



# United States Senate Committee on **Energy & Natural Resources**

Chairman Jeff Bingaman

Democrat - New Mexico

## **THE CLEAN ENERGY STANDARD ACT OF 2012**

**Section 1.** The act may be cited as the “Clean Energy Standard Act of 2012”.

**Section 2:** *Federal Clean Energy Standard* - Amends the Public Utility Regulatory Policies Act (PURPA) to include a new Section 610 to implement a federal clean energy standard (CES) as follows:

### **Sec. 610 Federal Clean Energy Standard**

**(a) Purpose:** The purpose of the CES is to create a national, 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 U.S. at the lowest incremental cost to consumers.

**(b) Definitions and qualifications:**

- Clean energy is defined to mean:
  - electricity generated at a facility placed in service after 1991 using renewable energy, qualified renewable biomass, natural gas, hydropower, nuclear power, or qualified waste-to-energy; and
  - electricity generated at a facility placed in service after enactment that uses qualified combined heat and power (CHP), generates electricity with a carbon-intensity lower than 0.82 metric tons per megawatt-hour (the equivalent of new supercritical coal), or as a result of qualified efficiency improvements or capacity additions at existing nuclear or hydropower facilities.
  - electricity generated at a facility that captures and stores its carbon dioxide emissions
- The term natural gas includes coal mine methane.
- Qualified combined heat and power must generate at least 20% of its useful energy as electricity and 20% as heat, and have an overall system efficiency of greater than 50%.
- To be considered qualified renewable biomass, the biomass must be produced and harvested in an ecologically sustainable manner.
- Qualified waste-to-energy is defined to mean energy produced from the combustion of post-recycled municipal solid waste, animal waste or animal byproducts, biogas, landfill methane, or other biomass that has been diverted from or separated from other waste out of a municipal waste stream. Existing waste-to-energy facilities must be in compliance with all applicable environmental regulations for new facilities within the applicable source category under the Clean Air Act.
- Renewable energy is defined as solar, wind, ocean, current, wave, tidal, or geothermal energy.

**(c) Clean Energy Requirement:**

- Beginning in 2015, large utilities will have a requirement to obtain a percentage of the electricity they sell from clean energy sources.

- The requirement begins at 24% in 2015, and increases by 3% per year through 2035.
- Utilities may deduct the amount of electricity sold from nuclear and hydropower facilities placed in service before 1992 from their overall sales amount before calculating the percentage of clean energy needed for that year.

**(d) Means of Compliance:** Utilities may demonstrate compliance with the standard by providing clean energy credits, by making alternative compliance payments (ACP), or a combination of credits and alternative compliance payments. The ACP starts at 3 cents/kWh in 2015.

**(e) Federal Clean Energy Trading Program:** The Secretary of Energy is directed to establish a program by which utilities may submit clean energy credits to demonstrate compliance with the standard, and by which generators of clean energy are awarded clean energy credits to represent the clean electricity they have put onto the grid. Credits may be banked indefinitely, but may only be used once. Credits may be transferred, traded, or sold. The Secretary may delegate the administration of the market to 1 or more appropriate entities, and is directed to ensure proper tracking and reporting of relevant information.

**(f) Determination of quantity of credit:**

- In general, credits are awarded to clean energy generators according to the following formula:  
*Credits awarded per MWh = 1 – (carbon intensity of generator / 0.82).*  
The carbon intensity of the generator is measured in terms of metric tons of carbon dioxide per MWh of electricity generated.
- On the basis of the formula, generators with zero net carbon dioxide emissions (e.g. nuclear, hydropower, wind) would receive 1 full credit per MWh generated. A generator emitting 0.41 metric tons of carbon dioxide per MWh would receive 0.5 credits per MWh generated, and so on. A coal facility equipped with carbon capture and storage or cofiring with biomass would be awarded partial credits through this formula on the basis of its net emissions. No generators are awarded negative credits.
- A CHP unit may be awarded credits for its generation in a similar manner, and is also awarded additional partial credits to reflect the efficiency of using the heat from the combined system instead of installing a separate boiler.
- Qualified waste-to-energy facilities are awarded 1 clean energy credit per MWh of electricity generated.

**(g) Determination of annual carbon intensity**

- For fossil generators, the Secretary determines the annual carbon intensity by dividing the net annual carbon dioxide equivalent emissions by the total electricity generated.
- For generators combusting qualified renewable biomass, the Secretary is directed to issue interim regulations for determining the carbon intensity of various forms of biomass, and commission a National Academy of Sciences study to report on the net greenhouse gas emissions associated with generating electricity from each significant source of qualified renewable biomass. The study is to be completed within one year, and the Secretary shall take its findings into account, consult with the Administrator of the EPA, Secretary of Agriculture, and Secretary of the Interior, and issue a final rulemaking on the determination of carbon intensity for qualified renewable biomass.

**(h) Civil penalties:** A utility that fails to meet the standard is subject to a penalty of 200% of the alternative compliance payment for each kWh sold in violation of the standard. The Secretary may waive the civil penalty if a utility is unable to comply for reasons outside of its reasonable control. Penalties may be reduced by the

amount paid by the utility to a State for failure to comply with a State clean or renewable energy program if the State requirement is more stringent than the federal standard.

**(i) *Alternative compliance payment:*** A utility may satisfy its requirement, in whole or in part, by submitting payments at the level of that year's alternative compliance payment.

**(j) *State Energy Efficiency Funding Program:*** Any funds collected by the Secretary from alternative compliance payments or from civil penalties are directed back to the State from which the payments originated to fund State energy efficiency plans under Section 362 of the Energy Policy and Conservation Act.

**(k) *Small utility exemption:*** In 2015, utilities that sell fewer than 2 million MWh of electricity are exempt from any compliance obligation. The sales threshold for exemption decreases by 100,000 MWh per year until it reaches 1 million MWh in 2025. The threshold remains at 1 million MWh after 2025. Sales from affiliates are added together for the purposes of determining if a given utility is eligible for the exemption.

**(l) *State programs:*** The establishment of a federal CES in no way affects the authority of a State to implement other clean or renewable programs. The Secretary is directed to facilitate coordination between the federal clean energy program and relevant State programs.

**(m)** Increases the level of the alternative compliance payment by 5% above the rate of inflation per year.

**(n) *Report on Clean Energy Resources that do not generate electricity:*** Directs the Secretary to submit a report to Congress within 3 years on mechanisms to supplement the standard by incorporating clean energy resources that do not generate electricity as credited resources or through the implementation of complementary policies. Examples of such resources are energy efficiency, biomass used for thermal energy, geothermal heat pumps, district heating, and waste heat recovery.

**(o)** The program does not apply to Alaska or Hawaii.

#### **Sec. 611 Report on Natural Gas Conservation**

Directs the Secretary to submit a report to Congress that quantifies the losses of natural gas from the production and transportation of the natural gas, and makes recommendations for programs and policies to promote conservation of natural gas for beneficial use.