



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 represents the facts as follows:

Taxpayer (Operating Company), is a limited liability company organized under the laws of State. The Operating Company owns the refined coal facility (Facility) located adjacent to Generating Station owned by Company A (Generating Station Owner) and located near City.

The Operating Company is owned as follows: (i) Company B, a State A limited liability company as a member holding a% of the outstanding membership interests; and (ii) Company C, a State corporation, as a member holding b% of the outstanding membership interests.

Operating Company has not elected and will not elect to be classified as an association taxable as a corporation, and accordingly, Operating Company is classified as a partnership for federal income tax purposes. Manager acts as the non-member manager of the Operating Company.

The only material asset of Company B is its interest in the Operating Company (and another similar operating company). Company B is owned as follows: (i) Company C, as a member holding c% of the outstanding membership interests; and Company E, a State limited liability company, as a member holding d% of the outstanding membership interests.

Company F owns e% of the stock of Company C. Company F is a publicly traded corporation. One of the companies that Company F invested in was Company D (Technology Owner). Company F became the managing member of Technology Owner.

Company E is a special purpose entity created for the purpose of entering into the transactions described herein. Company E is owned by Company H, a State limited

liability company. Company E is treated as a disregarded entity for federal income tax purposes, and as a division of Company H. Company H is classified as an association taxable as a corporation for U.S. federal tax purposes, and has in effect an election under section 1362(a) to be an S corporation. Company H is the holding company for a financial services firm better known as Company I.

Pursuant to the purchase agreement between Company C and Company E, Company E bought a d% in Company B in exchange for a purchase price closely approximating Company E's proportionate share of the total cost of constructing and installing the Facility.

### The Facility

The Operating Company has constructed and installed the Facility, and has commercially deployed the Technology at the Generating Station. The Facility was constructed by Company G who certified that construction of the Facility was mechanically complete on Date a.

The Operating Company entered into a site lease with Generating Station Owner that allows Operating Company to construct and locate the Facility at the Generating Station. Pursuant to the terms of the Lease, the Operating Company has rights of ingress and egress as appropriate.

The Operating Company entered into a coal supply agreement whereby it will purchase coal feedstock from Generating Station Owner at the Generating Station. Under that agreement, the Operating Company will buy all of its feedstock coal from Generating Station Owner, except that the Operating Company may buy feedstock coal from third parties to the extent Generating Station Owner fails to provide the Operating Company with sufficient feedstock coal to operate the Facility in an economical manner. The feedstock coal purchased by the Operating Company from Generating Station Owner will be coal that Generating Station Owner itself purchased from third party vendors, consistent with its coal procurement specifications.

The Generating Station is designed for Location a coal firing with natural gas or Number 2 fuel oil for startup, flame stabilization and shutdown. Location a coal is classified by the American Society of Testing Materials ("ASTM") as a sub-bituminous coal. The Generating Station Owner purchases these Location a coals from a number of source mines located in several states. The Operating Company (or a subcontractor) will buy feedstock coal from Generating Station Owner and apply the Technology to the coal feedstock. In this regard, the Operating Company has entered into an operation and maintenance agreement with Company G (Operator) to operate and maintain the Facilities as an agent on behalf of the Operating Company. The Operator is not related to Generating Station Owner, the Operating Company, Company B, or any of the members of Company B or the Operating Company.

Thereafter, the Operating Company will sell the resulting Refined Coal to Generating Station Owner. Pursuant to this agreement, Generating Station Owner will purchase from the Operating Company all Refined Coal produced by the Facility, except that to the extent that the Operating Company produces Refined Coal which the Generating Station Owner cannot consume, the Operating Company has the right to sell such excess production to third parties.

### Technology

Company C owns certain licensing rights to a proprietary coal-refining process, referred to as Technology. When the Technology is applied as part of an electric and steam generating facility (by adding chemicals to coal prior to burning the coal in a furnace), it has the effect of reducing emissions of certain pollutants from the burning of the resulting refined coal, increasing fuel efficiency, and reducing boiler maintenance. The by-product of this process is a valuable fly ash which can be used in a diverse array of applications in the steel, mining and cement industries.

The Technology is a dual-injection sorbent system in which separate sorbents for mercury and NO<sub>x</sub> control are added to and mixed with input coal. Technology owner's patent-pending process starts with several chemical additives being added to coal prior to its combustion in a furnace. The additives provide the chemical structure to create a "ceramic matrix" using chemical bonds to capture emissions of regulated pollutants. The matrix has a certain structure of chemicals in certain positions. At the interior corners of the matrix, the structure will pick up and hold pollutants such as mercury, arsenic, or lead. The structure also picks up and includes elements such as oxygen, chlorides and fluorides, which are freely available in a boiler's gas stream when they have been released from the coal during combustion but become locked up in the ceramic matrix.

In short, the Technology converts coal into a refined coal (Refined Coal) that is used as a clean fuel to be fired in boilers to raise steam. The emissions from burning the clean Refined Coal produced by this Technology are significantly less than the emissions otherwise produced by burning unprocessed coal. This is true not only for the emissions of mercury and NO<sub>x</sub> as required by section 45, but also for emissions of arsenic, lead and other metals (which are not currently regulated) as well as for sulfur.

### Testing

The Technology has been tested numerous times at Testing Center. Testing Center is located at a major U.S. university recognized as one of the world's leading developers of cleaner, more efficient energy and environmental technologies to protect and clean air, water, and soil.

In connection with this testing, an emissions monitoring system was used to measure the effect of the Technology on NO<sub>x</sub>, SO<sub>x</sub>, mercury, CO, and O<sub>2</sub> emissions. In addition, the mercury weight content of the fly ash was tested to measure mercury capture by the Technology.

During testing, Tested Coal was burned in one of the boilers at the Testing Center's boiler house. The boiler and the combustion conditions were designed to replicate the combustion and other operating conditions for the Generating Station. The samples of Tested Coal were collected consistent with applicable ASTM standards. For each test, the Testing Center divided each sample of Tested Coal into two sub-samples, one of which was burned to establish a baseline, and the other of which was subjected to the Technology before burning to measure the changes resulting from application of the Technology.

Going forward, the Operating Company may perform pilot scale testing to satisfy the redetermination requirement of Notice 2010-54, or alternatively may undertake laboratory testing of the feedstock coal and the Refined Coal to satisfy this requirement. To the extent that the Operating Company is required to do so, the Operating Company will collect samples of feedstock coal and Refined Coal, consistent with applicable ASTM standards, and pursuant to a protocol for the regular collection of sample feedstock coal and Refined Coal. Any such samples would be utilized for a number of purposes, including potentially conducting periodic laboratory tests for mercury and sulfur content, and maintaining rolling averages of the results in order to comply with Notice 2010-54.

### RULINGS REQUESTED

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

1. The refined coal produced and sold by 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 Tested Coal and provided further that the refined coal satisfies the qualified emission reduction test stated in §45(c)(7)(B) of the Code.
2. Provided that the feedstock coals used to produce refined coal during any redetermination period are from the same coal source regions and of the same rank as the Tested Coal, all such feedstock coal shall be treated as feedstock coal of the same source and rank for purposes of section 6.04 of Notice 2010-54, regardless of the mine from which such feedstock coal is purchased.
3. Testing by the Testing Center for qualified emissions reduction as set forth in its test reports satisfies the requirements of Notice 2010-54 with respect to the Tested Coals

and any blend of them. The pilot scale testing conducted at Testing Center (and subsequent permitted laboratory testing as required for a redetermination described in section 6.04(2)(a) or (b) of Notice 2010-54) to satisfy the qualified emission reduction test of §45(c)(7)(B) of the Code may be relied upon regardless of subsequent normal fluctuations in operating conditions and emissions at the Generating Station.

4. 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% 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 of section 6.03 of Notice 2010-54.

### 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 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)) 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 and 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 (S) 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 S 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; (b) the S or mercury content of both the feedstock coal and the refined coal do not vary by more than 10 percent from the S 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 issue, the Process starts with several chemical additives being added to the feedstock coal prior to its combustion in a furnace. The additives provide the chemical structure that results in the reduction of emissions of nitrogen oxide and mercury during combustion. 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 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 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.

With respect to the second issue, the emissions profile of the refined coal product is compared to the emissions profile of either the feedstock coal or a comparable coal predominantly available in the marketplace as of January 1, 2003. Section 3.03 of the Notice provides that a “comparable coal” is defined 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. Section 6.04 of provides that a determination or redetermination of a qualified emissions reduction is valid until 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. Accordingly, we conclude that provided that the feedstock coals used to produce refined coal during any redetermination period are from the same coal source regions and of the same rank as the Tested Coal, all feedstock coal used to produce refined coal which is from either or both of the coal source regions of the Tested Coal, and any blend of coal from such regions shall be treated as feedstock coal of the same source and rank for purposes of section 6.04 of Notice 2010-54, regardless of the mine from which such feedstock coal is purchased.

With respect to the third issue, section 6.03(3) of the Notice provides that any permissible testing method provided for in the Notice can be used in emission testing for any pollutant. That is, a taxpayer can use different testing methods for each of nitrogen oxide, sulfur dioxide or mercury, provided the method used for any pollutant is a permissible method. Section 6.04(1) provides that an emission test establishing a

“qualified emission reduction” qualifies the refined coal for a six-month period provided there is no change in the process for producing the refined coal or in the source or rank of the feedstock coal. Therefore, a taxpayer must “redetermine” the emission reductions to qualify for the succeeding six-month period using one or more approved methods. In the instant case, Taxpayer will arrange for pilot-scale combustion testing, and will not rely on any continuous emissions monitoring system or other field testing, which is permitted under section 6.03 of the Notice. Specifically, Testing Center will conduct testing (including redetermination testing) at its testing facility to determine the emissions reductions associated with burning the refined coal product compared to the feedstock. For purposes of qualifying the refined coal produced at the facilities, the Testing Center has conducted pilot-scale combustion tests and documented them. In conducting such tests, the Testing Center conducted tests on the feedstock, and then mixed a separate sample of the feedstock with the additives so that it could conduct tests on the refined coal product. In each of its reports, the Center reported that the test results indicated that the blend of coal and additives achieved the required emissions reductions. Based on the foregoing, we conclude that Testing by the Testing Center for qualified emissions reduction as set forth in its test reports satisfies the requirements of Notice 2010-54 with respect to the Tested Coals and any blend of them. The pilot scale testing conducted at Testing Center (and subsequent permitted laboratory testing as required for a redetermination described in section 6.04(2)(a) or (b) of Notice 2010-54) to satisfy the qualified emission reduction test of §45(c)(7)(B) of the Code may be relied upon regardless of subsequent normal fluctuations in operating conditions and emissions at the Generating Station.

With respect to the fourth issue, 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% from the sulfur and mercury content of the feedstock coal and the refined coal used in the most recent determination that meets the requirements of Notice 2010-54. In the instant case, periodic bench tests will be performed to confirm that the sulfur and mercury content of the coal taken from the pile and input into the Facility (as well as the sulfur and mercury content of the Refined Coal output from the Facility), regardless of the actual blend of types of coal or the source of the mines will not vary by more than 10% below the bottom range for sulfur and mercury or ten percent above the top of the range of these chemicals in the tested feedstock coals. 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 sulfur and mercury content of both the feedstock coal and the refined coal, on average, do not vary by more than 10% below (nor more than 10% above the top) of the range of sulfur content and range of the 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.

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 "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)