

The Real Cost of Coal

Taxpayers should be compensated for the climate impacts.

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The cost of government coal should reflect the climate-change impact of burning it to generate electricity.

By David J. Hayes
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CONGRESS long ago established a basic principle governing the extraction of coal from public lands by private companies: American taxpayers should be paid fair value for it. They own the coal, after all.

Lawmakers set a royalty payment of 12.5 percent of the sale price of the coal¹ in 1976.² Forty years later, those payments remain stuck there, with actual collections often much less.³

¹ The coal royalty rate is 12.5% for surface mines and because the large majority of federal coal is surface-mined, that is the value listed here. The royalty rate is 8% for underground mines. The largest source of federal coal is deposits in the Powder River Basin (PRB) in Wyoming and Montana, which produced 337 million tons and 24 million tons of Federal coal in 2013, respectively, amounting to 86% of all federal coal produced in 2013. (EIA, "Fossil Fuels Produced on Federal and Indian Lands, FY03-FY13," June 2014). In 2012, all PRB coal was mined from surface mines (EIA, "Annual Coal Report 2013," December 2015, table 1; at <http://www.eia.gov/coal/annual/>).

² The legal basis for setting royalties is summarized in the DOI Inspector General's report ("Coal Management Program, US DOI", June 2013, at <http://www.doi.gov/oig/news/coal-management-program-us-department-of-the-interior.cfm>) (DOI-OIG [2013]):

The Federal Coal Leasing Amendments Act of 1976 (Pub. L. No. 94-377) amended the MLA [Mineral Leasing Act of 1920] to require a royalty rate of not less than 12.5 percent of the sale value of coal for surface mines, but allowed a lower rate for underground mines. The Department has set the royalty rate for underground mines at 8 percent. In addition, the MLA generally requires BLM's coal leases to be competitive lease sales and requires the Federal Government to receive the FMV for coal leases. The MLA does not define the FMV [Fair Market Value], but BLM follows a standard real estate definition. 1 Regulations for the coal leasing program are in the Code of Federal Regulations (43C.F.R. §§ 3000, 3400-3480)."

Overviews of the BLM coal leasing program are provided in the US DOI Inspector General Report and the 2013 GAO report, *Coal Leasing* at <http://www.gao.gov/products/GAO-14-140> (GAO [2013]).

³ US GAO (2013), op. cit.: "The effective royalty rate—the rate actually paid by lessees after processing and transportation allowances have been factored in along with any royalty rate reductions—generated from coal produced from federal leases has remained on average at about 11 percent since fiscal year 1990... In fiscal year 2012, the effective royalty rates for the top federal coal producing states were: Wyoming (12.2 percent), Montana (11.6 percent), Utah (6.9 percent), and Colorado (5.6 percent)." (pp24-25). The DOI-OIG (2013) report also found potential problems in low valuation for least modifications: "We analyzed all 45 lease modifications since 2000 and found that BLM typically approved a substantially lower price—averaging more than 80 percent lower—than the price used in the regular lease sales during the same period." (p. 13).

Studies by the Government Accountability Office⁴, the Interior Department's inspector general⁵ and nonprofit research groups⁶ have all concluded that taxpayers are being shortchanged.

This is no small matter. In 2013, approximately 40 percent of all domestic coal came from federal lands.⁷ A recent [study](#) by the independent nonprofit research group [Headwaters Economics](#) estimates that various reforms to the royalty valuation system would have generated \$900 million to \$5.6 billion more overall between 2008 and 2012.⁸

This failure by the government to collect fair value for taxpayer coal is made more troubling by the climate-change implications of burning this fossil fuel. Taxpayers are already incurring major costs in responding to the effects of global warming. Coastal infrastructure is being battered by sea rise and storm surges⁹; forests are being devastated by climate-aided pest infestations¹⁰; and studies are suggesting that temperature rises have increased the likelihood of devastating droughts in California¹¹.

Moreover, as the Council of Economic Advisers documented in [a report last July](#) because of the long-lived nature of greenhouse gases in the atmosphere, these costs will continue to rise.¹²

⁴ GAO (2013), op. cit.

⁵ DOI-OIG (2013), op. cit.

⁶ Headwaters Economics, *An Assessment of Federal Coal Royalties*, Jan. 2015, at <http://headwaterseconomics.org/energy/coal-royalty-valuation>; Taxpayers for Common Sense, *Federal Coal Leasing*, Sept. 2013 (revised 10/4/2013), at <http://www.taxpayer.net/library/article/federal-coal-leasing-fair-market-value-and-a-fair-return-for-the-american-t>; Center for American Progress, *Cutting Subsidies and Closing Loopholes in the U.S. Department of the Interior's Coal Program*, January 6, 2015, at <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/>.

⁷ EIA, *Sales of Fossil Fuels Produced from Federal and Indian Lands, FY2003-FY2013*, Table 1 (third-to-final column); at <http://www.eia.gov/analysis/requests/federallands/pdf/eia-federallandsales.pdf>.

⁸ Headwaters Economics (2015), op. cit., Figure on p.2, "Total Collections" for "Proposed Royalty Structure" of \$4.8B and \$9.5B, minus "Total Collections" for "Current Royalty Structure" of \$3.9B = \$0.9B to \$5.6B. *Note*: the explanation that these dollar values are for 2008-2012 is on bottom of p.1 of report.

⁹ US Global Change Research Program, National Climate Assessment, Ch. 1 (overview of findings), p. 15, conclusion 2. At: <http://nca2014.globalchange.gov/downloads>

¹⁰ US Global Change Research Program, National Climate Assessment, Ch. 1 (overview of findings), p. 15, conclusion 2. At: <http://nca2014.globalchange.gov/downloads>

¹¹ For summary and link to the research article, see <http://news.stanford.edu/news/2014/september/drought-climate-change-092914.html>, also see <http://www.pnas.org/content/early/2015/02/23/1422385112.short> and, for the general link between climate change and drought, US Global Change Research Program, National Climate Assessment, Ch. 1 (overview of findings), p. 15, conclusion 2, at <http://nca2014.globalchange.gov/downloads>.

¹² The report provides a review and meta-analysis of the literature on the cost of delaying action on climate change. The report finds that additional delay increases costs because of increasing damages created by additional GHG emissions, and because the mitigation costs will be greater to achieve a given concentration target if those mitigation efforts are delayed, and thus need to be more stringent to meet the target. Source: Council of Economic Advisers, *The Cost of Delaying Action to Stem Climate Change*, July 2014, at http://www.whitehouse.gov/sites/default/files/docs/the_cost_of_delaying_action_to_stem_climate_change.pdf

The Interior Department, which manages energy resources on federal lands, has acknowledged that reforms are needed.¹³ In January, the department took a first step by proposing more scrutiny on the self-reported sales that coal companies use as the basis for royalty payments.¹⁴ It also must address other well-documented problems, including large discounts routinely applied to these payments, and noncompetitive lease sales.¹⁵

But the department should not stop there. The federal government should also take into account the economic consequences of burning coal when pricing this fuel. The price for taxpayer-owned coal should reflect, in some measure, the added costs associated with the impacts of greenhouse gas emissions.

This is not a novel concept. Some utilities and other businesses already are applying a so-called carbon adder to account for the environmental costs of greenhouse gas emissions.¹⁶ These adders are used for planning purposes to compare the costs of fossil fuel and renewable electricity generation and have not been charged to consumers.

But the Interior Department should take a cue from the private sector and go a step further by imposing a carbon adder on coal sales. Money collected from the adder could be phased in to avoid sharp price disruptions and used to help defray the growing, uncompensated costs that the government is incurring in responding to climate change.

Computing the appropriate carbon adder will not be easy, but that should not deter the Interior Department from accounting for a meaningful portion of coal's climate impact when updating the federal coal royalty rate.

Industry is sure to oppose this, even though coal is the planet's most carbon-intensive energy source.¹⁷ Others will argue that an across-the-board carbon tax is a more efficient way to account for climate impacts. With no near-term prospects for such legislation, however, the Interior Department should set a royalty that provides fair value to taxpayers by addressing the climate costs of burning coal.

¹³ DOI-OIG (2013), op. cit.

¹⁴ DOI/Office of Natural Resources Revenue proposed rule, "Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform," 80 FR 608 (Jan. 6, 2015), at: <https://www.federalregister.gov/articles/2015/01/06/2014-30033/consolidated-federal-oil-and-gas-and-federal-and-indian-coal-valuation-reform>

¹⁵ DOI-OIG (2013), GAO (2014), Taxpayers for Common Sense (2013), Center for American Progress (2015), op. cit.

¹⁶ CDP North America, "Use of internal carbon price by companies as incentive and strategic planning tool: A review of findings from CDP 2013 disclosure," December 2013 at: <https://www.cdp.net/CDPResults/companies-carbon-pricing-2013.pdf>

¹⁷ Energy Information Administration, "How Much Carbon Dioxide is Produced When Different Fuels are Burned?" June 4, 2014, at: <http://www.eia.gov/tools/faqs/faq.cfm?id=73&t=11>

The greenhouse gas burden from coal taken from government lands can no longer be ignored. Using a carbon adder to increase the royalties that taxpayers receive is a sensible step in the right direction. ☺