
UNDUE DILIGENCE

The Mine-It-or-Lose-It Rule for Federal Coal

Robert M. Nelson

THE FEDERAL GOVERNMENT'S regulation of its own resource production is an important part of the national regulatory arena. Federal leases supplied 14 percent of U.S. oil and 28 percent of U.S. natural gas production in 1980. While a negligible factor as recently as 1970, production of federal coal—almost all of it located in the West—exceeded 10 percent of U.S. coal production in 1981, a figure that according to some projections could rise to 25 percent by 1990.

Federal ownership of such large and important resources is an anomaly in the U.S. private enterprise system—in some ways, a pocket of domestic socialism. The anomaly might be mostly symbolic if companies could lease tracts indefinitely without having to develop them, since their decision to produce would then be made on much the same basis as if they held outright ownership of the mineral rights. But they cannot. Under diligence requirements included in the Mineral Leasing

Robert M. Nelson is an economist with the Office of Policy Analysis, Department of the Interior, and the author of The Making of Federal Coal Policy (forthcoming). The views expressed here are his.

Act of 1920 and its amendments, they must forfeit their lease unless they begin development within a given period that varies according to the mineral: ten years for coal, and five or ten years for oil and gas (depending, among other things, on whether the lease is on- or off-shore). ("Hardrock" minerals on federal land, such as gold, copper, and nickel, are still disposed of outright under the Mining Law of 1872.) So long as the property remains in continuous production the lessee has a right to keep the lease indefinitely, although the financial terms must be periodically renegotiated.

A Force for Central Planning

Thus, to the extent that they depart from private incentives, diligence requirements force coal producers on federal land to exploit coal deposits faster than they would like. There is considerable irony in this circumstance because the diligence requirement is itself a product of the conservation movement and the broader progressive movement of the turn of the century. Conservationism arose in reaction

to the resource overexploitation of the late nineteenth century—the wanton destruction of the buffalo and the overgrazing of western range lands, for instance. Because these depletions occurred at private hands, the leading conservationists concluded that the private market was shortsighted and incapable of adequate conservation of natural resources. It was only later that economic historians identified a lack of private property rights—the “tragedy of the commons”—as the true source of many of the problems.

At the time, however, the federal government stepped in with such new agencies as the Bureau of Reclamation in 1902 and the Forest Service in 1905 to supersede the market and preserve resources for future generations. It was only natural that the Mineral Leasing Act of 1920—the last major conservation law enacted in the progressive era—should assign to government the key decisions on the timing of resource production.

The 1920 act's diligence requirement was loosely worded, however, and until the mid-1970s the Department of the Interior did not enforce it strictly for coal leases. Then, with pressures for western coal development heating up, critics began to charge that coal leases were being acquired for speculative purposes and sometimes had increased in value by “unreasonably” large amounts. One widely influential study said the leasing program was one of “public lands and private profit” and, in fact, an “unequaled giveaway of public coal resources” (*Leased and Lost*, Council on Economic Priorities, 1974). More than 16 billion tons of federal coal were already under lease, it noted, and only a small portion of these had any short-term prospects of development. Congress responded with the Federal Coal Leasing Amendments Act of 1976, which required development of future coal leases within ten years with no exceptions. However, this requirement did not cover leases issued before 1976; and current agency regulations give most of them until the mid-1990s to begin production.

An attack on “speculation,” of course, is recognized by economists as a challenge to the market verdict. Economists have sometimes characterized speculation as “private conservation.” Contrary to much popular opinion, speculation serves a healthy market function, allowing future users to pay present users to refrain

from depleting resources (much as interest rates induce savings). Whenever finite resources are privately owned, the owners' incentive to hold the resource for a higher future value—to speculate—prevents it from being depleted too rapidly.

If this private incentive to conserve is eliminated, however—as to some extent it is under a diligence requirement—government logically must step in to fill the gap, by deciding which deposits should be exploited at once and which are better set aside for future use. And since the Interior Department's holdings of coal—and of some other resources as well—are large enough to have a significant influence on market prices, it cannot simply maximize its leasing profits; that would result in monopoly pricing. In theory, it could adopt a sort of “market socialism” by dividing its resource holdings into small blocks and directing managers to maximize profits for each of these quasi-competitive units. Short of this strategy, however, the federal government cannot avoid the role of central planner—and since federal and private holdings are interspersed in the West and sell to the same market, the planning will tend to encompass the whole western coal industry.

Lest this seem an abstract possibility, it should be noted that just this logic actually pushed the Carter administration into a full-scale central planning effort for western coal production—part of the overall central planning of the U.S. energy sector reflected in the creation of the Department of Energy (DOE). In line with Interior's leasing plan of 1979, DOE employed a large computer model of United States supply and demand for coal to compute formal production goals for twelve coal-producing regions for five and ten years in the future (fifteen-year goals were added later). Interior then estimated future coal production in each region in the absence of further federal leasing. If those estimates fell short of the region's production goal, Interior concluded that new federal leasing was needed. For example, in 1978 DOE's mid-range estimate was that the Powder River Basin of Wyoming and Montana should produce 396 million tons in 1990. Since existing coal company plans called for only 226 million tons of production, further federal leasing was required. In June 1979 the Interior Department, using similar calculations, set federal leasing targets for 1981 and

1982 coal lease sales in three western coal regions.

But experience proved this system of planning unrealistically precise, and by 1980 the Carter administration itself perceived the need to lease considerably more coal and then let the producers sort matters out. The Reagan administration has moved farther in this direction.

The Cost of Diligence Requirements

Where more coal must be leased than the market can bear, however, a diligence requirement will inevitably force some companies to produce coal they would rather conserve. So long as the coal now has some positive sale value, it is better to produce it than to lose the lease, even if the coal's long-run value is higher. More bizarre inefficiencies are also by no means impossible—such as that a coal company might open a mine and then stockpile the coal in a field somewhere, simply to avoid losing the lease. Less dramatically, the company might cut back production at its other mining operations to accommodate the federal coal artificially

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pushed into production. One company petitioning for changed rules said that in its case the diligence requirement, if enforced, “will have forced the opening of mines which, on a more logical basis, would be postponed until production therefrom is indicated.” On the other hand, for a company to relinquish its lease is itself a process with considerable administrative and legal burdens for both the government and the companies.

These and similar problems create strong pressures not to lease too far ahead of current production potential. But trying to limit the number and size of federal coal leases available for development generates other types of costs and inefficiencies. If the number of mine sites available for new contracts is held to a mini-

imum, utilities will have less chance to find the lowest-cost production site. They will also find it harder to drive a good bargain with coal producers. At the extreme, if the number of utilities with contracts to be signed were exactly equal to the number of new mine sites available for such contracts, the utilities' bargaining power would practically disappear, and electric power consumers would have to foot the bill.

To compound all these problems, the ten-year span now allowed for development leaves little leeway for a producer to bring a coal lease into production. The actual construction of a mine only occurs at the end of a long process. First, a suitable mine site must be assembled, not an easy task in some areas of the West where coal rights are highly fragmented and must be bought from a number of different private owners. In some cases surface owners can block development even if they do not own mineral rights; “access agreements” are also sometimes needed with adjacent landowners. Once the mining site is assembled, a contract to sell the coal must be arranged. The capital requirements for a western strip mine make it almost prohibitive to build a mine without prior contracts. Negotiating these contracts may take a long time, since each party holds out for the best possible terms.

Arriving at a completed contract does not mean the mine can be built: many more permits are still required. Once the Interior Department receives a mine plan, it will need at least a year to prepare and then approve an environmental impact statement. Another year or two can be spent studying local hydrology and other environmental features. Once the approvals are in hand, it takes two or three years to construct the mine itself. All in all, according to one recent estimate, it can take four to seven years to move from fully assembled mine site to producing mine—and that is if there are no important hitches.

The purchaser of a federal lease thus has no more than six years and possibly as few as three years to assemble the mine site and find a purchaser to contract for the coal. The logistics alone would tax many coal companies. Then there is the risk of unexpected delays, or a sudden slack period in the coal market, either of which would endanger the investment. Companies will necessarily discount their bids for such uncertainties.

Some Misconceptions

The progressive era's confidence in government by scientific, nonpolitical experts seems dated today. So does the belief that speculation is economically inefficient. Other rationales for a diligence rule are ill-assorted, but commonly held nonetheless. Some think the rule will speed up the flow of royalty revenues into government coffers. Others believe the way to limit the environmental damage is to minimize the period of mining. Yet others believe that forcing miners to produce will help counter an alleged tendency of the energy industry to hold back production in an attempt to achieve cartel prices. Finally, some want to curb speculation, not for efficiency reasons, but because they see it as inequitable, specifically because successful private speculators earn such large incomes for their services, whether because of their talent or everyone else's risk aversion. Thus a lot of people want to "nationalize" speculation activities—although that would mean nationalizing the losses as well as the profits. To the extent that speculators earn money from willingness to take risks, this is one more example of socialized risk. To the extent that speculators make money through foresight and expertise, the government must either duplicate their skills itself or accept a lower level of planning accuracy.

On the question of government revenues, if producers exercise normal prudence, the ten-year limit will make them lower their bid for federal leases substantially, which will in turn reduce federal leasing revenues, and very likely

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by more than is represented by any speed-up in royalties or by the chance to resell relinquished leases later. In seeking to eliminate one form of speculation, Congress has inadvertently created another—speculation over whether a contract can be found in time to beat the diligence requirement. Because of the risks involved, the

diligence rule will probably lower the sum of total lease and royalty revenues to the government. Western states, which share 50 percent of federal leasing revenues, should count themselves among the losers.

It seems unlikely that diligence prevents cartel pricing. If the firms that lease federal coal are the same as those that own private coal, they can easily restrict output of the latter instead. If they are different firms, joint actions will be far more difficult and far more likely to be caught under the antitrust laws.

The imposition of federal royalties, high state severance taxes, and some other taxes does create an artificial incentive to delay production. It is argued, with some justification, that this market distortion requires a countervailing federal intervention. However, while correct in principle, there has never been any serious attempt to show that the ten years for diligent development is the amount of time needed to counter the delaying incentives of other government actions. As a historical matter, Congress does not seem to have intended diligence requirements for this purpose.

It would be extremely difficult to calculate all the implications of the diligence rule for coal markets—in fact, doing so would itself require very complex calculations of a central-planning nature. Some brave analysts have recently ventured computer simulations on the subject for the Department of Energy, however. They conclude that growing federal coal production could eventually result in efficiency losses to the nation from coal diligence rules as high as \$200 million a year.

Even in oil leasing, where some elements of the planning problem are simpler, diligence requirements are still a major concern. Federal oil production is not big enough to affect the international price of oil, which means that the decision whether to offer a federal tract for lease can focus on whether that individual tract will be worth more now or in the future (discounted appropriately). But, in practice, the government has seldom actually made such calculations—partly because of the great uncertainty in long-run price projections. Instead, if it estimated that a tract or an area would have a positive value, the traditional approach has been simply to lease the tract or area, subject to receipt of fair market value. If oil were then discovered, the diligence standard would re-

quire rapid development, whether optimal or not. Oil prices rose greatly in real terms from 1970 to 1980, and a foresighted firm might well have wanted to leave oil in the ground in the earlier year—benefiting both itself and society. If its oilfields were located on federal land, however, such a delay would have been impossible.

As a practical matter, the problem of overproduction of federal oil has not been a great concern in the past—partly due to environmental opposition and administrative limitations on the rate of leasing. However, as future exploration of federal oil leases moves rapidly into the Arctic and other high cost areas, the question of the right time to produce and the impact of diligence requirements will become much more critical.

Another diligence concern has involved the pattern of oil company exploration. Exploration should logically follow a learning sequence that can require considerably longer to complete than ten years (or the five years allowed on some outer continental shelf leases). Diligence requirements generally reduce an oil company's incentive to explore on those federal lands where production does not promise to be economic right away. Since the government does not itself explore for oil, the acquisition of long-run inventory and other valuable information on oil geology has had to await immediate development interest. This problem has been most noticeable on the outer continental shelf where exploration of frontier areas could not get under way until recently.

Some Alternatives

Given all of the problems of diligence requirements, a hard look at the alternatives is surely warranted. One alternative would be to use financial incentives, rather than a command-and-control strategy. Last year Representative Ray Kogovsek (Democrat, Colorado) introduced legislation containing a provision to allow federal coal lessees, once the diligence deadline had expired, to pay advance royalties for ten additional years instead of relinquishing the lease. Advance royalties, calculated against an assumed satisfactory production schedule, are deductible from regular royalties once production actually begins. The idea is to

avoid the inflexibility of a specific time limit while ensuring a flow of royalties and creating development pressures. Although less damaging than the diligence rule, this would still not optimize federal coal development patterns.

A more radical change would be to abolish all deadlines for development and instead fix a uniform minimum price (per ton of coal) for the rights to any federal lease, high enough that only coal deposits suitable for immediate development would sustain this price. The price would be based on the government's estimates of how much coal the lease contained. It would be paid up front, independent of the amount of coal actually mined, so as to avoid creating any perverse incentive to take only the best coal. Setting the right price, however, might prove a formidable challenge.

The simplest way to capture appreciation values for the government would be to lease, all at once, enough high-quality coal deposits to meet roughly estimated production needs for the next twenty to thirty years. The leases would have no requirement for diligent development, and would run in perpetuity, but other terms, such as environmental stipulations, would be periodically renegotiated. After the initial inventory had been leased, further leases would be offered only at the same rate that previously leased coal was moved into the producing-mine category, in this way holding constant the inventory of leased deposits that had not yet been mined. The bulk of the federal coal estate would remain in federal hands, retaining for the federal government any long-term increases (or decreases) in its development value. Enough coal could always be under lease, however, to allow the market to determine the timing and other details of short-term development.

It would not be a large leap beyond this strategy to dispose of the first wave of federal coal deposits outright, rather than lease them. The federal government would rely on regulatory mechanisms, rather than the prerogatives of ownership, to achieve any remaining non-market objectives. It would still retain the great majority of federal coal deposits, those with only longer-term prospects for development. This strategy might well maximize long-run federal revenues—and would minimize the central planning needs that the diligence requirement otherwise makes necessary. ■