**Internal Revenue Service**

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Person To Contact:
, ID No.

Telephone Number:

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Date:
July 29, 2013

LEGEND:

Taxpayer =

Company =
Seller =
State A =
State B =
State C =
Site =
Generator =
Generating Station =
Year a =
Date a =
Date b =
Date c =
Chemical a =
Chemical b =
a% =
b% =

Dear :

This is in response to your request for rulings, submitted by your authorized representative, concerning the federal income tax consequences of the transaction described below.

**Background**

Taxpayer, a State A corporation, is treated as a corporation for federal income tax purposes. Taxpayer is the sole owner of the Company for federal income tax purposes. The Company is a State B limited liability company and is a disregarded entity for federal income tax purposes. The Company represents that its is a producer of refined coal.

**The Facility**

The Taxpayer (indirectly through the Company) owns a refined coal facility (the Facility) located at the Generating Station near the Site. The Facility was acquired from an indirect wholly-owned subsidiary of the Seller, a State C limited liability company. The Seller originally placed the Facility in service during Year a prior to the Taxpayer's acquisition of the Facility.

**Technology**

The Facility utilizes proprietary technology sublicensed from the Seller to produce refined coal (the Technology). The Technology involves treating the feedstock coal with two chemical additives that are metered on to feedstock coal at a rate proportional to the weight of coal, as measured by coal belt scales, as the coal is transported by coal belts into bunkers that feed the boiler. The first chemical additive is a form of Chemical a that changes the chemistry of the coal ash in a utility's boilers, allowing for reduced NOx emissions. The second chemical additive is a Chemical b that reacts with the mercury and increases mercury capture in the fly ash that is collected in the particulate control devices of a utility.

The Taxpayer and the Company expect to obtain all the Facility's feedstock coal from a single lignite mine near the Site. It is expected that the lignite coal provided to the Company will be a blend of production from multiple seams, rather than being drawn exclusively from a single seam for any extended period, although this could change. The Company has also entered into a long-term contract to sell all of its production to Generator at a price per ton equal to the Company's cost for the coal feedstock (including certain administration costs). Under this contract, Generator may use a limited amount of wood or similar waste material instead of (or in addition to) refined coal. This may require that the coal feedstock or refined coal be mixed with such wood or similar waste. If the Taxpayer is required by the Generator to mix a material amount of wood or similar waste material with the coal feedstock it uses to produce refined coal, then, Taxpayer will treat such addition as a change in feedstock and thus expects to conduct new testing for qualified emissions reduction as required by Notice 2010-54. Alternatively, Taxpayer may decide to not claim tax credits for the period such non-coal materials are being used or seek further guidance from the Service.

**Testing**

As part of placing the Facility in service, and again in Date a and in Date b, the Seller conducted a full-scale continuous emissions monitoring system (CEMS) field test to measure the reduction in nitric oxide and nitrogen dioxide (collectively NOx) and mercury emissions. NOx and mercury emissions were measured as required by the CEMS field testing procedures described in Section 6.03(1) of Notice 2010-54. Emissions for both the feedstock coal and refined coal were measured under the same operating conditions, over a period of at least three hours during which the boiler operated at a steady state and at least 90 percent of full load. Generator's plant has no separate NOx air pollution equipment, so NOx was measured at the stack and mercury was measured downstream of the baghouse outlet. Each of the three sets of CEMS field tests demonstrated the required reductions in both NOx and total mercury emissions (both determined on a lb/Btu basis) to satisfy the requirements of at least 20% NOx reduction and at least 40% mercury reduction. On Date c, Taxpayer conducted CEMS testing for qualified emissions reductions at the Facility. The certification relating to this testing concludes that there was an approximately a% reduction in mercury emissions compared to baseline measurements for the feedstock coal and an approximately b% reduction in $NO_x$ compared to baseline measurements for the feedstock coal.

The Taxpayer expects to continue to conduct testing as required to comply with Notice 2010-54. However, the Taxpayer may elect to rely on the special method of redetermination testing permitted by Section 6.04(2)(b) of Notice 2010-54. The Taxpayer indicates that samples will be taken for redetermination testing within six months after the last emissions test satisfying the qualifying emissions reduction requirement. Thereafter, within six months after such date, another set of samples will be taken for redetermination testing, although the precise intervals may vary (e.g., it may be only four or five months between tests).

All samples will be taken from a moving conveyor belt, before and after the Facility, using a manual collection device held by operator personnel, who will collect a sample by scooping coal from both edges and the center of the belt. The samples will be bagged and labeled. During each period (of up to six months) constituting the redetermination period, samples of both feedstock coal and refined coal will be collected on a regular basis and manually blended into a multi-day gross sample. The samples will be collected (using a scoop) from each gross sample, sealed and labeled. These samples will then be sent to an independent laboratory for preparation and analysis. Standard laboratory techniques will be used to measure the sulfur and mercury content of these samples. The testing results for sulfur and mercury content for the gross

samples of feedstock and refined coal respectively will then be averaged for comparison to the appropriate ranges.

The Taxpayer expects to rely primarily on redetermination tests under Section 6.04(2)(b) of Notice 2010-54 during the next nine years and to conduct testing under Section 6.03 of that Notice when required. The Taxpayer may, however, also conduct testing under Section 6.03 on other occasions. Such testing is expected to be conducted using CEMS testing when possible, but the Taxpayer may choose to conduct pilot plant testing or to use any other methods that may be approved by the Service from time to time.

The Taxpayer has also indicated that it may decide to use EPA Method 30B when not using laboratory testing to test for mercury emissions. In that case, the Taxpayer will also test for NOx emissions using traditional CEMS testing methodology.

**RULINGS REQUESTED**

Based on the foregoing, you have requested that we rule as follows:

(1) The refined coal produced and sold using the Technology constitutes "refined coal" within the meaning of § 45(c)(7) of the Code, provided that such refined coal is produced from feedstock coal that is the same source or rank as the feedstock test coal and provided further that the refined coal satisfies the qualified emission reduction test stated in § 45(c)(7)(B) of the Code.

(2) Increasing the amounts of chemical additives to the feedstock coal to a higher level than the rate shown to have produced a qualified emissions reduction in a determination or redetermination will not be construed as a change in process requiring a redetermination under Section 6.03 of Notice 2010-54 to establish qualified emissions reductions, nor will later resuming application at the rate used in such original test constitute such a change.

(3) The use of EPA Method 30B is an acceptable alternative to the use of CEMS field testing for measuring mercury emissions reductions under Section 6.03 of Notice 2010-54.

(4) The results set forth in a test or a redetermination test report for production may be relied upon after the date of testing even if the report is not received until after the six-month period specified in Section 6.04(1)(i) of Notice 2010-54, or if the testing was conducted prior to the Taxpayer's acquisition of the facility producing refined coal.

(5) Pursuant to Section 6.04(2)(b) of Notice 2010-54, the redetermination requirement of Section 6.04 of Notice 2010-54 may be satisfied by laboratory analysis establishing that the sulfur and mercury content of both the feedstock coal and the refined coal, on average, do not vary by more than 10 percent below the bottom (nor by

more than 10 percent above the top) of the range of the sulfur content and range of the mercury content of the feedstock coal and the refined coal used in the most recent determination pursuant to Section 6.03 of Notice 2010-54.

(6) If the Facility was "placed in service" prior to January 1, 2012 within the meaning of Section 45(d)(8)(B) of the Code, a subsequent modification or relocation of the Facility will not result in a new placed-in-service date for the Facility for purposes of Section 45, provided the fair market value of the original property of the modified or relocated Facility is more than 20 percent of the Facility's total fair market value at that time.

**LAW AND RATIONALE**

Section 45(a) of the Code generally provides a credit against federal income tax for the use of renewable or alternative resources to produce electricity or fuel for the generation of steam. Section 45(e)(8) of the Code provides that, in the case of a producer of "refined coal", the credit available under § 45(a) of the Code for any taxable year shall be increased by an amount equal to $4.375 per ton of qualified "refined coal" (i) produced by the taxpayer at a "refined coal production facility" during the 10-year period beginning on the date that the facility was originally placed in service, and which is (ii) sold by the taxpayer to an unrelated person during such 10-year period and such taxable year.

For purposes of § 45 of the Code, Section 3.01 of Notice 2010-54 provides that the term "refined coal" means a fuel which (i) is a liquid, gaseous, or solid fuel (including feedstock coal mixed with an additive or additives) produced from coal (including lignite) or high carbon fly ash, including such fuel used as a feedstock, (ii) is sold by the taxpayer with the reasonable expectation that it will be used for the purpose of producing steam, and (iii) is certified by the taxpayer as resulting (when used in the production of steam) in a qualified emission reduction. Section 3.04 of the Notice provides that the term "qualified emission reduction" means, in the case of refined coal produced at a facility placed in service after December 31, 2008, a reduction of at least twenty percent (20%) of the emissions of nitrogen oxide and at least forty percent (40%) of the emissions of either sulfur dioxide or mercury released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003.

Section 45(d)(8) of the Code generally provides that the term "refined coal production facility" means a facility which is placed in service after October 22, 2004 and before January 1, 2012.

Section 5.02 of Notice 2010-54 provides that a refined coal production facility will not be considered to have been placed in service after October 22, 2004, if more than

20 percent of the total fair market value of the facility (the cost of the new property plus the value of the used property) is attributable to property that was placed in service on or before October 22, 2004.

Section 6.01 of Notice 2010-54 generally provides that a qualified emissions reduction does not include any reduction attributable to mining processes or processes that would be treated as mining as defined in § 613(c)(2), (3), (4)(A), (4)(C), or (4)(I) of the Code if performed by the mine owner or operator.

Accordingly, in determining whether a qualified emission reduction has been achieved, the emissions released when burning the refined coal must be compared to the emissions that would be released when burning the feedstock coal. Feedstock coal is the product resulting from processes that are treated as mining, including any such processes that are actually applied by a taxpayer in any part of the taxpayer's process of producing refined coal from coal.

Section 613(c)(5) of the Code describes treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or are necessary or incidental to a process provided for in § 613(c)(4). Any cleaning process, such as a process that uses ash separation, dewatering, scrubbing through a centrifugal pump, spiral concentration, gravity concentration, flotation, application of liquid hydrocarbons or alcohol to the surface of the fuel particles or to the feed slurry provided such cleaning does not change the physical or chemical structure of the coal, and drying to remove free water, provided such drying does not change the physical or chemical identity of the coal, will be considered as mining.

Section 6.03(1) of the Notice provides, in part, that emissions reduction may be determined using continuous emission monitoring system (CEMS) field testing. Section 6.03(a)(1) provides, in part, that CEMS field testing is testing that meets all the following requirements: (i) the boiler used to conduct the test is coal-fired and steam-producing and is of a size and type commonly used in commercial operations; (ii) emissions are measured using a CEMS; (iii) if EPA has promulgated a performance standard that applies at the time of the test to the pollutant emission being measured, the CEMS must conform to that standard; (iv) emissions for both the feedstock coal and the refined coal are measured at the same operating conditions and over a period of at least 3 hours during which the boiler is operating at a steady state at least 90 percent of full load; and (v) a qualified individual verifies the test results in a manner that satisfies the requirement of section 6.03(1)(b).

Section 6.03(2) of the Notice provides that methods other than CEMS field testing may be used to determine the emission reduction. The permissible methods include (a) testing using a demonstration pilot-scale combustion furnace if it establishes that the method accurately measures the emission reduction that would be achieved in a boiler described in Section 6.03(1)(a)(i) and a qualified individual verifies the test

results in a manner that satisfies the requirements of Section 6.03(1)(c)(i), (ii), (v) and (vi) of the Notice; and (b) a laboratory analysis of the feedstock coal and the refined coal that complies with a currently applicable EPA or ASTM standard and is permitted under Section 6.03(2)(b)(i) or (ii).

Section 6.04(1) of the Notice provides that a taxpayer may establish that a qualified emission reduction determined under Section 6.03 applies to production from a facility by a determination or redetermination that is valid at the time the production occurs. A determination or redetermination is valid for the period beginning on the date of the determination or redetermination and ending with the occurrence of the earliest of the following events: (i) the lapse of six months from the date of such determination or redetermination; (ii) a change in the source or rank of the feedstock coal that occurs after the date of such determination or redetermination; or (iii) a change in the process of producing refined coal from the feedstock coal that occurs after the date of such determination or redetermination.

Section 6.04(2) of the Notice provides that in the case of a redetermination required because of a change in the process of producing refined coal from the feedstock coal, the redetermination required under Section 6.04 must use a method that meets the requirements of Section 6.03. In any other case, the redetermination requirement may be satisfied by laboratory analysis establishing that (a) the sulfur or mercury content of the amount of refined coal necessary to produce an amount of useful energy has been reduced by at least 20 percent (40 percent, in the case of facilities placed in service after December 31, 2008) in comparison to the sulfur or mercury content of the amount of feedstock coal necessary to produce the same amount of useful energy, excluding any dilution caused by materials combined or added during the production process; or (b) the sulfur or mercury content of both the feedstock coal and the refined coal do not vary by more than 10 percent from the sulfur and mercury content of the feedstock coal and refined coal used in the most recent determination that meets the requirements of the Notice.

Finally, Section 6.05 of the Notice provides that the certification requirement of Section 3.01(1)(c) of the Notice is satisfied with respect to fuel for which the refined coal credit is claimed only if the taxpayer attaches to its tax return on which the credit is claimed a certification that contains the following: (1) a statement that the fuel will result in a qualified emissions reduction when used in the production of steam; (2) a statement indicating whether CEMS field testing was used to determine the emissions reduction; (3) if CEMS field testing was not used to determine the emissions reduction, a description of the method used; (4) a statement that the emissions reduction was determined or redetermined within the six months preceding the production of the fuel and that there have been no changes in the source or rank of the feedstock coal used in the process of producing refined coal from feedstock coal since the emissions reduction was most recently determined or redetermined; and (5) a declaration signed by the taxpayer in the following form: “Under penalties of perjury, I declare that I have

examined this certification and to the best of my knowledge and belief, it is true, correct, and complete."

With respect to the first two ruling requests, the Technology starts with two chemical additives being added to the feedstock coal prior to its combustion in a furnace. Section 6.01 of the Notice provides generally that a qualified emissions reduction does not include any reduction attributable to mining processes or processes that would be treated as mining if performed by the mine owner or operator. In the instant case, the process used at the Facility is not a mining process. Further, Section 3.01 of the Notice clarifies § 45(c)(7) of the Code and specifically provides that refined coal includes feedstock coal mixed with additives. Thus, additive processes that mix certain chemicals or other additives with the coal in order to achieve emissions reductions may qualify for the refined coal production tax credit. Additionally, Section 3.03 defines comparable coal as coal that is of the same rank as the feedstock coal and that has an emissions profile comparable to the emissions profile of the feedstock coal. Accordingly, we conclude that (a) the refined coal produced by using the Technology constitutes a "refined coal" within the meaning of § 45(c)(7) of the Code, provided that the refined coal (i) is produced from feedstock coal that is the same source or rank as the tested coal and (ii) satisfies the qualified emission reduction test stated in § 45(c)(7)(B) of the Code and (b) increasing the amounts of chemical additives to the feedstock coal will not be construed as a change in process requiring additional testing for qualified emissions reductions under Section 6.03 of Notice 2010-54 nor will it be construed as a change in process to later resume application at the rate used in the original test.

With respect to the third ruling request, the Taxpayer has also indicated that when not using laboratory testing it may decide to use EPA Method 30B to test for mercury emissions. The method involves use of a sorbent trap that collects mercury in flue gas as the gas exits the stack downstream from the scrubber or other pollution control devices. The collected mercury is then analyzed to determine the mercury emissions. EPA Method 30B is an EPA approved method for measuring mercury emissions from coal-fired boilers. EPA Method 30B is a form of CEMS testing. Based on the foregoing we conclude that the use of EPA Method 30B is an acceptable alternative to the use of a continuous emissions monitoring system during CEMS field testing for measuring mercury emissions reductions under Section 6.03 of Notice 2010-54. As a corollary, EPA Method 30B should also qualify as an acceptable method for satisfying the redetermination requirement under Section 6.04 of Notice 2010-54 when doing CEMS field testing for redeterminations. However, the Taxpayer may not "mix and match" in the sense of using CEMS field testing to satisfy part of the redetermination requirement while using the laboratory analysis described in Section 6.04(2) to satisfy the remainder. In addition, if Taxpayer elects to use EPA Method 30B it will also have to (i) test for NOx emissions using conventional CEMS methodology; and (ii) test NOx baseline emissions in the manner contemplated by section 6.03 of Notice 2010-54.

With respect to the fourth ruling request, it is expected that the Taxpayer will engage in redetermination testing every six months or more frequently. However, the Taxpayer may not always receive the written report required by Section 6.03(2)(a) of Notice 2010-54 within the six month period. Thus, although the redetermination is completed within the six month period the report may be received after the six month period. Nonetheless, the Taxpayer will be informed of the results of the test on the day of the tests so that it will be able to take in account the results of the redetermination within the six month period. Nevertheless, the delay in issuing and receiving the report cannot be indefinite. Further, allowing the Taxpayer to rely on testing and reports conducted before its acquisition of the Facility on behalf of the Seller is consistent with the rationale behind Notice 2010-54, which concludes that once a qualified emissions reduction is established, further testing is not required for six months or until there is a change in feedstock or process. Accordingly, we conclude that (i) the results set forth in a redetermination report for production may be relied upon after the date of testing even if the report is not received until after the six-month period specified in section 6.04(1)(i) of Notice 2010-54, so long as the Taxpayer receives the written report within 90 days from the date of testing and (ii) the Taxpayer can rely on testing and reports conducted before its acquisition of the Facility.

With respect to the fifth ruling request, Section 6.04(2) of Notice 2010-54 provides that, where a redetermination is required because of a change in the process of producing refined coal, the redetermination must use one of the general methods for satisfying the emissions reduction requirements listed in Section 6.03 of the Notice. However, in any other case Section 6.04(2) of the Notice provides that the redetermination requirement may be satisfied by laboratory analysis establishing that the sulfur and mercury content of both the feedstock coal and the refined coal do not vary by more than 10 percent from the sulfur and mercury content of the feedstock coal and the refined coal used in the most recent determination (which may be the original CEMS test) that meets the requirements of Notice 2010-54. Accordingly, we conclude that pursuant to Section 6.04(2) of Notice 2010-54, the redetermination requirement of Section 6.04 of Notice 2010-54 may be satisfied by laboratory analysis establishing that the average sulfur and mercury contents of both the feedstock coal and the refined coal, do not vary by more than 10 percent from the range of sulfur and mercury content of the feedstock coal and the refined coal used in the most recent determination that meets the requirements of Section 6.03 of Notice 2010-54.

With respect to the sixth ruling request, Section 5.02 of Notice 2010-54 provides that a refined coal production facility will not be considered to have been placed in service after October 22, 2004 if more than 20 percent of the total fair market value of the facility (the cost of the new property plus the value of the used property) is attributable to property that was placed in service on or before October 22, 2004. This rule provides a test for determining whether modifications to a facility will result in a new placed in service date. Accordingly, we conclude that if the Facility is “placed-in-

service" prior to January 1, 2012 within the meaning of § 45(d)(8)(B) of the Code, a subsequent modification or relocation of the Facility will not result in a new placed-in-service date for the Facility for purposes of Section 45, provided that the fair market value of the original property of the Facility is more than 20 percent of the Facility's total fair market value at that time.

This ruling expresses no opinion about any issue not specifically addressed in this ruling letter, including (1) whether any person has sold refined coal to an unrelated person, or (2) when the facility was actually "placed in service." In particular, we express or imply no opinion that the Taxpayer has sufficient risks and rewards of the production activity to qualify as the producer of the refined coal. The Service may challenge an attempt to transfer the credit to a taxpayer who does not qualify as a producer, including transfers structured as partnerships, sales or leases that do not also transfer sufficient risks and rewards of the production activity.

In accordance with the Power of Attorney on file with this office, we are sending a copy of this letter to your authorized representatives. A copy of this ruling must be attached to any income tax return to which it is relevant. Alternatively, taxpayers filing their returns electronically may satisfy this requirement by attaching a statement to their return that provides the date and control number of the letter ruling.

This ruling is directed only to the Taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. We are sending a copy of this letter ruling to the Industry Director.

Sincerely,

Peter C. Friedman
Senior Technician Reviewer, Branch 6
Office of Associate Chief Counsel
(Passthroughs & Special Industries)

cc: