114TH CONGRESS 1ST SESSION	S.
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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

Mr. Udall (for himself, Mr. Markey, Mr. Whitehouse, Mr. Merkley, Mr. Heinrich, Ms. Hirono, and Mr. Bennet) introduced the following bill; which was read twice and referred to the Committee on

## 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. SHORT TITLE.
- 4 This Act may be cited as the "Renewable Electricity
- 5 Standard Act".
- 6 SEC. 2. RENEWABLE ELECTRICITY STANDARD.
- 7 (a) IN GENERAL.—Title VI of the Public Utility Reg-
- 8 ulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is
- 9 amended by adding at the end the following:

1	"SEC. 610. RENEWABLE ELECTRICITY STANDARD.
2	"(a) Definitions.—In this section:
3	"(1) Base quantity of electricity.—
4	"(A) IN GENERAL.—The term 'base quan-
5	tity of electricity' means the total quantity of
6	electric energy sold by a retail electric supplier,
7	expressed in terms of kilowatt hours, to electric
8	customers for purposes other than resale during
9	the most recent calendar year for which infor-
10	mation is available.
11	"(B) Exclusions.—The term 'base quan-
12	tity of electricity' does not include—
13	"(i) electric energy that is not incre-
14	mental hydropower generated by a hydro-
15	electric facility; and
16	"(ii) electricity generated through the
17	incineration of municipal solid waste.
18	"(2) Biomass.—
19	"(A) IN GENERAL.—The term 'biomass'
20	means—
21	"(i) cellulosic (plant fiber) organic
22	materials from a plant that is planted for
23	the purpose of being used to produce en-
24	$\operatorname{ergy};$
25	"(ii) nonhazardous plant or algal mat-

ter that is derived from—

26

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

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

1	(1) the United States for the benefit
2	of any Indian tribe or individual; or
3	"(ii) any Indian tribe or individual
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, incremental hydropower, or hydrokinetic energy.
3	"(9) Repowering or cofiring increment.—
4	The term 'repowering or cofiring increment'
5	means—
6	"(A) the additional generation from a
7	modification that is placed in service on or after
8	the date of enactment of this section, to expand
9	electricity production at a facility used to gen-
10	erate electric energy from a renewable energy
11	resource;
12	"(B) the additional generation above the
13	average generation during the 3-year period
14	ending on the date of enactment of this section
15	at a facility used to generate electric energy
16	from a renewable energy resource or to cofire
17	biomass that was placed in service before the
18	date of enactment of this section; or
19	"(C) the portion of the electric generation
20	from a facility placed in service on or after the
21	date of enactment of this section, or a modifica-
22	tion to a facility placed in service before the
23	date of enactment of this section made on or
24	after January 1, 2001, associated with cofiring
25	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 that sold not less
5	than 1,000,000 megawatt hours of electric en-
6	ergy to electric consumers for purposes other
7	than resale during the preceding calendar year.
8	"(B) Inclusion.—The term 'retail electric
9	supplier' includes a person that sells electric en-
10	ergy to electric consumers that, in combination
11	with the sales of any affiliate organized after
12	the date of enactment of this section, sells not
13	less than 1,000,000 megawatt hours of electric
14	energy to consumers for purposes other than re-
15	sale.
16	"(C) Sales to parent companies or
17	AFFILIATES.—For purposes of this paragraph,
18	sales by any person to a parent company or to
19	other affiliates of the person shall not be treat-
20	ed as sales to electric consumers.
21	"(D) GOVERNMENTAL AGENCIES.—
22	"(i) In general.—Except as pro-
23	vided in clause (ii), the term 'retail electric
24	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 2015 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:

1	"(1) Federal renewable energy credits	ıssued
2	under subsection (e).	
3	"(2) Certification of the renewable energ	y 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 pu	rsuant
8	to subsection (h).	
9	"(c) REQUIRED ANNUAL PERCENTAGE.—For e	each of
10	calendar years 2015 through 2039, the required	annual
11	percentage of the base quantity of electricity of a	retail
12	electric supplier that shall be generated from ren	ewable
13	energy resources, or otherwise credited towards the	ne per-
14	centage requirement pursuant to subsection (d), si	hall be
15	the applicable percentage specified in the following	
	Required A	
	_	centage
	2015	7.5
	2016	8.0
	2017	$8.5 \\ 9.5$
	2018	
	2019	$10.5 \\ 12.0$
	2020	12.0 $13.5$
	2021 2022	15.0
		16.5
	2023	18.0
	2024	$\frac{18.0}{20.0}$
	2025	$\frac{20.0}{22.0}$
	2026 2027	$\frac{22.0}{24.0}$
	2028	$\frac{24.0}{26.0}$
	2029	$\frac{26.0}{28.0}$
	2030 and thereafter through 2039	30.0.
16	((d) Privilla Di E Expercy Computer	50.0.

"(d) Renewable Energy Credits.—

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

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

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

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

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

1 "(F) Retail electric suppliers.—If a 2 generator has sold electric energy generated 3 through the use of a renewable energy resource 4 to a retail electric supplier under a contract for 5 power from an existing facility and the contract 6 has not determined ownership of the Federal 7 renewable energy credits associated with the 8 generation, the Secretary shall issue the Fed-9 eral renewable energy credits to the retail elec-10 tric supplier for the duration of the contract. 11 "(G) COMPLIANCE WITH STATE RENEW-ABLE PORTFOLIO STANDARD PROGRAMS.—Pay-12 13 ments made by a retail electricity supplier, di-14 rectly or indirectly, to a State for compliance 15 with a State renewable portfolio standard pro-16 gram, or for an alternative compliance mecha-17 nism, shall be valued at 1 credit per kilowatt 18 hour for the purpose of subsection (b)(2) based 19 on the quantity of electric energy generation 20 from renewable resources that results from the 21 payments. 22 "(f) RENEWABLE ENERGY CREDIT TRADING.— 23 "(1) IN GENERAL.—A Federal renewable en-24 ergy credit may be sold, transferred, or exchanged 25 by the entity to whom the credit is issued or by any

1	other entity that acquires the Federal renewable en-
2	ergy credit, other than renewable energy credits
3	from existing facilities.
4	"(2) Carryover.—A Federal renewable energy
5	credit for any year that is not submitted to satisfy
6	the minimum renewable generation requirement of
7	subsection (c) for that year may be carried forward
8	for use pursuant to subsection $(b)(1)$ within the next
9	3 years.
10	"(3) Delegation.—The Secretary may dele-
11	gate to an appropriate market-making entity the ad-
12	ministration of a national tradeable renewable en-
13	ergy credit market for purposes of creating a trans-
14	parent national market for the sale or trade of re-
15	newable energy credits.
16	"(g) Renewable Energy Credit Borrowing.—
17	"(1) IN GENERAL.—Not later than December
18	31, 2015, a retail electric supplier that has reason
19	to believe the retail electric supplier will not be able
20	to fully comply with subsection (b) may—
21	"(A) submit a plan to the Secretary dem-
22	onstrating that the retail electric supplier will
23	earn sufficient Federal renewable energy credits
24	within the next 3 calendar years that, when
25	taken into account, will enable the retail electric

1	supplier to meet the requirements of subsection
2	(b) for calendar year 2015 and the subsequent
3	calendar years involved; and
4	"(B) on the approval of the plan by the
5	Secretary, apply Federal renewable energy cred-
6	its that the plan demonstrates will be earned
7	within the next 3 calendar years to meet the re-
8	quirements of subsection (b) for each calendar
9	year involved.
10	"(2) Repayment.—The retail electric supplier
11	shall repay all of the borrowed Federal renewable
12	energy credits by submitting an equivalent number
13	of Federal renewable energy credits, in addition to
14	the credits otherwise required under subsection (b)
15	by calendar year 2023 or any earlier deadlines speci-
16	fied in the approved plan.
17	"(h) Alternative Compliance Payments.—As a
18	means of compliance under subsection (b)(4), the Sec-
19	retary shall accept payment equal to the lesser of—
20	"(1) 200 percent of the average market value of
21	Federal renewable energy credits and Federal energy
22	efficiency credits for the applicable compliance pe-
23	riod; or
24	"(2) 3 cents per kilowatt hour (as adjusted or
25	January 1 of each year following calendar year 2006

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

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

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

1	"(B) the opportunities for any additional
2	technologies and sources of renewable energy
3	emerging since the date of enactment of this
4	section;
5	"(C) the impact on the regional diversity
6	and reliability of supply sources, including the
7	power quality benefits of distributed generation;
8	"(D) the regional resource development
9	relative to renewable potential and reasons for
10	any investment in renewable resources; and
11	"(E) the net cost/benefit of the renewable
12	electricity standard to the national and State
13	economies, including—
14	"(i) retail power costs;
15	"(ii) the economic development bene-
16	fits of investment;
17	"(iii) avoided costs related to environ-
18	mental and congestion mitigation invest-
19	ments that would otherwise have been re-
20	quired;
21	"(iv) the impact on natural gas de-
22	mand and price; and
23	"(v) the effectiveness of green mar-
24	keting programs at reducing the cost of re-
25	newable resources.

1	"(3) Report.—Not later than January 1,
2	2019, the Secretary shall transmit to Congress a re-
3	port describing the results of the evaluation and any
4	recommendations for modifications and improve-
5	ments to the program.
6	"(n) State Renewable Energy Account.—
7	"(1) IN GENERAL.—There is established in the
8	Treasury a State renewable energy account.
9	"(2) Deposits.—All money collected by the
10	Secretary from the alternative compliance payments
11	under subsection (h) shall be deposited into the
12	State renewable energy account established under
13	paragraph (1).
14	"(3) Grants.—
15	"(A) In general.—Proceeds deposited in
16	the State renewable energy account shall be
17	used by the Secretary, subject to annual appro-
18	priations, for a program to provide grants—
19	"(i) to the State agency responsible
20	for administering a fund to promote renew-
21	able energy generation for customers of the
22	State or an alternative agency designated
23	by the State; or
24	"(ii) if no agency described in clause
25	(i), to the State agency developing State

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

1	"(F) Records.—State agencies receiving
2	grants under this paragraph shall maintain
3	such records and evidence of compliance as the
4	Secretary may require.".
5	(b) Table of Contents Amendment.—The table
6	of contents of the Public Utility Regulatory Policies Act
7	of 1978 (16 U.S.C. prec. 2601) is amended by adding at
8	the end of the items relating to title VI the following:
	"See 600 Rural and remote communities electrification grants

<sup>&</sup>quot;Sec. 609. Rural and remote communities electrification grants.

<sup>&</sup>quot;Sec. 610. Renewable electricity standard.".