## **Appendix D: Request Letter and Bill**

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## United States Senate

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, DC 20510–6150
ENERGY SENATE GOV

February 10, 2012

Dr. Howard Gruenspecht Acting Administrator Energy Information Administration 1000 Independence Ave. SW Washington, DC 20585

Dear Dr. Gruenspecht:

Over the past decade, Congress has considered many different legislative proposals to drive the development and deployment of clean energy generating technologies in the power sector and reduce the greenhouse gases resulting from the generation of electricity. During the current Congress I have focused my attention in this regard on a policy to establish a national Clean Energy Standard (CES) that would require an increasing percentage of electricity to be generated from clean sources. Your analysis of a series of policy options for the design of a CES in response to my request this past August has helped to inform the final legislation that I plan to introduce. I am writing to request that you conduct an updated analysis of the effects of my proposed CES legislation.

The primary elements of the policy proposal to analyze should be as follows:

- The entities subject to the CES include all electric service providers that sell electricity to retail consumers. The base against which the clean requirement should be calculated is defined as all electric utility retail sales in a given calendar year.
- The assumptions for the policy should be based on the Early Release version of the 2012 *Annual Energy Outlook* report.
- Full or partial clean energy credits should be awarded to generators placed in service after December 31, 1991 that have a lower carbon-intensity (as measured on a carbon dioxide equivalency basis) than that of new supercritical coal generation ("new scrubbed coal plant" as defined in Table 8.2 of

Assumptions to the Annual Energy Outlook 2011,

http://www.eia.gov/forecasts/aeo/assumptions/pdf/electricity.pdf). Zero emission generation technologies should receive 1 credit for each MWh of retail electricity sold. Fossil generation with a carbon intensity equal to or greater than new supercritical coal should receive zero credits. Partial credits should be awarded to fossil-fuel utilities generating with a lower carbon-intensity than supercritical coal proportional to their

- improvement over supercritical coal per MWh.
- · Clean energy credits may be banked indefinitely.
- Although not earning credits toward each utility's requirement, generation from existing
  nuclear and hydroelectric utilities placed in service on or before December 31, 1991
  should be counted towards the overall goal, and their generation should be deducted from
  the base against which a utility's requirement is calculated.
- Utilities should alternately be able to achieve compliance through a payment that begins at 3.0 cents per kilowatt hour and rises at an inflation-adjusted rate of 5% per year.
- Utilities with sales lower than the level of the small utility exemption specified in the following table should not face a clean energy compliance obligation.

| Year of compliance | Annual retail sales (MWh) |
|--------------------|---------------------------|
| 2015               | 2,000,000                 |
| 2016               | 1,900,000                 |
| 2017               | 1,800,000                 |
| 2018               | 1,700,000                 |
| 2019               | 1,600,000                 |
| 2020               | 1,500,000                 |
| 2021               | 1,400,000                 |
| 2022               | 1,300,000                 |
| 2023               | 1,200,000                 |
| 2024               | 1,100,000                 |
| 2025-2035          | 1,000,000                 |

• The overall targets for clean energy should be as follows:

| Year of compliance | Overall Clean Energy Target |
|--------------------|-----------------------------|
| 2015               | 45%                         |
| 2020               | 50%                         |
| 2025               | 60%                         |
| 2030               | 70%                         |
| 2035               | 80%                         |

• The overall clean energy targets should be increased linearly between each interim target, and held constant after 2035. The total clean energy required based on covered sales, plus any non-targeted clean energy (existing nuclear and hydro generation), should be equal to the share of electricity sales indicated in the table above from utilities with retail sales above the annual level of the small utility exemption.

In your analysis of these policy scenarios, I ask that you specifically address:

 The impact on deployment of clean technologies in terms of both type and scale nationally and by region, as well as the change in total generation mix to determine what resources new clean generation is displacing.

- The annual impact on electricity and natural gas prices on both a regional and national basis throughout the projection period as compared to a business-as-usual baseline.
- The impact of the proposal on total U.S. greenhouse gas emissions and on power sector greenhouse gas emissions.
- The anticipated use of the alternative compliance payment.

Thank you for your attention to this request. I ask that my staff be briefed prior to the release of information. Should you or your staff have any questions, please contact Kevin Rennert with the Senate Committee on Energy and Natural Resources at (202) 224-7826.

Sincerely

Jeff Bingaman

#### 112TH CONGRESS 2D SESSION

# S. 2146

To amend the Public Utility Regulatory Policies Act of 1978 to create a market-oriented standard for clean electric energy generation, and for other purposes.

### IN THE SENATE OF THE UNITED STATES

March 1, 2012

Mr. BINGAMAN (for himself, Mr. WYDEN, Mr. SANDERS, Mr. UDALL of Colorado, Mr. Franken, Mr. Coons, Mr. Kerry, Mr. Whitehouse, and Mr. Udall of New Mexico) 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 create a market-oriented standard for clean electric energy generation, 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 "Clean Energy Stand-
- 5 ard Act of 2012".

### 1 SEC. 2. FEDERAL CLEAN ENERGY STANDARD. 2 Title VI of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is amended by adding at the end the following: 4 5 "SEC. 610. FEDERAL CLEAN ENERGY STANDARD. 6 "(a) Purpose.—The purpose of this section is to create a market-oriented standard for electric energy generation that stimulates clean energy innovation and promotes a diverse set of low- and zero-carbon generation solutions in the United States at the lowest incremental cost to elec-11 tric consumers. "(b) Definitions.—In this section: 12 13 "(1) CLEAN ENERGY.—The term 'clean energy' 14 means electric energy that is generated— "(A) at a facility placed in service after 15 16 December 31, 1991, using— "(i) renewable energy; 17 "(ii) qualified renewable biomass; 18 19 "(iii) natural gas; 20 "(iv) hydropower; 21 "(v) nuclear power; or "(vi) qualified waste-to-energy; 22 "(B) at a facility placed in service after 23 the date of enactment of this section, using-24 25 "(i) qualified combined heat and 26 power; or

| 1  | "(ii) a source of energy, other than             |
|----|--------------------------------------------------|
| 2  | biomass, with lower annual carbon inten-         |
| 3  | sity than 0.82 metric tons of carbon diox-       |
| 4  | ide equivalent per megawatt-hour;                |
| 5  | "(C) as a result of qualified efficiency im-     |
| 6  | provements or capacity additions; or             |
| 7  | "(D) at a facility that captures carbon di-      |
| 8  | oxide and prevents the release of the carbon di- |
| 9  | oxide into the atmosphere.                       |
| 10 | "(2) Natural Gas.—                               |
| 11 | "(A) Inclusion.—The term 'natural gas'           |
| 12 | includes coal mine methane.                      |
| 13 | "(B) Exclusions.—The term 'natural               |
| 14 | gas' excludes landfill methane and biogas.       |
| 15 | "(3) Qualified combined heat and                 |
| 16 | POWER.—                                          |
| 17 | "(A) IN GENERAL.—The term 'qualified             |
| 18 | combined heat and power' means a system          |
| 19 | that—                                            |
| 20 | "(i) uses the same energy source for             |
| 21 | the simultaneous or sequential generation        |
| 22 | of electrical energy and thermal energy;         |
| 23 | "(ii) produces at least—                         |

| 1  | "(I) 20 percent of the useful en-              |
|----|------------------------------------------------|
| 2  | ergy of the system in the form of elec-        |
| 3  | tricity; and                                   |
| 4  | "(II) 20 percent of the useful en-             |
| 5  | ergy in the form of useful thermal en-         |
| 6  | ergy;                                          |
| 7  | "(iii) to the extent the system uses           |
| 8  | biomass, uses only qualified renewable bio-    |
| 9  | mass; and                                      |
| 10 | "(iv) operates with an energy effi-            |
| 11 | ciency percentage that is greater than 50      |
| 12 | percent.                                       |
| 13 | "(B) Determination of energy effi-             |
| 14 | CIENCY.—For purposes of subparagraph (A),      |
| 15 | the energy efficiency percentage of a combined |
| 16 | heat and power system shall be determined in   |
| 17 | accordance with section 48(c)(3)(C)(i) of the  |
| 18 | Internal Revenue Code of 1986.                 |
| 19 | "(4) Qualified efficiency improvements         |
| 20 | OR CAPACITY ADDITIONS.—                        |
| 21 | "(A) In General.—Subject to subpara-           |
| 22 | graphs (B) and (C), the term 'qualified effi-  |
| 23 | ciency improvements or capacity additions'     |
| 24 | means efficiency improvements or capacity ad-  |
| 25 | ditions made after December 31, 1991, to—      |

| 1  | "(i) a nuclear facility placed in service           |
|----|-----------------------------------------------------|
| 2  | on or before December 31, 1991; or                  |
| 3  | "(ii) a hydropower facility placed in               |
| 4  | service on or before December 31, 1991.             |
| 5  | "(B) Exclusion.—The term 'qualified ef-             |
| 6  | ficiency improvements or capacity additions'        |
| 7  | does not include additional electric energy gen-    |
| 8  | erated as a result of operational changes not di-   |
| 9  | rectly associated with efficiency improvements      |
| 10 | or capacity additions.                              |
| 11 | "(C) Measurement and Certifi-                       |
| 12 | CATION.—In the case of hydropower, efficiency       |
| 13 | improvements and capacity additions under this      |
| 14 | paragraph shall be—                                 |
| 15 | "(i) measured on the basis of the                   |
| 16 | same water flow information that is used            |
| 17 | to determine the historic average annual            |
| 18 | generation for the applicable hydroelectric         |
| 19 | facility; and                                       |
| 20 | "(ii) certified by the Secretary or the             |
| 21 | Commission.                                         |
| 22 | "(5) Qualified renewable biomass.—The               |
| 23 | term 'qualified renewable biomass' means renewable  |
| 24 | biomass produced and harvested through land man-    |
| 25 | agement practices that maintain or restore the com- |

| 1  | position, structure, and processes of ecosystems, in- |
|----|-------------------------------------------------------|
| 2  | cluding the diversity of plant and animal commu-      |
| 3  | nities, water quality, and the productive capacity of |
| 4  | soil and the ecological systems.                      |
| 5  | "(6) Qualified waste-to-energy.—The                   |
| 6  | term 'qualified waste-to-energy' means energy pro-    |
| 7  | duced—                                                |
| 8  | "(A) from the combustion of—                          |
| 9  | "(i) post-recycled municipal solid                    |
| 10 | waste;                                                |
| 11 | "(ii) gas produced from the gasifi-                   |
| 12 | cation or pyrolization of post-recycled mu-           |
| 13 | nicipal solid waste;                                  |
| 14 | "(iii) biogas;                                        |
| 15 | "(iv) landfill methane;                               |
| 16 | "(v) animal waste or animal byprod-                   |
| 17 | ucts; or                                              |
| 18 | "(vi) wood, paper products that are                   |
| 19 | not commonly recyclable, and vegetation               |
| 20 | (including trees and trimmings, yard                  |
| 21 | waste, pallets, railroad ties, crates, and            |
| 22 | solid-wood manufacturing and construction             |
| 23 | debris), if diverted from or separated from           |
| 24 | other waste out of a municipal waste                  |
| 25 | stream; and                                           |

| 1  | "(B) at a facility that the Commission has            |
|----|-------------------------------------------------------|
| 2  | certified, on an annual basis, is in compliance       |
| 3  | with all applicable Federal and State environ-        |
| 4  | mental permits, including—                            |
| 5  | "(i) in the case of a facility that com-              |
| 6  | mences operation before the date of enact-            |
| 7  | ment of this section, compliance with emis-           |
| 8  | sion standards under sections 112 and 129             |
| 9  | of the Clean Air Act (42 U.S.C. 7412,                 |
| 10 | 7429) that apply as of the date of enact-             |
| 11 | ment of this section to new facilities within         |
| 12 | the applicable source category; and                   |
| 13 | "(ii) in the case of a facility that pro-             |
| 14 | duces electric energy from the combustion,            |
| 15 | pyrolization, or gasification of municipal            |
| 16 | solid waste, certification that each local            |
| 17 | government unit from which the waste                  |
| 18 | originates operates, participates in the op-          |
| 19 | eration of, contracts for, or otherwise pro-          |
| 20 | vides for recycling services for residents of         |
| 21 | the local government unit.                            |
| 22 | "(7) Renewable energy.—The term 'renew-               |
| 23 | able energy' means solar, wind, ocean, current, wave, |
| 24 | tidal, or geothermal energy.                          |
| 25 | "(c) Clean Energy Requirement.—                       |

"(1) In general.—Effective beginning in calendar year 2015, each electric utility that sells electric energy to electric consumers in a State shall obtain a percentage of the electric energy the electric utility sells to electric consumers during a calendar year from clean energy.

"(2) PERCENTAGE REQUIRED.—The percentage of electric energy sold during a calendar year that is required to be clean energy under paragraph (1) shall be determined in accordance with the following table:

| "Calendar year | Minimum<br>annual<br>percentage |
|----------------|---------------------------------|
| 2015           | 24                              |
| 2016           | 27                              |
| 2017           | 30                              |
| 2018           | 33                              |
| 2019           | 36                              |
| 2020           | 39                              |
| 2021           | 42                              |
| 2022           | 45                              |
| 2023           | 48                              |
| 2024           | 51                              |
| 2025           | 54                              |
| 2026           | 57                              |
| 2027           | 60                              |
| 2028           | 63                              |
| 2029           | 66                              |
| 2030           | 69                              |
| 2031           | 72                              |
| 2032           | 75                              |
| 2033           | 78                              |
| 2034           | 81                              |
| 2035           | 84.                             |

12 "(3) DEDUCTION FOR ELECTRIC ENERGY GEN-13 ERATED FROM HYDROPOWER OR NUCLEAR

1 POWER.—An electric utility that sells electric energy 2 to electric consumers from a facility placed in service 3 in the United States on or before December 31, 4 1991, using hydropower or nuclear power may de-5 duct the quantity of the electric energy from the 6 quantity to which the percentage in paragraph (2) 7 applies. 8 "(d) MEANS OF COMPLIANCE.—An electric utility 9 shall meet the requirements of subsection (c) by— 10 "(1) submitting to the Secretary clean energy 11 credits issued under subsection (e); 12 "(2) making alternative compliance payments of 13 3 cents per kilowatt hour in accordance with sub-14 section (i); or 15 "(3) taking a combination of actions described 16 in paragraphs (1) and (2). 17 "(e) Federal Clean Energy Trading Pro-18 GRAM.— "(1) Establishment.—Not later than 180 19 20 days after the date of enactment of this section, the 21 Secretary shall establish a Federal clean energy 22 credit trading program under which electric utilities 23

may submit to the Secretary clean energy credits to

certify compliance by the electric utilities with sub-

section (c).

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25

| 1  | "(2) CLEAN ENERGY CREDITS.—Except as pro-            |
|----|------------------------------------------------------|
| 2  | vided in paragraph (3)(B), the Secretary shall issue |
| 3  | to each generator of electric energy a quantity of   |
| 4  | clean energy credits determined in accordance with   |
| 5  | subsections (f) and (g).                             |
| 6  | "(3) Administration.—In carrying out the             |
| 7  | program under this subsection, the Secretary shall   |
| 8  | ensure that—                                         |
| 9  | "(A) a clean energy credit shall be used             |
| 10 | only once for purposes of compliance with this       |
| 11 | section; and                                         |
| 12 | "(B) a clean energy credit issued for clean          |
| 13 | energy generated and sold for resale under a         |
| 14 | contract in effect on the date of enactment of       |
| 15 | this section shall be issued to the purchasing       |
| 16 | electric utility, unless otherwise provided by the   |
| 17 | contract.                                            |
| 18 | "(4) Delegation of Market function.—                 |
| 19 | "(A) In general.—In carrying out the                 |
| 20 | program under this subsection, the Secretary         |
| 21 | may delegate—                                        |
| 22 | "(i) to 1 or more appropriate market-                |
| 23 | making entities, the administration of a             |
| 24 | national clean energy credit market for              |
| 25 | purposes of establishing a transparent na-           |

| 1  | tional market for the sale or trade of clean             |
|----|----------------------------------------------------------|
| 2  | energy credits; and                                      |
| 3  | "(ii) to appropriate entities, the track-                |
| 4  | ing of dispatch of clean generation.                     |
| 5  | "(B) Administration.—In making a del-                    |
| 6  | egation under subparagraph (A)(ii), the Sec-             |
| 7  | retary shall ensure that the tracking and re-            |
| 8  | porting of information concerning the dispatch           |
| 9  | of clean generation is transparent, verifiable,          |
| 10 | and independent of any generation or load in-            |
| 11 | terests subject to an obligation under this sec-         |
| 12 | tion.                                                    |
| 13 | "(5) Banking of clean energy credits.—                   |
| 14 | Clean energy credits to be used for compliance pur-      |
| 15 | poses under subsection (c) shall be valid for the year   |
| 16 | in which the clean energy credits are issued or in       |
| 17 | any subsequent calendar year.                            |
| 18 | "(f) Determination of Quantity of Credit.—               |
| 19 | "(1) In general.—Except as otherwise pro-                |
| 20 | vided in this subsection, the quantity of clean energy   |
| 21 | credits issued to each electric utility generating elec- |
| 22 | tric energy in the United States from clean energy       |
| 23 | shall be equal to the product of—                        |

| 1  | "(A) for each generator owned by a utility,           |
|----|-------------------------------------------------------|
| 2  | the number of megawatt-hours of electric en-          |
| 3  | ergy sold from that generator by the utility; and     |
| 4  | "(B) the difference between—                          |
| 5  | "(i) 1.0; and                                         |
| 6  | "(ii) the quotient obtained by divid-                 |
| 7  | ing—                                                  |
| 8  | "(I) the annual carbon intensity                      |
| 9  | of the generator, as determined in ac-                |
| 10 | cordance with subsection (g), ex-                     |
| 11 | pressed in metric tons per megawatt-                  |
| 12 | hour; by                                              |
| 13 | "(II) 0.82.                                           |
| 14 | "(2) Negative credits.—Notwithstanding                |
| 15 | any other provision of this subsection, the Secretary |
| 16 | shall not issue a negative quantity of clean energy   |
| 17 | credits to any generator.                             |
| 18 | "(3) Qualified combined heat and                      |
| 19 | POWER.—                                               |
| 20 | "(A) IN GENERAL.—The quantity of clean                |
| 21 | energy credits issued to an owner of a qualified      |
| 22 | combined heat and power system in the United          |
| 23 | States shall be equal to the difference be-           |
| 24 | tween—                                                |

| 1  | "(i) the product obtained by multi-   |
|----|---------------------------------------|
| 2  | plying—                               |
| 3  | "(I) the number of megawatt-          |
| 4  | hours of electric energy generated by |
| 5  | the system; and                       |
| 6  | "(II) the difference between—         |
| 7  | "(aa) 1.0; and                        |
| 8  | "(bb) the quotient obtained           |
| 9  | by dividing—                          |
| 10 | "(AA) the annual car-                 |
| 11 | bon intensity of the gener-           |
| 12 | ator, as determined in ac-            |
| 13 | cordance with subsection              |
| 14 | (g), expressed in metric tons         |
| 15 | per megawatt-hour; by                 |
| 16 | "(BB) 0.82; and                       |
| 17 | "(ii) the product obtained by multi-  |
| 18 | plying—                               |
| 19 | "(I) the number of megawatt-          |
| 20 | hours of electric energy generated by |
| 21 | the system that are consumed onsite   |
| 22 | by the facility; and                  |
| 23 | $(\Pi)$ the annual target for elec-   |
| 24 | tric energy sold during a calendar    |

| 1  | year that is required to be clean en-                  |
|----|--------------------------------------------------------|
| 2  | ergy under subsection $(c)(2)$ .                       |
| 3  | "(B) Additional credits.—In addition                   |
| 4  | to credits issued under subparagraph (A), the          |
| 5  | Secretary shall award clean energy credits to an       |
| 6  | owner of a qualified heat and power system in          |
| 7  | the United States for greenhouse gas emissions         |
| 8  | avoided as a result of the use of a qualified          |
| 9  | combined heat and power system, rather than a          |
| 10 | separate thermal source, to meet onsite thermal        |
| 11 | needs.                                                 |
| 12 | "(4) Qualified waste-to-energy.—The                    |
| 13 | quantity of clean energy credits issued to an electric |
| 14 | utility generating electric energy in the United       |
| 15 | States from a qualified waste-to-energy facility shall |
| 16 | be equal to the product obtained by multiplying—       |
| 17 | "(A) the number of megawatt-hours of                   |
| 18 | electric energy generated by the facility and          |
| 19 | sold by the utility; and                               |
| 20 | "(B) 1.0.                                              |
| 21 | "(g) Determination of Annual Carbon Inten-             |
| 22 | SITY OF GENERATING FACILITIES.—                        |
| 23 | "(1) In general.—For purposes of deter-                |
| 24 | mining the quantity of credits under subsection (f)    |
| 25 | except as provided in paragraph (2), the Secretary     |

| 1  | shall determine the annual carbon intensity of each |
|----|-----------------------------------------------------|
| 2  | generator by dividing—                              |
| 3  | "(A) the net annual carbon dioxide equiva-          |
| 4  | lent emissions of the generator; by                 |
| 5  | "(B) the annual quantity of electricity gen-        |
| 6  | erated by the generator.                            |
| 7  | "(2) Biomass.—The Secretary shall—                  |
| 8  | "(A) not later than 180 days after the date         |
| 9  | of enactment of this section, issue interim regu-   |
| 10 | lations for determining the carbon intensity        |
| 11 | based on an initial consideration of the issues     |
| 12 | to be reported on under subparagraph (B);           |
| 13 | "(B) not later than 180 days after the              |
| 14 | date of enactment of this section, enter into an    |
| 15 | agreement with the National Academy of              |
| 16 | Sciences under which the Academy shall—             |
| 17 | "(i) evaluate models and methodolo-                 |
| 18 | gies for quantifying net changes in green-          |
| 19 | house gas emissions associated with gener-          |
| 20 | ating electric energy from each significant         |
| 21 | source of qualified renewable biomass, in-          |
| 22 | cluding evaluation of additional sequestra-         |
| 23 | tion or emissions associated with changes           |
| 24 | in land use by the production of the bio-           |
| 25 | mass; and                                           |

| 1  | "(ii) not later than 1 year after the            |
|----|--------------------------------------------------|
| 2  | date of enactment of this section, publish       |
| 3  | a report that includes—                          |
| 4  | "(I) a description of the evalua-                |
| 5  | tion required by clause (i); and                 |
| 6  | "(II) recommendations for deter-                 |
| 7  | mining the carbon intensity of electric          |
| 8  | energy generated from qualified re-              |
| 9  | newable biomass under this section;              |
| 10 | and                                              |
| 11 | "(C) not later than 180 days after the           |
| 12 | publication of the report under subparagraph     |
| 13 | (B)(ii), issue regulations for determining the   |
| 14 | carbon intensity of electric energy generated    |
| 15 | from qualified renewable biomass that take into  |
| 16 | account the report.                              |
| 17 | "(3) Consultation.—The Secretary shall con-      |
| 18 | sult with—                                       |
| 19 | "(A) the Administrator of the Environ-           |
| 20 | mental Protection Agency in determining the      |
| 21 | annual carbon intensity of generating facilities |
| 22 | under paragraph (1); and                         |
| 23 | "(B) the Administrator of the Environ-           |
| 24 | mental Protection Agency, the Secretary of the   |
| 25 | Interior, and the Secretary of Agriculture in    |

| 1  | issuing regulations for determining the carbon          |
|----|---------------------------------------------------------|
| 2  | intensity of electric energy generated by bio-          |
| 3  | mass under paragraph (2)(C).                            |
| 4  | "(h) Civil Penalties.—                                  |
| 5  | "(1) In general.—Subject to paragraph (2),              |
| 6  | an electric utility that fails to meet the requirements |
| 7  | of this section shall be subject to a civil penalty in  |
| 8  | an amount equal to the product obtained by multi-       |
| 9  | plying—                                                 |
| 10 | "(A) the number of kilowatt-hours of elec-              |
| 11 | tric energy sold by the utility to electric con-        |
| 12 | sumers in violation of subsection (c); and              |
| 13 | "(B) 200 percent of the value of the alter-             |
| 14 | native compliance payment, as adjusted under            |
| 15 | subsection (m).                                         |
| 16 | "(2) Waivers and mitigation.—                           |
| 17 | "(A) FORCE MAJEURE.—The Secretary                       |
| 18 | may mitigate or waive a civil penalty under this        |
| 19 | subsection if the electric utility was unable to        |
| 20 | comply with an applicable requirement of this           |
| 21 | section for reasons outside of the reasonable           |
| 22 | control of the utility.                                 |
| 23 | "(B) REDUCTION FOR STATE PEN-                           |
| 24 | ALTIES.—The Secretary shall reduce the                  |
| 25 | amount of a penalty determined under para-              |

- 1 graph (1) by the amount paid by the electric 2 utility to a State for failure to comply with the 3 requirement of a State renewable energy pro-4 gram, if the State requirement is more strin-5 gent than the applicable requirement of this 6 section. 7 "(3) Procedure for assessing penalty.— 8 The Secretary shall assess a civil penalty under this 9 subsection in accordance with section 333(d) of the 10 Energy Policy and Conservation Act (42 U.S.C. 11 6303(d)). 12 "(i) Alternative Compliance Payments.—An electric utility may satisfy the requirements of subsection 13 14 (c), in whole or in part, by submitting in lieu of a clean energy credit issued under this section a payment equal 15 to the amount required under subsection (d)(2), in accord-16 ance with such regulations as the Secretary may promul-17 18 gate. 19 "(j) STATE ENERGY EFFICIENCY FUNDING PRO-20 GRAM.— 21
- "(1) Establishment.—Not later than Decem-
- 22 ber 31, 2015, the Secretary shall establish a State
- 23 energy efficiency funding program.
- 24 "(2) Funding.—All funds collected by the Sec-25 retary as alternative compliance payments under

| 1  | subsection (i), or as civil penalties under subsection |
|----|--------------------------------------------------------|
| 2  | (h), shall be used solely to carry out the program     |
| 3  | under this subsection.                                 |
| 4  | "(3) Distribution to States.—                          |
| 5  | "(A) IN GENERAL.—An amount equal to                    |
| 6  | 75 percent of the funds described in paragraph         |
| 7  | (2) shall be used by the Secretary, without fur-       |
| 8  | ther appropriation or fiscal year limitation, to       |
| 9  | provide funds to States for the implementation         |
| 10 | of State energy efficiency plans under section         |
| 11 | 362 of the Energy Policy and Conservation Act          |
| 12 | (42 U.S.C. 6322), in accordance with the pro-          |
| 13 | portion of those amounts collected by the Sec-         |
| 14 | retary from each State.                                |
| 15 | "(B) ACTION BY STATES.—A State that                    |
| 16 | receives funds under this paragraph shall main-        |
| 17 | tain such records and evidence of compliance as        |
| 18 | the Secretary may require.                             |
| 19 | "(4) Guidelines and Criteria.—The Sec-                 |
| 20 | retary may issue such additional guidelines and cri-   |
| 21 | teria for the program under this subsection as the     |
| 22 | Secretary determines to be appropriate.                |
| 23 | "(k) Exemptions.—                                      |
| 24 | "(1) In general.—This section shall not apply          |
| 25 | during any calendar year to an electric utility that   |

| 1  | sold less than the applicable quantity described in |
|----|-----------------------------------------------------|
| 2  | paragraph (2) of megawatt-hours of electric energy  |
| 3  | to electric consumers during the preceding calendar |
| 4  | year.                                               |
| 5  | "(2) Applicable quantity.—For purposes of           |
| 6  | paragraph (1), the applicable quantity is—          |
| 7  | "(A) in the case of calendar year 2015,             |
| 8  | 2,000,000;                                          |
| 9  | "(B) in the case of calendar year 2016,             |
| 10 | 1,900,000;                                          |
| 11 | "(C) in the case of calendar year 2017,             |
| 12 | 1,800,000;                                          |
| 13 | "(D) in the case of calendar year 2018,             |
| 14 | 1,700,000;                                          |
| 15 | "(E) in the case of calendar year 2019,             |
| 16 | 1,600,000;                                          |
| 17 | "(F) in the case of calendar year 2020,             |
| 18 | 1,500,000;                                          |
| 19 | "(G) in the case of calendar year 2021,             |
| 20 | 1,400,000;                                          |
| 21 | "(H) in the case of calendar year 2022,             |
| 22 | 1,300,000;                                          |
| 23 | "(I) in the case of calendar year 2023,             |
| 24 | 1,200,000;                                          |

| 1  | "(J) in the case of calendar year 2024,             |
|----|-----------------------------------------------------|
| 2  | 1,100,000; and                                      |
| 3  | "(K) in the case of calendar year 2025 and          |
| 4  | each calendar year thereafter, 1,000,000.           |
| 5  | "(3) Calculation of electric energy                 |
| 6  | SOLD.—                                              |
| 7  | "(A) Definitions.—In this subsection,               |
| 8  | the terms 'affiliate' and 'associate company'       |
| 9  | have the meanings given the terms in section        |
| 10 | 1262 of the Energy Policy Act of $2005$ (42)        |
| 11 | U.S.C. 16451).                                      |
| 12 | "(B) Inclusion.—For purposes of calcu-              |
| 13 | lating the quantity of electric energy sold by an   |
| 14 | electric utility under this subsection, the quan-   |
| 15 | tity of electric energy sold by an affiliate of the |
| 16 | electric utility or an associate company shall be   |
| 17 | treated as sold by the electric utility.            |
| 18 | "(l) State Programs.—                               |
| 19 | "(1) Savings provision.—                            |
| 20 | "(A) In general.—Subject to paragraph               |
| 21 | (2), nothing in this section affects the authority  |
| 22 | of a State or a political subdivision of a State    |
| 23 | to adopt or enforce any law or regulation relat-    |
| 24 | ing to—                                             |
| 25 | "(i) clean or renewable energy; or                  |

| 1  | "(ii) the regulation of an electric util-           |
|----|-----------------------------------------------------|
| 2  | ity.                                                |
| 3  | "(B) Federal Law.—No law or regula-                 |
| 4  | tion of a State or a political subdivision of a     |
| 5  | State may relieve an electric utility from com-     |
| 6  | pliance with an applicable requirement of this      |
| 7  | section.                                            |
| 8  | "(2) Coordination.—The Secretary, in con-           |
| 9  | sultation with States that have clean and renewable |
| 10 | energy programs in effect, shall facilitate, to the |
| 11 | maximum extent practicable, coordination between    |
| 12 | the Federal clean energy program under this section |
| 13 | and the relevant State clean and renewable energy   |
| 14 | programs.                                           |
| 15 | "(m) Adjustment of Alternative Compliance           |
| 16 | PAYMENT.—Not later than December 31, 2016, and an-  |
| 17 | nually thereafter, the Secretary shall—             |
| 18 | "(1) increase by 5 percent the rate of the alter-   |
| 19 | native compliance payment under subsection (d)(2);  |
| 20 | and                                                 |
| 21 | "(2) additionally adjust that rate for inflation,   |
| 22 | as the Secretary determines to be necessary.        |
| 23 | "(n) Report on Clean Energy Resources That          |
| 24 | Do Not Generate Electric Energy.—                   |

- "(1) IN GENERAL.—Not later than 3 years after the date of enactment of this section, the Secretary shall submit to Congress a report examining mechanisms to supplement the standard under this section by addressing clean energy resources that do not generate electric energy but that may substantially reduce electric energy loads, including energy efficiency, biomass converted to thermal energy, geothermal energy collected using heat pumps, thermal energy delivered through district heating systems, and waste heat used as industrial process heat.
  - "(2) POTENTIAL INTEGRATION.—The report under paragraph (1) shall examine the benefits and challenges of integrating the additional clean energy resources into the standard established by this section, including—
    - "(A) the extent to which such an integration would achieve the purposes of this section;
    - "(B) the manner in which a baseline describing the use of the resources could be developed that would ensure that only incremental action that increased the use of the resources received credit; and
    - "(C) the challenges of pricing the resources in a comparable manner between orga-

- nized markets and vertically integrated markets, including options for the pricing.
- "(3) COMPLEMENTARY POLICIES.—The report under paragraph (1) shall examine the benefits and challenges of using complementary policies or standards, other than the standard established under this section, to provide effective incentives for using the additional clean energy resources.
- 9 "(4) LEGISLATIVE RECOMMENDATIONS.—As
  10 part of the report under paragraph (1), the Sec11 retary may provide legislative recommendations for
  12 changes to the standard established under this sec13 tion or new complementary policies that would pro14 vide effective incentives for using the additional
  15 clean energy resources.
- "(o) Exclusions.—This section does not apply to anelectric utility located in the State of Alaska or Hawaii.
- "(p) REGULATIONS.—Not later than 1 year after the date of enactment of this section, the Secretary shall promulgate regulations to implement this section.
- 21 "SEC. 611. REPORT ON NATURAL GAS CONSERVATION.
- 22 "Not later than 2 years after the date of enactment
- 23 of this section, the Secretary shall submit to Congress a
- 24 report that—

| 1 | "(1) quantifies the losses of natural gas during     |
|---|------------------------------------------------------|
| 2 | the production and transportation of the natural     |
| 3 | gas; and                                             |
| 4 | "(2) makes recommendations, as appropriate,          |
| 5 | for programs and policies to promote conservation of |
| 5 | natural gas for beneficial use.".                    |

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