Colin Marshall
President and Chief Executive Officer

September 17, 2015

The Honorable Janice Schneider
Assistant Secretary for Land and Mineral Management
U.S. Department of the Interior
1849 C Street NW
Washington, D.C. 20240

[submitted electronically to: blm_wo_coal_comments@blm.gov]

RE: Comments to Bureau of Land Management as part of Federal Coal Program Listening Sessions

Dear Madam Assistant Secretary:

Cloud Peak Energy Inc. appreciates the opportunity to provide further comments as part of the Federal Coal Program Listening Sessions. As a U.S. coal mining company with almost 100% of our current resources on federal land in Wyoming and Montana, we believe we are one of the companies who would be most directly impacted by any proposed changes to federal coal royalties. Given the current environment, we believe that the current royalty rate should remain unchanged, or rates should be reduced to ensure ongoing leasing and production of federally owned coal to maximize its value.

Executive Summary

Coal Producers Pay More than Our "Fair Share"

On average, Cloud Peak Energy has distributed 83% of our income before taxes and royalties to federal and state governments. This is more than a "fair share" of the coal economic value; especially when all risks associated with the production and reclamation are taken by the producer. Any increase to the royalty rate would materially impact the overall governmental payments burdening U.S. coal companies reducing their viability and total income to the government.

Not only do coal companies need to manage increasing costs of labor, increased costs of regulatory compliance and increased production costs; but we must constantly be using current cash flow to invest in lease bonus payments to ensure the longevity of our business. In an environment where companies are only allowed 17% of income before taxes and royalties to invest in future reserves, it is clear why no fewer than seven U.S. coal companies have filed for bankruptcy protection in 2015 alone. We do not have knowledge of any other industry in the United States that is placed under such an economic burden.

Any Increase in the Royalty Rate Will Discourage Federal Coal Development

Raising the federal coal royalty rate above 12½% will discourage leasing and production of federal coal, in favor of state or private coal available at a lower royalty rate. Congress has consistently declared that this Nation's policy is to encourage the development of domestic coal reserves. Congress sought to "encourage the maximum ultimate recovery of the coal deposits in the leasable lands of the United States," by imposing diligent development and maximum economic recovery ("MER") requirements.

Royalty rates have been purposefully established to encourage greater production volume (e.g. underground coal mines). Raising the royalty rate to discourage federal coal development directly contravenes the congressional intent to encourage the maximum economic recovery of federal coal. The Secretary has no regulatory authority to consider policy or indirect considerations, such as the social cost of carbon, in its MER determination. If the costs of mining federal coal deposits (including royalty rates, lease payments, etc.) become so high that mining the leased federal coal deposit becomes uneconomical altogether, the coal will not be mined. Raising the federal coal royalty rate to a level that renders the mining of federal coal less economical is wholly inconsistent with Congress's intent and the Secretary of the Department of Interior's ("Secretary") duty to achieve maximum economic recovery of coal through the leasing process.

Any Increase in the Royalty Rate Will Immediately Lower the Fair Market Value of Future Federal Coal Leases

Increasing the royalty rate will lead to a decrease in the fair market value for lease bonus payments. Although the bonus bid and royalty rate are separate statutory mandates, each directly influences the other. The BLM's Handbook acknowledges that: (1) the royalty rate of the lease influences the amount of economically recoverable coal within a lease tract, and (2) the amount of economically recoverable coal in a lease tract influences the fair market value of the lease. Any increase in the royalty rate will necessarily lead to the inescapable consequence of a reduced fair market value.

Raising Royalty Rates to Achieve the Administration's Climate Change Objectives is Unlawful

Discouraging coal development is clearly the singularly desired result for anti-coal activists based upon recorded comments during the listening sessions. However, this consequence would clearly be contrary to 100 years of federal mineral policy, and there is no statutory support for such a radical change. Any attempt by the BLM to use it as such would be a clear violation of federal law and policy. The DOI is not authorized to impose any new or additional taxes, fees, or penalties on coal production. Efforts to raise the royalty rate with the intention of lowering federal coal production volumes to achieve the administration's climate objectives, or promote renewable energy growth, are illegal. Any such efforts would constitute new revenue measures, which can only be initiated and approved by Congress.

The Royalty Policy Committee Should be Reconvened Immediately to Allow for Expert Level Discussion for this Highly-Complex Component of the Country's Energy Policy

We are concerned that there has been a complete shift away from the Royalty Policy Committee ("RPC"). The RPC provided an opportunity for collaboration between interested federal government agencies, state government representatives, mining industry experts, and trade associations. Due to the background, knowledge base, expertise, and motivation of all participants, there was potential to discuss and resolve highly-technical issues that are paramount to the BLM and state decisions. The RPC avoided policy being unduly influenced by faulty advocacy papers and incomplete personal testimonials. Despite the critical role of the RPC in advising the Secretary on the management of federal and Indian mineral leases, the charter establishing the RPC was allowed to expire in 2014 shortly before the recently announced reevaluation of the Federal Coal Program – a time when the RPC is most needed.

Cloud Peak Energy implores the BLM to reinstate the RPC for further discussion and research before considering any potential changes to the federal coal royalty rate. Cloud Peak Energy, as one of the largest producers of federally leased coal, would willingly volunteer to actively serve on the RPC if invited.

Arguments Alleging Justification for Raising Royalty Rates and Leasing Costs are Riddled with Inconsistencies and Misrepresentations of Fact

The Headwaters Economics Report (An Assessment of U.S. Federal Coal Royalties – Current Royalty Structure, Effective Royalty Rates, and Reform Options) is a blatant misrepresentation of complex matters, with the focus on sales price determination (i.e. not the royalty rate).

It is also worth noting that if there was a systematic underpayment of coal royalties, which there is not, this would justify improving collection, not raising federal royalty rates. With the significant efforts of the coal producers to comply, subject to governmental audit oversight and the risk of significant interest and penalties for inaccurate production tax payments, the current federal coal program is not in need of reform. Attached is a report prepared by Energy Ventures Analysis ("EVA") (Seth Schwartz) that analyzed the same information as the Headwaters Economics Report, with vastly different conclusions.

In two advocacy pieces (January 2015 and May 2015), Headwaters claimed to show that a "loophole" existed in current ONRR royalty valuation of non-arms' length transactions and that coal producers evaded full royalty payment even in arms' length transactions. Despite the fact that ONRR receives the sale contracts and details of every sale of federal coal and could readily contradict these unfounded allegations by Headwaters, they have not done so. Cloud Peak Energy therefore contracted EVA to undertake a peer review of the Headwaters Economics studies to determine if their data and methodologies were sound. EVA has categorically demonstrated in their review that Headwaters used faulty data to draw unsupported conclusions and that the allegations of "loophole" exploitation to evade fair and full royalty payment as well as claims of underpayment of royalties on arms' length transactions are patently false. Throughout the listening sessions on possible changes to the federal coal leasing program, Bureau of Land Management and Department of Interior officials were bombarded with claims about 'loopholes' in the royalty valuation system and underpayment of royalties by coal producers. These allegations were almost always made based on the so-called "Headwaters Study". Headwaters Economics is an environmental policy advocacy group that claims to be independent and non-partisan. These claims are false.

Cloud Peak Energy respectfully requests that any response by the BLM to comments, whether written or delivered in the listening sessions, in which the alleged "loopholes" or the Headwaters "studies" were referenced, note the egregious data flaws and data manipulation that the EVA peer review identified in those "studies".

There are No Government Reports Recommending An Increase in Federal Royalty Rates

In the interest of correcting the public record, we note that during 2015, Secretary Jewell has suggested to Congress that the Inspector General of the Department of the Interior's June 2013 Report "Coal Management Program, Department of the Interior" or the Government Accountability Office's Report of December 2013 "Coal Leasing" recommended changes to the valuation methodology for non-arms' length sales of federal lease coal. We also note that the Secretary has referenced these reports when advocating raising the royalty rate and leasing costs for BLM managed coal leases. We wish to state for the record that these reports do not recommend either measure. Neither report recommends changes to the valuation methodology that were released in January 2015 as a proposed rule. In neither report is there a specific recommendation to raise the royalty rate or leasing costs for the BLM-managed coal leases.

Comments and Discussion

Impact of Current Royalty and Market Conditions on U.S. Coal Companies

The current economic environment and market conditions for U.S. coal companies is not sustainable. No fewer than seven U.S. coal companies filed for bankruptcy in the first eight months of 2015 alone; with a high likelihood that other significant producers will also file in the coming months or years. While an argument that the federal royalty rate is the cause of bankruptcy inducing hardship is untenable, any increase to the royalty rate would materially increase the large overall governmental payments burdening U.S. coal companies reducing their viability and total income to the government.

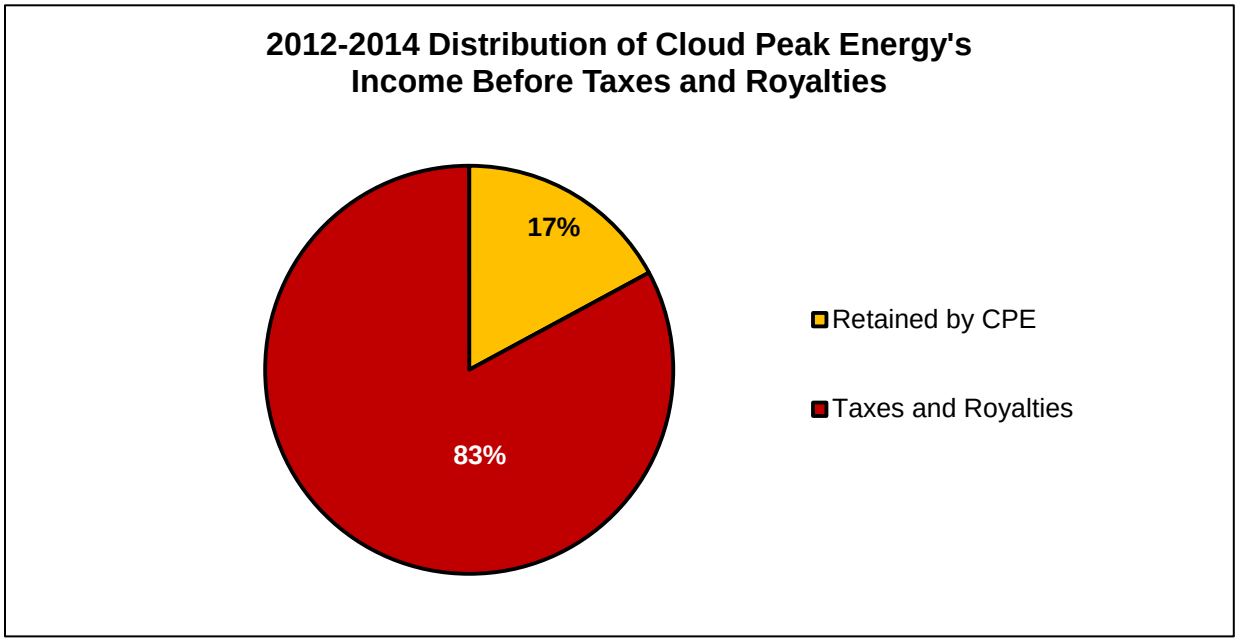
As detailed below, the BLM's revised Coal Evaluation Handbook states the Maximum Economic Recovery test must be utilized to ensure that " . . . the revenue from the sale of each incremental ton of coal must meet or exceed the direct costs to mine, transport, beneficiate, and pay royalty and taxes incurred to produce the next incremental ton of coal mined." As the demand and prices for coal have decreased over the past half-decade, the costs, burdens, and risks associated with coal mining have continued to increase. Not only do coal companies need to manage through increasing costs of labor, increased costs of regulatory compliance and increased production costs, but we must constantly reinvest current cash flow to ensure future production.

The table below illustrates the current economic burdens on Cloud Peak Energy:

(All $ in thousands)	2012	2013	2014	Total	3 Year Average
Total Revenue	1,516,772	1,396,097	1,324,004	4,236,873	1,412,291
Expenses other than Governmental Payments	832,210	895,294	730,222	2,457,726	819,242
Income Before Taxes and Royalties	684,562	500,803	593,782	1,779,147	593,049
Taxes and Royalties[1]	510,842	448,832	514,822	1,474,496	491,499
Percent of Income to Government	75%	90%	87%	83%	83%
Cloud Peak Energy Income to Reinvest	173,720	51,971	78,960	304,651	101,550
Percent of Income to Reinvest	25%	10%	13%	17%	17%

[1] Taxes and royalties includes: federal and state royalties, federal lease by application payments, federal black lung excise tax, federal reclamation tax, state severance taxes, state sales and use tax, county gross proceeds and property taxes, state and federal income, and payroll taxes.

To further illustrate:



During the period 2012 through 2014, Cloud Peak Energy has paid an annual average of $491,499 to the government. In other words, the American people have received 83% of the value of the federal coal Cloud Peak Energy has mined and sold without investing any capital or taking any risks associated with the underlying coal mining business.

If Cloud Peak Energy is to produce and sell coal in the future, a significant portion of the 17% of income after governmental payments illustrated above must be reinvested to acquire additional reserves for future production. Any increase in costs (including increases in LBA payments and / or royalty payments) will further jeopardize our ability to acquire future reserves. This consequence would be contradictory to the mineral policy of the U.S. over the past 100 years, which has been to ensure that the "next ton" of resource is developed.

Slicing the financials another way, approximately 40% of all federal coal gross revenue (before considering any expenses) is paid to the government for lease bonus payments, royalties, severance and other production taxes. This is more than a "fair share" of the economic recovery; especially when all risks associated with the production and reclamation are retained by the producer. Any increase to the royalty rate would materially increase the large overall governmental payments burdening U.S. coal companies reducing their viability and total income to the government.

Raising the Royalty Rate to Discourage Federal Coal Development Directly Contravenes Congressional Intent to Encourage the Maximum Economic Recovery of Federal Coal

Since the enactment of the Mineral Leasing Act of 1920 ("MLA"), Congress has consistently declared this Nation's policy to be that of encouraging the development of domestic coal reserves through the federal leasing process. *See* H.R. REP. No. 17, pt. 1, at 3 (1916) ("The leasing system and the intelligent utilization of the coal . . . [is] imperative"); *see also* Mining and Minerals Policy Act of 1970, 30 U.S.C. § 21a ("Congress declares that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in . . . the orderly and economic development of domestic mineral [coal] resources."); Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1701(a)(12)

("[I]t is the policy of the United States that . . . the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals.").

Further, through the Federal Coal Leasing Act Amendments of 1976, Pub. L. 94-377, 90 Stat. 1083 ("FCLAA"), Congress sought to "encourage the maximum ultimate recovery of the coal deposits in the leasable lands of the United States," by imposing diligent development and maximum economic recovery ("MER") requirements. *See Hearing Before the Subcomm. on Mines and Mining*, 94th Cong. 133 (1975); *see also* 30 U.S.C. §§ 201(a)(3)(C) ("Prior to issuance of a lease, the Secretary shall . . . [ensure] the maximum economic recovery of the coal within the proposed leasing tract.") and 207(b) ("Each lease shall be subject to the conditions of diligent development").

The Secretary's determination of whether MER will be achieved is based on the economics of developing the particular coal reserve. *See* 43 CFR §§ 3480.0-5 (21), and 3484.1(b). In particular, the Secretary must consider the direct costs the lessee incurs in mining the reserve, with consideration given to "existing proven technology; commercially available and economically feasible equipment; coal quality, quantity, and marketability; safety, exploration, operating, processing, and transportation costs." *Id.* § 3480.0-5(21); *see also id.* §§ 3482.1(c) and 3487.1(c) (listing the information informing the Secretary's MER determination). The Secretary, however, has no regulatory authority to consider policy or indirect considerations, such as the social cost of carbon, in its MER determination. *See id.*

The royalty rate of a federal lease is a direct cost the Secretary must consider in making a MER determination. Current regulations governing MER provide that "*profitable* portions of a leased federal coal deposit must be mined." 43 C.F.R. § 3480.0-5(21) (emphasis added). The royalty rate on the federal coal directly influences its profitability. BLM's revised Coal Evaluation Handbook recognizes the connection between the royalty rate and MER:

> MER is an economic test based on when the direct mining, beneficiation, and royalty and tax costs for producing the next unit of coal into a marketable condition, are equal to the value derived from the sale of the same unit of coal. Said another way, the revenue from the sale of each incremental ton of coal must meet or exceed the direct costs to mine, transport, beneficiate, and pay royalty and taxes incurred to produce the next incremental ton of coal mined. MER is achieved at the point where economically recoverable reserves become uneconomical.

H-3073 Coal Evaluation Handbook at 1-4 (Oct. 2, 2014) (emphasis added). If the royalty rate is increased and becomes so high that mining leased federal coal deposit becomes uneconomical, the coal will not be mined. Raising the federal lease royalty rate to a rate that renders the mining of federal coal less economical is wholly inconsistent with Congress's intent and the Secretary's duty to achieve maximum economic recovery of coal through the leasing process. Further, the Secretary is not allowed to consider any social cost of carbon within the framework of coal royalty or lease valuations.

The issue of high royalty rates and resulting waste of coal resources was addressed by Congress in 1975. *See Hearing Before the Subcomm. on Mines and Mining*, 94th Cong. 16 (1975). In evaluating whether federal coal leases should be awarded through a royalty bidding process, Congress found that if the royalty bidding process led to a "very high royalty," "vast tons of Federal resources, coal resources, [would] simply [not] be developed" because it would be unprofitable for the lessee. *Id.*; *see also id.* at 38 ("[if] royalty rates [are] so high that total mining costs would be excessive for a lease . . . economic mining methods might not be possible and early abandonment of the lease for that reason could be likely with attendant waste of mineral resources."). For this reason, Congress ultimately adopted the current bonus bidding process with a fixed royalty rate. *See* 30 U.S.C. §§ 201 and 207. Imposing a high royalty rate now would lead to the precise outcome Congress sought to avoid in 1975.

In addition, if it is the intent of the BLM to use the royalty rate as a means to discourage federal coal development, that too is inconsistent with Congressional intent. The federal coal royalty rate is remuneration to the Government for the minerals produced. 53 Cong. Rec. 835, 839 (1916); *Hearing Before the Subcomm. on Mines and Mining*, 94th Cong. 23 (1975).

In 1920, royalty on coal under the MLA was based on a cents per ton calculation that had little to do with the value of the coal. 41 Stat. 437, 439 (1920) (royalty for coal "shall not be less than 5 cents per ton of two thousand pounds"). In 1970, the bipartisan Public Land Law Review Commission published a Report recommending that the royalty rate on production of minerals from public lands, including coal, should be based on "fair-market value." *One Third of the Nation's Land: A Report to the President and to Congress by the Public Land Law Review Commission* at 128 (June 1970). For royalty setting purposes, the fair market value must be competitive with the market value of coal mined from state or private leases. *See id.* at 129 ("The proportion of value should be comparable, but not necessarily equal, to rates being paid to other landowners for the same mineral ore in the region."). In addition, **the Report concluded that "Congress should specify such royalties at levels that will provide a continuing incentive for mineral exploration, development, and production on public lands**." (Emphasis added) *Id.*

Through the FCLAA of 1976, Congress changed the royalty basis for coal to a percentage of its value. H.R. REP. No. 94-681, 81 (1975) ("the revised language changes the minimum royalty from $.05 per ton to twelve and one half per centum of the value of the coal, except that the Secretary may determine a lesser amount for underground mining operations."). As a result of the royalty base being a percentage of value, since 1976, the federal royalty rate has been set at a level to provide a fair return for the U.S. based on the fair market value of the coal.

Raising the rate above 12½% will discourage leasing and production of federal coal, perhaps in favor of state or private coal available at a lower royalty rate. It has been made abundantly clear through the listening sessions, purchased media, and historic submitted comments that the desired outcome for opponents of the coal industry is to discourage all coal production. However, discouraging coal production on federal land is clearly contrary to 100 years of federal mineral policy, and there is no statutory support for such a radical change. It makes no sense to lease federal mineral resources with a royalty rate that will provide a disincentive to development. The federal coal royalty rate is clearly not meant to be a policy tool to use to discourage coal development or coal combustion. Any attempt by the BLM or the Administration to use it as such would be a clear violation of federal law and policy.

Further, the DOI is not authorized under the MLA to impose any new or additional taxes, fees, or penalties on coal production. The MLA grants the Secretary broad authority to establish a minimum royalty rate not less than 12½%; however, the MLA is silent as to any authority to impose additional taxes, fees, or penalties on federal coal produced. *See* 30 U.S.C. §§ 201-209. In addition, the Secretary's rulemaking authority under the MLA is limited to proscribing regulations "necessary to carry out and accomplish the purposes of this chapter [the MLA leasing provisions.]" *Id.* § 189. As detailed above, the purpose of the MLA's leasing provisions is to encourage coal development, not render it uneconomical or undesirable. Efforts to raise the royalty rate with the intention of lowering federal coal production volumes to achieve the administration's climate objectives, or promote renewable energy growth is not an authority granted to the Secretary under the MLA or any other federal statute. Any such efforts would require, at a minimum, the Secretary to engage in formal rulemaking. However, such rulemaking efforts would be *ultra vires*, beyond the scope of the Secretary's authority under the MLA because new revenue measures must be initiated and voted on by Congress. *See Fina Oil & Chem. Co. v. Norton*, 332 F.3d 672, 679 (D.C. Cir. 2003) (policy changes must be implemented through notice-and-comment rulemaking); *Meriwether v. Garrett*, 102 U.S. 472, 501, 26 L. Ed. 197 (1880) ("The power of taxation is legislative, and cannot be exercised otherwise than under the authority of the legislature.").

Given the economic conditions for U.S. coal companies over the past several years, we do not believe it is unreasonable for the DOI to consider a royalty rate reduction to maximize the value of federal coal. As

discussed within this letter, the current economic hardships of U.S. coal companies are well publicized. In order for U.S. coal companies to navigate current turbulent economic times and manage significant downward pricing pressure, the financial benefit of a lower royalty rate may be required to ensure resources can be acquired for future development.

Increasing the Royalty Rate Will Lead to a Decrease in the Fair Market Value for Lease Bonus Payments

The federal coal leasing process has two components for ensuring fair market value for federal coal reserves. First, the MLA provides that the Secretary shall not accept a bonus bid that is less than fair market value ("FMV"). 30 U.S.C. § 201(a)(1). Second, the MLA grants the Secretary discretion to establish a royalty rate, not less than 12½%. *Id.* § 207. Although the bonus bid and royalty rate are separate statutory mandates, they are directly connected; one influences the other.

Recently, in response to two 2013 audits of the BLM's coal management program[2], the BLM revised its Coal Evaluation Handbook used to determine the FMV of coal for the lease bidding process. *See* H-3073 Coal Evaluation Handbook (Oct. 2, 2014). At the beginning of the Handbook, BLM sets forth "Regulatory Concepts," which are salient to the FMV determination. *Id.* at 1-4. First, naturally, is the regulatory definition of FMV. *Id.* (citing 43 C.F.R. § 3400.0-5(n)). Second, is the regulatory requirement to achieve maximum economic recovery of coal, which as explained above takes into account the lease royalty rate. *Id.*

The BLM's Handbook acknowledges at the outset that: (1) the royalty rate of the lease influences the amount of economically recoverable coal within a lease tract, and (2) the amount of economically recoverable coal in a lease tract influences the fair market value of the lease. *Id*. Accordingly, "[a]n income approach analysis predicated on the recovery of coal reserves that are not economically recoverable will yield unreliable estimates of value." *Id.*

More significant than unreliable FMV estimates, however, is that an increase in the royalty rate will lead to the unintended consequence of reducing bonus payments. In other words, because the royalty rate is higher, the maximum economic recovery of the coal is lower, and, as a result, the FMV of the lease must also be lower. Potential lessees' bonus bids will reflect this outcome.

Misleading Headwaters Study

Throughout the listening sessions on changes to the federal coal leasing program, Bureau of Land Management and Department of Interior officials were bombarded with claims about "loopholes' in the royalty valuation system and underpayment of royalties by coal producers. These allegations were almost always made based on the so-called "Headwaters Study"[3]. Headwaters Economics is an environmental policy advocacy group that claims to be independent and non-partisan. These claims are false. The organization has close ties to the Democratic Party and is heavily funded by groups and organizations with a well-documented anti-coal agenda and ties to the renewables energy industry, groups who would be financial beneficiaries of any hike in federal coal royalty and leasing rates.

[2] Final Report of the Office of Inspector General of the Department of Interior, Report CR-EV-BLM-0001-2012, "Coal Management Program, U.S. Department of the Interior" (June 2013); Report of the Government Accountability Office, Report GAO 14-140, "Coal Leasing – BLM Could Enhance Appraisal Process, More Explicitly Consider Coal Exports, and Provide More Public Information" (December 2013).

[3] (http://headwaterseconomics.org/wphw/wp-content/uploads/Report-Coal-Royalty-Reform-Impacts.pdf)

In two advocacy pieces (January 2015 and May 2015) Headwaters claimed to show that a "loophole" existed in current ONRR royalty valuation of non-arms' length transactions and that coal producers evaded full royalty payment even in arms' length transactions. Despite the fact that ONRR receives the sale contracts and details of every sale of federal coal and could readily contradict these unfounded allegations by Headwaters, they have chosen not to do so. Cloud Peak Energy therefore contracted Energy Ventures Analysis ("EVA") to undertake a peer review of the Headwaters Economics studies to determine if their data and methodologies were sound. The EVA peer review categorically demonstrates that Headwaters used faulty data to draw unsupported conclusions and that the allegations of "loophole" exploitation to evade full royalty payment, as well as claims of underpayment of royalties on arms' length transactions, are patently false. The EVA peer review arrived at the following conclusions:

- There is no basis for Headwaters's conclusion that a calculated netback mine price is higher than the FOB mine price producers report to ONRR.
- Headwaters made significant errors in its estimation of federal coal production, which distorted its results.
- The SNL "data" on coal sales prices FOB mine are not data, they are estimates, with large errors that distort the analysis.
- The proposed changes to the methodology for valuing federal coal for royalty purposes suggested by Headwaters are neither "transparent" nor "efficient".
- Headwaters has no basis to speculate that there is a large "loophole" exploited by affiliates and unnamed "brokers" to avoid royalty payments.
- The current valuation system is already "transparent" to the only entity that matters – ONRR.

As the EVA peer review will be filed electronically and made part of the public record, we respectfully request that any responses by the BLM to stakeholders that made mention of the Headwaters Economics "studies" in written comments or during the listening sessions be directed to the EVA peer review so that they can better understand the significant inaccuracies in the Headwaters studies.

There are No Government Reports Recommending An Increase in Federal Royalty Rates

Secretary Jewell has suggested to Congress that the Inspector General of the Department of the Interior's June 2013 Report "Coal Management Program, Department of the Interior" or the Government Accountability Office's Report of December 2013 "Coal Leasing" recommended changes to the valuation methodology for non-arms' length sales of federal lease coal and has referenced these reports when advocating raising the royalty rate and leasing costs for BLM managed coal leases. These reports do not recommend either measure. Neither report recommends changes to the valuation methodology that were released in January 2015 as a proposed rule. In neither report is there a specific recommendation to raise the royalty rate or leasing costs for BLM-managed coal leases.

Royalty Policy Committee Should Be Reconvened

Had the Secretary maintained the Royalty Policy Committee ("RPC") chartered specifically to advise her on such matters, perhaps this misunderstanding and misreferencing of the IFG and GAO reports on federal coal leasing would not have happened. Almost certainly the false data in Headwaters Study would not have been successful in driving the proposed royalty valuation rule or demands for higher royalty rates at a time when coal prices are near historic lows.

Cloud Peak Energy welcomes the recently concluded listening sessions as an avenue for the BLM to receive comments from a wide array of viewpoints on coal and coal leasing. However, we are concerned that there has been a complete shift away from the Royalty Policy Committee ("RPC").

The Department of the Interior established the RPC in 1995. The RPC charter provides that the purpose of the Committee is to provide advice to the Secretary of the Interior on the management of federal and Indian mineral leases and revenues. Specifically, the role of the RPC is "to review and comment on revenue management and other mineral-related policies and to provide a forum to convey views representative of mineral lessees, operators, revenue payors, revenue recipients, governmental agencies, and public interest groups."

The DOI press release announcing the establishment of the RPC emphasized its importance: "as representatives of groups most affected by mineral revenue practices, this special caucus of experts will serve an important role in advising on issues related to the management of the nation's multi-billion dollar federal and Indian minerals revenue program. Its creation occurs at a critical time when there is an increased emphasis by all stakeholders to make the Royalty Management Program work better and cost less."

Experts on the RPC represent a variety of stakeholders thereby ensuring DOI appropriately balances different viewpoints. The RPC is comprised of members from states that received significant royalty revenues from federal leases, members representing Native Americans, members representing various mineral and / or energy interests, and members representing public interest groups.

The open dialogue created by the RPC resulted in a better understanding and appreciation of the concerns of each constituency of the RPC and has provided the DOI with valuable insights that have been applied in proposing and implementing new regulations and policies.

Despite the critical role of the RPC in advising the Secretary on the management of federal and Indian mineral leases, the charter establishing the RPC was allowed to expire in 2014 shortly before the recently announced reevaluation of the Federal Coal Program – a time when the RPC is most needed. The policy, economic considerations, financial implications, and timing of any lease and / or royalty change is a highly complex matter. Due to the background, knowledge base, expertise, and motivation of all participants, there was potential to discuss and resolve issues highly technical in nature that are paramount to the DOI and state decisions. While the individuals representing the various organizations and agencies participating on the RPC would often disagree on the matters of interest, the level of input and discussion was typically at a level appropriate for the levity of the policy decisions being made or implemented. Those discussions were (and would be again should the RPC be reconvened) starkly different than the banter which dominated the coal listening sessions.

Cloud Peak Energy implores the BLM to reinstate the RPC for further discussion and research surrounding any potential changes to the federal royalty rate. As a U.S. coal producer with nearly 100% of our current operations on federal lands, Cloud Peak Energy would welcome the opportunity to work with governmental and private experts to assess the needs and impacts of potential changes in the U.S. energy and mineral policies.

Conclusion

As discussed further herein, Cloud Peak Energy believes the current royalty rate should remain unchanged or rates should be reduced to ensure ongoing leasing and production of federally owned coal, thereby maximizing its value pursuant to the requirements of the federal coal leasing program. As demonstrated by numerous recent U.S. coal producer bankruptcies, the industry faces unprecedented challenges as it strives to continue providing low-cost, reliable and safe energy that is critical to our nation and to the health and well-being of all Americans. These persistent, depressed industry conditions are

due in part to the impact of adopted and proposed federal administrative and executive branch actions. Additional regulatory actions in the form of increased royalty rates will serve only to exacerbate the industry's challenges and jeopardize the government's ability to receive any future value from federally owned coal resources.

Specifically:

- under the current program, federal and state governments already receive an average of 83% of Cloud Peak Energy's income before taxes and royalties – an amount we believe to be unparalleled across any industry in the United States and clearly representing more than a fair share;

- any increase in the royalty rate will discourage federal coal development in contravention of the requirements of the federal coal leasing program, while also reducing potential governmental revenues from future coal lease payments;

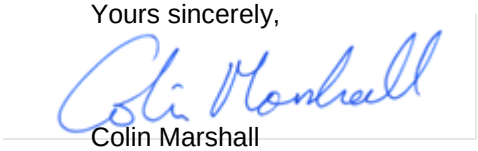
- raising royalty rates to achieve the Administration's climate change objectives is unlawful;

- the current debate regarding the federal coal leasing program, as with many other aspects of the coal industry, is being heavily influenced by misleading "studies" and mischaracterizations promoted by well-funded, unelected anti-fossil fuel groups whose clear goal is to eliminate all coal production in the U.S.; and

- the Royalty Policy Committee should be reconvened to allow for fact-based, expert level discussions regarding the federal coal leasing program.

Cloud Peak Energy appreciates the opportunity to provide these comments as part of the federal coal program listening sessions. Please do not hesitate to contact the undersigned if the Department of the Interior has any questions about our comment letter or would like additional information.

Yours sincerely,



Colin Marshall

Attachment: EVA Peer Review of Headwaters Study

Coal Sales Prices used for Valuation and Payment of Federal Royalties

A Peer Review of Previous Studies by Headwaters Economics

September 16, 2015

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List of Exhibits

I. Summary

Headwaters Economics has published two reports alleging that the coal prices reported to ONRR by producers on federal coal leases are substantially less than the actual commodity price for the coal when sold to the end user, leading to a large loss of federal royalty revenue. Headwaters reached this conclusion from its calculation of the average net mine price by coal-producing state from reported delivered coal prices. This study is a review of the data sources, analysis and conclusions reported by Headwaters. The conclusions of our review are:

1. **Headwaters selected results which supported its conclusion while ignoring contrary results.** Headwaters selected only two states (Wyoming and Montana) to support its conclusion, ignoring contrary results from its own analysis for other large federal coal states. While Headwaters claimed that the results for these other states (Colorado, New Mexico and Utah) were not as robust, based upon whether a large majority of coal sales were delivered to the electric power sector, this contention is false. Headwaters inability to replicate the reported mine prices by state from the "net delivered prices" is not evidence of under-payment of royalties on federal coal – it is evidence that Headwaters used poor-quality data and performed inadequate analysis. The fact that Headwaters selected the only two states which seemed to support its conclusion is evidence of Headwaters' bias, seeking data to support a conclusion which it had already reached.
2. **Headwaters relied upon poor-quality estimated data to perform its analysis.** Headwaters did not have actual data for the mine prices which it estimated from the reported delivered coal prices to electric power companies; it relied upon a private third-party data service (SNL Energy) for these estimates. There are widespread errors in the price estimates from the SNL data service. SNL over-estimated the delivered coal price to the largest customer for Montana coal (which was an unregulated power company so even its delivered coal price was not reported, just estimated), leading to a huge error in its calculation of Montana coal prices. Further, SNL failed to deduct all of the costs included in the reported delivered costs to estimate the net mine prices (it only deducted estimated transportation carrier charges, but failed to deduct destination state sales taxes and rail car costs).

3. **Headwaters did not account for the fact that mines with federal coal leases have non-federal coal leases also.** Headwaters assumed that all coal produced at any mine with a federal coal lease was federal coal. This incorrect assumption resulted in Headwaters over-estimating the average mine price for federal coal in the states of Wyoming and Montana. These states have some large mines which have a "checkerboard" mix of federal and private coal leases. The coal produced from these mines is high-priced coal sold to local ("mine-mouth") power plants. Headwaters' assumption that all of this coal was federal coal incorrectly increased its calculated average mine price in these states.
4. **Our detailed analysis of the Montana coal sales data for FY 2014 explained the differences between Headwaters calculated "net delivered" mine prices and the prices reported to ONRR to be due to errors in the data relied upon by Headwaters and Headwaters' flawed assumptions.** The difference between Headwaters' calculation of the "net delivered" mine price and the coal prices reported to ONRR was greatest for the state of Montana (Headwaters calculated a mine price 44% higher than the reported price). We analyzed all of the coal sales data for Montana coal from SNL Energy relied upon by Headwaters and found large errors in Headwaters' calculation due to the following problems:
    a. SNL had a huge error in over-estimating the delivered coal price to the Colstrip power plant, which is the largest market for Montana coal;
    b. SNL's data did not include sales to the second-largest customer for Montana coal (Detroit Edison's Belle River and St. Clair power plants), which were at lower prices than the average for Montana coal; and,
    c. Headwaters assumed that all coal production from mines with any federal coal lease were federal coal, but much of the coal produced at the mines with the highest sales prices (Bull Mountains and Rosebud mines) were from private coal leases, so Headwaters over-weighted the higher-priced coal in its average.
5. **Resellers of coal are a very small part of the market and are not a "loophole" avoiding federal royalties.** Headwaters provided no support for its allegation that unnamed "brokers" are reselling coal purchased from producers of federal coal at high profit margins creating an enormous "loophole" to avoid paying federal royalties. Headwaters reached the startling conclusion that the avoided federal royalties are costing the government $139 million annually, which implies that "brokers" are earning profits exceeding $1 billion annually ($139 million divided by the maximum federal royalty rate

of 12.5% equals $1.11 billion). Actually, the federal data on coal purchases by electric power companies shows coal sales by unaffiliated resellers (Headwaters' unnamed "brokers") were a very small part of the market, only 1.7% of Wyoming coal sales, some of which were power companies reselling excess coal which they had purchased, and just 0.8% of Montana coal sales. The participation of coal trading companies in the market for coal from Wyoming and Montana has dwindled to almost no volume, because they have had difficulty earning any margins at all. Headwaters only evidence that there are large profit margins earned by brokers is its own flawed analysis of "net delivered" mine prices.

6. **The changes to the royalty system proposed by Headwaters are not "transparent".** Headwaters repeatedly asserts that the current system of valuing coal sales for federal royalties is not transparent and its proposed change to using the "net delivered" mine prices would be transparent. In fact, the current system is transparent to ONRR, who has access to every sales contract and transaction by the federal coal lessees and audits these sales. The changes proposed by Headwaters are not transparent; they rely on inaccurate estimates provided by private data companies. Neither the lessees (the coal producers) nor ONRR have access to the data on the delivered coal prices or the "net delivered" mine prices and they cannot check or audit these numbers. Further, the data sources do not include all sales of federal coal, just sales to electric power companies. Headwaters itself was not even "transparent" in its own analysis, as it has not provided its data and calculations for others to review, yet it contends that every coal sales transaction should be available for public scrutiny to check whether ONRR is doing its job auditing coal sales prices.

II. Introduction

Energy Ventures Analysis, Inc. ("EVA") was retained by Cloud Peak Energy ("CPE") to perform a peer review of recent studies regarding the methods used by the Department of Interior ("DOI"), Office of Natural Resources Revenue ("ONRR") to value the sales price used to calculate royalties of federal coal leases. A series of press articles alleging that coal companies were under-paying royalties on federal coal leases[1] as well as a letter to DOI from Senator Ron Wyden requesting

[1] Rucker, Patrick. *"Asia coal export boom brings no bonus for U.S. taxpayers."* Reuters. December 4, 2012. http://www.reuters.com/article/2012/12/04/us-usa-coal-royalty-idUSBRE8B30IL20121204; Davenport, Coral. *"U.S. Charging Coal Companies Too Little for Land, Report Says."* New York Times. February 7, 2014.

action by DOI[2] contributed to a proposed rule by ONRR[3] to make some changes to the method of valuation of coal sold from federal leases.

Some of this publicity was specifically directed at non arm's-length sales, where coal is sold and valued using market based mechanisms, under formal transactions to affiliated entities. These affiliates were either sales companies owned by the same parent company as the lessees or vertically-integrated power companies which owned the coal supply to their power plants. This type of sale arrangement, which applies to a comparatively small percentage of Federal coal volume and is specifically covered in the existing regulations, is the subject to formal a DOI/ONRR review which was initiated in January 2015.

Subsequent to the announced review of regulations covering non arm's-length sales, there have been further reports claiming that even coal which has been valued using the sales price under arm's-length contracts do not properly reflect the market value of the coal.[4] These reports allege that there has been massive avoidance of payment of federal coal royalties by failing to report true value of the coal sales to end users and have called for alternatives to change the point of valuation of the coal sales from the mine price (typically known as the FOB, or "free on board", mine price) to the delivered price to the ultimate customer or using the delivered price less transportation costs to determine the FOB mine price (the net mine price), rather than the sales price reported by the lessees (the coal producers).

While theoretically, the "net delivered" mine price should yield the same result as the FOB mine price reported by the lessees, reports by a company called Headwaters Economics ("Headwaters") allege that they have demonstrated that the calculated net mine price (which it calls the "net

http://www.nytimes.com/2014/02/08/us/us-charging-coal-companies-toolittle-for-land-report-says.html?_r=0;

[2] Wyden, Murkowski Seek Answers on Coal Royalty Payments. Press Release, January 4, 2013. Senator Ron Wyden (D, OR). https://www.wyden.senate.gov/news/press-releases/wyden-murkowski-seek-answers-on-coal-royalty-payments

[3] U.S. Department of the Interior, Office of the Secretary. Interior Department Announces Initial Steps to Strengthen Federal Energy Valuation Rules, Expand Guidance on Federal Coal Program. Bureau of Land Management News Release, December 19, 2014. http://www.blm.gov/wo/st/en/info/newsroom/2014/december/nr_12_19_2014.html.

[4] Center for American Progress, "Cutting Subsidies and Closing Loopholes in the U.S. Department of the Interior's Coal Program", January 6, 2015. https://www.americanprogress.org/issues/green/report/2015/01/06/103880/cutting-subsidies-and-closing-loopholes-in-the-u-s-department-of-the-interiors-coal-program/

delivered price") is higher than the FOB mine prices reported to ONRR under the first arm's-length sales price.[5] Headwaters claims that:

> "This method of valuation [i.e., the "net delivered price'] closes the loophole that may allow for companies to structure sales using affiliated brokers to artificially reduce the commodity value of federal coal that is required for royalty valuation. Most importantly, using net delivered costs would close the loophole for all sales, not only for sales where coal is marketed directly by mines and their affiliates."[6]

Headwaters further states that:

> "Using net delivered price has significant transparency advantages, and similar benefits to streamline the assessment process for industry and ONRR compliance audits. Delivered prices are known for sales to regulated utilities (independent of the sale structure). Additional price data is revealed by sales on spot markets, and by market index prices for coal of varying qualities delivered to domestic and export markets. Market analysis firms including Platts and SNL Energy track market prices and transportation costs closely and could be used to reveal prices that would be used by mines for royalty valuation. This transparency would also allow for public review of federal royalty valuation without necessarily revealing contract prices, mining and marketing costs, and other proprietary data."[7]

Headwaters has prepared two analyses of the "net delivered" mine prices for coal sales from federal leases by state and compared these prices to the average prices reported to ONRR by coal producers on the sales of coal by state from its lessees pursuant to the legal disclosure obligations of the lessees.

In its January Report, Headwaters used data reported by the U.S. Energy Information Administration ("EIA") on the delivered coal prices reported to electric power companies as well as industrial users and exports. Headwaters used a separate report from EIA on the average transportation cost of coal by state of origin to domestic power companies. Headwaters calculated the average delivered price of all coal sales by state and subtracted the average transportation costs by state of origin to determine the "net delivered" mine price. Headwaters concluded that the average "net delivered" mine price by state was much higher than the FOB mine price reported to ONRR. Headwaters concluded that the avoided federal royalties were huge. In its January Report, Headwaters calculated that using the "net delivered" price would

[5] Headwaters Economics, "An Assessment of U.S. Federal Coal Royalties", January 2015. http://headwaterseconomics.org/energy/coal/coal-royalty-valuation and Headwaters Economics, "The Impact of Federal Coal Royalty Reform on Prices, Production, and State Revenue", May 2015. http://headwaterseconomics.org/energy/coal/coal-royalty-reform-impacts

[6] Headwaters May Report at 19.

[7] Ibid.

have resulted in increased federal royalties of $173 million annually,[8] which it reduced to $139 million annually in its May Report.[9]

There were many limitations regarding the EIA data which Headwaters relied upon in its January Report. EIA withheld the average transportation rates for many states due to confidentiality, so Headwaters had to rely on an incomplete data set to calculate an average. Further, the average transportation rates to the electric power sector could not be applied to the average delivered prices for industrial and export sales. Headwaters also used the average delivered coal price by state of destination for industrial customers, regardless of the origin of the coal, which resulted in an over-estimate of the price for Wyoming and Montana coal, which is much lower-cost per ton.

Headwaters relied upon a different approach to calculate the "net delivered" mine price in its May Report. Headwaters purchased data from SNL Energy, a private market information and analysis firm. SNL relies in part upon prices reported by electric power companies (both regulated and unregulated) to EIA on Form 923. For regulated electric power companies, SNL used the delivered prices reported by EIA and estimated the transportation costs for each transaction to calculate a "net delivered" mine price. For unregulated merchant power companies, EIA does not release the delivered coal price (due to confidentiality). SNL estimates both the mine price and the transportation costs for coal deliveries to these companies. Headwaters used the average mine price estimated by SNL for deliveries to domestic power companies from mines with federal coal leases to calculate the "net delivered" mine price for sales of federal coal by state.

In both the January and May reports, Headwaters concluded that the calculated "net delivered" mine prices were higher than the FOB mine prices reported to ONRR in the states of Wyoming and Montana (the states with the most federal coal production, measured by tons produced). Headwaters takes this result as evidence that there is a "loophole" which results in significant amounts of coal being resold (either by affiliates or independent brokers) at higher prices, thus avoiding paying federal royalties, amounting to a revenue loss of $139 million annually.

CPE commissioned this report to review Headwaters' approach and data sources and to analyze whether an accurate and independent analysis of the data used by Headwaters does in fact

[8] Headwaters January Report at 24 concluded that the increased royalties would have been $865 million higher over a five-year period.
[9] Headwaters May Report at 13.

demonstrate that coal is being sold for higher prices than reported to ONRR or whether the current system is working to determine the FOB mine price of coal sold from federal leases.

III. Conclusions

Based upon a review of the data, methodology and calculations used by Headwaters, we have reached the following conclusions:

1. **There is no basis for Headwaters' conclusion that a calculated "net delivered" mine price is higher than the FOB mine price producers report to ONRR.** In fact, Headwaters' own results show large inconsistencies, as its calculation of the "net delivered" mine price is ***lower*** than the price reported to ONRR for more than half of the states, as summarized on Exhibit 1.

Exhibit 1: Comparison of Average Mine Prices Reported to ONRR and Calculated by Headwaters for the Fiscal Years 2008 – 2014[10]

	Reported to ONRR			Headwaters Calculations		Difference	
State	Coal Sales (1000 tons)	Sales Value ($1000)	FOB Mine Price	Coal Receipts (1000 tons)	Netback Mine Price	Sales Volume	Mine Price
Alabama	10,248	$522,148	$50.95	1,260	$65.13	-88%	28%
Colorado	131,470	$5,520,508	$41.99	138,570	$41.73	5%	-1%
Kentucky	1,270	$99,528	$78.39	1,483	$101.75	17%	30%
Montana	163,732	$2,484,234	$15.17	137,901	$21.84	-16%	44%
New Mexico	30,853	$1,522,424	$49.34	82,412	$35.19	167%	-29%
North Dakota	19,747	$336,469	$17.04	158,484	$16.32	703%	-4%
Oklahoma	4,249	$216,008	$50.84	2,803	$28.93	-34%	-43%
Utah	83,542	$3,030,170	$36.27	112,036	$30.89	34%	-15%
Wyoming	2,648,832	$33,574,705	$12.68	2,573,019	$15.50	-3%	22%
Total	**3,093,943**	**$47,306,193**	**$15.29**	**3,207,965**	**$18.05**		

Headwaters wishes to focus only on the results for the states of Montana and Wyoming, where its calculations show a "net delivered" mine price higher than the FOB mine price reported to ONRR, explaining that:

> "As a result, our results are only robust for states where a large majority of sales from mines with active federal leases are to the domestic power sector. This is true of Montana and Wyoming."

However, the states of Colorado, New Mexico, North Dakota and Utah all have a majority of sales to the domestic power sector, greater than the state of Montana, yet these are states where Headwaters' calculated the "net delivered" mine prices to be lower than the prices

[10] Headwaters May Report, Tables 1 and 2.

reported to ONRR. While Wyoming is clearly the largest coal-producing state, the coal sales value reported to ONRR for coal produced in Colorado, New Mexico and Utah are similar in magnitude to Montana[11] and the shares of sales to the domestic power sector are equal to or greater than Montana, as shown on Exhibit 2. The fact that Headwaters' own calculations show that these states have "net delivered" prices ***lower*** than the prices reported to ONRR is clear evidence that the problem is Headwaters used poor data and performed a flawed analysis, not that the prices reported to ONRR do not reflect the accurate FOB mine price.

Exhibit 2: Share of 2013 Total Coal Production by State delivered to the Domestic Power Sector[12]

State	Total Production	Domestic Power Sales	Power Sector Share
Alabama	18,620	4,137	22.2%
Colorado	24,236	14,413	59.5%
Kentucky	80,380	60,375	75.1%
Montana	42,231	25,000	59.2%
New Mexico	21,969	21,867	99.5%
North Dakota	27,639	21,543	77.9%
Oklahoma	1,136	537	47.3%
Utah	16,977	12,587	74.1%
Wyoming	387,924	373,505	96.3%
Total	**621,112**	**533,964**	**86.0%**

2. **Headwaters made significant errors in its estimation of federal coal production, which distorted its results.** As Exhibit 1 shows, Headwaters analysis did a poor job of matching the total tons sold from federal coal leases by state. Where Headwaters estimated that the sales volumes to domestic power companies were less than the actual coal production reported to ONRR, this could be explained by sales to non-power markets, which Headwaters could not calculate. However, for 5 of the 9 states which it analyzed, Headwaters calculated sales of federal coal to the domestic power sector to be ***greater*** than the actual total amount of coal produced, which demonstrates that there are problems with the quality of the data and

[11] While Headwaters made the statement in its January Report that "Montana coal sales to domestic power plants account for 95.7 percent of sales over the period" 2008 to 2012 (page 19), that is incorrect and refuted by the data in the same report on Tables B1 (207,705,922 tons produced) and B4 (157,090,721 tons sold to electric power sector, or 75.6%). This percentage declined in 2013 and 2014.

[12] EIA, "Annual Coal Report 2013" for coal production data by state and EIA, "Annual Coal Distribution Report 2013" for distribution of U.S. coal to the electric power sector. http://www.eia.gov/coal/annual/ and http://www.eia.gov/coal/distribution/annual/

Headwaters' analysis, rendering any conclusion unreliable. In some cases, the magnitude of the error is huge, 34% for Utah, 167% for New Mexico, and 703% for North Dakota. Even the 5% excess tonnage for Colorado is significant, given the large share of Colorado coal sales to industrial and export markets. This problem demonstrates that Headwaters' analysis is not reliable and its conclusion that federal "royalty revenue could increase by $139 million annually"[13] using "net delivered prices" is not supported by the analysis.

The failure to accurately assess the share of coal produced by mine from federal leases created a large error in Headwaters' calculations. In the 2 states where Headwaters calculated higher "net delivered" mine prices than the average price of federal coal reported to ONRR (Montana and Wyoming), there are several large mine-mouth power plants (where the coal supply to the plant is dedicated from mines adjacent to the power plant). For these power plants, the FOB mine price and the delivered price is approximately (assumed to be exactly) the same amount per ton. While these plants have a low delivered price of coal, the FOB mine price is generally higher than the mine price received by mines which sell in the open market. The large mine-mouth plants in these states (Colstrip in Montana and Jim Bridger and Kemmerer in Wyoming) receive coal from mines which have "checkerboard" coal leases, which alternate between federal and private ownership. Thus, the assumption that these mines are 100% federal coal induced a large error in Headwaters' analysis, biasing the average "net delivered" mine price for federal coal well above the average price for coal actually produced from federal leases in these states.

3. **The SNL "data" on coal sales prices FOB mine are not data, they are estimates, with large errors that distort the analysis.** In its May Report, Headwaters decided only to use data for coal sold to the domestic electric power sector because data for these sales are more readily available. In order to calculate the "net delivered" mine price, Headwaters relied upon a database of coal deliveries to the electric power sector which it purchased from SNL Financial, Inc. ("SNL"), which is a news and information service. The U.S. Energy Information Administration ("EIA") collects data on Form 923 from power generators on their fuel purchases, either monthly (for plants over 200 MW) or annually (for smaller plants). EIA collects data on the coal deliveries, including the tons received, the coal quality, and the commodity price, both delivered and FOB mine. However, due to confidentiality, EIA does

[13] Id at 13.

not release the FOB mine price and, for unregulated power generators, does not release the delivered coal price either. For regulated utility generators, SNL provides its own estimates of the FOB mine price by relying upon the delivered prices reported by the utilities and released by EIA, less SNL's own estimates of the transportation costs from the mine to the plant.[14] For unregulated plants, SNL does not use the reported delivered price (which is not released by EIA) less estimated transportation costs to estimate the FOB mine price. Instead, SNL uses the delivered price for all coal delivered to each destination state reported by EIA (where it is not withheld to protect confidentiality for unregulated power companies) and deducts the estimated transportation costs to calculate the FOB mine price.[15]

The estimated mine prices reported by SNL have large errors and cannot be relied upon for the purpose of determining the "net delivered" mine price as an alternative to the prices reported by the coal lessors to ONRR. For example, the state for which Headwaters found the largest discrepancy between the reported price to ONRR and its "net delivered" mine price calculation was Montana, which was one of only two states where Headwaters found a "problem" where its calculated "net delivered" price was higher than the reported FOB mine price (Headwaters' price calculation was 44% above the average price reported to ONRR as shown on Exhibit 1). The largest consumer of Montana coal is the mine-mouth Colstrip power plant. In calendar year 2014, the mine-mouth Colstrip plant reported receipts of 8,752,704 tons on the EIA Form 923 out of a total of 29,811,530 tons of reported receipts of Montana coal (29.4%).[16] However, EIA does not release the average price of coal delivered to Colstrip because the operator and partial owner of the plant is an unregulated generator (Talen Energy). SNL estimated the delivered price to Colstrip (with the same mine price as

[14] In its May report, Headwaters stated that "Transportation costs are reported for regulated utilities in the U.S. by the Energy Information Administration. Where these costs are not reported, SNL energy estimates transportation costs based on waybill samples from the U.S. Department of Transportation, Surface Transportation Board." (Headwaters May Report at 21). This statement is not correct, or is misleading at best. Because of confidentiality, EIA does not release or report the transportation rates for any coal delivery for any power plant or any mine, whether regulated or unregulated. EIA does publish an annual report providing the total transportation cost for coal by state of origin to state of destination, by subtracting the reported commodity price from the reported delivered price. However, even these data are redacted by EIA for many of the origin-destination state combinations for confidentiality to prevent users from doing the calculations which Headwaters performed. While Headwaters used this annual report in its January report, SNL does not use any EIA data on actual transportation costs in its database. SNL estimates the transportation costs for all coal deliveries, not just those for unregulated companies.

[15] SNL, "Coal Transportation Rate Methodology" at https://www.snl.com/help/HelpFile/Coal_Transportation.htm

[16] EIA Form 923, "EIA923_Schedules_2_3_4_5_M_12_2014_Data_Early_Release.xls" at http://www.eia.gov/electricity/data/eia923/

transportation costs were assumed to be zero) to be $37.76 per ton in 2014 and $37.65 per ton in 2013.[17] However, other public sources are available to determine an accurate delivered coal price. One of the plant owners, Puget Sound Energy, is a regulated utility who owns 50% of units 1-2 and 25% of units 3-4. Puget, like other regulated utilities, files an annual report to the Federal Energy Regulatory Commission (the FERC Form 1) which provides the delivered coal price to the Colstrip power plant. Calculating the total delivered price for the Colstrip station from the FERC Form 1 yields delivered prices of $24.49 per ton and $25.69 per ton in 2014 and 2013, respectively. Thus, SNL's estimate of the "net delivered" mine price for 29% of all Montana coal was about 50% above the actual reported prices to FERC.

This huge error by SNL, combined with the fact that Headwaters mistakenly assumed that 100% of the production at the Rosebud mine was federal coal, is the primary reason that Headwaters' calculation of the "net delivered" coal price for Montana coal is far above the actual average sales prices reported to ONRR.[18]

4. **The proposed changes to the methodology for valuing federal coal for royalty purposes suggested by Headwaters are neither "transparent" nor "efficient".** Headwaters asserts that: "Changing the price used for valuation to net delivered prices has multiple advantages over using the first arm's-length sale price….Using net delivered price has significant transparency advantages, and similar benefits to streamline the assessment process for industry and ONRR compliance audits."[19] These claims are not supported by Headwaters' own analysis. Headwaters process was anything but transparent:

    - Headwaters did not rely upon public data, but rather purchased data from a private service (SNL Financial) not available to the public;

[17] SNL Briefing Book, Colstrip Power Plant at https://www.snl.com/interactivex/FuelContractDetail.aspx?Period=2014&Q=0&ExpM=0&FCT=-1&FT=-1&MSt=Any&MPR=-1&IsBuyer=1&Region=0&HC=4062485&ID=2449&Type=2&lvl=4&ViewBy=1&PP=2449&updYear=1&updOther=0

[18] Of course, ONRR has access to the actual coal contracts and sales prices from the Rosebud mine to the Colstrip plant. In fact, the Department of Interior audited the sales price to the Colstrip plant and brought litigation against Western Energy (the Westmoreland Coal subsidiary which owns the Rosebud mine) which it successfully settled to receive royalties on the payment for conveyor transportation costs to Colstrip. See Westmoreland Coal SEC Form 8-K at http://www.sec.gov/Archives/edgar/data/106455/000095012309022460/0000950123-09-022460-index.htm.

[19] Headwaters May Report at 19.

- The database used by Headwaters did not cover all coal sales, just sales to electric power companies, which were only about 80% of U.S. coal production in 2013;[20]
- EIA only reports delivered prices for plants owned by regulated electric utilities, which excluded 27% of all coal purchases by electric power companies reported to EIA in 2014;[21]
- EIA does not disclose the FOB mine price for any sales transaction due to confidentiality, so ***all of the prices relied upon by Headwaters were estimates, not actual sales prices***;
- The EIA data on electric power coal purchases is not released promptly; the 2013 calendar year final data was released on March 10, 2015, hardly an efficient source of information;
- The mine price estimates used by Headwaters were not performed by an official government entity, like ONRR, or a regulated entity with legal reporting obligations, but rather by an unofficial private service with no demonstrated reliability; and,
- Headwaters itself was not transparent in its report; it has not released the data which it used or the calculations which it performed, but rather just a couple of tables summarizing 7 years of data and analysis.

Headwaters states that "Additional price data is revealed by sales on spot markets, and by market index prices for coal of varying qualities delivered to domestic and export markets."[22] These are exactly the price benchmarks which ONRR has proposed to eliminate for use in valuation of non-arm's-length transactions, due to claims by Headwaters and others that these prices do not properly value the actual sales price received by lessees. While market index prices for coal sales on the over-the-counter ("OTC") markets are good indicators of current market prices, they are not as accurate as the actual sales contract prices reported to ONRR, which provide the prices received on the actual coal shipments.

5. **Headwaters has no basis to speculate that there is a large "loophole" exploited by affiliates and unnamed "brokers" to avoid royalty payments.** Headwaters asserts that "current subsidies in the regulation and marketing loopholes due to royalty valuation policy were worth about $850 million between 2008 and 2012."[23] Headwaters describes this "loophole" to be the fact that proceeds for the resale of coal by affiliate marketing companies or

[20] EIA, "Annual Coal Report 2013" shows total U.S. coal production in 2013 to be 982,876,000 tons, while EIA "Annual Coal Distribution Report 2013" shows distribution of U.S. coal to the electric power sector to be 785,121,000 tons. http://www.eia.gov/coal/annual/ and http://www.eia.gov/coal/distribution/annual/

[21] EIA Form 923, "EIA923_Schedules_2_3_4_5_M_12_2014_Data_Early_Release.xls" at http://www.eia.gov/electricity/data/eia923/

[22] Headwaters May Report at 19.

[23] Headwaters January Report at 25.

independent "brokers" are not subject to royalties on their gains (Headwaters does not mention the possibility of losses on resale). Headwaters accuses the coal companies of deliberately underpaying royalties by using affiliated marketing companies, stating: "For example, companies have arguably exploited a loophole that allows mines to transfer coal for low mine prices to affiliates who then remarket coal to consumers at the higher full commodity value of the coal."[24] Headwaters acknowledges at one point that the proposed changes by ONRR would close the "loophole" for affiliated marketing companies: "The net delivered price and the first arm's-length sale price are the same price for all sales where mines and their affiliates are marketing coal directly to consumers. In these instances, the contract value reveals the price that would be used for royalty valuation."[25] However, Headwaters contradicts this conclusion when it states that: "ONRR's assessment that proposed reforms would not generate additional revenue suggests arm's length price reforms would not effectively close the "affiliate" loophole. This is at least partially due to the fact that the loophole would remain open for independent brokers."[26]

Headwaters performed no analysis of the role of independent brokers (more properly called trading companies) which purchase coal FOB mine from producers and resell the coal to ultimate customers, hoping to make a profit. Nevertheless, Headwaters alleges that these transactions are generating huge profits creating a "loophole" to avoid paying royalties. Headwaters' May report asserts that federal royalties would increase by $139 million annually by using the "net delivered" mine price[27] instead of the reported FOB mine price, which would imply that the profit margins for the coal trading companies must be over $1.1 billion annually (at a 12.5% royalty rate). Our analysis of the EIA 923 data reported by the electric power companies shows that the claim that brokers play a large role in the ultimate sale of coal to consumers is false.

The power companies report the name of the coal supplier for each monthly purchase as well as the mine which is the source of the coal (EIA provides the reporting companies with a dropdown list of mines to select using the ID number assigned by the Mine Safety and Health Administration, or "MSHA"). The 2014 EIA 923 data reports 29,887,563 tons of coal delivered from the state of Montana and 389,217,875 tons from the state of Wyoming. None of the

[24] Headwaters May Report at 2.
[25] Headwaters May Report at 19.
[26] Id at 2.
[27] Ibid.

deliveries from the state of Montana had an unknown MSHA ID and only 210,799 tons from Wyoming (0.05%) had an unknown ID (meaning that the customer did not know what mine the coal origin). For the Montana coal deliveries, the supplier name reported by the buyers was the coal producing company for all but 252,982 tons (0.8%) sold by third parties (C. Reiss, Traxenergy and the City of Marquette) and 890,461 tons (3.0%) sold to Consumers Power by Venture Fuels, an affiliate of Cloud Peak Energy which has a separate royalty agreement with ONRR to account for affiliate sales. As the affiliate sales issue is being addressed by the current review underway by ONRR, only the miniscule amount of third-party sales (0.8%) could possibly be sales by "brokers" who are profiting by the resale of coal and not paying federal royalties on the sales margin. For deliveries of Wyoming coal, only 6,611,617 tons (1.7%) were identified as coming from suppliers who were not the companies which owned the mine which was the origin of the coal. One third-party supplier sold most of this coal (Twin Eagle Resource Management[28] – 4,687,125 tons) and 4 other sales companies sold between 100,000 and 500,000 tons (Peabody CoalTrade, Cargill, C. Reiss and Robindale/RES Coal). Another 3 power companies (NRG, Alliant and Luminant) resold a total of 422,721 tons, while the remaining 214,795 tons were sold by 6 trading companies.

These very small amounts of coal re-sold by trading companies and power customers can have no meaningful impact on the calculation of the average sales price used to determine federal coal royalties. Coal trading plays a very small role in the markets for Montana and Wyoming coal and has an equal probability of losses as it does of profits. Most coal trades are to balance monthly shipments and production. Most independent coal trading companies have ended participation in the OTC market for Powder River Basin coal, as the markets have little liquidity or volatility which are needed to support a trading business.

6. **The current valuation system is already "transparent" to the only entity that matters – ONRR.** Headwaters wants "transparency" for "public review of federal royalty valuation"[29], for which the only purpose is for the public to check if ONRR is doing its job properly. ONRR currently has complete "transparency" for review of every coal sale made by a lessee, including sales to affiliates and "brokers", which Headwaters alleges are taking advantage of a "loophole" in the valuation process. ONRR is an agency which is entrusted by Congress to

[28] Twin Eagle acquired an energy trading company previously known as Enserco and the total includes sales reported as both Twin Eagle and Enserco.
[29] Ibid.

perform this task and it is subject to outside audit by an Inspector General and the General Accounting Office. There is no reason to suppose these agencies are not doing their job and Headwaters' unsupported claims to not make its implications of malfeasance credible. Headwaters acknowledges that "contract prices, mining and marketing costs"[30] of the lessees are proprietary data properly kept confidential, yet wants the general public to be able to duplicate all of these proprietary sales transactions to check ONRR's work. This is like asserting that the public should be able to review individual income tax returns to check whether the Internal Revenue Service is doing its job properly.

IV. Analysis of Montana Coal Sales Prices for Mines with Federal Leases

Headwaters alleges that the average coal price reported to ONRR for the states of Montana and Wyoming are below the average mine price for these states calculated from the SNL data for mines with federal coal leases. In particular, Headwaters claimed that the actual FOB mine price for coal sold from federal leases in Montana was 44% higher than the average price reported to ONRR over the 7 year period covering Fiscal Years 2008 – 2014.

In order to test the validity of Headwaters analysis and the data which it used, we have performed a detailed analysis of its calculations of the Montana "net delivered" coal price, where it alleges the largest discrepancy with the ONRR data. We have analyzed the SNL data sources and methodology used by Headwaters to understand what the reasons were for this very large difference between the prices reported to ONRR and Headwater's "net delivered" mine price. Specifically, our questions were:

1) Is the difference in reported prices due to downstream profits realized by affiliated marketing companies and independent brokers, as alleged by Headwaters' or,
2) Is the difference in reported prices due to problems with the data and analysis and is there any difference once these problems are identified and corrected?

Replication of Headwaters Data and Analysis

Headwaters did not provide any detail as to the data which it relied upon and they aggregated the data across all deliveries and a period of 7 fiscal years. In order to perform a detailed analysis of all of the Montana coal shipments from federal leases, we had to recreate Headwaters' analysis

[30] Ibid.

using the methodology and data sources which were described in Appendix A to the May Report.[31] Specifically, the process described by Headwaters, which we repeated, was:

1. Use all monthly coal deliveries to the electric power sector for the period October 2007 to September 2014 (fiscal years which correspond to the ONRR data). These data were downloaded from SNL Financial in a database. The SNL data is the EIA Form 923 data, with SNL adding estimates for transportation costs and FOB mine prices (as well as delivered prices for unregulated generators which EIA does not disclose). In order to provide a detailed analysis by coal mine, we recreated the analysis for Fiscal Year 2014.
2. Match the data for all coal shipments originating from the state of Montana with the mine origin by MSHA ID number as reported on the SNL database. All of the records for Montana coal deliveries in 2014 had an MSHA ID number assigned to the delivery.
3. Calculate the average coal prices FOB mine and delivered by mine.

Following the same methodology as Headwaters, we have reproduced the same results. The average mine price for Montana coal in Fiscal Year 2014 for mines with federal leases using Headwaters' data and methodology is shown on Exhibit 3. **The apparent weighted average FOB mine price for all coal sales to the domestic power sector calculated using Headwaters' methodology was $28.38 per ton. For the same Fiscal Year 2014, the average price reported to ONRR was $17.18 per ton, confirming the very large difference found by Headwaters for the average over 7 years.**

[31] Headwaters declined our request to share their calculations and underlying data and has only produced a table showing the totals for the 7-year period. However, we have reproduced their calculations for the 7-year period as well as for each fiscal year.

Exhibit 3: Calculation of Average Mine Price for Montana Federal Coal Leases, FY 2014 Using Headwaters Data and Methodology[32]

Methodology Used by Headwaters Economics							
		Deliveries (000 tons)				FOB Cost ($/Ton)	
MT Mine	% Federal Lease	All Deliveries	Federal Leases	Delivered Price ($/ton)	Transportation Cost ($/ton)	All Deliveries	Federal Coal
Absaloka	0%	5,840	0	$37.43	$20.57	$16.86	$16.86
Decker	100%	758	758	$30.46	$17.71	$12.74	$12.74
Rosebud	100%	7,967	7,967	$38.03	$0.00	$38.03	$38.03
Savage	100%	63	63	$25.17	$5.38	$19.79	$19.79
Signal Peak	100%	144	144	$77.87	$26.07	$51.80	$51.80
Spring Creek	100%	5,490	5,490	$36.06	$20.03	$16.02	$16.02
Total	**71%**	**20,262**	**14,422**	**$37.22**	**$8.84**	**$25.06**	**$28.38**
Average Price Reported to ONRR			**21,427**				**$17.18**

Error #1: Correction for the SNL Data Error for the Colstrip Power Plant

The largest customer for Montana coal delivered to the electric power sector is the Colstrip power plant. Colstrip is a mine-mouth plant located adjacent to the Rosebud coal mine and the coal is delivered by conveyor belt. All of the coal deliveries shown on Exhibit 3 from the Rosebud mine are to the Colstrip power plant, with $0.00 per ton transportation cost. The very high mine price reported by SNL of $38.03 for this one mine and plant is the major reason why the SNL/Headwaters mine average price is far above the price reported to ONRR.

The SNL price estimate for the Colstrip plant is wrong. Because the Colstrip plant is operated by a merchant generator, EIA does not publish the delivered coal price to preserve confidentiality. For merchant plants, SNL's procedure is to use the average delivered coal price for all coal (regardless of origin) delivered to the state reported by EIA in the Electric Power Monthly.[33] However, EIA withholds the average delivered coal price by state for independent power producers (merchant generators) where there are not enough power plants who report monthly data to prevent analysts from discovering the delivered price. EIA did not publish a monthly delivered coal price for the state of Montana in 2013 or 2014.[34] As a result, the price estimated by SNL for Colstrip is far above the actual price for coal delivered to Colstrip.

[32] Deliveries to electric power sector and prices from SNL Financial. Mines with federal coal leases from BLM. Average price reported to ONRR FY 2014: http://statistics.onrr.gov/ReportTool.aspx

[33] Personal communication from Steve Piper, Director, Energy Research, SNL Energy on September 9, 2015.

[34] EIA, "Electric Power Monthly", Table 4.10. http://www.eia.gov/electricity/monthly/

There are other public sources of data which provide reliable estimates of the delivered cost of coal purchased by power plants. One of these sources is the Form 1, an annual report filed by regulated electric utilities with the Federal Energy Regulatory Commission ("FERC"). The Colstrip plant is co-owned by both regulated and unregulated power companies. The largest regulated owner is Puget Sound Energy, who owns 50% of Colstrip units 1-2 and 25% of units 3-4. Puget reports its cost of coal delivered to Colstrip units 1-2 and units 3-4 by calendar year.

While EIA does not report the monthly delivered price for independent power producers in Montana on the Electric Power Monthly, EIA does provide the average annual delivered coal price to all power plants in the state of Montana by coal type (subbituminous and lignite). Colstrip is by far the largest power plant in Montana and it receives 86% - 91% of the total subbituminous coal delivered to Montana each year. As a result, the annual reported delivered price for subbituminous coal to Montana is a close approximation of the (undisclosed) delivered price to Colstrip.

A comparison of the quantity and prices reported by SNL compared to the FERC Form 1 and EIA Montana data is shown on Exhibit 4. In most years, SNL's estimate of the delivered price to Colstrip (which is the same as the Rosebud mine price) is far above the FERC and EIA data. The FERC and EIA data are very similar, reflecting the fact that these are accurate reported data sources, with the small differences due to the fact that EIA includes all subbituminous coal delivered to Montana, not just Colstrip.

Exhibit 4: Comparison of Delivered Coal Prices for the Colstrip Plant[35]

		Calendar Year						
		2008	2009	2010	2011	2012	2013	2014
FERC Form 1 Data								
Tons Burned								
Colstrip 1-2	50%	1,391,673	1,446,801	1,469,911	1,214,793	905,093	1,444,314	1,338,220
Colstrip 3-4	25%	1,884,759	1,338,982	1,785,698	1,430,462	1,509,826	1,267,303	1,527,867
Total		**10,322,382**	**8,249,530**	**10,082,614**	**8,151,434**	**7,849,490**	**7,957,840**	**8,787,908**
Delivered Price $/ton								
Colstrip 1-2		$15.86	$17.40	$21.75	$29.40	$37.15	$29.52	$29.32
Colstrip 3-4		$16.30	$18.49	$16.76	$21.14	$19.91	$23.50	$22.37
Average		**$16.18**	**$18.11**	**$18.21**	**$23.60**	**$23.89**	**$25.69**	**$24.49**
EIA Average Delivered Price of Subbituminous Coal to Montana								
Tons received		11,755,720	9,348,457	11,287,200	9,422,469	8,560,170	8,969,928	
Delivered price	**$/ton**	**$16.56**	**$17.89**	**$18.44**	**$22.31**	**$23.43**	**$26.64**	
SNL Energy Data								
Tons received		10,654,144	8,081,926	10,077,757	8,405,469	7,754,748	7,953,774	8,752,704
Delivered price	**$/ton**	**$25.30**	**$21.69**	**$25.92**	**$23.29**	**$24.94**	**$37.65**	**$37.76**
Difference in Reported Prices ($/ton)								
FERC vs. EIA		($0.38)	$0.22	($0.23)	$1.29	$0.46	($0.95)	
SNL vs. FERC		$9.12	$3.58	$7.71	($0.31)	$1.05	$11.96	$13.27
SNL vs. EIA		$8.74	$3.80	$7.48	$0.98	$1.51	$11.01	

Correcting the large mistake in the SNL data for coal sales from the Rosebud mine substantially reduces the difference between the calculated "net delivered" price for coal sales to the power sector and the price reported to ONRR for Montana coal sales in FY 2014 as shown on Exhibit 5.

[35] Sources: Puget Sound Energy, FERC Form 1, 2008 – 2014; EIA Coal Data Browser at http://www.eia.gov/beta/coal/data/browser/#/topic/45?agg=0,1&geo=00000000004&rank=5a&freq=A&start=2008&end=2013&ctype=map&ltype=pin&rtype=s&pin=&rse=0&maptype=0; SNL Energy Briefing Book, Colstrip plant at https://www.snl.com/InteractiveX/PlantFuels.aspx?ID=2449

Exhibit 5: Calculation of Average Mine Price for Montana Federal Coal Leases, FY 2014 Using Headwaters Data Corrected for Colstrip Price

Corrected Delivered Price for Rosebud Mine to Colstrip Power Plant							
		Deliveries (000 tons)				FOB Cost ($/Ton)	
MT Mine	% Federal Lease	Deliveries (000 tons)	Federal Leases	Delivered Price ($/ton)	Transportation Cost ($/ton)	All Deliveries	Federal Coal
Absaloka	0%	5,840	0	$37.43	$20.57	$16.86	$16.86
Decker	100%	758	758	$30.46	$17.71	$12.74	$12.74
Rosebud	100%	7,967	7,967	$24.79	$0.00	$24.79	$24.79
Savage	100%	63	63	$25.17	$5.38	$19.79	$19.79
Signal Peak	100%	144	144	$77.87	$26.07	$51.80	$51.80
Spring Creek	100%	5,490	5,490	$36.06	$20.03	$16.02	$16.02
Total	**71%**	**20,262**	**14,422**	**$29.91**	**$8.84**	**$19.86**	**$21.07**
Average Price Reported to ONRR			**21,427**				**$17.18**

Error #2: Correction for Missing SNL Data

Headwaters relied upon SNL data to estimate the average mine price for Montana coal. The SNL data only includes coal sales to the domestic power sector, which only accounts for 59.2% of Montana coal sales, as shown on Exhibit 2 earlier. However, SNL does not even include all of the sales to the electric power sector. SNL excluded almost all sales to the second-largest customer of Montana coal, Detroit Edison ("DTE"), because DTE reported the coal delivered to the common storage area for the Belle River and St. Clair power plants (reported on the EIA Form 923 as "BRSC Shared Storage"), rather than to the plants themselves.[36] Also, the 2014 SNL data used by Headwaters does not include coal deliveries to plants (Stanton, Hoot Lake, and Savage) which only report annually, rather than monthly. As a result, the SNL data used by Headwaters only included 47.3% of the Montana sales to the electric power sector in FY 2014, as shown on Exhibit 6.

Exhibit 6: Total Montana Coal Production and Sales to the Power Sector Reported by SNL, FY 2014 (1000 tons)[37]

				Missing from SNL		
Mine	Total Produced	SNL Data	Percent Reported	Detroit Edison	Annual Reporting	Corrected Data
Absaloka	6,416	5,840	91%			5,840
Decker	3,308	758	23%	2,632		3,390
Rosebud	8,232	7,967	97%			7,967
Savage	340	63	19%		203	266
Signal Peak	7,501	144	2%			144
Spring Creek	17,014	5,490	32%	3,968	821	10,279
Total	**42,811**	**20,262**	**47%**	**6,600**	**1,024**	**27,886**

[36] Personal communication from Steve Piper, Director, SNL Energy on September 9, 2015.
[37] Total production from MSHA Form 7000-2 data; sales missing from SNL from EIA Form 923.

All of the Montana coal sales to DTE, Stanton and Hoot Lake came from the Decker and Spring Creek mines, which had the SNL's lowest reported "net delivered" mine prices in Montana. By excluding these coal sales, the net result was to increase the weighted average price for Montana coal sales.

The price for the missing coal sales data to DTE can be determined from the reported delivered prices on EIA Form 923 and the average FOB mine price for Decker from the reported financial statements for Cloud Peak Energy ("CPE"). CPE owned 50% of Decker Coal Company until it sold this share to its partner, Ambre Energy (now renamed Lighthouse Resources) on September 12, 2014. CPE published the financial statements for Decker in its quarterly filings with the SEC as footnote 22 to its consolidated financial statements in its Form 10-Q (supplemental guarantor/non-guarantor financial statements). The statement of operations for CPE's non-guarantor subsidiaries is the Decker financial results. The quarterly operating revenues and income statements for Fiscal Year 2014 for Decker Coal Company and the average sales price are shown on Exhibit 7.

Exhibit 7: Decker Coal Financial Statements and Sales Prices FY 2014[38]

	2013 Q4	2014 Q1	2014 Q2	2014 Q3	FY 2014
Revenue	$ 6,805	$ 3,965	$ 5,592	$ 6,095	$ 22,457
Costs and expenses					
Cost of product sold	5,690	5,174	6,736	5,932	23,532
Depreciation and depletion	(5,939)	(218)	(22)	(929)	(7,108)
Accretion	456	1,016	1,016	771	3,259
	207	5,972	7,730	5,774	19,683
Operating income	6,598	(2,007)	(2,138)	321	2,774
Tons sold	483	272	385	422	1,562
Revenues per ton	**$14.09**	**$14.58**	**$14.52**	**$14.44**	**$14.38**

These average sales prices were used for the sales price to DTE, since DTE sales accounted for 77% of the total Decker sales. Using the reported delivered price from the EIA Form 923 and the Decker sales price FOB mine allowed the calculation of the freight costs from Decker to DTE. These freight costs were applied to the receipts reported by DTE from the Spring Creek mine to estimate the FOB mine price for Spring Creek sales to DTE for the same period. The "net

[38] Financial statements from Cloud Peak Energy SEC Forms 10-Q 2013 and 2014 and Form 10-K 2014. Sales tonnage from Cloud Peak Energy quarterly earnings releases at www.cloudpeakenergy.com

delivered" prices for sales to plants which had reported freight costs by SNL in prior years was determined by using the prior SNL freight estimates. **Adjusting the SNL data used by Headwaters for the sales which were missing from the SNL database results in a lower average price for Montana coal sales, as shown on Exhibit 8. The average sales price for FY 2014 is just $0.61 per ton higher than the price reported to ONRR.**

Exhibit 8: Average Mine Price for Montana Federal Coal Leases, FY 2014 Using Headwaters Data Corrected for Colstrip Price and Missing SNL Data

Adjusted Deliveries to Correct for Missing Sales Data							
		Deliveries (000 tons)				FOB Cost ($/Ton)	
MT Mine	% Federal Lease	Deliveries (000 tons)	Federal Leases	Delivered Price ($/ton)	Transportation Cost ($/ton)	All Deliveries	Federal Coal
Absaloka	0%	5,840	0	$37.43	$20.57	$16.86	$16.86
Decker	100%	3,390	3,390	$38.10	$24.08	$13.99	$13.99
Rosebud	100%	7,967	7,967	$24.79	$0.00	$24.79	$24.79
Savage	100%	266	266	$25.17	$5.38	$19.79	$19.79
Signal Peak	100%	144	144	$77.87	$26.07	$51.80	$51.80
Spring Creek	100%	17,191	17,191	$28.11	$13.50	$14.97	$14.97
Total	**83%**	**34,798**	**28,958**	**$28.59**	**$11.01**	**$17.63**	**$17.79**
Average Price Reported to ONRR			**21,427**				**$17.18**

Error #3: Correction for the Share of Montana Coal Production from Federal Leases

In its analysis, Headwaters assumed that any mine which had a federal coal lease had all of its production from federal coal. This assumption is false. None of these mines produces exclusively from federal leases. These mines have state leases and private leases also. For federal lands, 1 out of every 18 sections is owned by the state. Because the mines which have a higher FOB mine price (Signal Peak and Rosebud) have a lower share of coal produced from federal leases, Headwaters' assumption that all of the coal from these mines was produced from federal coal leads Headwaters to calculate a higher average mine price than would be calculated using the correct share of coal production from federal leases.[39]

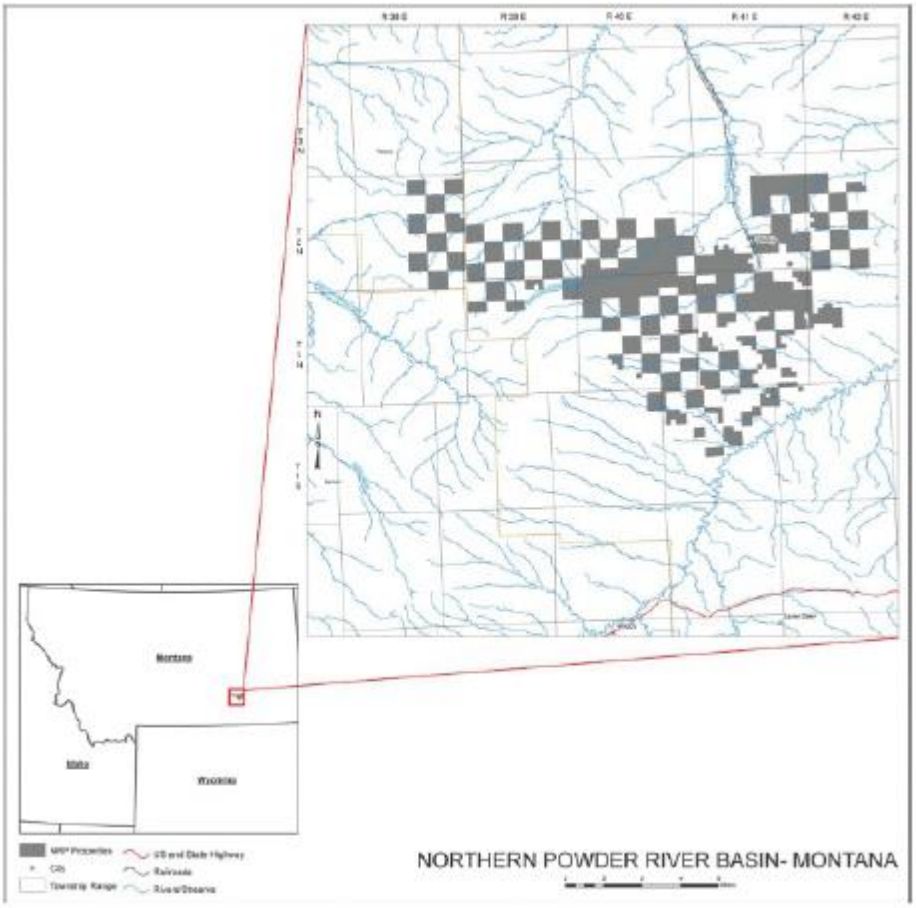
The Signal Peak (Bull Mountains) mine only acquired its first federal lease on June 1, 2012.[40] As shown in the environmental assessment prepared in support of this lease, Signal Peak's mine plan

[39] Consistent with Headwaters' calculations, the Absaloka mine produces no federal coal (it is 100% Indian coal).
[40] See http://www.blm.gov/mt/st/en/prog/energy/coal/tables.html.

would not produce coal from the new federal lease until the end of 2014,[41] so none of the Signal Peak coal production was from federal coal during the entire period studied by Headwaters from 2008 to 2014. As this is the highest-priced coal in Montana, this assumption caused Headwaters to overstate the average Montana coal price throughout the period.

Headwaters has also overstated the amount of federal coal produced from the Rosebud mine, which has the second-highest coal sales price in Montana. The Rosebud mine has "checkerboard" coal leases, with alternating sections leased from the federal government and a private entity (Natural Resource Partners ("NRP"), which acquired the Burlington Northern railroad coal properties). NRP shows the extent of its coal leases at the Westmoreland Rosebud mine ("Western Energy") in its 10-K, as shown on Exhibit 9.

Exhibit 9: NRP Coal Leases at the Rosebud Mine[42]



[41] U.S. Bureau of Land Management, "Environmental Assessment Bull Mountains Mine No. 1", April 2011. http://www.blm.gov/mt/st/en/prog/energy/coal.html
[42] Natural Resource Partners, SEC Form 10-K, 2014, page 13.

The share of coal produced at the Rosebud mine from its federal leases can be estimated from the amount of leased coal production reported by NRP. For FY 2014, NRP reported leased coal production of 2,385,000 tons out of 8,232,258 tons total production.[43] Assuming the remainder of the coal was 17/18 federal coal and the remainder state leases (Westmoreland reports that the mine has state leases[44]), the federal coal share at Rosebud was 67%. Cloud Peak reported that the 2014 coal production at the Spring Creek mine was 78% federal coal (the remainder was from state leases).[45] We have estimated the shares of federal production from Decker to be 94% (federal and state leases) and from Savage to be 50% (mostly private coal).

Correcting the production for the share of coal produced from federal leases, the total federal production and the average mine price are very close to the values reported by ONRR (within $0.06 per ton), as shown on Exhibit 10. Thus, properly analyzed, the "net delivered" mine prices for Montana coal do not show any additional revenues which are not subject to royalties, as alleged by Headwaters.

Exhibit 10: Average Mine Price for Montana Federal Coal Leases, FY 2014 Using Headwaters Data Corrected for Colstrip Price, Missing SNL Data, and Federal Coal Lease Share

Corrected for Share of Coal Produced from Federal Leases							
		Deliveries (000 tons)				FOB Cost ($/Ton)	
MT Mine	% Federal Lease	Deliveries (000 tons)	Federal Leases	Delivered Price ($/ton)	Transportation Cost ($/ton)	All Deliveries	Federal Coal
Absaloka	0%	5,840	0	$37.43	$20.57	$16.86	$16.86
Decker	94%	3,390	3,202	$38.10	$24.08	$13.99	$13.99
Rosebud	67%	7,967	5,344	$24.79	$0.00	$24.79	$24.79
Savage	50%	266	133	$25.17	$5.38	$19.79	$19.79
Signal Peak	0%	144	0	$77.87	$26.07	$51.80	$51.80
Spring Creek	78%	17,191	13,409	$28.11	$13.50	$14.97	$14.97
Total	**63%**	**34,798**	**22,088**	**$28.74**	**$11.72**	**$17.63**	**$17.24**
Average Price Reported to ONRR			**21,427**				**$17.18**

V. SNL's Estimates of Freight Costs Overstate the Net Mine Price

The predicate of Headwaters' use of SNL's mine price data is that SNL provides an accurate estimate of the "net delivered price" to the electric power sector (the delivered price reported by the power companies on EIA Form 923 less the cost of freight).[46] However, SNL's methodology

[43] Natural Resource Partners, SEC Forms 10-Q 2013 and 2014 and 2013 Form 10-K.
[44] Westmoreland Coal Company, SEC Form 10-K, 2014, page 13.
[45] Personal communication from Tom Nelson, August 28, 2015.
[46] The SNL data does not include sales to industrial customers or export markets at all.

persistently and significantly under-estimates the difference between the reported delivered price and the mine price, leading SNL to over-estimate the FOB mine price. **Once the problems with SNL's estimates are corrected, there is no basis to conclude that the FOB mine prices reported to ONRR are less than the actual price at which the coal is sold.**

EIA collects data on the cost and quality of fuels on Form 923. For the cost of coal, Form 923 collects two types of cost data: the total delivered cost and the commodity cost for each delivery of coal every month. The reporting instructions for the Form 923 define these costs as follows:

- **"Total Delivered Cost (all fuels):** Enter the delivered cost of the fuel in cents per million Btu (MMBtu) to the nearest 0.1 cent. Include all costs incurred in the purchase and delivery of the fuel to the plant. Do not include adjustments associated with prior months' fuel costs….For coal, include maintenance and depreciation costs of coal delivered in railcars owned by the plant. Do not include unloading costs."
- **"Commodity Cost (for coal, petroleum coke, and natural gas):** Report the cost (in cents per million Btu rounded to the nearest 0.1 cent) at the point of first loading (free on board mine or transportation pipeline (FOB)), including taxes and quality-related charges or credits. Do not include loading and unloading charges, dust proofing, freeze conditioning, switching charges, diesel fuel surcharges, pipeline charges, transportation charges, or any other charges relating to the movement of the fuel to the point of use."[47]

While EIA collects the FOB mine price data for each coal delivery to the electric power sector, it does not disclose the FOB mine price for these sales, or even the delivered price for coal receipts at nonutility (merchant) power plants.[48] Thus, SNL must estimate the FOB mine prices using the delivered cost for regulated power plants. For unregulated power plants, SNL uses the average delivered coal price for all coal deliveries by destination state, published by EIA in the Electric Power Monthly.

SNL's methodology to estimate the FOB mine price is to take the reported "total delivered cost" (converted from cents per million Btu to dollars per ton) and to subtract an estimated transportation cost (in dollars per ton). For Montana and Wyoming coal, the vast majority of the coal is shipped by rail (with some coal transferred from rail to barge, vessel or truck for final delivery). SNL describes its transportation cost estimation methodology for estimating rail transportation rates as follows:

[47] EIA, "Form EIA-923 Power Plant Operations Report Instructions". http://www.eia.gov/survey/
[48] Id, page 38.

- Collect data from the Public Use Waybill file, which has a time lag of two years, which reveals the rail rate charged by origin area and termination area.[49]
- Based upon the billed freight revenue and billed weight, calculate the rail rate per ton of coal and the route length in miles.
- Derive a formula of rail rate per ton-mile as a function of rail distance for all of the annual Waybill data.
- Estimate the rail rate for each shipment based on the mileage of the rail distance.
- Adjust the rail rate quarterly based upon the changes in the Rail Cost Adjustment Factor filed with the Association of American Railroads and changes in fuel surcharges reported by the railroads.

What is clear is that the "total delivered cost" which EIA requires to be reported on the Form 923 includes costs beyond the commodity price FOB mine and the rail rate charged by the rail carrier. As is stated in EIA's instructions, the total delivered cost includes the following items specifically excluded from the FOB mine cost, which are not included in the rail rates reported by the rail carriers on the Waybill data:

- Maintenance and depreciation costs for railcars owned by the plant (which includes virtually all customers purchasing Montana and Wyoming coal);
- Sales taxes charged by many states on the cost of coal (at a minimum the states with sales taxes on the cost of coal include Arizona, Georgia, Illinois, Louisiana and Washington); and,
- Freeze conditioning and dust proofing additives.

SNL does not subtract these costs in estimating the FOB mine price and therefore systematically overstates the FOB mine price in its database (even if all of its rail rate estimation methodology were accurate).

This systematic error can be shown by a comparison of the SNL transportation estimates with a report published by EIA annually on the coal transportation costs by state of origin to state of destination. While Headwaters relied upon this EIA study in its January Report (Appendix B) and referred to the EIA study in its May Report[50], Headwaters relied upon the SNL data in its May

[49] The areas are the Bureau of Economic Analysis Economic Area.
[50] Headwaters May Report, footnote 12, at 8.

Report, not the EIA data, and never compared the results of the EIA transportation data with the SNL data. We have made this comparison.

The EIA study calculated the transportation costs by subtracting the reported commodity price FOB mine from the total delivered costs. For reasons of confidentiality, EIA did not disclose the detailed data, but aggregated the data by state of origin, state of destination, and primary mode of shipment (rail, barge or truck). EIA even withheld many of the state origin-destination pairs to preserve confidentiality for individual customers, where states had few customers purchasing coal from a state. Thus, the EIA data included all costs reported in the total delivered price, including taxes, rail cars and other costs, which SNL did not include. We have calculated the average transportation costs reported by SNL for coal originating in Wyoming and Montana by state of destination with the EIA reported costs for the same shipments for the years 2008 – 2012 (the only years reported by EIA). Exhibit 11 shows the results of this analysis.

Exhibit 11: Comparison of Transportation Costs reported by SNL and EIA for Wyoming and Montana Coal[51]

Coal	Dest.	SNL Data, Adjusted to 2012 $/ton					EIA Data, Constant 2012 $/ton					$/ton Difference (SNL minus EIA)				
State	State	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
WY	AL	$13.65	$12.58	$13.29	$14.33	$17.03	W	W	W	W	W	W	W	W	W	W
WY	AR	$16.77	$16.17	$14.14	$15.80	$21.77	W	$18.80	$18.95	$20.82	$21.47	W	($2.63)	($4.81)	($5.02)	$0.30
WY	AZ	$18.44	$17.40	$15.93	$17.88	$21.65	$23.08	W	W	W	$24.37	($4.64)	W	W	W	($2.72)
WY	CO	$10.63	$12.01	$9.75	$10.52	$15.35	$12.01	$11.94	$11.92	$12.73	$13.23	($1.38)	$0.07	($2.17)	($2.21)	$2.12
WY	GA	$20.34	$19.31	$20.32	$22.83	$23.33	W	W	W	W	W	W	W	W	W	W
WY	IA	$11.41	$12.17	$11.95	$13.20	$14.94	$10.78	$10.20	$10.50	$10.80	$10.97	$0.63	$1.97	$1.45	$2.40	$3.97
WY	IL	$15.88	$18.98	$13.97	$14.85	$19.11	$15.81	$15.44	$16.35	$16.52	$19.14	$0.07	$3.54	($2.38)	($1.67)	($0.03)
WY	IN	$17.25	$15.68	$15.05	$20.30	$17.22	$23.77	$20.99	$21.05	$30.66	$30.11	($6.52)	($5.31)	($6.00)	($10.36)	($12.89)
WY	KS	$14.22	$13.94	$14.02	$15.47	$18.27	$14.40	$13.81	$14.75	$18.03	$18.40	($0.18)	$0.13	($0.73)	($2.56)	($0.13)
WY	KY	$18.40	$17.23	$14.28	$17.35	$21.37	$24.52	W	W	W	W	($6.12)	W	W	W	W
WY	LA	$21.88	$24.10	$20.26	$20.70	$22.95	W	W	W	W	W	W	W	W	W	W
WY	MD	$29.18	$30.80	$25.66	$28.27	$38.93	W	W	W	W	W	W	W	W	W	W
WY	MI	$17.41	$18.75	$16.93	$21.10	$27.29	$19.52	$19.46	$19.70	$31.70	$35.08	($2.11)	($0.71)	($2.77)	($10.60)	($7.79)
WY	MN	$17.16	$16.27	$13.80	$15.84	$21.33	$18.57	$19.02	$21.32	$21.97	$21.66	($1.41)	($2.75)	($7.52)	($6.13)	($0.33)
WY	MO	$14.54	$13.90	$12.52	$14.49	$18.20	$15.76	$13.43	$14.52	$17.06	$18.54	($1.22)	$0.47	($2.00)	($2.57)	($0.34)
WY	MS	$17.34	$20.75	$21.63	$25.78	$27.71	W	W	W	W	W	W	W	W	W	W
WY	MT	$9.40	$10.96	$8.04	$8.81	$13.59	W	W	W	W	W	W	W	W	W	W
WY	ND	$14.86	$13.78	$12.42	$13.60	$17.92	W	W	W	W	W	W	W	W	W	W
WY	NE	$8.83	$11.07	$10.39	$11.61	$14.87	$8.62	$10.41	$11.28	$11.95	$14.35	$0.21	$0.66	($0.89)	($0.34)	$0.52
WY	NV	$9.33	$14.47	$12.85	$14.55	$17.80	W	$25.40	$30.00	$30.10	$23.99	W	($10.93)	($17.15)	($15.55)	($6.19)
WY	NY	$22.94	$28.46	$23.24	$25.82	$29.40	W	W	W	W	W	W	W	W	W	W
WY	OH	$21.27	$22.58	$20.59	$23.56	$26.08	$28.91	$26.87	$32.08	$36.19	$40.74	($7.64)	($4.29)	($11.49)	($12.63)	($14.66)
WY	OK	$14.04	$15.88	$14.59	$15.49	$19.98	$14.30	$19.02	$18.50	$18.90	$21.03	($0.26)	($3.14)	($3.91)	($3.41)	($1.05)
WY	OR	$15.10	$15.53	$16.81	$17.68	$18.62	W	W	W	W	W	W	W	W	W	W
WY	SD	$17.20	$16.78	$14.05	$14.61	$21.66	W	W	W	W	W	W	W	W	W	W
WY	TN	$15.97	$18.07	$17.72	$19.50	$22.54	$24.91	$22.21	$23.37	$27.02	$29.51	($8.94)	($4.14)	($5.65)	($7.52)	($6.97)
WY	TX	$16.44	$16.17	$15.21	$16.79	$18.60	$14.70	$15.11	$20.93	$21.25	$20.11	$1.74	$1.06	($5.72)	($4.46)	($1.51)
WY	WA	$16.64	$16.69	$14.05	$15.81	$24.08	W	W	W	W	W	W	W	W	W	W
WY	WI	$15.99	$16.47	$15.72	$18.02	$22.43	$19.97	$20.36	$20.74	$25.89	$24.99	($3.98)	($3.89)	($5.02)	($7.87)	($2.56)
WY	WV	$22.29	$21.76	$23.10	$30.42	$38.10	W	W	W	W	W	W	W	W	W	W
WY	WY	$3.79	$4.07	$3.58	$3.95	$4.60	$7.14	$5.87	$5.40	$5.57	$5.71	($3.35)	($1.80)	($1.82)	($1.62)	($1.11)
Wt. Average		**$14.42**	**$15.02**	**$13.47**	**$15.01**	**$18.10**	**$15.87**	**$15.34**	**$16.87**	**$18.66**	**$19.20**	**($1.45)**	**($0.32)**	**($3.41)**	**($3.65)**	**($1.10)**
MT	AZ	$18.93	$18.71	$17.12	$18.97	$20.76	W	W	W	W	W	W	W	W	W	W
MT	MI	$13.47	$15.46	$16.14	$18.61	$19.71	$16.23	$12.68	$13.72	$27.01	$29.94	($2.76)	$2.78	$2.42	($8.40)	($10.23)
MT	MN	$14.35	$14.43	$12.67	$14.18	$17.88	$14.57	$16.34	$16.61	$18.73	$17.94	($0.22)	($1.91)	($3.94)	($4.55)	($0.06)
MT	MT	$0.40	$0.74	$0.48	$0.49	$0.69	W	W	W	W	W	W	W	W	W	W
MT	ND	$13.00	$12.54	$11.66	$12.47	$18.73	W	W	W	W	W	W	W	W	W	W
MT	OH	$22.31	$24.27	$16.23	$18.30	$27.07	$48.95	$41.98	$34.73	W	W	($26.64)	($17.71)	($18.50)	W	W
MT	WA	$16.14	$16.37	$13.89	$15.63	$24.38	W	W	W	W	W	W	W	W	W	W
MT	WI	$20.94	$18.83	$17.22	$19.48	$26.39	W	W	W	$30.60	W	W	W	W	($11.12)	W
	WA >>	**$13.99**	**$15.14**	**$14.63**	**$16.80**	**$19.12**	**$15.63**	**$15.00**	**$16.33**	**$23.68**	**$26.08**	**($1.64)**	**$0.14**	**($1.70)**	**($6.88)**	**($6.96)**

Including only the data not withheld by EIA for confidentiality, this comparison shows that SNL's estimate of transportation costs was significantly below EIA's data for almost all states in almost all years. For the period 2008 – 2012, the weighted average difference for Wyoming coal was $2.02 per ton and for Montana coal was $3.08 per ton. **This error means that Headwaters overstated the "net delivered" mine prices for these states by this amount, which explains almost the entire difference in prices for Wyoming coal reported to ONRR compared to Headwaters' calculation. Headwaters incorrectly attributed the price difference to "marketing**

[51] EVA analysis of SNL data downloaded from SNL's website, adjusted to constant 2012 dollars to match the EIA data, and EIA, "Coal Transportation Rates to the Electric Power Sector", Tables 4a, 4b and 4c. http://www.eia.gov/coal/transportationrates/

margins" which affiliated and non-affiliated brokers earned on remarketing federal coal at higher prices and avoiding royalties.[52]

VI. Experience and Qualifications

EVA is a market research and analysis company which was founded in 1981. EVA specializes in market analysis of the North American energy markets, including coal, natural gas, oil, and electric power. EVA's clients include producers, consumers and transporters of coal, as well as investors and banks. EVA also performs market analyses for federal administrative and regulatory agencies, such as the Energy Information Administration and the Office of Surface Mining as well as state agencies such as public utility commissions.

The primary author of this report is Mr. Seth Schwartz, president of EVA. EVA has been performing analyses of U.S. energy markets since its founding in 1981. EVA analyzes and publishes regular reports on the coal, natural gas and power markets, including forecasts of supply, demand and prices. Mr. Schwartz leads EVA's practice analyzing U.S. coal markets. He has testified as an expert witness on coal markets in numerous court, arbitration and regulatory hearings, including:

- Supreme Court of the United States (Wyoming v. Oklahoma, 1992)
- Federal district courts in Pennsylvania, Virginia, Missouri, Indiana, Kentucky, Florida, Ohio, Alabama, and West Virginia;
- State courts in Virginia, Kentucky, Pennsylvania, Colorado, Wyoming, Texas and West Virginia;
- U.S. bankruptcy courts in Delaware, Kentucky, Missouri, Tennessee and Louisiana; and,
- Regulatory hearings of the Surface Transportation Board, the Federal Energy Regulatory Commission and public utility commissions in the states of Utah, Texas, Florida, Georgia, and Ohio.

Mr. Schwartz has been a member of the Working Group for the Annual Energy Outlook prepared by the U.S. Energy Information Administration and testified at FERC's Technical Conference on Environmental Regulations and Electric Reliability, Wholesale Electricity Markets, and Energy Infrastructure regarding the Clean Power Plan proposed rule. Mr. Schwartz gives presentations on coal markets at numerous industry conferences, for private energy companies and for EIA.

[52] Headwaters January Report at 3.