

MassDEP Bureau of Waste Prevention
Response to Comments On:
Application for Certification of GHG Credits
Submitted by: Dominion Energy Brayton Point

June 10, 2009

Summary

In accordance with 310 CMR 7.00: *Appendix B(7)*, MassDEP has approved, with conditions, an Application for Certification of GHG Credits that was initially submitted by Dominion Energy Brayton Point, on May 10, 2007. In accordance with this approval, MassDEP has created certified GHG Credits corresponding to reductions that have occurred, or are anticipated to occur, during the years of 2006 – 2012 as a result of the project. These reductions occur when processed ash from the project is used in place of cement in the production of concrete, thereby avoiding greenhouse gas emissions associated with the production of cement.

In accordance with 310 CMR 7.00: *Appendix B(7)(f)*, the Department conducted a 30-day public comment period and subsequently considered comments that were received. Comments on the proposed conditional approval were received from Dominion Resources Services, Inc., the American Coal Ash Association (ACAA), the Conservation Law Foundation (CLF), and the Loreti Group. MassDEP appreciates these comments, which are summarized below. Responses to each comment are also included below. Except for one change that is described below, MassDEP is finalizing the conditional approval as proposed.

Comments and Responses

Comment: Two commenters asserted that MassDEP should not assume that reductions are occurring simply because of the production of a product that can be substituted for cement in concrete. Because of various complex market interactions and effects on market prices of cement and fly ash, and because cement markets and production methods vary regionally, there is no way to accurately quantify emission reductions from the project. (CLF, Loreti) One commenter stated that the applicant answered a relevant MassDEP question incorrectly when it stated that the fly ash market is “supply limited.” In fact there is an “over-supply of fly ash for use in” cement blends, so some of the fly ash produced at Brayton point may actually just displace other processed fly ash in concrete production. “This form of leakage is completely ignored in the credit application.” (Loreti)

Response: MassDEP has concluded that the project will reduce greenhouse gas emissions from cement production. This conclusion is based on the fact that the processed ash produced by the project will be used as a substitute for cement in the production of concrete, thereby reducing the demand for cement. However, MassDEP acknowledges that there is uncertainty regarding the number of tons of emissions that are actually avoided when one ton of ash is processed and transferred to an ash marketer for use in place of Portland cement in concrete. This uncertainty is

the reason that MassDEP is creating only 0.71 GHG Credits for every ton of ash, instead of 0.96 GHG Credits for each ton of ash, as proposed by the applicant. In other words, the applicant proposed to create approximately one-third more GHG Credits than MassDEP is creating for each ton of ash. MassDEP is not creating more than 0.71 GHG Credits for each ton of ash to prevent the creation of GHG Credits for reductions that may not have actually occurred for the reasons described by the commenters.

Comment: Two commenters stated that the BEES model, proposed for use by MassDEP to quantify per-ton reductions associated with the project, is designed to generate “environmental performance scores for building product alternatives” and is not designed or intended to “to accurately quantify the CO₂ impacts of recycling fly ash.” According to these commenters, the 1605(b) methodology, proposed by the applicant, is more appropriate for quantifying emissions reductions from the project than the BEES methodology. The 1605(b) methodology is specifically designed to quantify emissions from fly ash. (Dominion, ACAA)

Response: The 1605(b) methodology and the BEES model provide credible, but different, estimates of the number of tons of emissions that are avoided for each ton of fly ash that is used in place of Portland cement. MassDEP has concluded, based on analysis of available information about the estimates, and direct communications with the Office of Resource Conservation and Recovery of the US Environmental Protection Agency (US EPA), that the difference between the estimates is associated with uncertainty, and therefore does not imply that one estimate is more correct than another. One of the documents referenced in MassDEP’s proposed approval in support of the use of the BEES model was obtained from the US EPA’s Coal Combustion Products Partnership website, and, when MassDEP inquired to US EPA regarding the appropriateness of using the BEES model for this purpose, US EPA responded that the BEES model “was developed specifically (in part) to assess impacts of substituting fly ash for Portland cement in the manufacture of concrete products.” MassDEP selected the BEES model over the 1605(b) methodology in order ensure that the number of GHG Credits created would represent a conservative estimate of the actual reductions that occurred. MassDEP notes that the American Coal Ash Association is listed as a “partner” on the Coal Combustion Products Partnership website.

Comment: One commenter stated that there need to be further protections against double counting. MassDEP should require that the ash marketer include ownership of credits language in contracts with ash purchasers, and also require Progress Materials, the supplier of the carbon burn out technology, to enter into a similar contract. “The ready-mix plants . . . could well be other entities claiming emission reductions.” In fact, if any of the concrete plants using the ash participate in the Cool Climate Program, which operates in northeastern states, then double-counting would occur if the application were to be approved as proposed. (Loreti)

Response: MassDEP is not imposing any further requirements to protect against double counting. MassDEP acknowledges the general need to protect against double counting, and also understands that directly tracking ownership of reductions through all entities that had some involvement in this project would present a significant logistical challenge. MassDEP has concluded that the protection proposed by the applicant, in the form of a letter from the ash marketer describing steps that have been taken to prevent double counting, appropriately

balances the need to protect against double counting with the practical challenges associated with establishing a more rigorous tracking system.

Comment: Several commenters mentioned protocols and draft protocols for calculating emissions reductions from substituting fly ash for cement. (ACAA, Loreti, CLF) Some comments cited these protocols to illustrate the general appropriateness of creating carbon offsets for this project type, while others pointed out that MassDEP is not requiring the applicant to follow any of these protocols.

Response: MassDEP considered the existence of relevant protocols in evaluating the application, but concluded that none of these protocols is directly applicable to this project. MassDEP will re-evaluate the question of whether an appropriate protocol or methodology exists when it evaluates applications to verify avoided emissions that occur after December 31, 2009.

Comment: One commenter explained that the “plain language” meaning of the word “additional” implies that MassDEP should not create credits for reductions that “would not occur but for the action being undertaken to produce GHG Credits.” This commenter acknowledged that the regulations that allow MassDEP to create GHG Credits include a definition of additionality that is more limited than this “plain language” definition, but argued that the existence of this definition does not preclude MassDEP from evaluating the application based on the plain language definition, and that interpreting the regulation using this “plain language” definition would be consistent with the underlying purpose of the regulation. (CLF)

Response: MassDEP’s determination that the application describes reductions that are “additional” is consistent with the definition of “additional” contained in 310 CMR 7.00: *Appendix B(7)*, the regulation that allows MassDEP to create GHG Credits that can be used to comply with the carbon dioxide emissions standards of 310 CMR 7.29. This definition is: “Additional means GHG emission reductions, avoided emissions, or sequestered emissions that are not required by local, state or federal law or regulation, or as part of a local, state or federal permit, plan, or plan approval, agreement, administrative or judicial order, or as part of an enforcement action (including such laws, regulations, permits, plans, plan approvals, agreements, orders or actions taken to reduce other pollutants) at the time of submittal of a certification application. A requirement to obtain a permit or plan approval under local, state, or federal law solely for the purpose of constructing, installing, or operating a voluntary emission reduction, avoided emission, or sequestered emission project shall not be considered when determining whether or not such project is additional.”

Comment: According to one commenter, “use of fly ash as a feedstock for cement may lead to an increase in GHG emissions in the long run by undermining attempts to reduce the GHG emissions of cement kilns on-site.” According to this commenter, Mass DEP should not assume that the project will lead to reductions as described by the applicant because “it is just as possible to construct a plausible narrative” in which “dumping fly ash” into the market for cement will undermine efforts to implement strategies that actually reduce emissions from cement kilns, such as fuel-switching to biomass and “carbon neutral” fuels. This “plausible narrative” shows that the project may actually result in increased emissions. (CLF)

Response: MassDEP has concluded that 310 CMR 7.00: *Appendix B(7)* does not require consideration of competing strategies that could result in similar reductions.

Comment: One commenter commented that GHG Credits created by this project may be exchanged for RGGI allowances at a 2-1 discount. This commenter stated: “Such a conversion of dubious credits into allowances would undermine the ‘100% auction’ principle enshrined in law and at the heart of the Administration’s adoption of the Regional Greenhouse Gas Initiative – diverting revenue from the good purposes, like energy efficiency, that RGGI auction revenues are being put to and channeling those monies into the pocket of the proponent and its business co-venturers.” (CLF)

Response: 310 CMR 7.70, which formalized RGGI in MA on January 25, 2008 by creating the MA CO₂ Budget Trading Program, explicitly requires MassDEP to set aside a small number of allowances to compensate those who may have invested in projects because of the GHG Credit program.

Comment: Two commenters characterized MassDEP’s proposal to require the applicant to re-specify a best management practice baseline for reductions that occur after January 1, 2009 as a “moving baseline,” and one commenter suggested that this proposal could create general uncertainty about projects of this type, and that this uncertainty could make it more difficult to develop projects of this type. (Dominion, ACAA)

Response: 310 CMR 7.00: *Appendix B(7)(e)4.d.* includes the following requirement, which applies to all certification and verification applications: “Where applicable, the applicant shall specify the best management practice used to determine an emissions baseline.” MassDEP notes that EPA’s Coal Production Product Partnership was created to drive changes in best management practice for utilizing fly ash from coal fired power plants, and that the American Coal Ash Association is a partner in this program. The existence of this program, the purpose of which is to cause changes in best management practice over time, is one reason that MassDEP has concluded that it is appropriate to require the applicant to re-specify a best management practice baseline for use in calculating the number of GHG Credits that may be created for using fly ash in place of Portland cement after January 1, 2010.

Comment: If adjustments to the emission factor are to be allowed going forward, then adjustments upward should be allowed in addition to adjustments downward. (Dominion)

Response: MassDEP has revised the conditional approval to allow for the emission factor to be adjusted upward or downward for avoided emissions that occur after January 1, 2010.