MJB & A

CONCORD, MA - WASHINGTON, DC

47 Junction Square Drive
Concord, MA 01742

978-369-5533
www.mjbradley.com

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Massachusetts DEP Final Electric Sector Regulations

On August 11, 2017, the Massachusetts Department of Environmental Protection (MassDEP) published the final regulations to cap carbon dioxide (CO_2) emissions from electric generators as required by section 3(d) of the Global Warming Solutions Act (GWSA), and to establish a Clean Energy Standard to support clean energy resources. This document provides a summary of the 310 CMR 7.74 Reducing Carbon Dioxide (CO_2) Emissions from Electricity Generating Facilities Program and the 310 CMR 7.75 Clean Energy Standard (CES).

Background

On May 17, 2016, the Supreme Judicial Court of Massachusetts issued a decision in *Kain v. Department of Environmental Protection* finding that section 3(d) of the GWSA requires MassDEP to "promulgate regulations that address multiple sources or categories of sources of greenhouse gas emissions, impose a limit on such emissions that may be released, limit the aggregate greenhouse gas emissions that are released from each group of regulated sources or categories of sources, set greenhouse gas emissions limits for each year, and set limits that decline on an annual basis." In response to the decision, on September 16, 2016, Governor Baker issued Executive Order 569, directing MassDEP to establish regulations to meet requirements of section 3(d) as well as meet the 2020 emission reduction goals set out under the GWSA.

In response to these actions, MassDEP took steps to develop and collect feedback on regulations to cap emissions from electric generating facilities in Massachusetts, institute a clean energy standard to promote renewable energy, and implement other related efforts. On August 11, 2017, MassDEP finalized six regulations related to (1) the electric sector, (2) sulfur hexafluoride emissions from gas-insulated switchgear emissions, (3) methane emissions from natural gas distribution mains and services, and (4) the transportation sector. The two regulations summarized below related to the electric sector by: (1) establishing individual and aggregate emissions caps for both existing and new facilities beginning in 2018 and (2) implementing an annually increasing Clean Energy Standard (CES) as a percent of retail sales.

Emissions Limits

The final emissions caps remain largely similar to those proposed in the November 2016 draft, though the final requirement is applicable to carbon dioxide (CO_2) emissions only, as opposed to all greenhouse gas (GHG) emissions in the proposed rule. The aggregate cap for new and existing facilities totals 8,955,051 metric tons of CO_2 in 2018. Beginning in 2019 and through 2050, the cap will decline by a constant 223,876 tons per year, which is equal to 2.5 percent of the 2018 aggregate cap, until reaching a cap of 1,791,019 metric tons in 2050. Facilities covered under the final rule include electric generating sources that are located within the state of Massachusetts and are required to report to the Massachusetts CO_2 Budget Trading Program at 310 CMR 7.70(8).

Existing Facilities - 2018

For existing facilities, MassDEP finalized a 2018 cap of 7,455,051 metric tons of CO_2. The facility level caps for existing sources for 2018 are listed in Table 1.

Table 1. Affected Facilities and 2018 GHG Emissions Caps (Metric Tons of CO_2)

Facility Name	2018
ANP Bellingham	860,250
ANP Blackstone	787,429
Bellingham	233,789
Berkshire Power	437,049
Braintree Electric	24,425
Canal Station	101,922
Cleary Flood	50,453
Dartmouth Power	48,348
Dighton	330,396
Fore River Energy Center	1,243,593
Kendall Square	502,191
MASSPOWER	304,108
Medway Station	1,603
Milford Power, LLC	148,912
Millennium Power	662,129
Mystic	1,516,066
Pittsfield Generating	79,959
Stony Brook	68,844
Tanner Street	36,655
Waters River	1,587
West Springfield	15,343

New Facilities - 2018

For new facilities, MassDEP finalized a 2018 total cap of 1.5 million metric tons of CO_2. The Department will apportion the cap among facilities by February 15, 2019 based on the CO_2 emissions of new facilities reported by February 1, 2019. If the sum of the new facility emissions is less than or equal to the 1.5 million ton limit in 2018, then the 2018 emissions limit will be adjusted downward to be equivalent to each facilities' emissions in that year. If the sum of the new facility emissions is greater than the 1.5 million ton limit in 2018, then MassDEP will calculate a discount factor to apportion the 2018 limit by facility based on the ratio of actual emissions to the emissions limit.

However, if by November 15, 2018, MassDEP determines that the sum of emissions from the new facilities will be less than the 2018 limit, then by December 1, 2018, MassDEP will deposit a proportional share of the excess allowances in the allowance registry accounts of existing facilities. The deposited amounts will be based on each existing facility's share of the 2018 cap. New and existing facilities can trade allowances.

Allowances and Auction Starting in 2019

MassDEP has replaced the Over Compliance Credit mechanism from the proposal with guidance on allowance allocation, transfer, and usage. Allowances may be transferred at any time, except during the compliance demonstration month of March. Additionally, in an effort to address reliability concerns, an Emergency[1] Deferred Compliance option will be made available for affected units such that they may run in the case of an emergency reliability situation that occurs in the last 45 days of a given year. The owner or operator may defer the compliance obligation for a year, provided that emissions will be offset in the next year on a *two for one* basis.

Banking of allowances is allowed provided that total CO_2 emissions are less than the aggregate emissions cap in the prior year. By April 1 of each year, MassDEP will deduct allowances from each facility's allowance registry account to first address any deferred compliance obligation, then to offset the emissions from the prior calendar year, and to ensure any remaining allowances in the registry are less than the banking limit. In short, if total emissions from all covered sources exceeds the aggregate emissions limit in the prior year, then each individual allowance account (after demonstrating compliance) will be cut by more than 90 percent (i.e., to a level equal to 223,876 metric tons divided by the prior year's cap times the number of allowances in each facility's registry account). This provision ensures that allowable emissions remain on a downward trajectory by forfeiting a significant share of banked allowances.

In 2019 and thereafter, allowances will be allocated through auctions, as described below:

- Allowance auctions will take place at least once annually, but potentially as frequently as each quarter.
- The auctions will be a Sealed Bid, Uniform Price Auction, and may be conducted by MassDEP, or an agent deemed qualified to perform all duties under the oversight of the Department.
- Allowances will be available for sale in an amount equal to the total aggregate emissions limit, though MassDEP may require minimum lot sizes. In this case, no more than 50 percent of the allowances from a given year will be available for sale in advance of that year, up to four years ahead of the given year.
- A calendar of proposed auction dates will be posted on the MassDEP website including the format, auction number, and years of allowances to be auctioned. The contents of the calendar may be periodically modified, but not within 45 days prior to an auction as this is when the auction notice will be published.
- Allowances may be held with a reserve price, and are not obligated to be sold if the reserve price is not met.
- Only the owners and operators of electric generating facilities are eligible to participate, and no bidder may purchase more than 50 percent of the allowances offered for sale at any single auction. Potential bidders must submit an application to MassDEP at least 30 days prior to the bid submittal date of each auction, and the Department will notify the applicant if their bid is approved. Bids will

[1] MassDEP defines emergency as "a period during when the regional transmission organization has issued an alert that an abnormal condition affecting the reliability of the power system exists or is anticipated in Massachusetts". Based on discussions with stakeholders, we understand this provision to encompass both Massachusetts-specific and system-wide emergency situations.

be submitted electronically, and allowances will be sold in the quantities specified in the accepted bids until all are sold.

- Upon payment in full of the amount owed, allowances will be transferred to the bidders' allowance registry account on April 1.
- Periodic evaluation of the program may be conducted and allowances offered for sale but not sold may be retired.
- Auction proceeds will go to MassDEP and be used to support programs or projects that reduce GHG emissions, mitigate climate change and air pollution impacts, and for the administration of 310 CMR 7.74.

Reporting and Compliance

By February 1, 2018, and each February 1 thereafter, the owner or operator of a covered electric generating facility must electronically submit to MassDEP a report of the facility's actual CO_2 emissions as reported pursuant to the Massachusetts CO_2 Budget Trading Program at 310 CMR 7.70(8). On March 1 of each year each facility's allowance registry account must equate to or be greater than the amount of CO_2 emissions emitted during the prior calendar year (minus any deferred emissions), or double the amount of emissions from the prior year if compliance was deferred due to an emergency.

Penalties and Enforcement

The owner or operator of any facility failing to hold sufficient allowances in their allowance registry account by March 1 will be required to transfer *three additional allowances for every one ton of CO_2 emissions* that have not been offset with allowances.

Clean Energy Standard

MassDEP also finalized a Clean Energy Standard (CES) requiring the procurement by retail suppliers of new clean energy as a percentage of their electricity sales. The CES has been designed to complement and take into account the existing renewable portfolio standard (RPS) of 15% in 2020, the Regional Greenhouse Gas Initiative (RGGI), and the final generator CO_2 emissions caps. Beginning in 2018 and applicable through 2050, a minimum percentage of total annual retail sales in Massachusetts, as listed in 310 CMR 7.75 Table A, must be met with clean generation attributes. For all retail sellers, with the exception of Municipal Electric Departments (MEDs) and Municipal Light Boards (MLBs), a CES of 16 percent must be met in 2018, increasing by 2 percentage points each year to 80 percent in 2050 and each year thereafter.

Eligible Technology

A generating unit must qualify as a 'clean generation attribute' in order to be used toward CES compliance. To qualify a unit must satisfy the following:

- Possess a RPS Class I statement of qualification; or its resulting GHG emissions over a period of 20 years must result in at least a 50 percent reduction of emissions per unit of useful energy relative to the lifecycle emissions of a new natural gas combined cycle facility.
- A commercial in-service date after December 31, 2010.
- Not be committed to any control area other than ISO New England. Some units in adjacent control areas may be able to qualify under certain special provisions provided it utilizes new transmission capacity.

Reporting and Compliance

As a form of compliance banking, beginning in 2021, clean generation attributes produced within the previous two compliance years may be used toward compliance, with some restrictions, in any given year. Additionally, renewable generation or alternative compliance credits (ACP)[2] used for compliance with RPS Class I may also be used to comply with the CES in a given year. Credits expressed in megawatt hours (MWh) will be determined by calculating the ratio of CES alternative compliance payments paid for the compliance year to the CES ACP rate for that year. As a limited grandfathering provision, in 2018 and 2019, the Department will not include the portion of electrical energy sales subject to a contract executed or extended prior to August 11, 2017. However, contracted electrical energy delivered after December 31, 2019, will be included in the CES regardless of the date of execution or extension.

Beginning in 2018, annual compliance filings must be submitted to MassDEP no later than July 1 and will include total electrical energy sales to end-use customers and sales by product, attributed allocated from the compliance year and from banked compliance, and CES alternative compliance credits. Each retail seller must report MWhs sold and associated GHG emissions, which must be submitted in the September following each calendar year.

Penalties and Enforcement

If a retail supplier that is not an MED or MLB is unable to demonstrate compliance with the CES, then they will be considered to have caused air pollution emissions without the approval of MassDEP, and may be subject to the issuance of an administrative order or civil administrative penalties.

Next Steps

310 CMR 7.74: Reducing CO_2 Emissions from Electricity Generating Facilities

MassDEP has indicated it will initiate a stakeholder process to consider and finalize the design of the auction, which will start in 2019. The final rule also requires periodic program reviews beginning no later than December 31, 2021, and every ten years thereafter.

310 CMR 7.75: Clean Energy Standard

MassDEP will review options in 2017 for addressing existing resources with a commercial operation date prior to the end of 2010, as well as compliance options for municipal utilities. The final rule also requires periodic program reviews beginning no later than December 31, 2021 and will include the opportunity for public comment.

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[2] The final regulations allow a retail seller to demonstrate compliance by making a CES ACP to the Department. The CES ACP is 0.75 times the rate calculated annually by DOER for 2018-2020 for the RPS ACP (225 CMR 14.08(3)(a)2 and 0.50 times the RPS ACP for 2021-2050. CES ACP funds will be used to support programs or projects that reduce GHG emissions, mitigate climate change impacts, and for the administration of 310 CMR 7.75.

Contacts

For more information on this topic, please contact:

Carrie Jenks
Senior Vice President
cjenks@mjbradley.com
(978) 369-5533

Lauren Slawsky
Policy Analyst
lslawsky@mjbradley.com
(978) 369-5533

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