

# Emissions Caps for Electricity



The objective of a carbon dioxide (CO<sub>2</sub>) performance standard is to reduce power plant emissions by directly or indirectly requiring designated sources to employ technology or other measures to limit CO<sub>2</sub>. Designated sources might include only new plants, only existing plants, or both. Various criteria can be used as the basis for a performance standard. For example, the standard might require individual coal-fired generators to use the "best available control technology" (BACT), or operate at the "lowest achievable emission rate" (LAER). Performance standards that limit CO<sub>2</sub> emissions could apply to individual units, to a collection of generators, or to entities that sell (rather than generate) electric power. For example, generator performance standards place the burden on electric generators (requiring them to demonstrate compliance during permitting or monitoring processes) while retailer obligations place the burden on electric retailers (preventing them from obtaining electricity from non-complying generators). An alternative to this regulatory approach is cap and trade. Several Northeastern and Mid-Atlantic states are currently participating in a regional cap-and-trade program that limits CO<sub>2</sub> emissions from the electricity sector (a cap and trade system covering multiple economic sectors is also under development in California). Cap and trade ensures that total emissions from all covered entities fall below a cap that typically declines over time; it does not mandate limits for individual entities, as is the case for performance standards. For more information: Detailed Table of State Electricity GHG Performance Standards Cap and Trade 101 Coal Initiative Series: A Performance Standards Approach to Reducing CO<sub>2</sub> Emissions from Electric Power Plants Coal Initiative Series: State Policy Options to Advance CCS

## California

On September 29, 2006 Governor Schwarzenegger signed SB 1368, creating an emissions performance standard for electric generation. Utilities may not enter into long-term purchase agreements for baseload generation unless emissions from the plant do not exceed those of a combined-cycle natural gas plant. The California Energy Commission has since created regulations to set the standard at 1,100 pounds of carbon dioxide per megawatt-hour.

### SB 1368

On October 20, 2011, the California Air Resources Board (CARB) adopted final regulations for a cap-and-trade program that will help the state reduce greenhouse gas emissions to 1990 levels by 2020. Beginning in 2013, cap-and-trade regulations will apply to all major industrial sources and electric utilities, and will expand in 2015 to cover the distributors of transportation fuels, natural gas, and other fuels. An overall emission cap applies; individual companies are not required to reduce emissions to a certain level, but they must hold allowances to cover their emissions. The total amount of allowances available will decline by about 3 percent each year as emissions are reduced.

For more information, read our news story.

## Connecticut

Connecticut is a participant in the Regional Greenhouse Gas Initiative (RGGI), a regional cap and trade program to reduce carbon dioxide emissions from power plants. All fossil fuel-fired power plants with a capacity of 25 megawatts or higher are required to comply with the regional cap, which stabilizes emissions from 2009-2014 and then reduces them 10 percent by 2019.

For more information, see Regional Greenhouse Gas Initiative

## Delaware

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### **Illinois**

On January 12, 2009, Governor Rod Blagojevich signed SB 1987, the Clean Coal Portfolio Standard Law. The legislation establishes emission standards for new coal-fueled power plants (power plants that use coal as their primary feedstock) that seek to be designated as Clean Coal Facilities. From 2009-2015, new Clean Coal Facilities must capture and store 50 percent of the carbon emissions that the facility would otherwise emit; from 2016-2017, 70 percent must be captured and stored; and after 2017, 90 percent must be captured and stored. The law requires Illinois utilities and other retail electricity suppliers to purchase at least 5 percent of their electricity from Clean Coal Facilities in 2015 and beyond.

SB 1987

### **Maine**

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### **Maryland**

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### **Massachusetts**

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### **Montana**

On May 14, 2007, Montana Governor Schweitzer signed HB 25, which includes provisions for an emissions performance standard for new coal plants. The Public Service Commission may not approve applications for new plants that are primarily fueled by coal unless the plant captures and stores at least 50 percent of its carbon dioxide emissions. This rule applies to units constructed after January 2007.

HB 25

### **New Hampshire**

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### **New York**

New York is a participant in the Regional Greenhouse Gas Initiative (RGGI), a regional cap and trade program to reduce carbon dioxide emissions from power plants. All fossil fuel-fired power plants with a capacity of 25 megawatts (MW) or higher are required to comply with the regional cap, which stabilizes emissions from 2009-2014 and then reduces them 10 percent by 2019.

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On June 28, 2012, New York state adopted an emissions performance standard that would limit carbon dioxide emissions from power plants. The rule, 6 NYCRR Part 251, goes into effect on July 12, 2012, and will apply to new power plants with capacity of at least 25 MW and capacity additions of at least 25 MW at existing power plants. Unlike emissions performance standards in other states, the New York rule adopts carbon limits for not only baseload plants (925 lb per MWh or 120 lb per million BTU) but also for simple cycle combustion turbines (1450 lb per MWh or 160 lb per million BTU) .

For more information, see our related news story.

### **Oregon**

HB 3283 (1997) created standards for baseload gas power plants, non-baseload power plants, and nongenerating energy facilities that emit carbon dioxide. These entities must reduce their net carbon dioxide emissions 17 percent below the most efficient baseload gas plant in the United States. HB 3283 allows covered utilities to offset their emissions by implementing carbon dioxide offset projects either directly or through a third party. Alternatively, they may provide funds (corresponding to their carbon dioxide emissions) to The Climate Trust, a non-profit organization established to implement projects that reduce or sequester carbon dioxide emissions.

SB 101, signed in July 2009, applied a different performance standard to all baseload power plants. Generators of baseload power must have emissions equal to or less than 1,100 pounds of greenhouse gases per megawatt-hour, and utilities may only make long-term purchase agreements for baseload power with generators that meet this standard. This bill addresses all baseload power, including coal plants, whereas HB 3283 applied only to baseload gas plants and other non-baseload facilities. It is also less flexible in terms of compliance: while generators were able to purchase offsets for compliance under HB 3283, SB 101 does not have any provisions for compliance through offsets.

HB 3283SB 101

### **Rhode Island**

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### **Vermont**

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### **Washington**

RCW 80-70-010 mandates that new fossil-fueled electric generation facilities mitigate at least 20 percent of their total carbon dioxide emissions. This may be accomplished through 1) payment to a third party to provide mitigation; 2) direct purchase of permanent carbon credits, or 3) investment in applicant-controlled carbon dioxide mitigation projects.

SB 6001, enacted on May 3, 2007, issued an emissions performance standard for baseload electric generation. Electric utilities may not enter into long-term purchase agreements for baseload generation unless the power plant emits less than 1,100 pounds of greenhouse gases per megawatt-hour.

RCW 80-70-010SB 6001