

Appendix B. Proposed Clean Energy Portfolio Standard

Clean Energy Portfolio Standard

SEC. —. CLEAN ENERGY PORTFOLIO.

Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

"SEC. 609. CLEAN ENERGY PORTFOLIO STANDARD.

"(a) Findings.— Congress finds that

"(1) The development of the country's clean energy resources is a priority. A Federal clean energy portfolio standard will help improve the the nation's air quality by increasing the use of technologies to generate electricity without the production of sulfur dioxide, nitrous oxide, mercury, carbon dioxide and other emissions.

"(2) Nearly one-half of all States have implemented or are in the process of implementing programs, including Renewable Portfolio Standard ("RPS") programs, intended to diversify the mix of fuels used in the generation of electricity by requiring that a percentage of electricity sold, generated or otherwise supplied to end users be generated from designated renewable energy resources, or otherwise have programs in effect that encourage the generation of renewable or inherently clean sources of electricity.

"(3) These programs have been developed on a state-by-state basis in recognition of specific state and regional needs, interests, and resource availability.

1 “(4) On a national basis, the diversification of the electricity generation base
2 will help to insure our national energy and economic security, while producing
3 environmental improvements and advancing the introduction of new energy
4 technologies.

5 “(5) Reduction of consumer demand for electricity through deployment of
6 energy efficient technologies in the residential, business and commercial sector;
7 implementation of demand response, smart metering and other programs that give
8 end users tools to reduce energy consumption; and greater use of on site generating
9 technologies, including solar, photovoltaic, combined heat and power, and fuel cells,
10 also will contribute to national energy and economic security, environmental
11 improvement and market opportunities for advanced technologies.

12 “(6) To ensure the most effective use of existing resources and facilities, and
13 to ensure that a significant portion of the increased future demand for electricity is
14 served by clean energy resources, a Federal clean energy portfolio standard should be
15 applied to the incremental increase in electric sales.

16

17 **“(b) Minimum Renewable Generation Requirement.**— For each calendar year
18 beginning in calendar year 2010 and ending in 2030, each retail electric supplier shall
19 submit to the Secretary, not later than April 1 of the following calendar year, clean
20 energy credits in an amount equal to the required annual percentage specified in
21 subsection (c) of the retail electric supplier’s incremental electric sales, except that a
22 retail electric supplier shall not be required to submit clean energy credits in an

1 amount greater than 10 percent of that supplier's total sales to electric consumers in
2 the previous calendar year.

3

4 **"(c) Required Annual Percentage.**— The required annual percentage submitted in
5 a calendar year shall be not less than the amount specified in the following table:

6	Calendar year:	Minimum annual percentage
7	2010-2014	10%
8	2015-2019	20%
9	2020-2024	40%
10	2025-2030	60%
11		

12 **"(d) Clean Energy Credits.**— (1) A retail electric supplier may satisfy the
13 requirements of subsection (b) through the submission of clean energy credits--

14 "(A) issued to the retail electric supplier under subsection (e);

15 "(B) obtained by purchase or exchange under subsection (f) or (h);

16 "(C) borrowed under subsection (g), or

17 "(D) obtained through expenditures on eligible demand side management products
18 or services since the date of enactments.

19 "(2) A clean energy credit may be counted toward compliance with subsection (b)
20 only once.

21

22 **"(e) Issuance of Credits.**— (1) The Secretary shall establish by rule, not later than
23 1 year after the date of enactment of this section, a program to issue, monitor the sale
24 or exchange of, and track clean energy credits.

1 "(2) Under the program established under this section, an entity that generates
2 electric energy through the use of a clean energy resource may apply to the Secretary
3 for the issuance of clean energy credits. If the electricity is generated outside the
4 United States, the applicant must demonstrate to the Secretary that the electricity is
5 sold for ultimate consumption in the United States. The application shall indicate--

6 "(A) the type of clean energy resource used to produce the electricity,

7 "(B) the location where the electric energy was produced, and

8 "(C) any other information the Secretary determines to be appropriate.

9 "(3)(A) Except as provided in subparagraphs (B), (C), and (D), the Secretary shall
10 issue annually to each entity that generates electric energy one clean energy credit for
11 each kilowatt hour of electric energy the entity generated in the prior calendar year
12 through the use of clean energy.

13 "(B) For incremental hydropower the clean energy credits shall be calculated based
14 on the increase in average annual generation resulting from the efficiency
15 improvements or capacity additions. The number of credits shall be calculated using
16 the same water flow information used to determine a historic average annual
17 generation baseline for the hydroelectric facility and certified by the Secretary or the
18 Commission. The calculation of the clean energy credits for incremental hydropower
19 shall not be based on any operational changes at the hydroelectric facility not directly
20 associated with the efficiency improvements or capacity additions.

21 "(C) The Secretary shall issue two clean energy credits for each kilowatt hour of
22 electric energy generated and supplied to the grid in the prior calendar year through
23 the use of clean energy at a facility located on Indian land. For purposes of this

1 paragraph, clean energy generated by biomass cofired with other fuels is eligible for
2 two credits only if the biomass was grown on such land.

3 "(D) In the case of a retail electric supplier that is subject to a State renewable
4 standard program that requires the generation or purchase of electricity from
5 renewable energy; provides for alternative compliance payments in satisfaction of
6 applicable State requirements under the program; provides for compliance through the
7 acquisition of certificates or credits; provides for other financial compliance
8 mechanisms; or imposes a penalty in the event of a failure to meet applicable
9 requirements, the Secretary shall issue clean energy credits in an amount that
10 corresponds to the kilowatt-hour obligation--

11 (i) represented by the State alternative compliance payment, credit or certificate
12 payment, other financial compliance payment or penalty payment as though that
13 payment had been made to the Secretary under subsection (h) or

14 (ii) satisfied under the State program through the use of an eligible technology or
15 eligible resource as defined by the State.

16 Such clean energy credits may be applied against the retail electric supplier's own
17 required annual percentage under subsection (b) or may be transferred for use only by
18 an associate company of the retail electric supplier. For purposes of this subsection,
19 "associate company" shall have the meaning in Section 1262 of the Public Utility
20 Holding Company Act of 2005.

21 "(E) In the case of a retail electric supplier that meets the criteria under
22 subsection (d) (1) (D), the Secretary shall issue clean energy credits in an amount
23 that corresponds to the amount of eligible expenditures as though those eligible

1 expenditures had been payments made to the Secretary under subsection (h). Such
2 clean energy credits may be applied against the retail electric supplier's own required
3 annual percentage or may be transferred for use only by an associate company of
4 the retail electric supplier.

5 "(F) To be eligible for a clean energy credit, the unit of electric energy generated
6 through the use of a clean energy resource must be either sold or used by the
7 generator. If both a renewable energy resource and a non-renewable energy
8 resource are used to generate the electric energy, the Secretary shall issue clean
9 energy credits based on the proportion of the renewable energy resources used. The
10 Secretary shall identify renewable energy credits by type and year of generation.

11 "(G) When a generator sells electric energy generated through the use of a clean
12 energy resource to a retail electric supplier under a contract subject to section 210 of
13 this Act or pursuant to a State net metering program, the retail electric supplier shall
14 be treated as the generator of the electric energy for the purposes of this section for
15 the duration of the contract.

16
17 **"(f) Clean Energy Credit Trading.**— A clean energy credit may be sold,
18 transferred or exchanged by the entity to whom issued or by any other entity who
19 acquires the renewable energy credit, except for those clean energy credits issued
20 pursuant to subsections (e)(3)(D) and (E). A clean energy credit for any year that is
21 not used to satisfy the minimum renewable generation requirement of subsection (b)
22 for that year may be carried forward for use within the next 4 years.

1 **"(g) Clean Energy Credit Borrowing.**— At any time before the end of calendar
2 year 2010 and any subsequent calendar year, a retail electric supplier that has
3 reason to believe it will not have sufficient clean energy credits to comply with
4 subsection (b) may --

5 "(1) submit a plan to the Secretary demonstrating that the retail electric supplier will
6 earn sufficient credits within the next 6 calendar years (or longer if the retail electric
7 supplier intends to obtain credits for new nuclear power) which, when taken into
8 account, will enable the retail electric supplier's to meet the requirements of
9 subsection (b) for calendar year 2010 and the subsequent calendar years involved;
10 and

11 "(2) upon the approval of the plan by the Secretary, apply clean energy credits that
12 the plan demonstrates will be earned within the next 6 calendar years (or longer if the
13 retail electric supplier intends to obtain credits for new nuclear power) to meet the
14 requirements of subsection (b) for each calendar year involved.

15

16 **"(h) Credit Cost Cap.**— The Secretary shall offer clean energy credits for sale at
17 the lesser of 2.0 cents per kilowatt-hour or 200 percent of the average market value of
18 clean energy credits for the applicable compliance period.

19

20 **"(i) Enforcement.**— The Secretary may assess a civil penalty on a retail electric
21 supplier that does not comply with subsection (b), unless the retail electric supplier
22 was unable to comply with subsection (b) for reasons outside of the supplier's
23 reasonable control (including weather-related damage, mechanical failure, lack of

1 transmission capacity or availability, strikes, lockouts, or actions of a governmental
2 authority). A retail electric supplier who does not submit the required number of clean
3 energy credits under subsection (b) shall be subject to a civil penalty of not more than
4 the lesser of 2.0 cents or 200 percent of the average market value of credits for the
5 compliance period for each clean energy credit not submitted.

6
7 **"(j) Information Collection.**— The Secretary may collect the information
8 necessary to verify and audit--

9 "(1) the annual electric energy generation and clean energy generation of any entity
10 applying for clean energy credits under this section,

11 "(2) the validity of clean energy credits submitted by a retail electric supplier to the
12 Secretary, and

13 "(3) the quantity of electricity sales of all retail electric suppliers.

14
15 **"(k) Environmental Savings Clause.**— Incremental hydropower shall be subject
16 to all applicable environmental laws and licensing and regulatory requirements.

17
18 **"(l) Existing Programs.**— (1) State Savings Clause.--This section does not
19 preclude a State from imposing additional clean energy requirements in that State,
20 including specifying eligible technologies under such State requirements.

21 "(2) Coordination. --In the rule establishing this program, the Secretary shall
22 incorporate common elements of existing clean energy programs, including state
23 programs, to ensure administrative efficiency, market liquidity and effective

1 enforcement. The Secretary shall work with the States to minimize administrative
2 burdens and costs and to avoid duplicating compliance charges to retail electric
3 suppliers.

4

5 **"(m) Definitions.**— For purposes of this section:

6

7 "(1) Biomass.--The term 'biomass' means any organic material that is available on a
8 renewable or recurring basis, including dedicated energy crops, trees grown for
9 energy production, wood waste and wood residues, plants (including aquatic plants,
10 grasses, and agricultural crops), residues, fibers, animal wastes and other organic
11 waste materials, and fats and oils, except that with respect to material removed from
12 National Forest System lands the term includes only organic material from --

13 "(A) thinnings from trees that are less than 12 inches in diameter;

14 "(B) slash;

15 "(C) brush; and

16 "(D) mill residues.

17

18 "(2) Demand side management.- The term 'demand side management'
19 means management of customer consumption of electricity or the demand for
20 electricity through the implementation of energy efficiency technologies, management
21 practices or other measures relating to residential, commercial, industrial, institutional
22 or government customers that reduce electricity consumption by those customers or
23 industrial by-product technologies consisting of the use of a by-product from an

1 industrial process, including the reuse of energy from exhaust gasses or other
2 manufacturing by-products that are used in the direct production of electricity at the
3 facility of a customer. Such term shall also include --

4 "(A) distributed generation technologies, including on-site renewable
5 energy systems and fuel cells;

6 "(B) energy efficiency technologies, including generation technologies to
7 improve efficiency and grid technologies to reduce line losses and otherwise
8 improve transmission efficiency; and

9 "(C) demand management techniques or processes.

10

11 "(3) Eligible demand side management products or services.- The term 'eligible
12 demand side management products or services' means demand side management
13 measures offered by a retail electric supplier pursuant to energy conservation,
14 efficiency and/or demand side management plans and programs established under
15 state law or regulation and approved by the appropriate state regulatory authorities.

16 "(4) Incremental hydropower.--The term 'incremental hydropower' means additional
17 generation that is achieved from increased efficiency or additions of capacity that is
18 placed in service on or after January 1, 2005 or the effective date of the applicable
19 State renewable portfolio standard program, at a hydroelectric dam that was placed in
20 service before that date.

21

22 "(5) Indian land.--The term 'Indian land' means--

23 "(A) any land within the limits of any Indian reservation, pueblo, or rancharia,

1 "(B) any land not within the limits of any Indian reservation, pueblo, or rancheria title
2 to which was on the date of enactment of this paragraph either held by the United
3 States for the benefit of any Indian tribe or individual or held by any Indian tribe or
4 individual subject to restriction by the United States against alienation,

5 "(C) any dependent Indian community, and

6 "(D) any land conveyed to any Alaska Native corporation under the Alaska Native
7 Claims Settlement Act.

8

9 "(6) Indian tribe.--The term 'Indian tribe' means any Indian tribe, band, nation, or
10 other organized group or community, including any Alaskan Native village or regional
11 or village corporation as defined in or established pursuant to the Alaska Native
12 Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the
13 special programs and services provided by the United States to Indians because of
14 their status as Indians.

15

16 "(7) Inherently low emissions facility. The term 'inherently low emissions facility'
17 means an integrated gasification combined cycle generation facility that provides for
18 carbon capture and sequestration or a new nuclear power facility.

19

20 "(8) New hydropower. The term 'new hydropower' mean electricity generated at a
21 dam, resevoir or pumped storage facility that was placed in service after January 1,
22 2005.

23

1 “(9) New nuclear power. The term ‘new nuclear power’ means electric energy that is
2 generated from a nuclear facility placed in service after January 1, 2010.

3

4 “(10) Clean energy.--The term ‘clean energy’ means electric energy generated by a
5 clean energy resource.

6

7 “(11) Clean energy resource.--The term ‘clean energy resource’ means solar
8 (including solar water heating), wind, ocean, or geothermal energy, fuel cells
9 (including zero emission regenerative fuel cell technology), biomass, solid waste (as
10 defined in the Solid Waste disposal Act, 42 U.S.C. sec. 6901 et seq.), landfill gas,
11 incremental hydropower or, an inherently low emissions facility.

12

13 “(12) Retail electric supplier.--The term ‘retail electric supplier’ means a person or
14 entity that sold not less than 500,000 megawatt hours of electric energy to electric
15 consumers for purposes other than resale in any calendar year before January 1,
16 2005, and a person or entity that first sold electric energy to electric consumers for
17 purposes other than resale after January 1, 2005.

18

19 “(13) Retail electric supplier's base amount.--The term ‘retail electric supplier's base
20 amount’ means the average annual amount of electric energy sold by the retail
21 electric supplier to electric consumers for purposes other than resale, expressed in
22 terms of kilowatt hours, during calendar years 2005 to 2007 or as otherwise
23 determined by the Secretary. The Secretary shall issue rules within two years of

1 enactment of this Act to establish the calculation of the base amount for retail electric
2 suppliers that initiate sales after January 1, 2008, and how adjustments will be made
3 for material changes in marketing patterns or other unusual circumstances in or since
4 the base period.

5
6 "(14) Retail electric supplier's incremental electric sales. The term 'retail electric
7 supplier's incremental electric sales' means the difference between a retail electric
8 supplier's sales to electric consumers in a given year and the retail electric supplier's
9 base amount.

10
11 **"(n) Recovery of Costs.**— Any costs that will be incurred by a retail electric
12 supplier in order to comply with the requirements of this section shall be deemed
13 necessary and reasonable costs and shall be fully and contemporaneously
14 recoverable in all jurisdictions. A retail electric supplier whose sales of electric energy
15 are subject to any form of rate regulation, including any utility whose rates are
16 regulated by the Commission and any State regulated electric utility, shall not be
17 denied the opportunity to recover the full amount of the prudently incurred incremental
18 cost of energy obtained to comply with the requirements of subsection (b) for sales to
19 electric customers which are subject to any form of rate regulation, notwithstanding
20 any other law, regulation, rule, administrative order or any agreement between the
21 electric utility and either the Commission or a State regulatory authority. For the
22 purpose of this subsection, the term 'incremental cost of energy' means--

1 "(1) the cost to the electric utility for transmission and the purchase or generation of
2 energy to satisfy the minimum clean energy generation requirement of subsection (b);
3 and

4 "(2) the cost to the electric utility for acquiring renewable energy credits to satisfy
5 the minimum clean energy- generation requirement of subsection (b), including the
6 costs for alternative compliance payments, credit or certificate purchases and other
7 financial compliance payments made to states.

8

9 "**(o) Program Review.**— The Secretary shall conduct a comprehensive evaluation
10 of all aspects of the Clean Energy Standard program, within 10 years of enactment of
11 this section. The study shall include an evaluation of --

12 (1)The effectiveness of the program in increasing the market penetration and
13 lower the cost of the eligible renewable technologies,

14 (2)The opportunities for any additional technologies emerging since enactment
15 of this section,

16 (3)The impact on the regional diversity and reliability of supply sources,
17 including the power quality benefits of distributed generation,

18 (4)The regional resource development relative to renewable potential and
19 reasons for any under investment in renewable resources,

20 (5)The net cost/benefit of the clean energy standard to the national and state
21 economies, including retail power costs, economic development benefits of
22 investment, avoided costs related to environmental and congestion mitigation
23 investments that would otherwise have been required, impact on natural gas demand

1 and price, effectiveness of green marketing programs at reducing the cost of
2 renewable resources, and

3 (6) The flexibility granted to any State under subsection (q).

4 The Secretary shall transmit the results of the program review and any
5 recommendations for modifications and improvements to the program to Congress not
6 later than January 1, 2016.

7

8 **“(p) Program Improvements.**— Using the results of the review under subsection
9 (o), the Secretary shall by rule, within 6 months of the completion of the review, make
10 such modifications to the program as may be necessary to improve the efficiency of
11 the program and maximize the use of clean energy under the program. In making
12 such rule, the Secretary shall be authorized, notwithstanding subsection (n)(12) to
13 expand the definition of renewable energy resource to include new technologies the
14 Secretary determines have characteristics in common with other renewable energy
15 resources listed in subsection (l)(12).

16

17 **(q) State Flexibility.**— Within one year of enactment of this Section, any State
18 that has reason to believe that the cost of complying with the requirements of
19 subsection 609(a) shall cause undue economic hardship to the ultimate purchasers of
20 electricity in that State, including manufacturing and industrial users of electricity, may
21 petition the Secretary to grant a waiver from the requirements of Section 609 for retail
22 electric suppliers selling electricity to end use customers in that State. The Secretary
23 shall grant such a waiver if he finds that the requirements of this section are likely to

1 cause undue economic hardship to ultimate purchasers of electricity in that State. In
2 making a determination on a State petition under this paragraph, the Secretary shall
3 take into account (a) the adequacy of commercially available clean energy resources
4 within the State, (b) the potential clean energy resources available within the region
5 and (c) the cost of developing those resources at current and reasonably expected
6 levels of technology, including the cost and availability of existing and needed
7 transmission facilities to transmit electric energy from such clean energy resources to
8 customers within the State, and (d) the economic and related impacts of such costs on
9 ultimate purchasers within the State.

10

11 **"(r) Sunset.**— This section expires December 31, 2030."

12

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14

15