

LEASING COAL, FUELING CLIMATE CHANGE

How the federal coal leasing program
undermines President Obama's Climate Plan

For more information, visit greenpeace.org/usa/coalleasing
or contact jsmyth@greenpeace.org

© Tim Aubry/ Greenpeace

LEASING COAL, FUELING CLIMATE CHANGE

How the federal coal leasing program undermines President Obama's Climate Plan

Executive Summary

The United States' federal coal leasing program has come under increased scrutiny in recent years, as communities impacted by coal mining and export proposals, taxpayer advocates, and environmental groups have questioned the ability of the Bureau of Land Management (BLM) to ensure a fair return to US taxpayers and adjust to newer challenges such as climate change and coal export proposals. Recent audits from the Interior Department Inspector General (IG) and Government Accountability Office (GAO) both faulted BLM's inattention to increased coal exports, among other issues. However, the IG and GAO reviews fell far short of a comprehensive review of the coal leasing program, and did not attempt to calculate the total amount of taxpayer revenue that has been lost. Moreover, neither report addressed a more fundamental question: how can a federal program that increases the supply of coal be reconciled with President Obama's Climate Action Plan?

This question is especially important in light of a recent federal court ruling, which blocked plans to expand a coal mine in Colorado because of the failure of the federal coal leasing program to properly consider the federal government's social cost of carbon figures and climate change impacts. This report focuses on the carbon pollution that has been unlocked by the federal coal leasing program during the Obama administration, and calculates the damages expected from those emissions, using the federal government's social cost of carbon figures as suggested by the federal court ruling. Without major changes, the federal coal leasing program will continue to undermine federal, state, and international efforts to reduce carbon pollution; the BLM Wyoming office plans to lease over 10 billion tons of coal in the coming years, dwarfing the emissions reductions expected from the Environmental Protection Agency's Clean Power Plan. A summary of our conclusions:

I. The Bureau of Land Management has leased 2.2 billion tons of publicly owned coal during the Obama administration, unlocking 3.9 billion metric tons of carbon pollution. This is equivalent to the annual emissions of over 825 million passenger vehicles, and more than the 3.7 billion tons that was emitted in the entire European Union in 2012.

II. The carbon pollution from publicly owned coal leased during the Obama administration will cause damages estimated at between \$52 billion and \$530 billion, using the federal government's social cost of carbon estimates. In contrast, the total amount of revenue generated from those coal lease sales was \$2.3 billion.

III. A ton of publicly owned coal leased during the Obama administration will, on average, cause damages estimated at between \$22 and \$237, using the federal government's social cost of carbon estimates – yet the average price per ton for those coal leases was only \$1.03.

IV. The federal coal leasing program amounts to a major fossil fuel subsidy, favoring coal at the expense of cleaner methods of generating electricity. A recent federal court ruling rejected BLM's argument that increasing the supply of coal would not increase carbon pollution, in part because coal competes with cleaner methods of generating electricity. This conclusion is supported by the history of the coal leasing program, an International Monetary Fund report on fossil fuel subsidies, and common sense.

V. The Bureau of Land Management has not adjusted to the US coal mining industry's efforts to increase exports of publicly owned coal. The US coal mining industry is openly aiming to increase exports of publicly owned coal, and the federal coal leasing program has been faulted by multiple government audits for ignoring exports when determining the "fair market value" of leased coal. Nevertheless, BLM officials seem either unable or unwilling to adjust the coal leasing program to account for these major shifts in the market.

VI. Major exports of publicly owned coal would undermine global efforts to reduce carbon pollution. US coal exports have contributed to increased coal consumption in Europe, and partially offset US carbon pollution reductions. Allowing the coal industry to export major amounts of publicly owned coal to Asia would undermine global efforts to address climate change.

VII. The federal coal leasing program is the source of 40% of US coal extraction, with major impacts on coal markets and carbon pollution. One BLM field office in Wyoming recently proposed a plan that estimates new coal leases amounting to 10.2 billion tons, which would unlock an estimated 16.9 billion metric tons of carbon pollution.

VIII. A moratorium and comprehensive review of the federal coal leasing program is needed to ensure that it does not continue undermining President Obama's Climate Action Plan. Interior Secretary Sally Jewell and others in the Obama administration should take the President's call to climate action seriously, beginning with a moratorium and comprehensive review of the federal coal leasing program, including its role in fueling the climate crisis.

I. The Bureau of Land Management has leased 2.2 billion tons of publicly owned coal during the Obama administration, unlocking 3.9 billion metric tons of carbon pollution.

The role of the federal coal leasing program in increasing the supply of coal and carbon pollution was highlighted by a recent federal court ruling,¹ which blocked Arch Coal's plan to expand a mine in Colorado. The June 27, 2014 ruling found that the Bureau of Land Management and Forest Service failed to properly consider the climate change impacts of the coal lease in their environmental review, specifically rejecting BLM's argument "that the same amount of coal will be burned whether or not" that particular coal lease was approved. The court ruling also pointed to the US federal government's Interagency Working Group on Social Cost of Carbon figures as a tool that is available but unused by the Bureau of Land Management to help quantify the climate change impacts from leased coal.

Although BLM has failed to consider the carbon pollution impacts of its coal leasing program, we can estimate those damages using the government's social cost of carbon figures. To do so, we must first determine the amount of carbon pollution that will be released from BLM's recent coal leases; this analysis will focus on coal that has been leased during the Obama administration.

BLM held sixteen successful "lease by application" (LBA) sales between 2009 and July 2014. We can calculate the carbon pollution from these lease sales by looking at the tons of coal in each lease, the energy content of the coal in each lease (in BTU/lb), and the amount of carbon pollution released per BTU, which varies depending upon the type of coal. The chart below shows the amount of carbon pollution expected to be released from each of the coal leases sold during the Obama administration, when the coal is burned. Note that this includes only the carbon pollution emitted when the coal is burned, and does not include the carbon and methane pollution associated with the mining, processing, and transporting of the coal.



Publicly owned coal leased by Bureau of Land Management during the Obama administration, including prices and carbon pollution

Date	Company	State	Tons of Coal	Successful Bid Amount	\$/Ton	BTU/lb	Type of Coal	CO ₂ Coefficient	Metric Tons CO ₂
3/1/2009	Twentymile Coal Co.	CO	1,407,636	\$350,000	\$0.25	12561	Sub-bituminous	214.3	3,418,076
7/1/2012	Oxbow Mining LLC	CO	3,960,000	\$900,000	\$0.23	12005	Bituminous	205.7	8,869,495
9/1/2012	Sage Creek Holdings	CO	3,200,000	\$800,000	\$0.25	12776	Bituminous	205.7	7,627,575
6/1/2013	Blue Mtn Energy Inc.	CO	21,308,000	\$6,390,000	\$0.30	9,300*	Bituminous	205.7	36,971,512
6/1/2012	Signal Peak Energy LLC	MT	35,500,000	\$10,650,000	\$0.30	9753	Bituminous	205.7	64,596,376
3/1/2014	Peabody Natural Resources Co.	NM	9,200,000	\$2,300,000	\$0.25	9,856	Sub-bituminous	214.3	67,317,750
1/1/2010	BNI Coal Ltd. – Center Mine	ND	3,000,000	\$16,000	\$0.01	6669	Lignite	215.4	17,624,548
10/1/2009	Consolidation Coal Co.	UT	561,000	\$201,600	\$0.36	12179	Bituminous	205.7	1,274,723
5/1/2009	Cordero Mining	WY	54,657,000	\$48,098,424	\$0.88	8586	Sub-bituminous	214.3	91,214,973
7/1/2011	Antelope Coal	WY	350,263,000	\$297,723,228	\$0.85	8967	Sub-bituminous	214.3	610,479,228
9/1/2011	Antelope Coal	WY	56,356,000	\$49,311,500	\$0.88	8807	Sub-bituminous	214.3	98,223,813
11/1/2011	BTU Western Resources	WY	221,734,800	\$210,648,060	\$0.95	8501	Sub-bituminous	214.3	366,381,659
11/1/2011	Alpha Coal West	WY	130,196,000	\$143,417,404	\$1.10	8542	Sub-bituminous	214.3	216,165,642
5/1/2012	Arch Coal Co.	WY	222,676,000	\$300,001,012	\$1.35	9011	Sub-bituminous	214.3	390,010,105
6/13/2012	BTU Western Resources	WY	401,830,508	\$446,031,864	\$1.11	8910	Sub-bituminous	214.3	695,906,031
10/1/2012	BTU Western Resources	WY	721,154,828	\$793,270,311	\$1.10	8,892	Sub-bituminous	214.3	1,246,400,260
	Totals		2,237,004,772	\$2,310,109,402					3,922,481,766
	Average				\$1.03				

Notes:

- Dates, Company, State, Tons of Coal, Successful Bid Amount, \$/Ton are from Bureau of Land Management tables, “Successful Competitive Lease Sales Since 1990” for Colorado, Montana and North Dakota, New Mexico, Utah, Wyoming.²
- BTU/lb and Type of Coal are from Federal Register Notices for each coal lease, linked from those tables.
- CO₂ Coefficient is based on type of coal, and figures are from Energy Information Agency, “How much carbon dioxide is produced when different fuels are burned?”³

* BTU/lb for Blue Mountain Energy mine coal is estimated at 9,300, as it was set as a range of 8,000–10,600 in the Federal Register Notice

This analysis shows that the BLM has leased 2,237,004,772 tons of publicly owned coal during the Obama administration, which has unlocked an estimated 3,922,481,766 metric tons of carbon pollution – nearly four gigatons. The vast majority of this leased coal, 98%, is from the Powder River Basin area of Wyoming and Montana.

This is a huge amount of carbon pollution, equivalent to the annual emissions of over 825 million passenger vehicles, and more than the 3.7 billion tons that was emitted in the entire European Union in 2012.⁴

II. The carbon pollution from publicly owned coal leased during the Obama administration will cause damages estimated at between \$52 billion and \$530 billion, using the federal government's social cost of carbon estimates.

Although the Bureau of Land Management has failed to consider the carbon pollution impacts of its coal leasing program, other federal agencies like the Department of Energy and the Environmental Protection Agency do incorporate the benefits of reducing carbon pollution in decision making processes. To do so, federal agencies use figures from the government's Interagency Working Group on Social Cost of Carbon, which are estimates of some of the climate change damages suffered by society, expressed as a dollar figure per metric ton of CO₂. According to the US Interagency Working Group on Social Cost of Carbon, this is meant to "allow agencies to incorporate the social benefits of reducing carbon dioxide (CO₂) emissions into cost-benefit analyses of regulatory actions that impact cumulative global emissions."⁵ The recent federal court ruling against a coal lease in Colorado rejected the Bureau of Land Management's argument that quantifying the climate change impacts from leased coal is impossible, stating, "But a tool is and was available: the social cost of carbon protocol."

We can use the federal government's social cost of carbon figures to estimate the climate change damages from publicly owned coal that has been leased during the Obama administration, but first let's look briefly at how social cost of carbon figures work.

The US government's social cost of carbon estimates include four values, three of which are based on the average of the models used in the calculations, but vary depending on the discount rate use; 2.5%, 3.0%, or 5.0%. The fourth value also uses a 3% discount rate, but represents the 95th percentile across the models instead of the average, in order to try and include the potential for higher monetary damages caused by climate change. Many experts believe that the federal government's social cost of carbon estimates are too low, in part because "problems like droughts, higher food prices, lost fisheries, and some extreme weather are left out of the government's calculation."⁶ In fact, even the US Environmental Protection Agency, which is part of the Interagency Working Group, points out that, "As noted by the IPCC Fourth Assessment Report, it is "very likely that [SCC] underestimates" the damages."⁷ Nevertheless, since these social cost of carbon figures are used by other federal agencies, they provide a glimpse at one way the Interior Department could consider the impacts of climate change when managing coal on behalf of the American people.

The latest figures from the US Interagency Working Group on Social Cost of Carbon calculate a range of monetary damages expected to be caused by a metric ton of CO₂ emitted in 2015; \$12 (using a 5.0% discount rate), \$38 (using a 3.0% discount rate), \$58 (using a 2.5% discount rate), and \$109, (using a 3.0% discount rate, 95th percentile).⁸

Social cost of carbon figures increase each year, as increased carbon pollution further exacerbates climate change impacts, and the Interagency Working Group provides those figures at 5 year intervals. In 2020, they would be \$12, \$43, \$65, \$129; in 2025, \$14, \$48, \$70, \$144, and in 2030, \$16, \$52, \$76, \$159.

Because the social cost of carbon increases each year, calculations of how much climate change damages are expected because of the emissions from this coal should take into account when the coal is likely to be burned. While it's impossible to know precisely, since coal mining companies can adjust the amount of coal they extract as market conditions change, we will base our calculations on an assumption that this coal will be mined and burned during a period beginning in 2015 and ending in 2030. That is the period expected by the Interior Department according to a press release announcing the Wyoming coal lease sales, which stated that "revenue estimates are based on the future price of mined coal between 2015 and 2030."⁹ (Former Interior Secretary Ken Salazar's attempts to tout those revenues were undermined when local media revealed that he had overstated the figure "by a factor of 10," according to the executive director of the Wyoming Mining Association.)¹⁰

To estimate the social cost of carbon damages from this coal, expected to be burned between 2015 and 2030, we calculated the social cost of carbon damages from the total amount of carbon pollution (3,922,481,766 metric tons of CO₂) in 2015, 2020, 2025, and 2030, and then averaged those amounts. The result is that using a 5.0% discount rate, we would expect \$52,953,503,841 in damages; 3.0% discount rate, \$177,492,299,912; 2.5% discount rate, \$263,786,898,764; and 3.0% discount rate, 95th percentile, \$530,515,658,852.

In contrast, the total amount of revenue generated from those coal lease sales was \$2,310,109,402.

**Total social cost of carbon damages from 3,922,481,766 metric tons
CO₂ emitted 2015 – 2030**

5.0% discount rate, average	\$52,953,503,841
3.0% discount rate, average	\$177,492,299,912
2.5% discount rate, average	\$263,786,898,764
3.0% discount rate, 95th percentile	\$530,515,658,852

III. A ton of publicly owned coal leased during the Obama administration will, on average, cause damages estimated at between \$22 and \$237, using the federal government's social cost of carbon estimates – yet the average price per ton for those coal leases was only \$1.03.

We can also calculate an average social cost of carbon figure for each ton of coal by dividing the total social cost of carbon damages by the total quantity of publicly owned coal leased during the Obama administration, 2,237,004,772 tons. The result is that on average, using a 5.0% discount rate, we would expect \$22.21 in damages per ton of coal; 3.0% discount rate, \$79.34 per ton of coal; 2.5% discount rate, \$117.92 per ton of coal; and 3.0% discount rate, 95th percentile, \$237.15 per ton of coal.

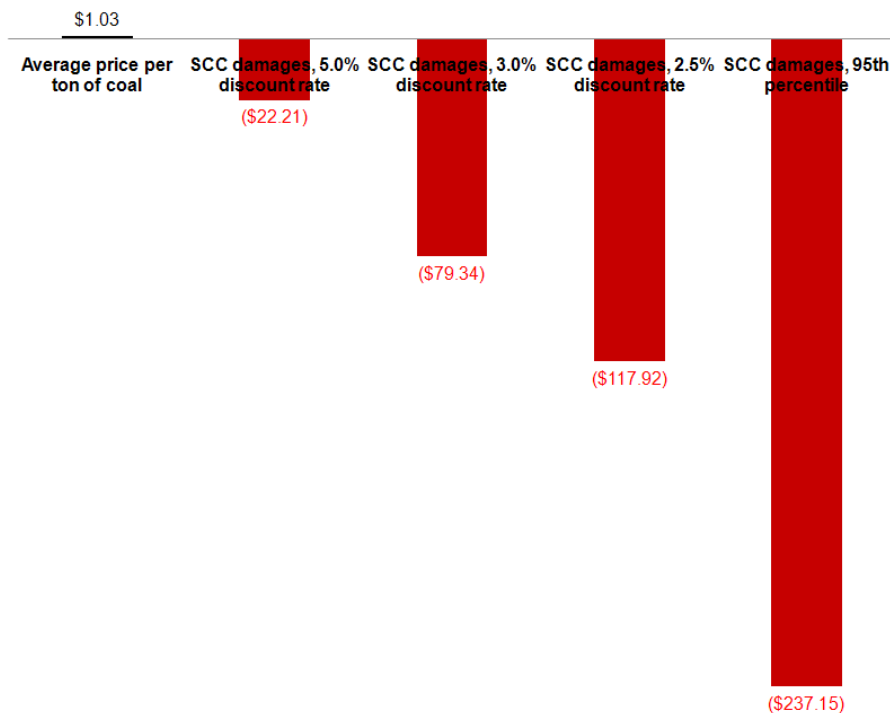
In contrast, the average price per ton for those coal leases was only \$1.03.

**Average social cost of carbon damages per ton of publicly owned coal
leased during 2009 – July 2014**

5.0% discount rate, average	\$22.21
3.0% discount rate, average	\$79.34
2.5% discount rate, average	\$117.92
3.0% discount rate, 95th percentile	\$237.15



Average social cost of carbon (SCC) damages vs. average price per ton of coal leased during the Obama administration



Note that these figures are the averages, and there would be variations for each coal lease based on its energy content (BTU/lb), type of coal and CO₂ coefficient, and the period over which each coal lease may be mined and burned. Because the vast majority (96.5%) of this coal is from mines in Wyoming, these average results will most closely reflect those coal leases, which are sub-bituminous coal, with relatively low BTU values between 8501 and 9011, and as noted above, expected by the Interior Department to be mined between 2015 and 2030.

IV. The federal coal leasing program amounts to a major fossil fuel subsidy, favoring coal at the expense of cleaner methods of generating electricity.

A January 2013 report from the International Monetary Fund (IMF), "Energy Subsidy Reform: Lessons and Implications," demonstrates that a failure to include the externalities of fossil fuels – such as the impacts of climate change and public health – represents the majority of fossil fuel subsidies globally.¹¹ Because of this, the IMF data show that the United States is the top fossil fuel subsidizing nation, at over \$500 billion each year. The IMF report notes how low coal prices lead to a particularly major subsidy: "For some products, such as coal, post-tax subsidies are substantial because prices are far below the levels needed to address negative environmental and health externalities." The IMF summarizes the problem:

- | The negative externalities from energy subsidies are substantial. Subsidies cause
- | overconsumption of petroleum products, coal, and natural gas, and reduce incentives
- | for investment in energy efficiency and renewable energy. This over-consumption in
- | turn aggravates global warming and worsens local pollution.

A report¹² from the Institute for Energy Economics and Financial Analysis (IEEFA) highlights how this dynamic has unfolded with the federal coal leasing program, a prime example of policies that fail to consider the climate change and public health impacts of subsidized coal:

- | The availability of cheap coal from the PRB has not only provided the industry with
- | a price advantage that has allowed much deeper market penetration throughout
- | the years—from 5 percent in 1982 to nearly 48 percent today—but it has also had
- | significant implications for the nation’s energy policy. For the past 30 years, the U.S.
- | government has effectively selected coal as the primary energy source to power the
- | nation’s electric grid. In addition to its market penetration, analysts have concluded
- | that coal’s dominance has effectively prevented the development of public–private
- | partnership policies and programs to improve energy diversity in the United States.

The recent federal court ruling also noted how increased supplies of cheap coal must be considered in the context of other methods of generating electricity, to reject BLM’s argument “that the same amount of coal will be burned whether or not” a particular coal lease is approved:

- | The production of coal in the North Fork exemption will increase the supply of cheap,
- | low-sulfur coal. At some point this additional supply will impact the demand for coal
- | relative to other fuel sources, and coal that otherwise would have been left in the
- | ground will be burned.

V. The Bureau of Land Management has not adjusted to the US coal mining industry’s efforts to increase exports of publicly owned coal.

Another problem with the federal coal leasing program is that Bureau of Land Management officials have failed to comprehend or adjust to the US coal mining industry’s efforts to increase exports of publicly owned coal. The Interior Department Inspector General report¹³ determined that “BLM does not fully account for export potential in developing the FMVs” (Fair Market Values), and the GAO report¹⁴ highlighted the shortcomings of the Wyoming BLM office:

- | “..economic and appraisal reports in Wyoming typically contained generic boilerplate
- | statements about the possibility of coal exports in the future and the uncertainty
- | surrounding them, rather than specific information on actual or predicted coal
- | exports—even for proposed lease tracts that were adjacent to mines on federal leases
- | that are currently exporting coal.”

For several years, the US coal mining industry’s efforts to increase exports of publicly owned coal has been widely reported and openly discussed within the coal industry, yet statements from BLM officials responsible for managing this publicly owned coal suggest that they are either somehow unaware of these developments, or deliberately ignoring them. For example, in December 2013, several months after the Inspector General report, the BLM’s chief of solid minerals branch in Wyoming told Bloomberg BNA, “Our position in BLM Wyoming is that the coal isn’t being used for export. We generally assume that the coal is going to be used for domestic use. We can’t say that it will never be used for export, but right now, we’re not seeing that. It’s speculative at this point.”¹⁵ Meanwhile, the CEO of Peabody Energy was touting his company’s current exports of publicly owned coal from its North Antelope Rochelle mine to the Wall Street Journal:

- | Mines in Wyoming's Powder River Basin offer a healthy future for the U.S. coal industry,
- | Mr. Boyce says. "We have the largest mine in the world there, and it has one of the
- | lowest cost structures for a mine of its size," he says. "The coal there travels to all
- | corners of the world."¹⁶

A year and a half earlier, BLM Wyoming approved two major coal lease sales that allowed Peabody to add 1.1 billion tons of coal to that very coal mine. The Record of Decision for the Environmental Impacts Statements for those leases failed to consider export potential, and included boilerplate justifications that, "The public interest is served by leasing the South Porcupine LBA tract because doing so provides a reliable, continuous supply of stable and affordable energy for consumers throughout the country."¹⁷

Arch Coal CEO John Eaves has also touted current exports of publicly owned coal from its West Elk mine in Colorado, the same mine that was recently blocked from expansion by the federal court ruling. During his company's fourth quarter 2013 earnings call, he stated: "As you know our West Elk mine in Colorado is heavily focused on the export market. As 50% of the mine's output were sold in the Europe, Latin America and Asia in 2013."¹⁸

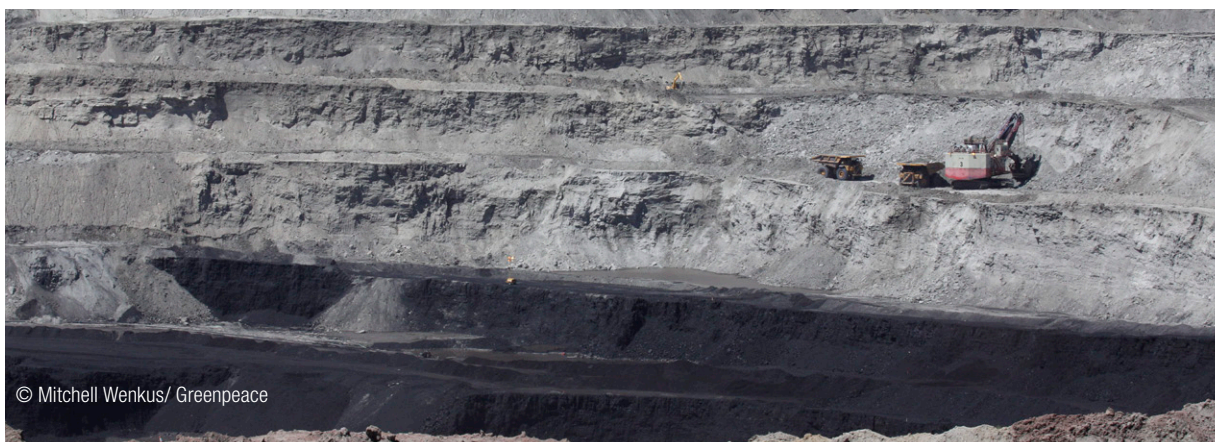
Ambre Energy, an Australian company that is pushing the Morrow Pacific and Millenium Bulk coal export terminal proposals in the Pacific Northwest, touts on its website that its Decker mine, which is publicly owned coal, is, "Geographically well-positioned for Asian market via export through the Pacific Northwest."¹⁹ The company even specified in a June 2013 presentation to the Wyoming Infrastructure Authority Breakfast that its business plan is to "Take competitive advantage of an undervalued US coal market."²⁰

Cloud Peak Energy currently exports publicly owned coal from its Spring Creek mine, and CEO Colin Marshall told investors during the company's fourth quarter 2012 earnings call that it is focused on building an "export-focused mine complex" around the mine.²¹

Although the coal industry has argued that exports are currently a small portion of Powder River Basin coal production, this obscures that the industry hopes to boost exports in future years, as the Interior Department Inspector General report explained:

- | We believe that FMV determinations need to fully account for current and future export
- | potential even if export volumes are relatively low at the present time. A coal mine is a
- | long-term, commercial project, and operations may extend over decades. Exports from
- | the Powder River Basin are expected to increase substantially in the coming years.
- | Accordingly, all coal lease sales should fully recognize this factor in the valuation of the
- | commodity.

More information about the export of publicly owned coal is detailed in the Sightline Institute report, "Unfair Market Value: By Ignoring Exports, BLM Underprices Federal Coal."²²



VI. Major exports of publicly owned coal would undermine global efforts to reduce carbon pollution.

As we've seen, the cheap coal made available by the federal coal leasing program has encouraged increased coal consumption in the United States for decades, at the expense of cleaner forms of energy. Combined with the US coal industry's efforts to boost exports, subsidized US coal could have a similar impact abroad, undermining global efforts to reduce carbon pollution.

Evidence of this dynamic can be seen in recent increases of US coal exports to Europe. The Tyndall Centre for Climate Change Research at the University of Manchester considered this in an October 2012 report, "Has US Shale Gas Reduced CO₂ Emissions?,"²³ focused on the increase in US coal exports as US utilities reduced coal in favor of natural gas between 2008-2011:

- | The calculations presented in this report suggest that more than half of the emissions
- | avoided in the US power sector may have been exported as coal. In total, this export is
- | equivalent to 340 MtCO₂ emissions elsewhere in the world, i.e. 52% of the 650 MtCO₂ of
- | potential emissions avoided within the US.

A March 2014 analysis²⁴ from the CO₂ Scorecard Group also considered this topic, and in September 2013 the US Energy Information Administration included the availability of "favorably priced U.S. exports of coal" as one of several factors that have increased coal consumption in Europe.²⁵ Although some of the coal exported to Europe through East Coast and Gulf Coast terminals is publicly owned coal (such as from Arch Coal's West Elk mine in Colorado), the majority is not. If the US coal industry succeeds in exporting large quantities of publicly owned coal from the Powder River Basin, where most publicly owned coal is mined, to the Pacific seaborne coal market, it would have a similar effect, according to an economic analysis from Dr. Thomas Power, "The Greenhouse Gas Impact of Exporting Coal from the West Coast."

- | This paper concludes that the proposed coal export facilities in the Northwest will result
- | in more coal consumption in Asia and undermine China's progress towards more efficient
- | power generation and usage. Decisions the Northwest makes now will impact Chinese
- | energy habits for the next half-century; the lower coal prices afforded by Northwest coal
- | exports encourage burning coal and discourage the investments in energy efficiency that
- | China has already undertaken.²⁶

The damage from a major increase in exports of publicly owned coal to Asian markets would go beyond encouraging more coal consumption in a region that is struggling to respond to an air pollution crisis. As the world's top emitting countries, efforts by the United States and China to increase cooperation and ambition to reduce carbon pollution are watched closely by other countries, businesses, and communities. Major exports of US publicly owned coal, obtained under outdated policies at subsidized prices, would send a troubling signal about the integrity and seriousness of the United States' climate policies.



VII. The federal coal leasing program is the source of 40% of US coal extraction, with major impacts on coal markets and carbon pollution.

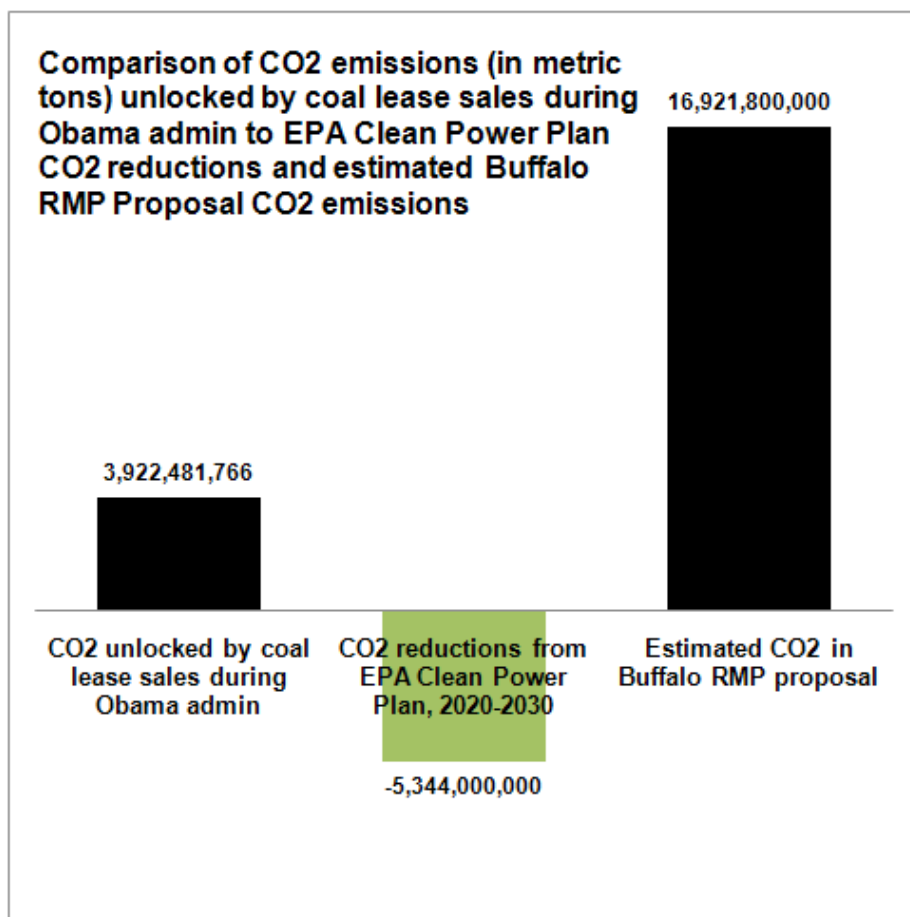
The US Energy Information Administration reported that in 2013, 401 million tons of coal came from federal lands, 40.4% of total US coal extraction.²⁷ By any measure, this is a huge quantity of coal, with a corresponding major effect on coal markets. This is especially true in the Western United States, as the IEEFA report noted:

- | Given that the United States owns almost all the coal in the region, the U.S.
- | government holds an effective monopoly of western coal. As a result, government
- | policies—or more precisely those of the DOI—are extremely influential and shape
- | annual coal production levels and the market price of coal.

Of course, publicly owned coal also represents a major source of carbon pollution, as detailed in a 2012 report prepared for the Wilderness Society, “Greenhouse Gas Emissions from Fossil Energy Extracted from Federal Lands and Waters.”²⁸ That report showed that in 2009, “fossil fuel extraction from federal lands and waters by private leaseholders could have accounted for approximately 23% of total U.S. GHG emissions and 27% of all energy-related GHG emissions.” The report also found that coal is responsible for most of the carbon pollution from those federally leased fossil fuels; in 2010, coal was responsible for 888,946,650 metric tons of CO₂, 57% of the total 1,550,638,866 metric tons of CO₂.

But despite the major impacts of the federal coal leasing program on the price of coal and carbon pollution, it has been largely administered by state BLM offices, with minimal oversight from the Interior Department, much less the White House.

For example, the Buffalo Field Office of the Wyoming State BLM has proposed²⁹ a Regional Management Plan (RMP) and Environmental Impact Statement (EIS) which estimates 28 new coal leases amounting to 10.2 billion tons of coal.³⁰ The Buffalo RMP proposal doesn’t include sufficient detail to calculate the quantity of carbon pollution as precisely as this report did for coal already leased during the Obama administration, but it is possible to estimate the carbon pollution using the same methodology that BLM has used for similar Wyoming coal. For its environmental review of the Hay Creek II coal lease³¹ in Wyoming, BLM estimated CO₂ emissions from the coal using an “emission factor of 1.659 metric tons CO₂/ton of coal burned” and we can assume similar sub-bituminous coal with relatively low BTU values in the Buffalo RMP area. That would mean this BLM field office expects to lease coal that would unlock an estimated 16.9 billion metric tons of carbon pollution. In comparison, the Obama administration’s Clean Power Plan is expected to reduce carbon pollution by 5.3 billion metric tons between 2020 and 2030, according to the Natural Resources Defense Council.³²



VIII. A moratorium and comprehensive review of the federal coal leasing program is needed to ensure that it does not continue undermining President Obama's Climate Action Plan.

Over a year ago, President Obama reminded us that “someday, our children, and our children’s children, will look at us in the eye and they’ll ask us, did we do all that we could when we had the chance to deal with this problem and leave them a cleaner, safer, more stable world?”³³ But so far, the Bureau of Land Management and Interior Department have continued to ignore the carbon pollution from leasing publicly owned coal, and have failed to pursue meaningful reform of the program. The Interior Department has largely ignored repeated requests for reform from community and landowner groups in the Powder River Basin region,³⁴ environmental groups,³⁵ taxpayer advocates,³⁶ and elected officials including Oregon Governor John Kitzhaber,³⁷ Senator Ed Markey,³⁸ and the US Congress Bicameral Task Force on Climate Change.³⁹

Interior Secretary Sally Jewell and others in the Obama administration should take the President’s call to climate action seriously, beginning with a moratorium and comprehensive review of the federal coal leasing program, including its role in fueling the climate crisis.



SOURCES

- 1 US District Court for the Court of Colorado ruling, June 27, 2014, <http://earthjustice.org/sites/default/files/files/91%20-%20Order%20on%20Merits%20%282%29.pdf>
- 2 US Bureau of Land Management, “Successful Competitive Lease Sales Since 1990,” Colorado: http://www.blm.gov/wo/st/en/prog/energy/coal_and_non-energy/coal_lease_table/Colorado_Coal_Table.html, Montana and Nebraska: http://www.blm.gov/wo/st/en/prog/energy/coal_and_non-energy/coal_lease_table/Montana_and_Nebraska_Coal_Table.html, New Mexico: http://www.blm.gov/wo/st/en/prog/energy/coal_and_non-energy/coal_lease_table/New_Mexico_Coal_Table.html, Utah: http://www.blm.gov/wo/st/en/prog/energy/coal_and_non-energy/coal_lease_table/utah_coal_table.html, Wyoming: http://www.blm.gov/wo/st/en/prog/energy/coal_and_non-energy/coal_lease_table/Wyoming_Coal_Table.html
- 3 US Energy Information Administration, “How much carbon dioxide is produced when different fuels are burned?,” <http://www.eia.gov/tools/faqs/faq.cfm?id=73&t=11>
- 4 Emission Database for Global Atmospheric Research (EDGAR): Trends in Global CO₂ Emissions 2013 Report, Table A1.2, http://edgar.jrc.ec.europa.eu/news_docs/pbl-2013-trends-in-global-co2-emissions-2013-report-1148.pdf
- 5 Interagency Working Group on Social Cost of Carbon, United States Government, “Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis” May, 2013, http://www.whitehouse.gov/sites/default/files/omb/inforeg/social_cost_of_carbon_for_ria_2013_update.pdf
- 6 The Cost of Carbon Pollution, “About the Project,” <http://costofcarbon.org/about>
- 7 US Environmental Protection Agency, “The Social Cost of Carbon” <http://www.epa.gov/climatechange/EPAactivities/economics/scc.html>
- 8 Interagency Working Group on Social Cost of Carbon, United States Government, “Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis” May, 2013, http://www.whitehouse.gov/sites/default/files/omb/inforeg/social_cost_of_carbon_for_ria_2013_update.pdf
- 9 US Department of the Interior Press Release, “Salazar Announces Coal Lease Sales in Wyoming,” March 22, 2011 <http://www.doi.gov/news/pressreleases/Salazar-Announces-Coal-Lease-Sales-in-Wyoming.cfm>
- 10 Casper Star-Tribune, “Salazar appears to have vastly overstated coal money in Wyoming,” March 25, 2011, http://trib.com/news/state-and-regional/salazar-appears-to-have-vastly-overstated-coal-money-in-wyoming/article_f4e7b340-e9a6-5736-9c3d-cd993efb5ae3.html
- 11 International Monetary Fund, “Energy Subsidy Reform: Lessons and implications,” January 28, 2013, <https://www.imf.org/external/np/pp/eng/2013/012813.pdf>
- 12 The Institute for Energy Economics and Financial Analysis, “The Great Giveaway: An analysis of the costly failures of federal coal leasing in the Powder River Basin,” June 25, 2012, <http://www.ieefa.org/study-almost-30-billion-in-revenues-lost-to-taxpayers-by-giveaway-of-federally-owned-coal-in-powder-river-basin/>
- 13 US Department of the Interior Office of Inspector General, “Coal Management Program, U.S. Department of the Interior,” June 11, 2013, <http://www.doi.gov/oig/news/coal-management-program-us-department-of-the-interior.cfm>
- 14 US Government Accountability Office, “Coal Leasing: BLM Could Enhance Appraisal Process, More Explicitly Consider Coal Exports, and Provide More Public Information ,” February 4, 2014, <http://www.gao.gov/products/GAO-14-140>
- 15 Bloomberg BNA, “Latest News Legal & Business Insights Tax & Accounting Environment, Health & Safety Human Resources Obama Policy: Control Greenhouse Gases At Home, Enable Export of Fossil Fuels,” December 19, 2013, <http://www.bna.com/obama-policy-control-n17179880877/>
- 16 The Wall Street Journal, “The Future of Coal: Despite Gas Boom, Coal Isn’t Dead,” January 7, 2014, <http://online.wsj.com/news/articles/SB10001424052702303332904579228160256043626>
- 17 Bureau of Land Management Wyoming State Office – High Plains District Office, “Record of Decision Environmental Impact Statement for the South Porcupine Coal Lease Application,” August 2011, <http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/hpdo/Wright-Coal/s-porcupine.Par.96234.File.dat/S-PorcROD.pdf>
- 18 Seeking Alpha Transcripts, “Arch Coal’s CEO Discusses Q4 2013 Results – Earnings Call Transcript,” February 4, 2014, <http://seekingalpha.com/article/1993391-arch-coals-ceo-discusses-q4-2013-results-earnings-call-transcript?part=single>
- 19 Ambre Energy, “Decker Mine,” <http://www.ambreenergy.com/decker-mine>
- 20 Ambre Energy, “Introduction to Ambre Energy, Wyoming Infrastructure Authority Breakfast,” June 2013 http://wyia.org/wp-content/uploads/2013/07/wyoming_infrastructure_authority_breakfast_presentation_-_june_20131.pdf

- 21 Seeking Alpha Transcripts, "Cloud Peak Energy's CEO Discusses Q4 2012 Results – Earnings Call Transcript," February 13, 2013, <http://seekingalpha.com/article/1182631-cloud-peak-energys-ceo-discusses-q4-2012-results-earnings-call-transcript?part=single>
- 22 Sightline Institute, "Unfair Market Value: By Ignoring Exports, BLM Underprices Federal Coal," July 2014
- 23 Tyndall Centre for Climate Change Research at the University of Manchester, "Has US Shale Gas Reduced CO₂ Emissions? Examining recent changes in emissions from the US power sector and traded fossil fuels," October 2012, http://www.mace.manchester.ac.uk/media/eps/schoolofmechanicalaerospaceandcivilengineering/research/centres/tyndall/newsandevents/pdfs2011-2012/broderick_anderson_2012_impact_of_shale_gas_on_us_energy_emissions.pdf
- 24 CO₂ Scorecard, "US Coal Exports Erode All CO₂ Savings from Shale Gas," March 24, 2014, <http://co2scorecard.org/home/researchitem/29>
- 25 US Energy Information Administration, "Multiple factors push Western Europe to use less natural gas and more coal," September 27, 2013, <http://www.eia.gov/todayinenergy/detail.cfm?id=13151>
- 26 Dr. Thomas M. Power, "The Greenhouse Gas Impact of Exporting Coal from the West Coast An Economic Analysis," July 2011, <http://www.sightline.org/wp-content/uploads/downloads/2012/02/Coal-Power-White-Paper.pdf>
- 27 US Energy Information Administration, "Sales of Fossil Fuels Produced from Federal and Indian Lands, FY 2003 through FY 2013," June 2014, <http://www.eia.gov/analysis/requests/federallands/pdf/eia-federallandsales.pdf>
- 28 The Wilderness Society, "Greenhouse Gas Emissions from Fossil Energy Extracted from Federal Lands and Waters," February 1, 2012, <http://wilderness.org/sites/default/files/FINAL%20STRATUS%20REPORT.pdf>
- 29 Bureau of Land Management, "Buffalo RMP Revision," <http://www.blm.gov/wy/st/en/programs/Planning/rmps/buffalo.html>
- 30 Letter to Interior Secretary Sally Jewell and BLM Director Neil Kornze RE: BLM Buffalo Field Office Resource Management Plan Revision, June 19, 2014, http://www.eenews.net/assets/2014/06/20/document_gw_06.pdf
- 31 Bureau of Land Management Wyoming High Plains District, "Environmental Impact Statement for the Buckskin Mine Hay Creek II Coal Lease Application," Table 4-39, July 2011, <http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/cfodocs/haycreekii/feis.Par.88691.File.dat/00FEIS.pdf>
- 32 Switchboard, Natural Resources Defense Council Staff Blog, "The Clean Power Plan: NRDC's Initial Analysis of EPA's Landmark Proposal to Curb Carbon Pollution from the Nation's Power Plants," June 7, 2014 http://switchboard.nrdc.org/blogs/ddoniger/the_clean_power_plan_nrdcs_ini.html
- 33 The White House Office of the Press Secretary, "Remarks by the President on Climate Change," June 25, 2013, <http://www.whitehouse.gov/the-press-office/2013/06/25/remarks-president-climate-change>
- 34 Western Organization of Resource Councils, "Coal," <http://www.worc.org/Coal2/>
- 35 Letter from 21 groups to Interior Secretary Sally Jewell, April 15, 2013, <http://www.greenpeace.org/usa/Global/usa/planet3/PDFs/Coal/SecJewell.pdf>
- 36 Taxpayers for Common Sense, "Taxpayers for Common Sense Calls for Better Oversight, More Transparency of Coal Program," September 18, 2013, <http://www.taxpayer.net/library/article/taxpayers-for-common-sense-call-for-better-oversight-more-transparency-of-c>
- 37 Letter from Oregon Governor John Kitzhaber to Secretary of the Interior, Secretary of the Army, Director of Bureau of Land Management, and Major General of the U.S. Army Corps of Engineers, April 25, 2012 http://media.oregonlive.com/environment_impact/other/4%2025%2012_McHughSalazarCoalLetter%20%282%29.pdf
- 38 US Senator Ed Markey Press Release, "Markey: Report on Public Coal Leasing Shows Taxpayers Losing Money," February 4, 2014, <http://www.markey.senate.gov/news/press-releases/markey-report-on-public-coal-leasing-shows-taxpayers-losing-money>
- 39 US Congress Bicameral Task Force on Climate Change, "Implementing The President's Climate Action Plan: U.S. Department of the Interior. Actions the Department of the Interior Should Take to Address Climate Change," December 19, 2013, <http://www.whitehouse.senate.gov/download/?id=19d9cf67-2b3d-4fa6-95d5-500ddcf7c84c&download=1>