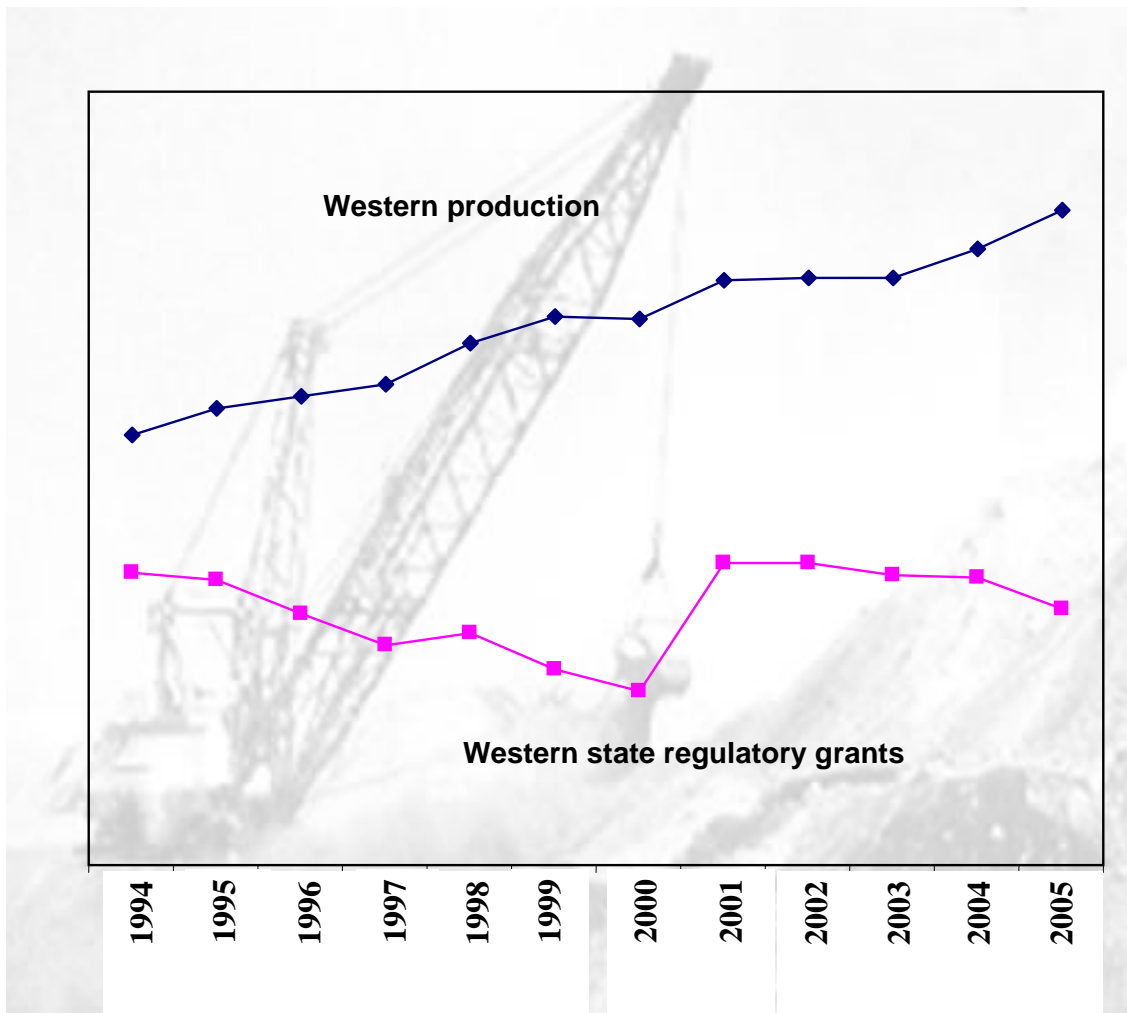


# An Impending Crisis for Coal Supplies



*Demand Rises,  
Regulatory Grants Fall Short*

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**November 30, 2006**

This is a report of the Reclamation Committee of the Western Interstate Energy Board. For further information contact Doug Larson, Executive Director, Western Interstate Energy Board (303.573.8910) or Rick Chancellor, Chairman, WIEB Reclamation Committee (307.777.7756).

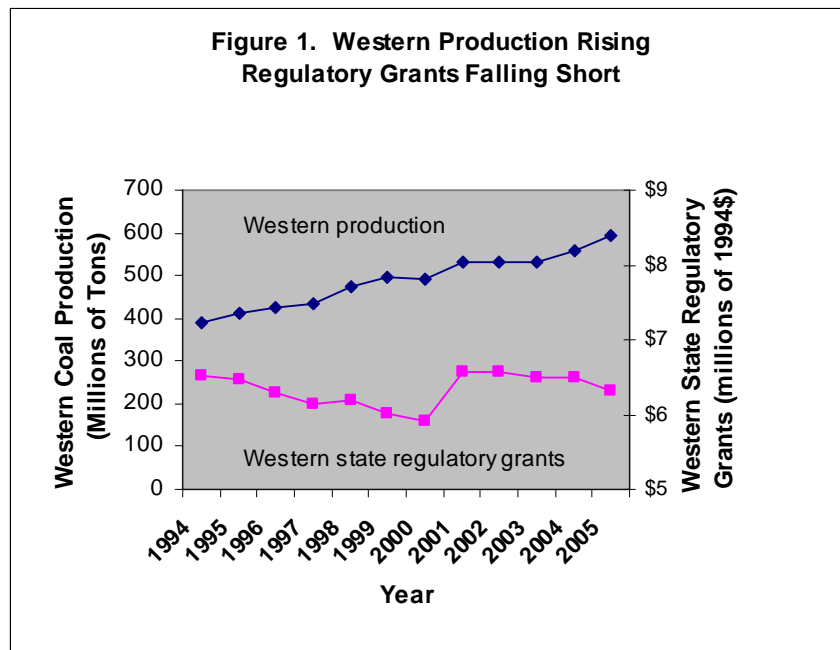
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# An Impending Crisis Threatening National Coal Supplies

## Executive summary

The nation has become increasingly dependent on western coal production to meet its energy needs. More than one-half of the nation's coal is mined in seven western states.<sup>1</sup> Data suggests that this trend will continue as the nation is entering a new power plant building boom. The Department of Energy's Energy Information Administration expects coal production in seven western states to rise from 592 million tons in 2005 to 1,010 million tons in 2030. Utilities are investing in new coal generation technologies. Railroads are overcoming recent delivery problems and are investing in new infrastructure to move more western coal.

Investments in the nation's energy future, however, may be undermined by the failure of the federal government to adequately fund western state coal regulatory programs. This silent crisis has been building for some years as appropriations for regulatory grants to western states have not kept pace with increases in coal production and the related regulatory workload. Continuing on this path will limit the western states' ability to permit, inspect and release bonds for western coal mines in a timely manner. The federal government's policy of under funding western state regulatory programs will soon begin to constrain critical energy supplies.



## Contents

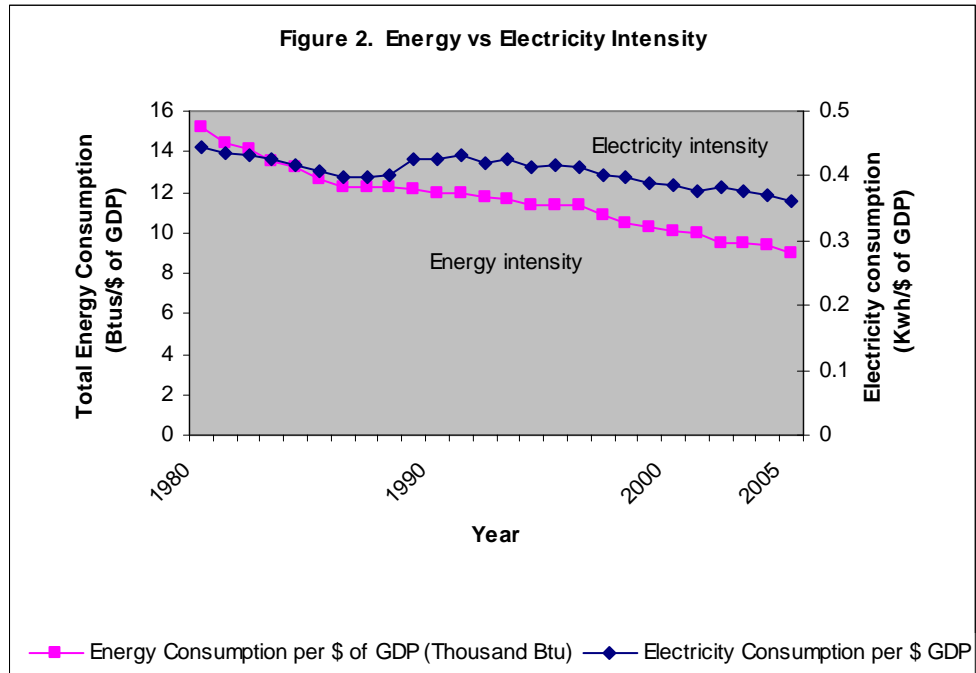
- I. National energy context and the role of western coal
- II. Trends in staffing and funding of western state regulatory programs
- III. Penny-wise and pound foolish
- IV. Questions and answers
- V. Conclusion

## Summaries of the Western State Impacts of Federal Grant Shortfalls

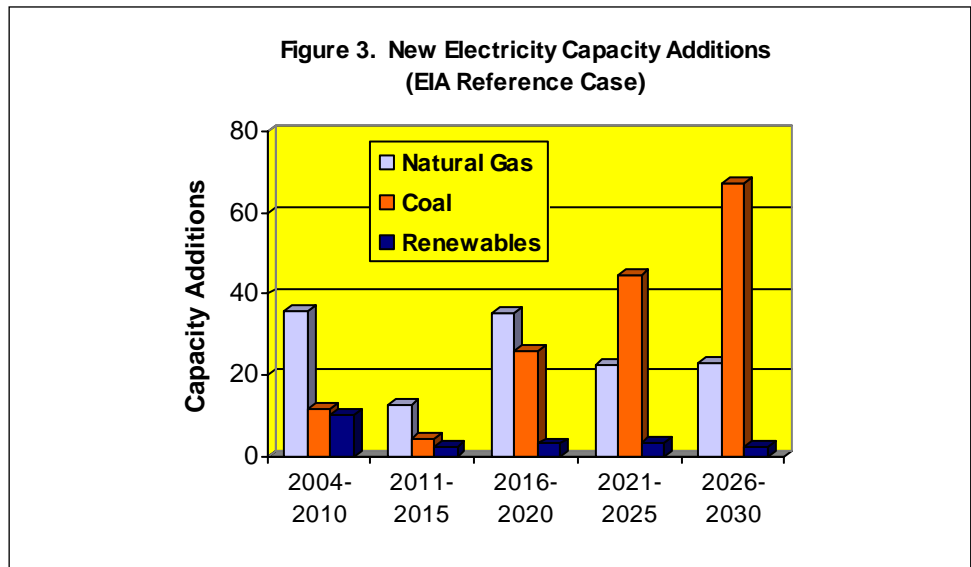
<sup>1</sup> Alaska, Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming.

## I. National energy context and the role of western coal

The United States is increasingly dependent on electric power supplies to fuel the economy. While the energy efficiency of the U.S. economy has improved dramatically in the past quarter century, that is not so in the case of electricity. Figure 2 shows the dramatic reduction in the amount of all energy resources used to produce a dollar of Gross Domestic Product. There has been only a modest reduction in electricity use per dollar of GDP over the same time frame. This is because the U.S. economy is increasingly fueled by electricity. Electricity is continuing to rise. By 2030, electricity demand will be 50 percent higher than it was in 2004<sup>2</sup>.



Source: Energy Information Administration

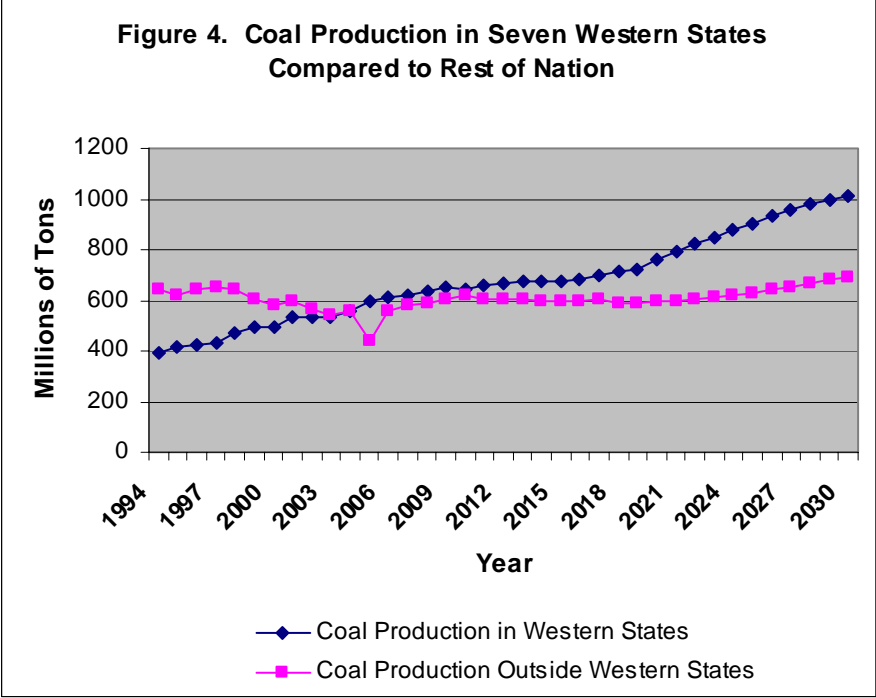


Source: DOE National Energy Technology Laboratory

<sup>2</sup> Annual Energy Outlook 2006, DOE Energy Information Administration

The electric power industry is entering a new power plant building cycle. Coal is replacing natural gas as the fossil fuel of choice. This is a trend that accelerates rapidly. Figure 3 demonstrates the resurgence in coal power plants.

In 2004, for the first time production in the seven western states exceeded the rest of the nation combined. The trend to Western production has been rapid and will continue over the next two decades. (See Figure 4) Western coal now fuels power plants in 32 states.

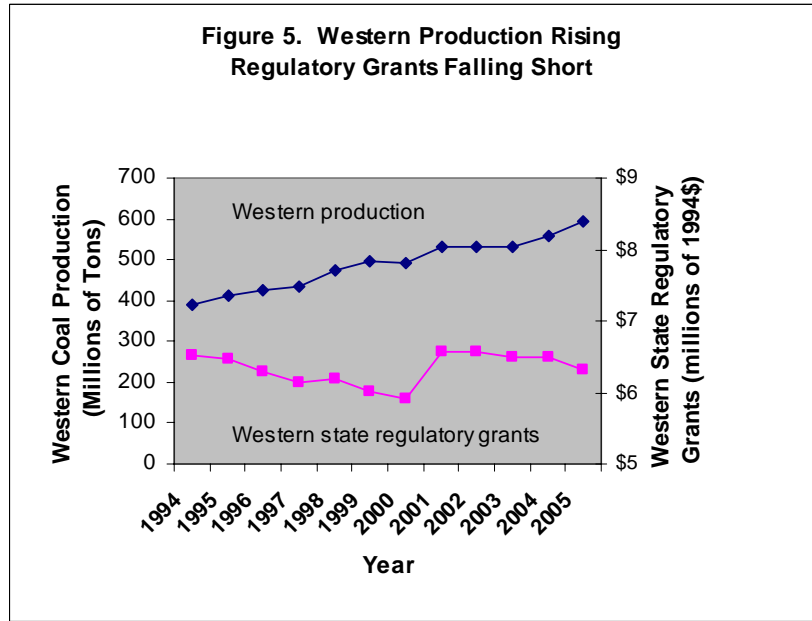


Source: Annual Energy Outlook 2006, Energy Information Administration

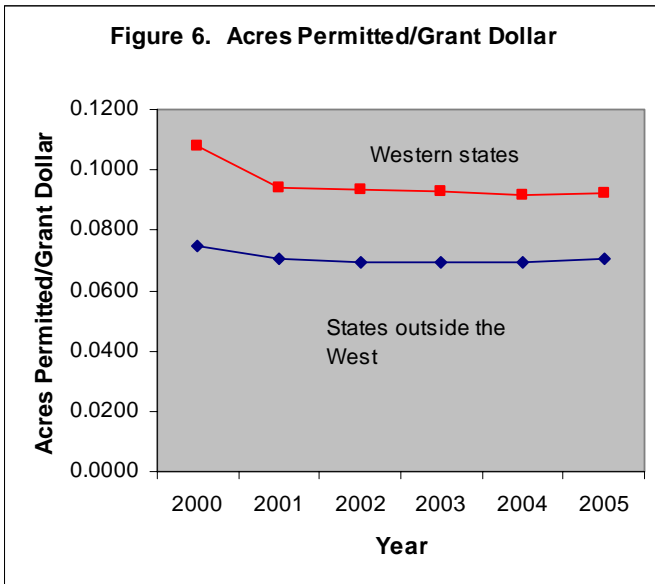
## II. Trends in staffing and funding of western state regulatory programs

The crisis in funding western state regulatory programs has been building for several years. Federal contributions to western state programs have dropped in real dollars. (See Figure 5) Figures 6 and 7 show that more acres are permitted and more tons of coal are produced per dollar of federal regulatory grants in the West than outside the West.

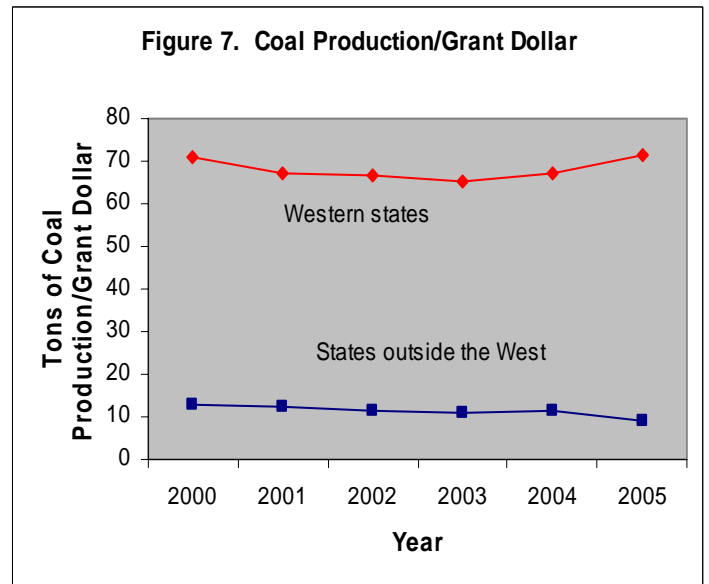
The building crisis caused by shortfalls in federal regulatory grants has been masked by hard economic times in states resulting in little or no increases in salaries and operating costs. As state revenues improved in recent years, legislatures have begun granting long-delayed increases in salaries and benefits to all state employees.



Source: Energy Information Administration  
Office of Surface Mining



Source: Energy Information Administration  
Office of Surface Mining

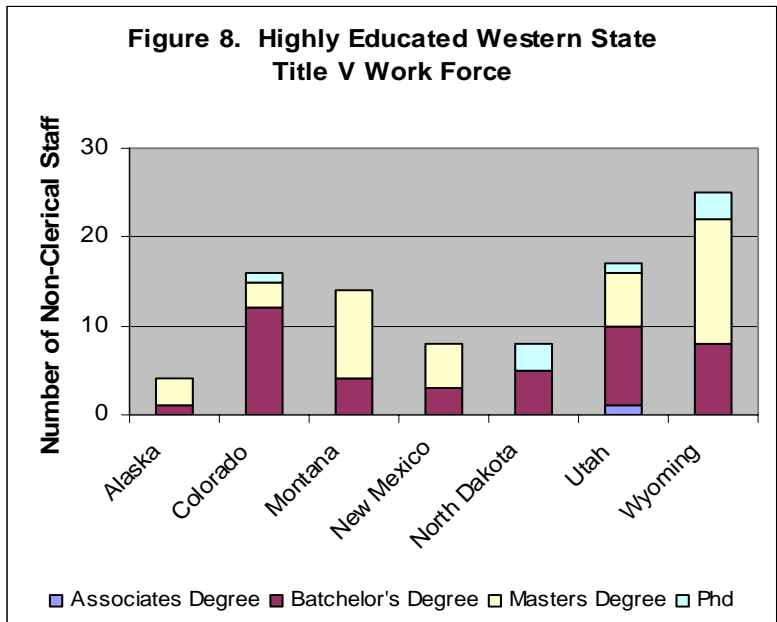


Source: Energy Information Administration  
Office of Surface Mining

The effect has been to increase total coal regulatory program costs. The increased program costs have not been matched by increases in the federal regulatory grants. Consequently, state programs must reduce personnel and other costs to cover the shortfall. Future staff reductions will further accelerate an already decade-long trend of declining staffing of western state programs (-15%), which has been a more rapid downturn than in non-western state programs (-2%).

The shortfall in federal funding has also been met by not filling vacancies in state programs. While this temporary strategy may work in large organizations, in western state programs it can have a significant detrimental impact where there may be only one person with a particularly critical skill, such as hydrology. As the funding crisis has grown, one state, Montana, resorted to reducing hours that employees work (i.e., job sharing) to avoid eliminating an essential position. (See box on next page.)

The funding crisis has made it impossible for states to offer competitive salaries. State salaries lag comparable federal salaries. States offer even less competitive salaries when compared to the private sector. Non-competitive salaries have made filling positions difficult as qualified applicants have more lucrative offers elsewhere. This is particularly true given the typically high educational level of western state program personnel. (See Figure 8) It has also led to the loss of experienced state employees who are needed to meet the increasing workload caused by greater demand for western coal. The trend will only worsen as states experience an expected wave of retirements.



Source: Western state reclamation agencies

Left unresolved, the funding crisis will diminish the capability of western state regulatory programs to efficiently execute responsibilities under the Surface Mining Control and Reclamation Act. This will delay issuance of permits and bond release, reduce the quality of inspections and set in motion a cascade of events. Regulatory uncertainty for the industry will increase. Public concerns about whether mines are being operated and reclaimed in compliance with the law will rise. Such concerns may translate into opposition to mining and appeals of regulatory decisions and litigation, ultimately increasing the costs of producing coal to fuel the economy.

### ***Personnel Cuts in Montana Program***

To compensate for federal grant shortfalls in FY07, the small regulatory program in Montana began the current fiscal year by planning to: reduce operational expenses (including travel, supplies, education and training) by \$23,000; leaving two presently vacant staff positions open – one for three months and the other for the entire fiscal year; and reducing hours for four professional staff in order to avoid a lay-off. Several staff have recently left the program for a variety of reasons. Their departures alleviate the immediate financial crisis but further exacerbate the long-term challenge of maintaining an effective regulatory program. Less competitive state salaries (see next box) will increase the difficulty of maintaining a top notch staff.

The initial cost-saving measures and/or the subsequent staff turnover have resulted in less staff in the field, an inability to be as responsive to field work needs due to curtailed travel, and increased workload for existing staff. To date, the program has been able to meet statutory deadlines and minimum requirements for monthly mine inspections. However, as operating costs along with increasing demands for coal reserves rise annually, there is serious concern for the continued future operability of Montana's regulatory program at its previous functional level unless increased funding or new sources of funding can be found.

\$69,210 for hydrologists and \$68,400 for geoscientists. The current average salaries of state soil and plant scientists is \$56,424, significantly below the BLS average of \$73,570 paid to all soil and plant scientists in New Mexico.

59,850 for all plant and soil scientists in the state.

### **III. Penny-wise and pound foolish**

The present trend of underfunding western state regulatory programs to save \$550,000<sup>3</sup> in FY 2007 may have the unintended consequence of triggering enormous increases in federal expenditures in the future. Under the Surface Mining Control and Reclamation Act, if a state decides not to implement a program to regulate coal mining, that task falls to the Office of Surface Mining. Tennessee has turned back its regulatory program to OSM. The experience in Tennessee is instructive.

In Fiscal Year 2005, 2.98 million tons of coal were mined in Tennessee. OSM spent \$3.7 million regulating Tennessee mines. Across the border, the State of Virginia regulates mining. In Fiscal Year 2005, 29.64 million tons of coal were mined in Virginia, ten times Tennessee's production. The total cost of the Virginia regulatory program was \$6.8 million, while OSM's regulatory grant to Virginia was \$3.4 million.

If under funding of regulatory grants resulted in the turn back of western state programs to the federal government, the cost incurred by the federal government would be substantial. Extrapolating the Tennessee-Virginia comparison to the West, the federal government would incur costs to run western state programs that are estimated to be about \$56 million dollars.<sup>4</sup> This is a significantly greater amount than the cost of fully funding western state regulatory grants, which is \$9 million.

### **IV. Questions and answers**

#### **A. Why is this just a Western state issue? Aren't the Eastern and Mid-Continent states in the same boat?**

Answer: Federal grants to Eastern and Mid-Continent states have not been fully funded either. However, production and the associated work load have not increased to the same extent as in the West. Over the past six years, coal production in Appalachia increased less than 5 percent; it declined 5 percent in Mid-Continent states. In the West, production increased 17 percent.

#### **B. Given the federal budget deficit, why should priority be given to increased appropriations for western state regulatory grants?**

Answer: Failure of the federal government to fully fund western state regulatory grants will hamper the ability of the nation to produce the amount of coal necessary to meet its energy needs. This will force utilities to shift to higher priced natural gas for generation and drive up consumer prices and depress growth in the economy and

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<sup>3</sup> \$550,000 is the difference between the three-month estimate provided by Western states and estimated grants shown in OSM's 2007 "Budget Justification and Performance Information."

<sup>4</sup> The estimated cost of a federal takeover of western state programs is estimated by multiplying the ratio of Tennessee program expenditures to Virginia expenditures (adjusted for the different in coal production) by the total cost of western state programs ( [Tennessee program costs/Tennessee coal production] / [Virginia program cost/Virginia coal production] X total cost of western state reclamation programs).

related federal government revenues. A more direct effect on the federal treasury would be reduced production of coal owned by the federal government, nearly all of which is located in the West. For example, a permitting delay that cut production at one of the large mines in the Powder River Basin for two weeks could result in lost production of 3 million tons of federal coal with an estimated royalty loss to the federal government of \$4 million.

**C. Why can't western states cut back like other parts of government?**

Answer: Western states have already cut back their regulatory programs significantly. Since 1997 staffing in western state regulatory programs has decreased by 10 percent. During the same period, production has increased 36 percent. Any fat in western state regulatory programs has been gone for years. The shortfalls in federal grants are now threatening core regulatory activities under SMCRA.

**D. Why should OSM provide more grant dollars, when states can't provide match?**

Answer: Western states have consistently provided the state share of federal grants. In a few states, when hard economic times have limited the state's ability to provide the full state match, the federal contribution has declined. Unfortunately, when state revenues have recovered to enable the state to match the federal grant, OSM has reduced the baseline for the state leading to a permanent shortfall.

**E. Why do the western states need more grant dollars when many mines are underground?**

Answer: A too common misperception is that underground mines somehow require less work by the regulatory authority. In practice, underground mines are a large component of total inspection and permitting loads particularly in the areas of subsidence and hydrology protection.

**F. Haven't western states been turning back grant money they haven't been able to use?**

Answer: In rare instances, some western states have turned back funds at the end of the year. This has typically been due to an unexpected vacancy that the state has been unable to rapidly fill.

**G. Why haven't the efficiency gains promised from OSM training, TIPS and technology transfer programs been translated into cost savings in state regulatory programs?**

Answer: OSM training, Technology Information Processing System (TIPS), and technology transfer programs have improved productivity in western state programs. Western states have been heavy users of these programs which have enabled them to improve the efficiency and quality of their regulatory programs. However, increased coal production and ongoing staff reductions have overwhelmed the efficiency gains.

**H. Aren't western states meeting the GPRA standards and thus they don't need additional staff?**

Answer: The Government Performance Results Act (GPRA) is designed to measure the performance of government programs. In the case of measuring achievements

under Title V of SMCRA, OSM's performance in implementing SMCRA is dependent on how well the states perform. The Office of Management and Budget directed the development of a new performance measure at OSM.<sup>5</sup> By this new measure, the ratio of reclaimed land to bonded acreage, nationwide performance under Title V steadily improved from 1996 to 2003 and by 2005 has fallen to levels not seen since 2000. In at least one state's oversight report, the state reports that reclamation is not occurring at an optimum rate due to staffing shortfalls. By the federal government's measure, the high level of performance of Western states programs is declining. This decline coincides with the failure of the federal government to fully fund western state regulatory grants.

#### **I. How much funding is enough?**

Answer: State regulatory grants should not exceed the amount of money it would cost the federal government to operate a regulatory program in the state.

Extrapolating from OSM's costs of operating the Tennessee program, western state regulatory grants, even if fully funded as measured by the Western states' three-month estimates, would only be 17 percent of the estimated cost of OSM operating western state programs.

#### **V. Conclusion**

The nation has become increasingly dependent on western coal to meet its energy needs. We have entered a new power plant build cycle. Based on plant announcements and EIA forecasts, much of this new generating capacity depends on the availability of western coal.

The capability of meeting the demand for western coal is being undermined by the federal government's failure to fully fund western state coal regulatory programs. This impending crisis may mushroom into a serious constraint in meeting national energy needs.

The federal government's funding policies are penny-wise and pound-foolish. The total increase necessary to fully fund western state regulatory programs in FY 2007 is less than \$1.8 million. This would raise the total federal contribution to western state regulatory programs to \$9,190,000. The alternative to funding western state programs is for the federal government to do the job itself. Based on the experience with the operation of a federal regulatory program in Tennessee, a federal takeover of western state regulatory programs could cost \$56 million. Most importantly, current federal funding policies are beginning to undermine national energy needs potentially costing the U.S. economy billions of dollars.

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<sup>5</sup> Western states do not believe the new GRPA measure provides an accurate measurement of performance.

## Summaries of the Western State Impacts of Federal Grant Shortfalls

### Alaska

Alaska is a minimum regulatory program with 3.8 full time equivalent positions including geologists, managers, a grants specialist, and administrative support staff. Because of the small size of the program, each of the professional staff must conduct permit reviews and perform inspections in a variety of disciplines outside their area of expertise.

Demands on the program are growing: two new mines are being permitted (Chuitna Coal Project, Jumbo Dome Coal Mine); there are three new exploration areas (Western Arctic Exploration, Jarvis Creek, Chickaloon); and interest in coal to liquids (CTL) or coal to gas (CTG) plants has expanded (Emma Creek Energy Project, Blue Sky Coal Gasification Project).

Several of these new projects are in remote locations that are accessible only by air. For example, inspection of the Western Arctic Exploration Project would cost the program approximately \$5,000 per site visit. As the table shows, in the last three years the federal grant share of the program has declined. (The table excludes program receipts.)

Year	Federal	State	Total
2004	\$186,518	\$186,518	\$373,036
2005	\$188,518	\$221,350	\$409,868
2006	\$183,601	\$241,730	\$425,331

## Colorado

The 2006 Colorado Coal Regulatory grant amount received from OSM was 2.6% less than the 2005 grant and 14% less than the amount requested and needed to fully fund the program. Program grant funding has been inadequate for many years with the funding gap averaging 10% per year for the last ten years. Underfunding the state's regulatory grant has strained its ability to perform the required program duties, and if the funding situation continues unabated, then program performance will potentially degrade to a point that will be unacceptable to not only Colorado stakeholders, but also to the OSM.

Uncontrollable increases in program costs have risen steadily over the years due to legislatively mandated employee salary, health benefit and retirement fund costs. Operating costs incurred through inspection duties, IT requirements and office infrastructure requirements also continue to increase.

As uncontrollable program costs and the funding gap increase, program duties are also expanding due to the increasing demand for Colorado coal. Colorado has experienced record-breaking coal production over the last several years, making it the sixth/seventh coal producing state in the nation. Colorado mines generally implement expansions to existing permits, so although the total number of inspectable units remains relatively constant to slightly decreasing, the total number of permit actions continues to rise. All of the Colorado producing mines continue to submit expansion-related revision actions. Exploration activities are also increasing, as are submittals and actions related to potentially new mines near Trinidad, Grand Junction, Limon and Canon City.

Citizen and agency participation in the Colorado permitting and inspection process is routine. Most of the Colorado mines are on federal land or mine federally-owned minerals, and in areas that are increasingly considered to be sensitive areas by the public, the Bureau of Land Management and the U.S. Forest Service. Public awareness, scrutiny and participation continue to increase as residential and recreational development into traditional mining districts expands. The ongoing oil and gas boom (including potentially large oil shale recovery) in Colorado also brings heightened public awareness and concern in the coal fields, and any erosion in our ability to perform our regulatory responsibilities will likely result in more public involvement, increased litigation risk, and accelerated oversight activity and controversy.

To date, the Colorado Coal Regulatory program has maintained its performance level by managing 2 to 3 personnel vacancies, by increasing workload on existing staff and by delaying or eliminating lower priority projects. The program also reduced the authorized FTE by two positions, from 26 (including one Blaster Certification/Training position), to 24 positions over the last few years.

Staff succession is also anticipated to impact the Colorado Coal Program. The Colorado staff is a veteran staff, but this will change soon as retirements begin to occur bringing additional strain to the program. Vacancies in the program will need to be filled in a timely manner to mitigate this situation.

Also important to note, is the fact that Colorado continues to provide severance tax funding to supplement the annual shortfall in OSM grant funding. These additional severance tax dollars are in addition to the grant match dollars. This additional funding varies from year to year, but generally funds one of the program positions plus some operating costs. The ongoing vacancies and the need to secure additional state funding stand as evidence that OSM grant funding is not being provided as needed to maintain an effective primacy program.

## Montana

At full staffing, Montana's regulatory program is successfully implemented from two offices by an interdisciplinary team of 10 scientists (four hydrologists, two engineers, soil scientist, geologist/archeologist, two vegetation/wildlife biologists), a GIS specialist, a program support/license specialist, two administrative positions (both shared with another program), two program supervisors, and a bureau chief that is shared with another program. Of the 10 scientists, GIS specialist, program supervisors, and bureau chief, four have B.S. degrees and 10 have M.S.'s. This staff implements all phases of the regulatory program including permitting, environmental review (preparing EA's and participation in EIS preparation) inspection and initial enforcement action, and bond release.

Through 2009, nineteen major mine permitting actions are anticipated in the program: ten amendments or major revisions, seven permit renewals, and two new mine permit applications. If the two new prospective surface mines are permitted and three of the existing mines reach their coal production targets in the next few years, coal production could increase by up to 14 million tons annually over the 40 million tons per year currently being produced. In addition, in the last three fiscal years, the program has received an average of 77 minor permit revision requests, some of which can be fairly significant in terms of the amount of work required to review them. The same level of minor permit revision activity is expected in the future. All of this translates into a greater workload for the program in permitting, inspecting, and otherwise regulating increased mining and reclamation activities. The number of bond release applications has increased substantially in the last few years and this trend is expected to continue.

Grant funding for the current state fiscal year (FY07) was \$135,650 (11.7%) less than requested. Montana requested \$1,158,985 and received \$1,023,335. (However, Montana just recently was awarded an additional \$20,000 from surplus funds OSM received from another state.) A major reason for this shortfall is the implementation of long-delayed salary increases at the Montana Department of Environmental Quality, including the coal program staff, which is expected to continue in the near future. In addition, all state employees received a legislatively approved across-the-board raise of about 3.5% (or the equivalent) last year and will receive another one of about 4% this October. (Even then, Montana program staff salaries remain generally uncompetitive with federal agencies and the private sector.) Salary adjustments automatically also include increases in benefits and indirect costs.

Program cuts anticipated early in FY 06 due to federal grant shortfalls were avoided by tapping unused state matching funds and continuing position vacancies. However, the federal funding shortfall in FY07 has presented a much more serious problem, because excess state matching funds and expected vacancy savings will not provide adequate backfilling. The financial problem in FY 07 has been ameliorated in the last few months due to a large turnover in staff, providing a large amount of vacancy savings. However, the near-term personnel savings will make it more difficult to maintain an effective regulatory program. Continuation of current short-falls in grants will mean a permanent change in how Montana does business and meets regulatory obligations.

## **New Mexico**

New Mexico is an example of a state that is struggling to maintain a “minimum” regulatory program. In other words, New Mexico employs one of each of the minimum core professionals – engineer, biologist, hydrologist, soils scientist, geologist – needed to effectively regulate the coal mining industry. Each of these professionals must handle the permitting and enforcement issues related to their expertise, but must also perform inspections and commence enforcement actions. For a minimum program to be successful, New Mexico needs to hire and retain experienced professionals and have them be cross-trained in the various responsibilities of the program.

The five core professionals on New Mexico’s staff average 18 years of experience in their fields working for state government and the private sector. Over the past three years, the average salary for the five professionals has increased 15% from \$52,752 to \$60,692. Most of these increases are statewide salary increases approved by the State Legislature. During the same period, other costs have increased. Fuel costs have risen dramatically and the State Legislature has also imposed increases in health care benefits, per diem and mileage reimbursements and information technology charges.

Over the past three years, despite requests for additional funding, New Mexico’s federal grant remained flat and then decreased last year (Last 3 federal grants = \$737,526, \$737,526, \$718,290). In the short term, New Mexico has survived the gap between lagging grants and increased expenses through vacancy savings and through shifting some of the coal program’s share of administrative costs to other programs. In the long term, the cost shifting cannot be sustained. If grant funding is not increased, New Mexico must face the reality of cutting an essential position. If that happens, the ability to conduct the required inspections, to enforce our regulations, to respond to citizen complaints and to timely evaluate permit applications and reclamation success will be impaired.

## North Dakota

North Dakota has a relatively small regulatory program staff considering the amount of coal mined each year (over 30 million tons) and the amount of land that is disturbed and reclaimed on an annual basis (close to 2,000 acres). Over the past ten years, the program has been staffed by eight full-time professional positions and an administrative assistant that is shared with the State's AML program. At one time, North Dakota had as many as twelve full-time professional positions plus additional administrative support.

Staff members who conduct mine inspections also review permit related applications and evaluate reclaimed land and data for bond release. The amount of bond release activity has been increasing as more lands become eligible for final bond release and these review and evaluations take considerable staff time. Currently, the Reclamation Division has staff with a good mix of technical backgrounds that are needed for the program. The technical positions for carrying out technical reviews and inspections include two engineers, a geo-hydrologist, a range scientist, an agronomist, and a soil scientist. However, the program has lost three long time employees as the result of retirements, and the loss of this experience will make the program less efficient in the short term. Considering the fact that three of the eight staff members will be new, the program cannot afford to lose any other experienced staff at this time.

Title V regulatory funding by OSM is a major concern. Over the past several years, the amount of federal funds that North Dakota has received for the regulatory program has not kept up with inflation. Thus far, North Dakota has been able to maintain the program without cutting any positions because no salary increases were approved by the legislature in 2003 and 2004, and the program has had considerable program income from permit applications fees that the state spent to fill the shortfall in regulatory grants. However, income from permit fees in the future is likely to decline because the two largest mines that account for about 75% of the state's coal production will soon have their life-of-mine areas under permit.

Across the board salary increases of 4% per year were granted in 2005 and 2006. Additional increases may be authorized for 2007 and 2008. Salaries, fringe benefits and related costs represent about 85% of the program costs. If federal grant funding is not increased, it appears North Dakota will have to cut one of the full-time technical positions in a year or two, especially if additional salary increases are approved. If that happens, the program's ability to conduct the required inspections, review and process revisions and renewals, evaluate bond release applications, respond to citizen complaints, and make program enhancements will be greatly impaired.

## ***Utah***

Utah staffing consists of a total of a nine-person permit review team of hydrologists, geologist, soil scientist, mining engineers, biologists and three inspectors who also help with reviews. Supervisory, support, and data management staff are also funded as part of the program. The cost of the Utah program as reflected in the state's grant requests has increased due to cost of living salary adjustments, market comparability adjustments, state imposed data technology (DT) fees, increased fuel prices, increased travel reimbursement costs and mandated health benefit increases. Federal regulatory grants to the Utah program's over the last three years have been: \$1,730,419, \$1,743,698, and \$1,698,219, respectively, from 2004 to 2006. This trend of flat and declining grants has occurred since 2001.

To date, the Utah regulatory program has been able to capture cost savings from unfilled positions and has covered costs using other program funds. Continued downward funding will result in cutting staff which will undercut the effectiveness of the Utah program. Mine extensions and renewals will not be processed in a timely manner and the public's health and safety, and the environment will suffer from inspections not conducted.

## **Wyoming**

While Wyoming's grant levels have risen slightly over the last several years from \$1,952,811 in 2002 to \$2,120,036 in 2006, this increase has not kept pace with the rising cost of the program. Salaries for staff level positions (Environmental Senior Analysts) have risen 13.5 percent during the same time frame. Likewise other costs such as per diem, fuel and general overhead have also risen. To address this shortfall, Wyoming has reduced its FTE's devoted to coal from 30.01 in 2002 to 24.8 in 2005. While individuals were moved to the state's noncoal program, it is essentially a reduction in force for the coal program.

This reduction has occurred in spite of a significant increase in coal production and permitting during the same time frame. During this period, coal production has increased nearly 10% resulting in increased leasing and permitting activity. One additional new mine has been permitted and another is in the process of being permitted, with two other new mines in the planning stages.

This reduction in program resources has negatively impacted the ability of Wyoming to maintain an efficient program and hindered its ability to improve its capability. As an example, in 2003 the Wyoming Land Quality Division partnered with OSM and an operator to develop a GIS system to track the various stages of reclamation completion. The system is seen as critical to the efficient review and processing of reclamation bond release requests. The project was successful, but the state has been unable to continue or expand the system to other mines due to the lack of adequate funding and the forced reduction of its coal FTE's

If this trend continues, Wyoming will be hard pressed to permit and inspect its existing production capacity, let alone the additional four billion tons of coal that is anticipated to be leased