting sub-populations

24             $TC_{docwd}$  [mandatory/option, as applicable pursuant to clause (3)(i)(d)] = Sum  
25 of carbon content of dead organic matter, coarse woody debris in all reporting sub-  
26 populations  
27

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1 (vii) Each individual carbon pool to be measured must be directly  
2 measured using a measurement protocol and sample size that achieves a demonstrated  
3 quantified accuracy for the combined carbon pool measurement such that there is 95%  
4 confidence that the resulting reported value is within 10% of the true mean. Measurement  
5 and sampling practices shall meet the following requirements.

6  
7 (a) An adequate sample size that meets the requirements of  
8 subparagraph (3)(vii) of this subdivision shall be determined for each sub-population.

9  
10 (b) The minimum number of required sampling plots for each  
11 sub-population shall be determined based on the following:

$$12 \quad n = (s \times 1.960) / (\text{mean} \times re)^2$$

13 where:

14 n = required number of sample plots for each reporting sub-population

15 s = standard deviation

16 mean = mean reported carbon content for the sample population

17 re = level of sampling error (0.08) to assure a total maximum error of 10% for  
18 the 95% confidence interval, which assumes total error due to measurement error of 0.02

19  
20  
21 (viii) Direct measurement procedures shall be consistent with current  
22 forestry good practice and the guidance contained in U.S. Department of Energy, Technical  
23 Guidelines Voluntary Reporting of Greenhouse Gases (1605(b)) Program; Chapter 1,  
24 Emissions Inventories; Part 1 Appendix: Forestry; Section 3: Measurement Protocols for  
25 Forest Carbon Sequestration (March 2006).

26



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1           (4)    *Calculating carbon sequestered.* Carbon sequestration shall be  
2 determined using a base year approach, where the amount of carbon sequestered is  
3 measured as a net increase in carbon relative to the base year measurement. Carbon  
4 sequestration shall be the amount of net additional carbon sequestered during each  
5 reporting period, based upon aggregate carbon uptake and carbon emissions for the sum  
6 of carbon pools, relative to the baseline carbon content or the carbon content as of the  
7 previous reporting period (if above the baseline carbon content), as applicable. CO<sub>2</sub> offset  
8 allowances shall be issued based on the amount of net additional carbon sequestered  
9 within the offset project boundary during each reporting period, as represented in tons of  
10 CO<sub>2</sub>. Sequestered carbon shall be calculated using a stock-change approach as follows:

$$11 \qquad \qquad \qquad NCS_t = I_t - I_{t-1}$$

12           where:

13           NCS<sub>t</sub> = Net carbon sequestered in reporting period t

14           I<sub>t</sub> = Inventory of carbon stock for all carbon pools in all reporting sub-  
15           populations within the offset project boundary in reporting period t

16           I<sub>t-1</sub> = Inventory of carbon stock for all carbon pools in all reporting sub-  
17           populations within the offset project boundary in the reporting period immediately preceding  
18           reporting period t

19  
20  
21           (i)    Except as provided in clause (3)(i)(d) of this subdivision, each of  
22 the carbon pools that were measured as part of the baseline determination must be re-  
23 measured using the same methodology, and to the same or better quantified precision  
24 consistent with the requirements of subparagraph (3)(vii-viii) of this subdivision, as that  
25 used for the baseline determination.

26

# REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 8/15/2006

1 (ii) The net change in each carbon pool's carbon stock in each  
2 reporting sub-population is calculated by subtracting the baseline carbon stock (or carbon  
3 stock at the previous monitoring, if above the baseline carbon content) from the carbon  
4 stock at the time of the current monitoring. Determination of carbon stock shall be in  
5 accordance with the formulas and procedures in paragraph (3) of this subdivision.  
6

7 (iii) Net carbon stock change for the offset project is the sum of the  
8 net changes in the carbon stock of all applicable pools in all reporting sub-populations  
9 within the offset project boundary, less ten percent (10%) to account for potential losses of  
10 sequestered carbon. This 10% discount shall not be required, provided the project sponsor  
11 retains long-term insurance, approved by the REGULATORY AGENCY, that guarantees  
12 replacement of any lost sequestered carbon for which CO<sub>2</sub> offset allowances were issued  
13 pursuant to paragraph XX-10.7(a)(1).  
14

15 (5) *Monitoring and verification requirements.* Total carbon stock within the  
16 offset project boundary shall be calculated not less than every five years. Monitoring and  
17 verification is subject to the following requirements.  
18

19 (i) Monitoring and verification reports shall include data from direct  
20 measurement of carbon content for all plots used to determine baseline and reporting  
21 period carbon content.  
22

23 (ii) The consistency application shall include a monitoring and  
24 verification plan certified by the REGULATORY AGENCY or an independent verifier  
25 accredited pursuant to section XX-10.6. The monitoring and verification plan shall include  
26 the following:  
27

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1 (a) Direct carbon measurement procedures consistent with  
2 the requirements at subparagraph (3)(viii) of this of this subdivision.

3  
4 (b) The designation of sub-populations pursuant to  
5 subparagraph (3)(iv) of this subdivision. The determination of the minimum number of  
6 sampling plots pursuant to subparagraph (3)(vii) of this subdivision.

7  
8 (c) If commercial timber harvest activities have occurred or  
9 will occur, assessment of management practices to ensure that the offset project has been  
10 or will be managed in accordance with environmentally sustainable forestry practices  
11 consistent with the Forest Stewardship Council (FSC), Sustainable Forestry Institute (SFI),  
12 American Tree Farm System (ATFS), or such other similar organizations as may be  
13 approved by the REGULATORY AGENCY.

14  
15 (6) *Carbon sequestration permanence.* The offset project shall meet the  
16 following requirements to address permanence of sequestered carbon.

17  
18 (i) The project sponsor shall place the land within the offset project  
19 boundary under a legally binding permanent conservation easement, approved by the  
20 REGULATORY AGENCY, that requires the land to be maintained in a forested state in  
21 perpetuity.

22  
23 (ii) The conservation easement shall include a requirement that the  
24 carbon density within the offset project boundary be maintained at long-term levels at or  
25 above that achieved as of the end of the CO<sub>2</sub> offset crediting period pursuant to paragraph  
26 XX-10.3(e)(2).

27

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1 (iii) The conservation easement shall require that the land be  
2 managed in accordance with environmentally sustainable forestry practices.

3  
4 (d) *Reduction or avoidance of CO<sub>2</sub> emissions from natural gas, oil, or propane*  
5 *end-use combustion due to end-use energy efficiency.* Offset projects that reduce CO<sub>2</sub>  
6 emissions by reducing on-site combustion of natural gas, oil, or propane for end-use in an  
7 existing or new commercial or residential building by improving the energy efficiency of fuel  
8 usage and/or the energy-efficient delivery of energy services may qualify for the award of  
9 CO<sub>2</sub> emissions offset allowances under this Subpart, provided they meet the requirements  
10 of this subdivision. Eligible new buildings are limited to new buildings that are designed to  
11 replace an existing building on the offset project site, or new buildings designed to be zero  
12 net energy buildings.

13  
14 (1) *Eligibility.*

15  
16 (i) Eligible offset projects shall reduce CO<sub>2</sub> emissions through one  
17 or more of the following energy conservation measures (ECMs):

18  
19 (a) improvements in the energy efficiency of combustion  
20 equipment that provide space heating and hot water, including a reduction in fossil fuel  
21 consumption through the use of renewable energy;

22  
23 (b) improvements in the efficiency of heating distribution  
24 systems, including proper sizing and commissioning of heating systems;

25  
26 (c) installation or improvement of energy management  
27 systems;

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1  
2 (d) improvement in the efficiency of hot water distribution  
3 systems and reduction in demand for hot water;

4  
5 (e) measures that improve the thermal performance of the  
6 building envelope and/or reduce building envelope air leakage;

7  
8 (f) measures that improve the passive solar performance of  
9 buildings and utilization of active heating systems using renewable energy; and

10  
11 (g) fuel switching to a less carbon-intensive fuel for use in  
12 combustion systems, including the use of liquid or gaseous renewable fuels, provided that  
13 conversions to electricity are not eligible.

14  
15 (ii) *Performance standards.*

16  
17 (a) *All end-use energy efficiency offset projects.* All offset  
18 projects under this subdivision shall meet the applicable performance criteria set forth in  
19 this clause.

20  
21 (1) *Installation best practice.* Any combustion  
22 equipment and related air handling equipment (HVAC systems) installed as part of an  
23 offset project shall be sized and installed in accordance with the applicable requirements  
24 and specifications outlined in this subclause.

25  
26 (i) Commercial HVAC systems shall meet the  
27 applicable sizing and installation requirements of ANSI/ASHRAE/IESNA Standard 90.1-

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1 2004: Energy Standard for Buildings Except Low-Rise Residential Buildings and  
2 ANSI/ASHRAE Standard 62.1-2004: Ventilation for Acceptable Indoor Air Quality.

3  
4 (ii) Residential HVAC systems shall meet the  
5 applicable sizing specifications of Air Conditioner Contractors of America (ACCA) Manual J:  
6 Residential Load Calculation (Eight Edition), and the applicable installation specifications of  
7 “Specification of Energy-Efficient Installation and Maintenance Practices for Residential  
8 HVAC Systems,” Consortium for Energy Efficiency, 2000.

9  
10 (2) *Whole-building energy performance.* Eligible new  
11 buildings or whole-building retrofits that are part of an offset project shall meet the  
12 requirements of this subclause.

13  
14 (i) Commercial buildings shall exceed the  
15 energy performance requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy  
16 Standard for Buildings Except Low-Rise Residential Buildings by 30%, with the exception of  
17 multi-family residential buildings classified as commercial by ANSI/ASHRAE/IESNA  
18 Standard 90.1-2004, which shall exceed these energy performance requirements by 20%.

19  
20 (ii) Residential buildings shall exceed the  
21 energy performance requirements of the 2004 International Energy Conservation Code by  
22 30%.

23  
24 (b) *Offset projects initiated before January 1, 2009.* Energy  
25 conservation measures implemented as part of an offset project initiated before January 1,  
26 2009 shall meet the performance and prescriptive criteria set forth in this clause.

27

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(1) *Combustion equipment installed in offset projects initiated before January 1, 2009.* Combustion equipment installed as part of an offset project initiated before January 1, 2009 shall meet the energy efficiency performance standards contained in this clause.

(i) *Commercial boilers.* Commercial boilers shall meet or exceed the energy efficiency criteria in Table 1 below.

<u>Table 1</u> Minimum Commercial Boiler Energy Efficiency			
<u>Technology</u>	<u>Size (Btu/hr)</u>	<u>Rating Method</u>	<u>Minimum Efficiency</u>
Gas-fired <sup>a</sup>	125,000-300,000	AFUE	≥88.0%
	300,000-12,500,000	Thermal Efficiency <sup>b</sup>	≥90.0%
Oil-fired	>300,000	Thermal Efficiency	≥88.0%

<sup>a</sup> Gas-fired boilers shall be installed with controls that allow the boiler to operate in condensing mode and installed with vents designed for positive vent static pressure and vent gas temperature that leads to condensate production in the vent.

<sup>b</sup> Thermal Efficiency is defined as useful energy output (Btu) divided by energy input (Btu), and presented as a percentage. This shall be measured under steady state conditions, at full rated useful thermal output, 140°F supply from, and 120°F return water temperature to, the boiler.

(ii) *Residential combustion equipment.*  
Residential combustion equipment, including furnaces, boilers, and water heaters, shall

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1 meet or exceed the energy efficiency criteria in Table 2 below.

2

<u>Table 2</u> Minimum Residential Combustion Equipment Energy Efficiency		
<u>Technology</u>	<u>Rating Method</u>	<u>Minimum Efficiency</u>
Gas-fired furnace	AFUE	≥94%
Oil-fired furnace	AFUE	≥92%
Gas/oil-fired boiler	AFUE	≥90%
Gas/oil-fired water heater	Energy Factor <sup>a</sup>	≥0.62

3 <sup>a</sup> Energy Factor is an efficiency ratio of the energy supplied in heated water  
4 divided by the energy input to the water heater, based on U.S. Department of  
5 Energy test procedure (see 10 CFR 430, Sub-Part B, Appendix E).  
6

7 (2) *Other energy conservation measures.* All other  
8 energy conservation measures implemented as part of an offset project shall meet the  
9 prescriptive requirements, as applicable, in Energy Benchmark for High Performance  
10 Buildings, Version 1.1, New Buildings Institute, 2005 (herein referred to as EBHPB), or  
11 state building energy codes, whichever result in better energy performance. Energy  
12 conservation measures without specified performance criteria in the referenced EBHPB  
13 shall meet the requirements of Federal Energy Management Program (FEMP) Product  
14 Energy Efficiency Recommendations, issued pursuant to Executive Orders 13123 and  
15 13221, or Energy Star criteria issued jointly by the U.S. Environmental Protection Agency



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1 and U.S. Department of Energy, whichever result in better energy performance.

2  
3 (c) *Maximum market penetration rate for offset projects*  
4 *initiated on or after January 1, 2009.* For offset projects initiated on or after January 1,  
5 2009, the project sponsor shall demonstrate, to the satisfaction of the REGULATORY  
6 AGENCY, that the energy conservation measures implemented as part of the offset project  
7 have a market penetration rate of less than 5%.

8  
9 (2) *Offset project description.* The offset project sponsor shall provide a  
10 detailed narrative of the offset project actions to be taken, including documentation that the  
11 offset project meets the eligibility requirements of paragraph (1) of this subdivision. The  
12 offset project narrative shall include the following information.

13  
14 (i) Location and specifications of the building(s) where the offset  
15 project actions will occur;

16  
17 (ii) Owner and operator of the building(s);

18  
19 (iii) The parties implementing the offset project, including lead  
20 contractor(s), subcontractors, and consulting firms;

21  
22 (iv) Specifications of equipment and materials to be installed as part  
23 of the offset project; and

24  
25 (v) Building plans and offset project technical schematics, as  
26 applicable.  
27

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(3) *Emissions baseline determination.* The emissions baseline shall be determined in accordance with the requirements of this paragraph, based on energy usage (MMBtu) by fuel type for each energy conservation measure, derived using historic fuel use data from the most recent calendar year for which data is available, and multiplied by an emissions factor and oxidation factor for each respective fuel in Table 3 below.

<u>Table 3</u> Emissions and Oxidation Factors		
<u>Fuel</u>	<u>Emissions Factor</u> (lbs. CO <sub>2</sub> /MMBtu)	<u>Oxidation Factor</u>
Natural Gas	116.98	0.995
Propane	139.04	0.995
Distillate Fuel Oil	161.27	0.99
Kerosene	159.41	0.99

(i) *Isolation of applicable energy conservation measure baseline.*  
The baseline energy usage of the application to be targeted by the energy conservation measure shall be isolated in a manner consistent with the guidance at paragraph (5) of this subdivision.

(ii) Annual baseline energy usage shall be determined as follows:

$$\text{Energy Usage (MMBtu)} = \text{BEU}_{\text{AECM}} \times A$$

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1 where:

2  $BEU_{AECM}$  = Annual pre-installation baseline energy use by fuel type (MMBtu)  
3 attributable to the application(s) to be targeted by the energy conservation measure(s). If  
4 applicable building codes or equipment standards require that equipment or materials  
5 installed as part of the offset project meet certain minimum energy performance  
6 requirements, baseline energy usage for the application shall assume that equipment or  
7 materials are installed that meet such minimum requirements. For offset projects that  
8 replace existing combustion equipment, the assumed minimum energy performance  
9 required by applicable building codes or equipment standards shall be that which applies to  
10 new equipment that uses the same fuel type as the equipment being replaced. Baseline  
11 energy usage shall be determined in accordance with the applicable requirements at  
12 paragraph (5) of this subdivision.

13 A = Adjustments to account for differing conditions during the two time  
14 periods (pre-installation and post-installation), such as weather, building occupancy, and  
15 changes in building use or function. Adjustments shall be determined in accordance with  
16 the applicable requirements at paragraph (5) of this subdivision.

17  
18 (iii) Annual baseline emissions shall be determined as follows:

19  
20 Emissions (lbs. CO<sub>2</sub>) =  $\sum_{i=1}^n BEU_i \times EF_i \times OF_i$   
21

22 where:

23  $BEU_i$  = Annual baseline energy usage for fuel type i (MMBtu) demonstrated  
24 pursuant to the requirements at subparagraphs (5)(i) through (iv) of this subdivision.

25  $EF_i$  = Emissions factor (lbs. CO<sub>2</sub>/MMBtu) for fuel type i listed at paragraph (3),  
26 Table 3 of this subdivision.

27  $OF_i$  = Oxidation factor for fuel type i listed at paragraph (3), Table 3 of this  
28 subdivision.

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1  
2 (4) *Calculating emissions reductions.* Emissions reductions shall be  
3 determined based upon annual energy savings by fuel type (MMBtu) for each energy  
4 conservation measure, multiplied by the emissions factor and oxidation factor for the  
5 respective fuel type at paragraph (3), Table 3 of this subdivision.

6  
7 (i) Annual energy savings shall be determined as follows:

8  
9 
$$\text{Energy Savings (MMBtu)} = (\text{BEU}_{\text{AECM}} \times A) - (\text{PIEU}_{\text{ECM}} \times A)$$

10 where:

11  $\text{BEU}_{\text{AECM}}$  = Annual pre-installation baseline energy use by fuel type (MMBtu)  
12 calculated pursuant to subparagraphs (5)(i) through (iv) of this subdivision.

13  $\text{PIEU}_{\text{ECM}}$  = Annual post-installation energy use by fuel type (MMBtu)  
14 attributable to the energy conservation measure. Post-installation energy usage shall be  
15 determined in accordance with the applicable requirements at subparagraphs (5)(i) through  
16 (iv) of this subdivision.

17  $A$  = Adjustments to account for any differing conditions during the two time  
18 periods (pre-installation and post-installation), such as weather, building occupancy, and  
19 changes in building use or function. Adjustments shall be determined in accordance with  
20 the applicable requirements at paragraph (5) of this subdivision.

21  
22 (ii) Annual emissions reductions shall be determined as follows:

23  
24 
$$\text{Emissions Reduction (lbs. CO}_2\text{)} = \sum_{i=1}^n \text{ES}_i \times \text{EF}_i \times \text{OF}_i$$

25  
26 where:  
27

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1             $ES_i$  = Energy savings for fuel type  $i$  (MMBtu) demonstrated pursuant to the  
2 requirements at paragraph (5) of this subdivision.

3             $EF_i$  = Emissions factor (lbs.  $CO_2$ /MMBtu) for fuel type  $i$  listed at paragraph (3),  
4 Table 3 of this subdivision.

5             $OF_i$  = Oxidation factor for fuel type  $i$  listed at paragraph (3), Table 3 of this  
6 subdivision.

7  
8            (5)    *Monitoring and verification requirements.* As part of the consistency  
9 application, the project sponsor shall provide a monitoring and verification plan certified by  
10 an independent verifier accredited pursuant to section XX-10.6. Annual monitoring and  
11 verification reports shall be certified by an independent verifier accredited pursuant to  
12 section XX-10.6. Independent verifiers must conduct a site audit when reviewing the first  
13 monitoring and verification report submitted by the project sponsor, except for offset  
14 projects that save less than 1,500 MMBtu per year. For offset projects that save less than  
15 1,500 MMBtu per year, the project sponsor must provide the independent verifier with  
16 equipment specifications and copies of equipment invoices and other relevant offset  
17 project-related invoices. All offset project documentation, including the consistency  
18 application and monitoring and verification reports, shall be signed by a Professional  
19 Engineer, identified by license number. Monitoring and verification shall also meet the  
20 following requirements.

21  
22            (i)    *General energy measurement and verification requirements.*  
23 Monitoring and verification of energy usage shall be demonstrated through a documented  
24 process consistent with the following protocols and procedures, as applicable.

25  
26            (a)    For existing commercial buildings, determination of  
27 baseline energy usage shall be consistent with the International Performance Measurement

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1 & Verification Protocol, Volume I: Concepts and Options for Determining Energy and Water  
2 Savings (IPMVP), “Option B. Retrofit Isolation” and “Option D. Calibrated Simulation.” If a  
3 building project involves only energy conservation measures implemented as part of a CO<sub>2</sub>  
4 emissions offset project, a process consistent with IPMVP “Option C. Whole Facility” may  
5 be used, as applicable. Application of the IPMVP general guidance shall be consistent with  
6 the applicable detailed specifications in ASHRAE Guideline 14-2002, Measurement of  
7 Energy and Demand Savings.

8  
9 (b) For new commercial buildings, determination of baseline  
10 energy usage shall be consistent with the International Performance Measurement &  
11 Verification Protocol, Volume III: Concepts and Options for Determining Energy Savings in  
12 New Construction (IPMVP), “Option D. Calibrated Simulation.” Application of the IPMVP  
13 general guidance shall be consistent with the applicable detailed specifications in ASHRAE  
14 Guideline 14-2002, Measurement of Energy and Demand Savings.

15  
16 (c) For existing and new residential buildings, determination  
17 of baseline energy usage shall be consistent with the requirements of the RESNET  
18 National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of  
19 2006 Mortgage Industry National Home Energy Rating System Standards).

20  
21 (ii) *Isolation of applicable energy conservation measure.* In  
22 calculating both baseline energy usage and energy savings, the applicant shall isolate the  
23 impact of each eligible energy conservation measure (ECM), either through direct metering  
24 or energy simulation modeling. For offset projects with multiple ECMs, and where  
25 individual ECMs can affect the performance of others, the sum of energy savings due to  
26 individual ECMs shall be adjusted to account for the interaction of ECMs. For commercial  
27 buildings, this process shall be consistent with the requirements of ASHRAE Guideline 14-

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1 2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard  
2 90.1-2004: Energy Standard for Buildings Except Low-Rise Residential Buildings. For  
3 residential buildings, this process shall be consistent with the requirements of RESNET  
4 National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of  
5 2006 Mortgage Industry National Home Energy Rating System Standards).

6  
7 (a) Reductions in energy usage due to the energy  
8 conservation measure shall be based upon actual energy usage data. Energy simulation  
9 modeling shall only be used to determine the relative percentage contribution to total fuel  
10 usage (for each respective fuel type) of the application targeted by the energy conservation  
11 measure.

12  
13 (iii) *Calculation of energy savings.* Annual energy savings are to be  
14 determined based on the following:

$$15 \text{ Energy Savings (MMBtu)} = (\text{BEU}_{\text{AECM}} \times A) - (\text{PIEU}_{\text{ECM}} \times A)$$

16 where:

17  
18  $\text{BEU}_{\text{AECM}}$  = Annual pre-installation baseline energy use by fuel type (MMBtu)  
19 attributable to the application(s) to be targeted by the energy conservation measure(s),  
20 based upon annual fuel usage data for the most recent calendar year for which data is  
21 available. For new buildings, baseline energy use for a reference building equivalent in  
22 basic configuration, orientation, and location to the building in which the eligible energy  
23 conservation measure(s) is implemented shall be determined according to ASHRAE  
24 Guideline 14-2002, Measurement of Energy and Demand Savings and  
25 ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. Where energy  
26 simulation modeling is used to evaluate an existing building, modeling shall be conducted  
27 in accordance with ASHRAE Guideline 14-2002, Measurement of Energy and Demand

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1 Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For  
2 existing and new residential buildings, energy simulation modeling shall be conducted in  
3 accordance with the requirements of RESNET National Home Energy Rating Technical  
4 Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage Industry National Home  
5 Energy Rating System Standards).

6  $PIEU_{ECM}$  = Annual post-installation energy use by fuel type (MMBtu)  
7 attributable to the energy conservation measure, to be verified based on annual energy  
8 usage after installation of the energy conservation measure(s), consistent with the  
9 requirements of ASHRAE Guideline 14-2002, Measurement of Energy and Demand  
10 Savings. Where energy simulation modeling is used to evaluate a new or existing building,  
11 modeling shall be conducted in accordance with ASHRAE Guideline 14-2002,  
12 Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-  
13 2004, Section 11 and Appendix G. For existing and new residential buildings, energy  
14 simulation modeling shall be consistent with the requirements of RESNET National Home  
15 Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage  
16 Industry National Home Energy Rating System Standards).

17  $A$  = Adjustments to account for any differing conditions during the two time  
18 periods (pre-installation and post-installation), such as weather (weather normalized energy  
19 usage based on heating and cooling degree days), building occupancy, and changes in  
20 building use or function. For commercial buildings, adjustments shall be consistent with the  
21 specifications of ASHRAE Guideline 14-2002, Measurement of Energy and Demand  
22 Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For  
23 residential buildings, adjustments shall be consistent with the specifications of RESNET  
24 National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of  
25 2006 Mortgage Industry National Home Energy Rating System Standards).  
26



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1                   (iv) *Provision for sampling of multiple like offset projects in*  
2 *residential buildings.* Offset projects that implement similar measures in multiple residential  
3 buildings may employ representative sampling of buildings to determine aggregate baseline  
4 energy usage and energy savings. Sampling protocols shall employ sound statistical  
5 methods. Any sampling plan shall be certified by an independent verifier, accredited  
6 pursuant to section XX-10.6.

7  
8                   (e) *Avoided methane emissions from agricultural manure management*  
9 *operations.* Offset projects that capture and destroy methane from animal manure using  
10 anaerobic digesters may qualify for the award of CO<sub>2</sub> emissions offset allowances under  
11 this Subpart, provided they meet the requirements of this subdivision.

12  
13                   (1) *Eligibility.*

14  
15                   (i) Eligible offset projects shall consist of the destruction of that  
16 portion of methane generated by an anaerobic digester that would have been generated in  
17 the absence of the offset project through the uncontrolled anaerobic storage of manure or  
18 organic food wastes.

19  
20                   (ii) Eligible offset projects shall employ only manure-based  
21 anaerobic digester systems using livestock manure as the majority of digester feedstock,  
22 defined as more than 50% of the mass input into the digester on an annual basis. Organic  
23 food wastes used by an anaerobic digester shall only be that which would have been  
24 stored in anaerobic conditions in the absence of the offset project.

25

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1 (iii) The provisions of paragraphs XX-10.3(d)(2) and (3) shall not  
2 apply to agricultural manure methane offset projects provided either of the following  
3 requirements are met.

4  
5 (a) The offset project is located in a state that has a market  
6 penetration for anaerobic digester projects of 5% or less. The market penetration  
7 determination shall utilize the most recent market data available at the time of submission  
8 of the consistency application pursuant to section XX-10.4 and shall be determined as  
9 follows:

10  
11 
$$MP (\%) = MG_{AD} / MG_{STATE}$$

12 where:

13  $MG_{AD}$  = Average annual manure generation for the number of  
14 dairy cows and swine serving all anaerobic digester projects in the applicable state at the  
15 time of submission of a consistency application pursuant to section XX-10.4.

16  $MG_{STATE}$  = average annual manure production of all dairy cows  
17 and swine in the state at the time of submission of a consistency application pursuant to  
18 section XX-10.4.

19  
20 (b) The offset project is located at a farm with 4,000 or less  
21 head of dairy cows, or a farm with equivalent animal units, assuming an average live weight  
22 for dairy cows (lbs./cow) of 1,400 lbs., or, if the project is a regional-type digester, total  
23 annual manure input to the digester is designed to be less than the average annual manure  
24 produced by a farm with 4,000 or less head of dairy cows, or a farm with equivalent animal  
25 units, assuming an average live weight for dairy cows (lbs./cow) of 1,400 lbs.

26

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1                   (2)    *Offset project description.* The offset project sponsor shall provide a  
2 detailed narrative of the offset project actions to be taken, including documentation that the  
3 offset project meets the eligibility requirements of paragraph (1) of this subdivision. The  
4 offset project narrative shall include the following information.

5  
6                   (i)    Owner and operator of the offset project;

7  
8                   (ii)   Location and specifications of the facility where the offset  
9 project will occur;

10  
11                  (iii)   Owner and operator of the facility where the offset project will  
12 occur;

13  
14                  (iv)   Specifications of the equipment to be installed and a technical  
15 schematic of the offset project; and

16  
17                  (v)    Location and specifications of the facilities from which anaerobic  
18 digester influent will be received, if different from the facility where the offset project will  
19 occur.

20  
21                  (3)    *Emissions baseline determination.* The emissions baseline shall  
22 represent the potential emissions of the CH<sub>4</sub> that would have been produced in a baseline  
23 scenario under uncontrolled anaerobic storage conditions and released directly to the  
24 atmosphere in the absence of the offset project.

25  
26                  (i)    Baseline CH<sub>4</sub> emissions shall be calculated as follows:  
27

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1 
$$\text{CO}_2\text{e (tons)} = (V_m \times M)/2000 \times \text{GWP}$$

2 where:

3  $\text{CO}_2\text{e}$  = Potential  $\text{CO}_2\text{e}$  emissions due to calculated  $\text{CH}_4$  production under  
4 site-specific anaerobic storage and weather conditions

5  $V_m$  = Volume of  $\text{CH}_4$  produced each month from degradation of volatile solids  
6 in a baseline uncontrolled anaerobic storage scenario under site-specific storage and  
7 weather conditions for the facility at which the manure is generated ( $\text{ft}^3$ )

8  $M$  = Mass of  $\text{CH}_4$  per cubic foot (0.04246  $\text{lb}/\text{ft}^3$  default value at one  
9 atmosphere and  $20^\circ\text{C}$ )

10  $\text{GWP}$  = Global warming potential of  $\text{CH}_4$  (23)

11  
12 (ii) The estimated amount of volatile solids degraded each month  
13 under the uncontrolled anaerobic storage baseline scenario (kg) shall be calculated as  
14 follows:

15 
$$\text{VS}_{\text{deg}} = \text{VS}_{\text{avail}} * f$$

16 where:

17  $\text{VS}$  = volatile solids as determined from the equation:

18 
$$\text{VS} = M_m \times \text{TS}\% \times \text{VS}\%$$

19 where:

20  $M_m$  = mass of manure produced per month (kg)

21  $\text{TS}\%$  = concentration (percent) of total solids in manure as determined  
22 through EPA 160.3 testing method

23  $\text{VS}\%$  = concentration (percent) of volatile solids in total solids as  
24 determined through EPA 160.4 testing method (USEPA Method Number 160.4, Methods  
25 for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020))

26  $\text{VS}_{\text{avail}}$  = volatile solids available for degradation in manure storage each  
27 month as determined from the equation:

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1 
$$VS_{avail} = VS_p + \frac{1}{2} VS_{in} - VS_{out}$$

2 where:

3  $VS_p$  = volatile solids present in manure storage at beginning of month  
4 (left over from previous month) (kg)

5  $VS_{in}$  = volatile solids added to manure storage during the course of the  
6 month (kg). The factor of  $\frac{1}{2}$  is multiplied by this number to represent the average mass of  
7 volatile solids available for degradation for the entire duration of the month.

8  $VS_{out}$  = volatile solids removed from the manure storage for land  
9 application or export (assumed value based on standard farm practice)

10  $f$  = van't Hoff-Arrhenius factor for the specific month as determined using the  
11 equation below. Using a base temperature of  $30^\circ\text{C}$ , the equation is as follows:

12 
$$f = \exp[E(T_2 - T_1)] / [(GC \times T_1 \times T_2)]$$

13 where:

14  $f$  = conversion efficiency of VS to  $\text{CH}_4$  per month

15  $E$  = activation energy constant (15,175 cal/mol)

16  $T_2$  = average monthly ambient temperature for farm (converted from  $^\circ$   
17 Celsius to  $^\circ$  Kelvin) as determined from the nearest National Weather Service certified  
18 weather station (if reported temperature  $^\circ\text{C} > 5^\circ\text{C}$ ; if reported temperature  $^\circ\text{C} < 5^\circ\text{C}$ , then  
19  $F = 0.104$ )

20  $T_1 = 303.16$  ( $30^\circ\text{C}$  converted to  $^\circ\text{K}$ )

21  $GC$  = ideal gas constant (1.987 cal/K mol)

22

23 (iii) The volume of  $\text{CH}_4$  produced ( $\text{ft}^3$ ) from degradation of volatile  
24 solids shall be calculated as follows:

25

26 
$$V_m = (VS_{deg} \times B_0) \times 35.3147$$

27 where:

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1  $V_m$  = volume of CH<sub>4</sub> (ft<sup>3</sup>)

2 VS<sub>deg</sub> = volatile solids degraded (kg)

3  $B_o$  = manure type-specific maximum methane generation constant (m<sup>3</sup> CH<sub>4</sub>/kg  
4 VS degraded). For dairy cow manure,  $B_o$  = 0.24 m<sup>3</sup> CH<sub>4</sub>/kg VS degraded. The methane  
5 generation constant for other types of manure shall be those cited at U.S. EPA, *Inventory of*  
6 *U.S. Greenhouse Gas Emissions and Sinks: 1990-2001*, Annex M, Table M-2 (U.S. EPA,  
7 2002), unless the project sponsor proposes an alternate methane generation constant. If  
8 the project sponsor proposes to use a methane generation constant other than the one  
9 found in the above-cited reference, the project sponsor must provide justification and  
10 documentation to the REGULATORY AGENCY.

11  
12 (4) *Calculating emissions reductions.* Emissions reductions shall be  
13 determined based on the the potential emissions (in tons of CO<sub>2</sub>e) of the CH<sub>4</sub> that would  
14 have been produced in the absence of the offset project under a baseline scenario that  
15 represents uncontrolled anaerobic storage conditions, as calculated pursuant to  
16 subparagraph (3)(i)-(iii) of this subdivision, and released directly to the atmosphere.  
17 Emissions reductions may not exceed the potential emissions of the digester, as  
18 represented by the annual volume of CH<sub>4</sub> produced by the anaerobic digester, as  
19 monitored pursuant to paragraph (5) of this subdivision. If the project is a regional-type  
20 digester, CO<sub>2</sub> emissions due to transportation of manure and organic food wastes from the  
21 site where the manure and organic food wastes were generated to the anaerobic digester  
22 shall be subtracted from the emissions reduction calculated pursuant to subparagraphs  
23 (3)(i) through (iii) of this subdivision. Transport CO<sub>2</sub> emissions shall be determined through  
24 one of the following methods:

25  
26 (i) Documentation of transport fuel use for all shipments of

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1 manure and organic food wastes from off-site to the anaerobic digester during each  
2 reporting year and a log of transport miles for each shipment. CO<sub>2</sub> emissions shall be  
3 determined through the application of an emissions factor for the fuel type used. If this  
4 option is chosen, the following emission factors shall be applied as appropriate.

5  
6 (a) Diesel fuel: 22.912 lbs. CO<sub>2</sub>/gallon.

7  
8 (b) Gasoline: 19.878 lbs. CO<sub>2</sub>/gallon.

9  
10 (c) Other fuel: submitted emission factor approved by the  
11 REGULATORY AGENCY.

12  
13 (ii) Documentation of total tons of manure transported from off-  
14 site for input into the anaerobic digester during each reporting year, as monitored pursuant  
15 to subparagraph (5)(i) of this subdivision, and a log of transport miles and fuel type used for  
16 each shipment. CO<sub>2</sub> emissions shall be determined through the application of a ton-mile  
17 transport emission factor for the fuel type used. If this option is chosen, the following  
18 emission factors shall be applied as appropriate for each ton of manure delivered, and  
19 multiplied by the number of miles transported.

20  
21 (a) Diesel fuel: 0.131 lbs. CO<sub>2</sub> per ton-mile.

22  
23 (b) Gasoline: 0.133 lbs. CO<sub>2</sub> per ton-mile.

24  
25 (c) Other fuel: submitted emission factor approved by the  
26 REGULATORY AGENCY.

27

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1           (5)    *Monitoring and verification requirements.* Offset projects shall employ  
2 a system that provides metering of biogas volumetric flow rate and determination of CH<sub>4</sub>  
3 concentration. Annual monitoring and verification reports shall include monthly biogas  
4 volumetric flow rate and CH<sub>4</sub> concentration determination. Monitoring and verification shall  
5 also meet the following requirements:  
6

7                   (i)    If the offset project is a regional-type digester, manure and  
8 organic food waste from each distinct source supplying to the anaerobic digester shall be  
9 sampled monthly to determine the amount of volatile solids present. Any emissions  
10 reduction will be calculated according to mass of manure and organic food waste (kg) being  
11 digested and percentage of volatile solids present before digestion, consistent with the  
12 requirements at paragraph (3) and subparagraph (5)(iii) of this subdivision, and apportioned  
13 accordingly among sources. The project sponsor shall provide supporting material and  
14 receipts tracking the monthly receipt of manure and organic food waste (kg) used to supply  
15 the anaerobic digester from each supplier.  
16

17                   (ii)   If the offset project includes the digestion of organic food wastes  
18 eligible pursuant to subparagraph (1)(ii) of this subdivision, organic food wastes shall be  
19 sampled monthly to determine the amount of volatile solids (VS) present before digestion,  
20 consistent with the requirements at paragraph (3) of this subdivision, and apportioned  
21 accordingly. If the offset project is a regional-type digester, the offset project sponsor shall  
22 provide supporting material and receipts tracking the monthly receipt of organic food waste  
23 (kg) used to supply the anaerobic digester from each organic food waste supplier.  
24

25                   (iii)   The project sponsor shall submit a monitoring and verification  
26 plan as part of the consistency application that includes a quality assurance and quality  
27 control program associated with equipment used to determine biogas volumetric flow rate



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1 and CH<sub>4</sub> composition. The monitoring and verification plan shall be specified in accordance  
2 with the applicable monitoring requirements listed in Table 1. The monitoring and  
3 verification plan shall also include provisions for ensuring that measuring and monitoring  
4 equipment is maintained, operated, and calibrated based on manufacturer's  
5 recommendations, as well as provisions for the retention of maintenance records for audit  
6 purposes. The monitoring and verification plan shall be certified by an independent verifier  
7 accredited pursuant to section XX-10.6.

8  
9 (iv) The project sponsor shall quarterly verify biogas CH<sub>4</sub>  
10 composition through gas sampling and third party laboratory analysis using applicable U.S.  
11 EPA test methods.

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Table 1

Input Monitoring Requirements

Input Parameter	Measurement Unit	Frequency of Sampling	Sampling Method(s)
Influent flow (mass) into the digester	Kilograms (kg) per month (wet weight)	Monthly total into the digester	a) Average herd population and American Society of Agricultural and Biological Engineers (ASABE) standard (ASAE D384.2, March 2005)  b) Digester influent pump flow  c) Recorded weight
Influent total solids concentration (TS)	Percent (of sample)	Monthly, depending upon recorded variations	U.S. EPA Method Number 160.3
Influent volatile solids (VS) content	Percent (of TS)	Monthly, depending upon recorded variations	USEPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020)
Average monthly ambient temperature	Temperature °C	Monthly (based on farm averages)	Closest National Weather Service-certified weather station

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**XX-10.6 Accreditation of independent verifiers**

(a) *Standards for accreditation.* Independent verifiers may be accredited by the REGULATORY AGENCY to provide verification services as required of project sponsors under this Subpart, provided that independent verifiers meet all of the requirements of this section.

(1) *Verifier minimum requirements.* Each accredited independent verifier shall demonstrate knowledge of the following topics:

- (i) utilizing engineering principles;
- (ii) quantifying greenhouse gas emissions;
- (iii) developing and evaluating air emissions inventories;
- (iv) auditing and accounting principles;
- (v) knowledge of information management systems;
- (vi) knowledge of the requirements of this Subpart and other applicable requirements of this Part; and
- (vii) such other qualifications as may be required by the REGULATORY AGENCY to provide competent verification services as required for individual offset categories specified at section XX-10.5.

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1  
2 (2) *Organizational qualifications.* Accredited independent  
3 verifiers shall demonstrate that they meet the following requirements:

4  
5 (i) verifiers shall have no direct or indirect financial  
6 relationship, beyond a contract for provision of verification services, with any offset project  
7 developer or project sponsor;

8  
9 (ii) verifiers shall employ staff with professional licenses,  
10 knowledge, and experience appropriate to the specific category(ies) of offset projects at  
11 section XX-10.5 that they seek to verify;

12  
13 (iii) verifiers shall hold a minimum of one million U.S.  
14 dollars of professional liability insurance. If the insurance is in the name of a related entity,  
15 the verifier shall disclose the financial relationship between the verifier and the related  
16 entity, and provide documentation supporting the description of the relationship; and

17  
18 (v) verifiers shall demonstrate that they have implemented an  
19 adequate management protocol to identify potential conflicts of interest with regard to an  
20 offset project, offset project developer, or project sponsor, or any other party with a direct or  
21 indirect financial interest in an offset project that is seeking or has been granted approval of  
22 a consistency application pursuant to XX-10.4(e), and remedy any such conflicts of interest  
23 prior to providing verification services.

24  
25 (3) *Pre-qualification of verifiers.* The REGULATORY AGENCY

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1 may require prospective verifiers to successfully complete a training course, workshop, or  
2 test developed by the REGULATORY AGENCY or its agent, prior to submitting an  
3 application for accreditation.

4  
5 (b) *Application for accreditation.* An application for accreditation shall  
6 not contain any proprietary information, and shall include the following:

7  
8 (1) the applicant's name, address, e-mail address,  
9 telephone number, and facsimile transmission number;

10  
11 (2) documentation that the applicant has at least two  
12 years of experience in each of the knowledge areas specified at clauses (a)(1)(i)-(v), and  
13 as may be required pursuant to clause (a)(1)(vii);

14  
15 (3) documentation that the applicant has successfully  
16 completed the requirements at paragraph (a)(3), as applicable;

17  
18 (4) a sample of at least one work product that provides supporting  
19 evidence that the applicant meets the requirements at paragraphs (a)(1)-(2). The work  
20 product shall have been produced, in whole or part, by the applicant and shall consist of a  
21 final report or other material provided to a client under contract in previous work. For a  
22 work product that was jointly produced by the applicant and another entity, the role of the  
23 applicant in the work product shall be clearly explained;

24  
25 (5) documentation that the applicant holds professional  
26 liability insurance as required pursuant to clause (a)(2)(iv).  
27

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1                   (6)     documentation that the applicant has implemented an  
2 adequate management protocol to address and remedy any conflict of interest issues that  
3 may arise, as required pursuant to clause (a)(2)(v).  
4

5                   (c)     *REGULATORY AGENCY action on applications for accreditation.* The  
6 REGULATORY AGENCY shall approve or deny a complete application for accreditation  
7 within 45 days after submission. Upon approval of an application for accreditation, the  
8 independent verifier shall be accredited for a period of three years from the date of  
9 application approval.  
10

11                  (d)     *Reciprocity.* Independent verifiers accredited in other participating states may  
12 be deemed to be accredited in [INSERT NAME OF RGGI STATE], at the discretion of the  
13 REGULATORY AGENCY.  
14

15                  (e)     *Conduct of accredited verifiers.*  
16

17                   (1)     Prior to engaging in verification services for an offset project  
18 sponsor, the accredited verifier shall disclose all relevant information to the REGULATORY  
19 AGENCY to allow for an evaluation of potential conflict of interest with respect to an offset  
20 project, offset project developer, or project sponsor. The accredited verifier shall disclose  
21 information concerning its ownership, past and current clients, related entities, as well as  
22 any other facts or circumstances that have the potential to create a conflict of interest.  
23

24                   (2)     Accredited verifiers shall have an ongoing obligation to  
25 disclose to the REGULATORY AGENCY any facts or circumstances that may give rise to a  
26 conflict of interest with respect to an offset project, offset project developer, or project  
27 sponsor.

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1  
2 (3) The REGULATORY AGENCY may reject a verification report and  
3 certification statement from an accredited verifier, submitted as part of a consistency  
4 application required pursuant to XX-10.4(b) or submitted as part of a monitoring and  
5 verification report submitted pursuant to XX-10.7(b), if the REGULATORY AGENCY  
6 determines that the accredited verifier has a conflict of interest related to the offset project,  
7 offset project developer, or project sponsor.

8  
9 (4) The REGULATORY AGENCY may revoke the accreditation  
10 of a verifier at any time given cause, for the following:

11  
12 (i) failure to fully disclose any issues that may lead to a  
13 conflict of interest situation with respect to an offset project, offset project developer, or  
14 project sponsor;

15  
16 (ii) the verifier is no longer qualified due to changes in  
17 staffing or other criteria;

18  
19 (iii) negligence or neglect of responsibilities  
20 pursuant to the requirements of this Subpart; and

21  
22 (iv) intentional misrepresentation of data or other  
23 intentional fraud.

## 24 25 **XX-10.7 Award of CO<sub>2</sub> offset allowances.**

26  
27 (a) *Quantities of CO<sub>2</sub> offset allowances that may be awarded.*

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1  
2 (1) *CO<sub>2</sub> emissions offset projects.* Following the issuance of a consistency  
3 determination under paragraph XX-10.4(e)(2) and the approval of a monitoring and  
4 verification report under the provisions of subdivision (e) of this section, the REGULATORY  
5 AGENCY will award one CO<sub>2</sub> offset allowance for each ton of demonstrated reduction in  
6 CO<sub>2</sub> or CO<sub>2</sub> equivalent emissions or sequestration of CO<sub>2</sub>.

7  
8 (2) *CO<sub>2</sub> emissions credit retirement.* If a project sponsor received a  
9 consistency determination pursuant to paragraph XX-10.4(e)(2), one CO<sub>2</sub> offset allowance  
10 will be awarded for each ton of reduction of CO<sub>2</sub> or CO<sub>2</sub> equivalent or sequestration of CO<sub>2</sub>,  
11 represented by the relevant credits or allowances retired. If a credit or allowance is  
12 represented in metric tons, 1.1023 tons will be awarded for every metric ton, provided that  
13 total CO<sub>2</sub> offset allowances awarded shall be rounded down to the nearest whole ton.

14  
15 (b) *Deadlines for submittal of monitoring and verification reports.*

16  
17 (1) For CO<sub>2</sub> emissions offset projects undertaken prior to January 1, 2009,  
18 the project sponsor must submit the monitoring and verification report covering the pre-  
19 2009 period by June 30, 2009.

20  
21 (2) For CO<sub>2</sub> emissions offset projects undertaken on or after January 1,  
22 2009, the monitoring and verification report must be submitted within 6 months following  
23 the completion of the last calendar year during which the offset project achieved CO<sub>2</sub>  
24 equivalent reductions or sequestration of CO<sub>2</sub> for which the project sponsor seeks the  
25 award of CO<sub>2</sub> emissions offset allowances.  
26



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1 (c) *Contents of monitoring and verification reports.* For an offset project, the  
2 monitoring and verification report must include the following information.

3  
4 (1) The project's sponsor's name, address, e-mail address, telephone  
5 number, and facsimile transmission number to the extent they are different from those of  
6 the project sponsor's CO<sub>2</sub> authorized account representative.

7  
8 (2) The CO<sub>2</sub> emissions reduction or CO<sub>2</sub> sequestration determination as  
9 required by the relevant provisions of section XX-10.5, including a demonstration that the  
10 project sponsor complied with the required quantification, monitoring, and verification  
11 procedures under section XX-10.5, as well as those outlined in the consistency application  
12 approved pursuant to paragraph XX-10.4(e)(2).

13  
14 (3) A signed statement that reads "The undersigned project sponsor  
15 hereby confirms and attests that the offset project upon which this monitoring and  
16 verification report is based is in full compliance with all of the requirements of Subpart XX-  
17 10. The project sponsor holds the legal rights to the offset project, or has been granted the  
18 right to act on behalf of a party that holds the legal rights to the offset project. I understand  
19 that eligibility for the award of CO<sub>2</sub> emissions offset allowances under Subpart XX-10 is  
20 contingent on meeting the requirements of Subpart XX-10. I authorize the REGULATORY  
21 AGENCY or its agent to audit this offset project for purposes of verifying that the offset  
22 project, including the monitoring and verification plan, has been implemented as described  
23 in the consistency application that was the subject of a consistency determination by the  
24 REGULATORY AGENCY. I understand that this right to audit shall include the right to  
25 enter the physical location of the offset project. I submit to the legal jurisdiction of [RGGI  
26 PARTICIPATING STATE]."  
27

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1           (4)     A certification signed by the offset project sponsor certifying that all  
2 offset projects for which the sponsor has received offset allowances under this Subpart (or  
3 similar provisions in the rules of other participating states), under the sponsor's ownership  
4 or control (or under the ownership or control of any entity which controls, is controlled by, or  
5 has common control with the sponsor) are in compliance with all applicable requirements of  
6 the CO<sub>2</sub> Budget Trading Program in all participating states.  
7

8           (5)     A verification report and certification statement drafted and signed by  
9 an independent verifier accredited pursuant to section XX-10.6 that documents that the  
10 independent verifier has reviewed the monitoring and verification report and evaluated the  
11 following in relation to the applicable requirements at section XX-10.5, and any applicable  
12 guidance issued by the REGULATORY AGENCY.  
13

14                   (i)     The adequacy and validity of information supplied by the project  
15 sponsor to determine CO<sub>2</sub> emissions reductions or CO<sub>2</sub> sequestration pursuant to the  
16 applicable requirements at section XX-10.5.  
17

18                   (ii)    The adequacy and consistency of methods used to quantify,  
19 monitor, and verify CO<sub>2</sub> emissions reductions and CO<sub>2</sub> sequestration in accordance with  
20 the applicable requirements at section XX-10.5 and as outlined in the consistency  
21 application approved pursuant to paragraph XX-10.4(e)(2).  
22

23                   (iii)   Such other evaluations and verification reviews as may be  
24 required by the REGULATORY AGENCY. The adequacy and validity of information  
25 supplied by the project sponsor to demonstrate that the offset project meets the applicable  
26 eligibility requirements of section XX-10.5.  
27

