The Economics of Coal Leasing on Federal Lands: Ensuring a Fair Return to Taxpayers

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Resources for the Future
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Reforming the Federal Coal Leasing Program

"Rather than subsidize the past, we should invest in the future–especially in communities that rely on fossil fuels. We do them no favor when we don't show them where the trends are going. That's why I'm going to push to change the way we manage our oil and coal resources, so that they better reflect the costs they impose on taxpayers and our planet."

President Obama, 2016 State of the Union Address

Ensuring a Fair Return to Taxpayers

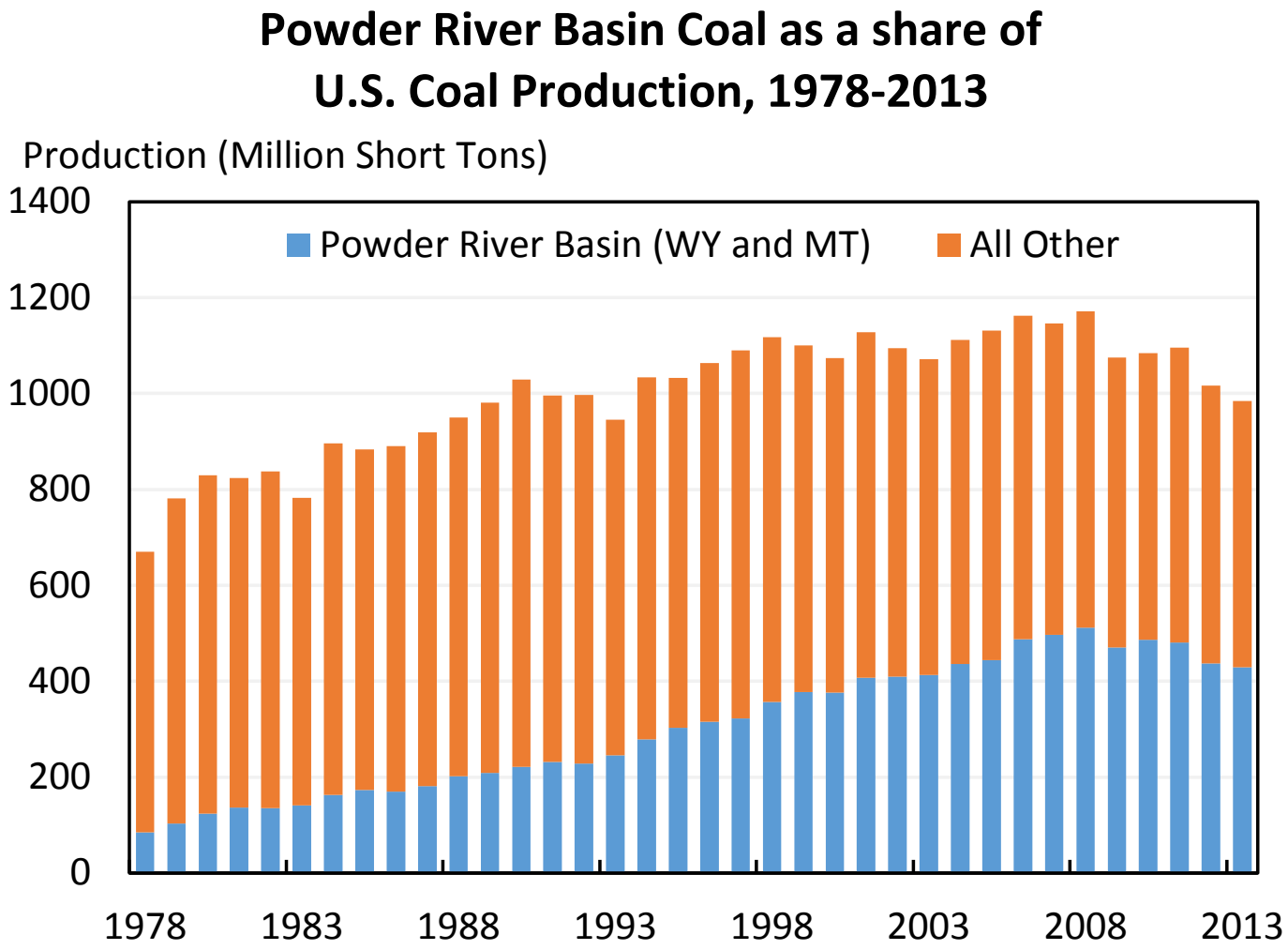
- **A number of government-owned resources have auction-based payment systems, including:**
  - National Park Service auctions for concessionaire rights in parks
  - Timber auctions on National Forest Service land
  - Electromagnetic spectrum auctions by the Federal Communications Commission
  - Government surplus property auctions by the General Services Administration
- **In many cases, these systems are designed with a primary goal of maximizing government revenue.**

Shortcomings of the Current Federal Coal Leasing Program

- **Lease bidding process is uncompetitive**
  - GAO (2013): 96 of 107 tracts leased between 1990 and 2013 had a single bidder

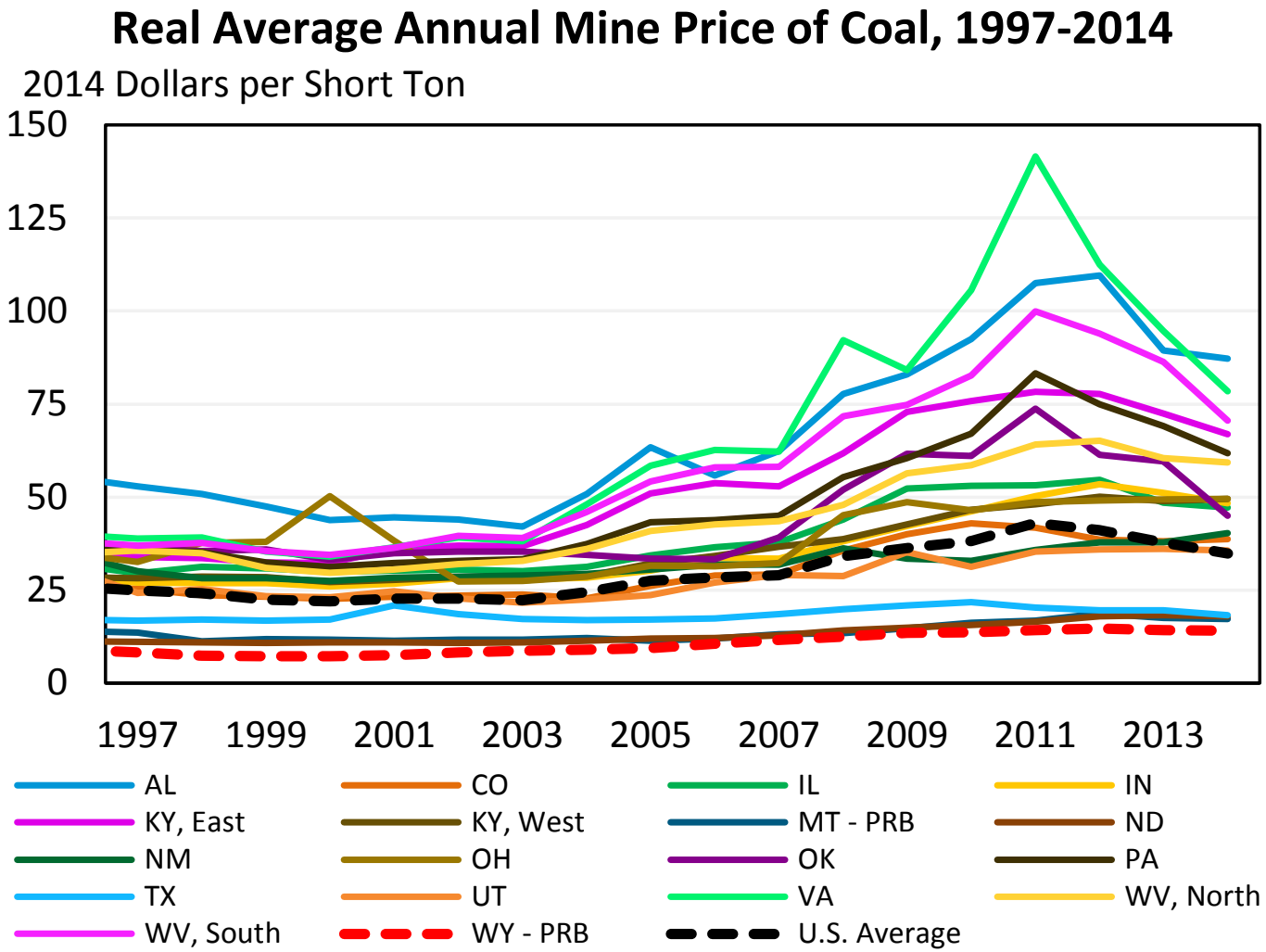
- **Royalty rates far below statutory minimum of 12.5 percent**
  - Waivers, suspensions, and reductions lowered the average royalty rate on the *reported* price of coal to roughly 11 percent in 2012
  - The average effective royalty rate on the *actual* price of coal is 4.9 percent due to actions like:
    - Captive transactions and inflated washing/transportation deductions to reduce market value of coal
    - Incentives for coal companies to structure contracts with final purchasers (e.g. electricity generating units) to price as low as possible

Since the Introduction of the Current Royalty System, U.S. Coal Production Has Shifted Towards Federal Lands



Source: Energy Information Administration.

Coal Prices at the Mine Mouth Have Diverged Across States



Source: Energy Information Administration.

Four Scenarios of Different Rationales for Changing Coal Royalties

Scenario	2025 Royalty Charge (2012$/ton)	2025 Royalty Rate (percentage)
1. Prices based on nearby regional coal prices	3	17

Notes: The royalty charge in 2025 under the existing structure is just under $2/ton, which corresponds to a 9.3 percent royalty rate. The charges shown here can be compared to this current charge. The royalty rate is calculated as the royalty payment per ton of coal divided by the pre-royalty equilibrium average price per ton for Federal coal.

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Illustrative Impacts on Production, Emissions, and Revenue

Scenario	Percent Change in Federal Coal Production	Emissions Reduction (MMtCO2/year)	Government Revenue Increase (millions 2012$)
1. Prices based on nearby regional coal prices	-3	12	0-290
2. Prices based on non-Federal nationwide coal prices	-7	32	330-730
3. Prices based on natural gas prices	-7	32	330-730
4. Maximize return to the taxpayer	-53	319	2,700-3,110

Notes: These results are based on IPM runs. The government revenue is split between the States and the Federal government, following current practice. The ranges in the change in government revenue account for the possibility that bonus bid revenue is lost entirely; the lower bound should be considered extremely conservative, and is zeroed out in Scenario 1. Emissions reduction is the direct reduction from reduced coal use nationwide.

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