111TH CONGRESS 1ST SESSION

S. 433

To amend the Public Utility Regulatory Policies Act of 1978 to establish a renewable electricity standard, and for other purposes.

IN THE SENATE OF THE UNITED STATES

February 12, 2009

Mr. UDALL of New Mexico (for himself and Mr. UDALL of Colorado) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To amend the Public Utility Regulatory Policies Act of 1978 to establish a renewable electricity standard, and for other purposes.

- 1 Be it enacted by the Senate and House of Representa-
- 2 tives of the United States of America in Congress assembled,
- 3 SECTION 1. RENEWABLE ELECTRICITY STANDARD.
- 4 (a) In General.—Title VI of the Public Utility Reg-
- 5 ulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is
- 6 amended by adding at the end the following:
- 7 "SEC. 610. RENEWABLE ELECTRICITY STANDARD.
- 8 "(a) Definitions.—In this section:
- 9 "(1) Base quantity of electricity.—

1	"(A) IN GENERAL.—The term 'base quan-
2	tity of electricity' means the total quantity of
3	electric energy sold by a retail electric supplier,
4	expressed in terms of kilowatt hours, to electric
5	customers for purposes other than resale during
6	the most recent calendar year for which infor-
7	mation is available.
8	"(B) Exclusions.—The term 'base quan-
9	tity of electricity' does not include—
10	"(i) electric energy that is not incre-
11	mental hydropower generated by a hydro-
12	electric facility; and
13	"(ii) electricity generated through the
14	incineration of municipal solid waste.
15	"(2) Biomass.—
16	"(A) IN GENERAL.—The term 'biomass'
17	means—
18	"(i) cellulosic (plant fiber) organic
19	materials from a plant that is planted for
20	the purpose of being used to produce en-
21	ergy;
22	"(ii) nonhazardous plant or algal mat-
23	ter that is derived from—
24	"(I) an agricultural crop, crop
25	byproduct, or residue resource; or

1	"(II) waste, such as landscape or
2	right-of-way trimmings (but not in-
3	cluding municipal solid waste, recycla-
4	ble postconsumer waste paper, paint-
5	ed, treated, or pressurized wood, wood
6	contaminated with plastic, or metals);
7	"(iii) animal waste or animal byprod-
8	ucts; and
9	"(iv) landfill methane.
10	"(B) NATIONAL FOREST LAND AND CER-
11	TAIN OTHER PUBLIC LAND.—In the case of or-
12	ganic material removed from National Forest
13	System land or from public land administered
14	by the Secretary of the Interior, the term 'bio-
15	mass' means only organic material from—
16	"(i) ecological forest restoration;
17	"(ii) precommercial thinnings;
18	"(iii) brush;
19	"(iv) mill residues; or
20	"(v) slash.
21	"(C) Exclusion of certain federal
22	LAND.—Notwithstanding subparagraph (B), the
23	term 'biomass' does not include material or
24	matter that would otherwise qualify as biomass

1	if the material or matter is located on the fol-
2	lowing Federal land:
3	"(i) Federal land containing old
4	growth forest or late successional forest
5	unless the Secretary of the Interior or the
6	Secretary of Agriculture determines that
7	the removal of organic material from the
8	land—
9	"(I) is appropriate for the appli-
10	cable forest type; and
11	"(II) maximizes the retention
12	of—
13	"(aa) late-successional and
14	large and old growth trees;
15	"(bb) late-successional and
16	old growth forest structure; and
17	"(cc) late-successional and
18	old growth forest composition.
19	"(ii) Federal land on which the re-
20	moval of vegetation is prohibited, including
21	components of the National Wilderness
22	Preservation System.
23	"(iii) Wilderness study areas.
24	"(iv) Inventoried roadless areas.

1	"(v) Components of the National					
2	Landscape Conservation System.					
3	"(vi) National Monuments.					
4	"(3) Existing facility.—The term 'existing					
5	facility' means a facility for the generation of elec-					
6	tric energy from a renewable energy resource that					
7	not an eligible facility.					
8	"(4) Incremental hydropower.—The term					
9	'incremental hydropower' means additional genera					
10	tion that is achieved from increased efficiency or ad-					
11	ditions of capacity made on or after—					
12	"(A) the date of enactment of this section;					
13	or					
14	"(B) the effective date of an existing appli-					
15	cable State renewable portfolio standard pro-					
16	gram at a hydroelectric facility that was placed					
17	in service before that date.					
18	"(5) Indian Land.—The term 'Indian land'					
19	means—					
20	"(A) any land within the limits of any In-					
21	dian reservation, pueblo, or rancheria;					
22	"(B) any land not within the limits of any					
23	Indian reservation, pueblo, or rancheria title to					
24	which was on the date of enactment of this sec-					
25	tion held by—					

1	"(i) the United States for the benefit
2	of any Indian tribe or individual; or
3	"(ii) any Indian tribe or individua
4	subject to restriction by the United States
5	against alienation;
6	"(C) any dependent Indian community; or
7	"(D) any land conveyed to any Alaska Na-
8	tive corporation under the Alaska Native
9	Claims Settlement Act (43 U.S.C. 1601 et
10	seq.).
11	"(6) Indian tribe.—The term 'Indian tribe
12	means any Indian tribe, band, nation, or other orga-
13	nized group or community, including any Alaskar
14	Native village or regional or village corporation as
15	defined in or established pursuant to the Alaska Na-
16	tive Claims Settlement Act (43 U.S.C. 1601 et seq.)
17	that is recognized as eligible for the special pro-
18	grams and services provided by the United States to
19	Indians because of their status as Indians.
20	"(7) Renewable energy.—The term 'renew-
21	able energy' means electric energy generated by a re-
22	newable energy resource.
23	"(8) Renewable energy resource.—The
24	term 'renewable energy resource' means solar, wind

1	ocean,	tidal,	geothermal	energy,	biomass,	landfill
2	gas, inc	cremen	tal hydropow	er, or hy	drokinetic	energy.

- "(9) Repowering or cofiring increment'

 The term 'repowering or cofiring increment'

 means—
 - "(A) the additional generation from a modification that is placed in service on or after the date of enactment of this section, to expand electricity production at a facility used to generate electric energy from a renewable energy resource;
 - "(B) the additional generation above the average generation during the 3-year period ending on the date of enactment of this section at a facility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before the date of enactment of this section; or
 - "(C) the portion of the electric generation from a facility placed in service on or after the date of enactment of this section, or a modification to a facility placed in service before the date of enactment of this section made on or after January 1, 2001, associated with cofiring biomass.

1	"(10) Retail electric supplier.—
2	"(A) IN GENERAL.—The term 'retail elec-
3	tric supplier' means a person that sells electric
4	energy to electric consumers (other than con-
5	sumers in Hawaii) that sold not less than
6	1,000,000 megawatt-hours of electric energy to
7	electric consumers for purposes other than re-
8	sale during the preceding calendar year.
9	"(B) Inclusion.—The term 'retail electric
10	supplier' includes a person that sells electric en-
11	ergy to electric consumers that, in combination
12	with the sales of any affiliate organized after
13	the date of enactment of this section, sells not
14	less than 1,000,000 megawatt hours of electric
15	energy to consumers for purposes other than re-
16	sale.
17	"(C) Sales to parent companies of
18	AFFILIATES.—For purposes of this paragraph
19	sales by any person to a parent company or to
20	other affiliates of the person shall not be treat-
21	ed as sales to electric consumers.
22	"(D) GOVERNMENTAL AGENCIES.—
23	"(i) In general.—Except as pro-
24	vided in clause (ii), the term 'retail electric
25	supplier' does not include—

1	"(I) the United States, a State,
2	any political subdivision of a State, or
3	any agency, authority, or instrumen-
4	tality of the United States, State, or
5	political subdivision; or
6	"(II) a rural electric cooperative.
7	"(ii) Inclusion.—The term 'retail
8	electric supplier' includes an entity that is
9	a political subdivision of a State, or an
10	agency, authority, or instrumentality of the
11	United States, a State, a political subdivi-
12	sion of a State, a rural electric cooperative
13	that sells electric energy to electric con-
14	sumers, or any other entity that sells elec-
15	tric energy to electric consumers that
16	would not otherwise qualify as a retail elec-
17	tric supplier if the entity notifies the Sec-
18	retary that the entity voluntarily agrees to
19	participate in the Federal renewable elec-
20	tricity standard program.
21	"(b) Compliance.—For calendar year 2012 and
22	each calendar year thereafter, each retail electric supplier
23	shall meet the requirements of subsection (c) by submit-
24	ting to the Secretary, not later than April 1 of the fol-
25	lowing calendar year, 1 or more of the following:

	10
1	"(1) Federal renewable energy credits issued
2	under subsection (e).
3	"(2) Certification of the renewable energy gen-
4	erated and electricity savings pursuant to the funds
5	associated with State compliance payments as speci-
6	fied in subsection (e)(4)(G).
7	"(3) Alternative compliance payments pursuant
8	to subsection (h).
9	"(c) Required Annual Percentage.—For each of
10	calendar years 2012 through 2039, the required annual
11	percentage of the base quantity of electricity of a retain
12	electric supplier that shall be generated from renewable
13	energy resources, or otherwise credited towards the per-
14	centage requirement pursuant to subsection (d), shall be
15	the applicable percentage specified in the following table
	Required Amount
	"Calendar Years percentage
	2012
	2013
	2014
	2016
	2017
	2018
	2019
	2020
	2021
	2022
	2023
	2024
	2025 and thereafter through 2039
16	"(d) Renewable Energy Credits.—
17	"(1) IN GENERAL.—A retail electric supplier

may satisfy the requirements of subsection (b)(1)

1	through the submission of Federal renewable energy
2	credits—
3	"(A) issued to the retail electric supplier
4	under subsection (e);
5	"(B) obtained by purchase or exchange
6	under subsection (f); or
7	"(C) borrowed under subsection (g).
8	"(2) Federal Renewable energy cred-
9	ITS.—A Federal renewable energy credit may be
10	counted toward compliance with subsection $(b)(1)$
11	only once.
12	"(e) Issuance of Federal Renewable Energy
13	Credits.—
14	"(1) IN GENERAL.—Not later than 1 year after
15	the date of enactment of this section, the Secretary
16	shall establish by rule a program—
17	"(A) to verify and issue Federal renewable
18	energy credits to generators of renewable en-
19	$\operatorname{ergy};$
20	"(B) to track the sale, exchange, and re-
21	tirement of the credits; and
22	"(C) to enforce the requirements of this
23	section.
24	"(2) Existing non-federal tracking sys-
25	TEMS.—To the maximum extent practicable, in es-

1	tablishing the program, the Secretary shall rely on
2	existing and emerging State or regional tracking
3	systems that issue and track non-Federal renewable
4	energy credits.
5	"(3) Application.—
6	"(A) In General.—An entity that gen-
7	erates electric energy through the use of a re-
8	newable energy resource may apply to the Sec-
9	retary for the issuance of renewable energy
10	credits.
11	"(B) ELIGIBILITY.—To be eligible for the
12	issuance of the credits, the applicant shall dem-
13	onstrate to the Secretary that—
14	"(i) the electric energy will be trans-
15	mitted onto the grid; or
16	"(ii) in the case of a generation offset,
17	the electric energy offset would have other-
18	wise been consumed onsite.
19	"(C) Contents.—The application shall
20	indicate—
21	"(i) the type of renewable energy re-
22	source that is used to produce the elec-
23	tricity;
24	"(ii) the location at which the electric
25	energy will be produced; and

1	"(iii) any other information the Sec-
2	retary determines appropriate.
3	"(4) Quantity of federal renewable en-
4	ERGY CREDITS.—
5	"(A) In general.—Except as otherwise
6	provided in this paragraph, the Secretary shall
7	issue to a generator of electric energy 1 Federal
8	renewable energy credit for each kilowatt hour
9	of electric energy generated by the use of a re-
10	newable energy resource at an eligible facility.
11	"(B) Incremental hydropower.—
12	"(i) In general.—For purpose of
13	compliance with this section, Federal re-
14	newable energy credits for incremental hy-
15	dropower shall be based on the increase in
16	average annual generation resulting from
17	the efficiency improvements or capacity ad-
18	ditions.
19	"(ii) Water flow information.—
20	The incremental generation shall be cal-
21	culated using the same water flow informa-
22	tion that is—
23	"(I) used to determine a historic
24	average annual generation baseline for
25	the hydroelectric facility; and

1	"(II) certified by the Secretary or
2	the Federal Energy Regulatory Com-
3	mission.
4	"(iii) Operational Changes.—The
5	calculation of the Federal renewable energy
6	credits for incremental hydropower shall
7	not be based on any operational changes at
8	the hydroelectric facility that is not di-
9	rectly associated with the efficiency im-
10	provements or capacity additions.
11	"(C) Indian Land.—
12	"(i) In General.—The Secretary
13	shall issue 2 renewable energy credits for
14	each kilowatt hour of electric energy gen-
15	erated and supplied to the grid in a cal-
16	endar year through the use of a renewable
17	energy resource at an eligible facility lo-
18	cated on Indian land.
19	"(ii) Biomass.—For purposes of this
20	paragraph, renewable energy generated by
21	biomass cofired with other fuels is eligible
22	for 2 credits only if the biomass was grown
23	on the land.
24	"(D) On-site eligible facilities.—

1	"(i) IN GENERAL.—In the case of
2	electric energy generated by a renewable
3	energy resource at an on-site eligible facil-
4	ity that is not larger than 1 megawatt in
5	capacity and is used to offset all or part of
6	the requirements of a customer for electric
7	energy, the Secretary shall issue 3 renew-
8	able energy credits to the customer for
9	each kilowatt hour generated.
10	"(ii) Indian land.—In the case of an
11	on-site eligible facility on Indian land, the
12	Secretary shall issue not more than 3 cred-
13	its per kilowatt hour.
14	"(E) Combination of Renewable and
15	NONRENEWABLE ENERGY RESOURCES.—If both
16	a renewable energy resource and a nonrenew-
17	able energy resource are used to generate the
18	electric energy, the Secretary shall issue the
19	Federal renewable energy credits based on the
20	proportion of the renewable energy resources
21	used.
22	"(F) Retail electric suppliers.—If a

generator has sold electric energy generated

through the use of a renewable energy resource

to a retail electric supplier under a contract for

23

24

power from an existing facility and the contract has not determined ownership of the Federal renewable energy credits associated with the generation, the Secretary shall issue the Federal renewable energy credits to the retail elec-

6 tric supplier for the duration of the contract.

"(G) COMPLIANCE WITH STATE RENEW-ABLE PORTFOLIO STANDARD PROGRAMS.—Payments made by a retail electricity supplier, directly or indirectly, to a State for compliance with a State renewable portfolio standard program, or for an alternative compliance mechanism, shall be valued at 1 credit per kilowatt hour for the purpose of subsection (b)(2) based on the quantity of electric energy generation from renewable resources that results from the payments.

"(f) RENEWABLE ENERGY CREDIT TRADING.—

"(1) IN GENERAL.—A Federal renewable energy credit may be sold, transferred, or exchanged by the entity to whom the credit is issued or by any other entity that acquires the Federal renewable energy credit, other than renewable energy credits from existing facilities.

1 "(2) CARRYOVER.—A Federal renewable energy 2 credit for any year that is not submitted to satisfy 3 the minimum renewable generation requirement of 4 subsection (c) for that year may be carried forward 5 for use pursuant to subsection (b)(1) within the next 6 3 years.

"(3) Delegation.—The Secretary may delegate to an appropriate market-making entity the administration of a national tradeable renewable energy credit market for purposes of creating a transparent national market for the sale or trade of renewable energy credits.

"(g) Renewable Energy Credit Borrowing.—

"(1) IN GENERAL.—Not later than December 31, 2014, a retail electric supplier that has reason to believe the retail electric supplier will not be able to fully comply with subsection (b) may—

"(A) submit a plan to the Secretary demonstrating that the retail electric supplier will earn sufficient Federal renewable energy credits within the next 3 calendar years that, when taken into account, will enable the retail electric supplier to meet the requirements of subsection (b) for calendar year 2014 and the subsequent calendar years involved; and

1	"(B) on the approval of the plan by the
2	Secretary, apply Federal renewable energy cred-
3	its that the plan demonstrates will be earned
4	within the next 3 calendar years to meet the re-
5	quirements of subsection (b) for each calendar
6	year involved.
7	"(2) Repayment.—The retail electric supplier
8	shall repay all of the borrowed Federal renewable
9	energy credits by submitting an equivalent number
10	of Federal renewable energy credits, in addition to
11	the credits otherwise required under subsection (b),
12	by calendar year 2022 or any earlier deadlines speci-
13	fied in the approved plan.
14	"(h) Alternative Compliance Payments.—As a
15	means of compliance under subsection (b)(4), the Sec-
16	retary shall accept payment equal to the lesser of—
17	"(1) 200 percent of the average market value of
18	Federal renewable energy credits and Federal energy
19	efficiency credits for the applicable compliance pe-
20	riod; or
21	"(2) 3 cents per kilowatt hour (as adjusted on
22	January 1 of each year following calendar year 2006
23	based on the implicit price deflator for the gross na-

tional product).

1	"(i) Information Collection.—The Secretary
2	may collect the information necessary to verify and
3	audit—
4	"(1)(A) the annual renewable energy generation
5	of any retail electric supplier; and
6	"(B) Federal renewable energy credits sub-
7	mitted by a retail electric supplier pursuant to sub-
8	section (b)(1);
9	"(2) the validity of Federal renewable energy
10	credits submitted for compliance by a retail electric
11	supplier to the Secretary; and
12	"(3) the quantity of electricity sales of all retail
13	electric suppliers.
14	"(j) Environmental Savings Clause.—Incre-
15	mental hydropower shall be subject to all applicable envi-
16	ronmental laws and licensing and regulatory requirements.
17	"(k) State Programs.—
18	"(1) In general.—Nothing in this section di-
19	minishes any authority of a State or political sub-
20	division of a State—
21	"(A) to adopt or enforce any law (includ-
22	ing regulations) respecting renewable energy,
23	including programs that exceed the required
24	quantity of renewable energy under this section;
25	Or

1	"(B) to regulate the acquisition and dis-
2	position of Federal renewable energy credits by
3	retail electric suppliers.
4	"(2) Compliance with Section.—No law or
5	regulation referred to in paragraph (1)(A) shall re-
6	lieve any person of any requirement otherwise appli-
7	cable under this section.
8	"(3) Coordination with state program.—
9	The Secretary, in consultation with States that have
10	in effect renewable energy programs, shall—
11	"(A) preserve the integrity of the State
12	programs, including programs that exceed the
13	required quantity of renewable energy under
14	this section; and
15	"(B) facilitate coordination between the
16	Federal program and State programs.
17	"(4) Existing renewable energy pro-
18	GRAMS.—In the regulations establishing the program
19	under this section, the Secretary shall incorporate
20	common elements of existing renewable energy pro-
21	grams, including State programs, to ensure adminis-
22	trative ease, market transparency and effective en-
23	forcement.
24	"(5) Minimization of administrative bur-
25	DENS AND COSTS.—In carrying out this section, the

1	Secretary shall work with the States to minimize ad-
2	ministrative burdens and costs to retail electric sup-
3	pliers.
4	"(l) Recovery of Costs.—An electric utility that
5	has sales of electric energy that are subject to rate regula-
6	tion (including any utility with rates that are regulated
7	by the Commission and any State regulated electric util-
8	ity) shall not be denied the opportunity to recover the full
9	amount of the prudently incurred incremental cost of re-
10	newable energy obtained to comply with the requirements
11	of subsection (b).
12	"(m) Program Review.—
13	"(1) IN GENERAL.—The Secretary shall enter
14	into an arrangement with the National Academy of
15	Sciences under which the Academy shall conduct a
16	comprehensive evaluation of all aspects of the pro-
17	gram established under this section.
18	"(2) EVALUATION.—The study shall include an
19	evaluation of—
20	"(A) the effectiveness of the program in
21	increasing the market penetration and lowering
22	the cost of the eligible renewable energy tech-
23	nologies;
24	"(B) the opportunities for any additional
25	technologies and sources of renewable energy

1	emerging since the date of enactment of this
2	section;
3	"(C) the impact on the regional diversity
4	and reliability of supply sources, including the
5	power quality benefits of distributed generation
6	"(D) the regional resource development
7	relative to renewable potential and reasons for
8	any investment in renewable resources; and
9	"(E) the net cost/benefit of the renewable
10	electricity standard to the national and State
11	economies, including—
12	"(i) retail power costs;
13	"(ii) the economic development bene-
14	fits of investment;
15	"(iii) avoided costs related to environ-
16	mental and congestion mitigation invest-
17	ments that would otherwise have been re-
18	quired;
19	"(iv) the impact on natural gas de-
20	mand and price; and
21	"(v) the effectiveness of green mar-
22	keting programs at reducing the cost of re-
23	newable resources.
24	"(3) Report.—Not later than January 1,
25	2018, the Secretary shall transmit to Congress a re-

1	port describing the results of the evaluation and any
2	recommendations for modifications and improve-
3	ments to the program.
4	"(n) State Renewable Energy Account.—
5	"(1) In general.—There is established in the
6	Treasury a State renewable energy account.
7	"(2) Deposits.—All money collected by the
8	Secretary from the alternative compliance payments
9	under subsection (h) shall be deposited into the
10	State renewable energy account established under
11	paragraph (1).
12	"(3) Grants.—
13	"(A) In general.—Proceeds deposited in
14	the State renewable energy account shall be
15	used by the Secretary, subject to annual appro-
16	priations, for a program to provide grants—
17	"(i) to the State agency responsible
18	for administering a fund to promote renew-
19	able energy generation for customers of the
20	State or an alternative agency designated
21	by the State; or
22	"(ii) if no agency described in clause
23	(i), to the State agency developing State
24	energy conservation plans under section

1	362 of the Energy Policy and Conservation
2	Act (42 U.S.C. 6322).
3	"(B) USE.—The grants shall be used for
4	the purpose of—
5	"(i) promoting renewable energy pro-
6	duction; and
7	"(ii) providing energy assistance and
8	weatherization services to low-income con-
9	sumers.
10	"(C) Criteria.—The Secretary may issue
11	guidelines and criteria for grants awarded
12	under this paragraph.
13	"(D) State-approved funding mecha-
14	NISMS.—At least 75 percent of the funds pro-
15	vided to each State for each fiscal year shall be
16	used to promote renewable energy production
17	through grants, production incentives, or other
18	State-approved funding mechanisms.
19	"(E) ALLOCATION.—The funds shall be al-
20	located to the States on the basis of retail elec-
21	tric sales subject to the renewable electricity
22	standard under this section or through vol-
23	untary participation.
24	"(F) Records.—State agencies receiving
25	grants under this paragraph shall maintain

- 1 such records and evidence of compliance as the
- 2 Secretary may require.".
- 3 (b) Table of Contents Amendment.—The table
- 4 of contents of the Public Utility Regulatory Policies Act
- 5 of 1978 (16 U.S.C. prec. 2601) is amended by adding at
- 6 the end of the items relating to title VI the following:

 \bigcirc

[&]quot;Sec. 609. Rural and remote communities electrification grants.

[&]quot;Sec. 610. Renewable electricity standard.".