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# Congressional Record S. 21973 - Alternative Solutions to the Energy Crisis

Mike Mansfield 1903-2001

## ALTERNATIVE SOLUTIONS TO THE ENERGY CRISIS

Mr. MANSFIELD. Mr. President, in the past year Western coal resources, in the estimation of some people, have become the answer to the Nation's energy crisis. As I have repeatedly stated, this is not the simple solution as so many believe. Coal in the West can be utilized to help in meeting the crisis but it is not the only solution. We must think in terms of other alternatives. There is too much at stake in the future of the Western States.

The Federal Government owns minerals on 113.03 million acres of land in the United States. Thirty-eight percent of these minerals lie beneath privately owned surfaces. Data is incomplete insofar as coal deposits on Federal lands are concerned. Estimates from the Bureau of Land Management indicate that the Federal Government has title to 56.4 billion tons of coal which are considered available for surface mining; 14.16 billion tons of this total lie under nonfederally owned surfaces. This means that little more than one-fourth of the Federal deposits is directly affected by my amendment to S. 425 which would prohibit coal strip mining or open pit mining when the Federal Government owns the minerals and the surface is held by private individuals or corporations.

The Bureau of Land Management reports that a total of 2.32 billion tons of Federal coal have already been committed on long-term contracts to supply electric generating stations or coal gasification plants over the next 30 years. This is a relatively small percentage of the total Federal resource.

Mr. President, the Senate passed S. 425, the Surface Mining Reclamation Act that included my amendment which would, admittedly, create a checkerboard pattern and might cause some inconvenience for development of properties where the Federal Government is the complete owner or where the minerals and surface are held by private concerns. This amendment is not intended to stop active and existing coal surface mining regardless of land mineral arrangements.

There is a lot of coal in the eight Western States which provides the basis for the statistics just cited—Colorado, Montana, the Dakotas, Oklahoma, Utah, Wyoming, and New Mexico. The theme that I have attempted to project is that the resource planners should not stop planning just because they assume they can dig up the West and forget about alternative and more efficient and environmentally favorable processes for generating energy.

What we face in the West is a sudden change from what is largely an agricultural economy to a dependency upon a coal economy. The rugged individualist of the West has always been an important element in our Nation's history. Extensive coal strip mining, coal gasification plants, and unscrupulous brokers are the greatest threat to this heritage that has ever occurred.

In an effort to continue to inform my colleagues in the Congress, as well as the Nation, on the potential difficulties that might arise from a crash program on coal development as the most immediate answer to the energy crisis, I would like to ask unanimous consent to have several items printed at the conclusion of my remarks.

The PRESIDENT pro tempore. Without objection, it is so ordered.

(See exhibit 1.)

Mr. MANSFIELD. Mr. President, first of all, one of the most eloquent presentations of the problems we face in Montana was made by K. Ross Toole, a professor at the University of Montana, at a public forum entitled "Political Power in State Government" which was sponsored by the Montana Committee for the Humanities. Dr. Toole raises a question which has been paramount in my own mind for sometime, "Must we trade short-range advantages as we have so consistently done, for long-range devastation?"

This is an important question. Montana, in my opinion, has been milked and mined too much of its resources for the purpose of serving the interests of the United States. I do not want to see the same thing happen in the development of the coal areas at Powder River and the Fort Union bases in eastern Montana.

Second, the President of the United Mine Workers, Arnold Miller, has made an excellent plea in behalf of the coal mining industry and, most especially, deep mining, with new technology and consideration for the miner. The article appears in the November–December 1973 issue of the Center Magazine, and I ask unanimous consent that this article be printed in the RECORD at the conclusion of my remarks.

The PRESIDENT pro tempore. Without objection, it is so ordered.

(See exhibit 2.)

Mr. MANSFIELD. In addition, Mr. President, I ask unanimous consent to have two news stories from the issue of the Missoulian which discusses the current debate offering comments on both sides of the issue.

The PRESIDENT pro tempore. Without objection, it is so ordered.

(See exhibit 3.)

EXHIBIT 1

THE HISTORY OF POLITICAL POWER IN STATE GOVERNMENT

(By K. Ross Toole)

In certain very essential respects, political power in Montana (or the lack of it) has differed from that power in other states not merely in degree but in kind.

Nothing I have to say will be new to any of you who have made a study of this state's history.

The difference I have referred to (i.e., the difference in kind) arises from some root causes. Sometimes we overlook these utterly basic considerations and tend to believe that we have been solely the victims of political control by venal outside interests and unscrupulous exploiters. Indeed, we have been exploited and there has been venality in it. Economic power exerted by peoples and corporations far from our borders has been translated far too often, and for far too long into political control. And the result has been an essential subversion of our political processes and machinery. We have not been a sovereign people—not since the turn of the century. And only very recently have we begun to emerge from this rather remarkable kind of political serfdom.

We are still very inexperienced in self government—precisely because we have been at it for so short a time.

What were these root causes to which I referred earlier? Firstly, this is a large state (147,000 square miles huge). And even today there are only 4.7 persons per square mile rattling around in that hugeness.

Secondly, we were endowed with enormous riches, forests, rivers, the richest native grass in Western America, and mineral wealth of almost incomprehensible value.

No wonder that in the 1870's and 1880's and 1890's the most hopeful, ebullient and optimistic people in America were perhaps Montanans. All contemporary accounts—newspapers, letters to the states, diaries, the published reports of visitors (both American and foreign) clearly reveal this extraordinary sanguinity.

But there was a problem—and it lay in the very nature of that wealth itself and it also lay in its location.

Montana was a formidably distant place—distant from the channels of trade; distant from the east-west axis of that trade; distant from the great population centers; distant, therefore, from markets.

And the wealth itself was locked onto the land or deep beneath its surface. And so, the conversion of that raw wealth into utilizable materials and hence into wealth in a money sense was no simple process. Indeed, it was enormously complex. At the heart of the complexity lay capital.

We did not have it here. Even when, in the 1880's the richest of Montanans pooled their wealth (which they did) it was hopelessly inadequate.

And so, starting in the 1870's, the cry for outside capital began. In the 1880's it was almost a crescendo.

Why? Because all around them these Montanans saw, indeed, literally lived in, and above, and were surrounded by, wealth. And they couldn't get at it, couldn't use it. Not without the help of capital from elsewhere, and capital in large quantities.

That capital came. For the cattle industry it came from Scotland, England, France and the Atlantic seaboard.

For timber, it came from San Francisco and New York.

For gold, silver and copper it came from San Francisco, Boston, New York, the House of Rothchilds in London; the House of Bleichroader in Germany; and the two largest banks in France, the Bank of Paris and the Comptoir des Compt.

For sheep and wool it came from Boston.

By the turn of the century Montana was in the midst of an unprecedented boom. Montanans were much too busy, much too optimistic and, too far, perhaps, from the center of things to note that the nature and source of the incoming capital had changed. This is perhaps the nub of its matter. All western states and territories needed outside capital.

Instead of flowing from many sources, east, west and European, massive financial battles, far, far from where the raw wealth lay were being fought for control over the inflowing capital. For if that could be controlled, the prize was enormous.

If Montanans had been carefully reading such esoteric publications as the American Journal of Economics, the London Economist, The Engineering and Mining Journal, The Commercial and Financial Chronicle and the Boston Beacon, they would have had cause for alarm. But there is no hint of alarm here however diligently one searches the contemporary local sources.

These battles for control of Montana's wealth were fought between 1884 and 1900—fourteen years. The battles involved great cartels, great banks and great corporations in America and Europe. The battles were great because the prize was great. The prize was our wealth. The object was an end to competition among outside sources of capital.

It would take a thick volume to chronicle those battles. It will have to suffice here for me to say that the war was at last won by Standard Oil Company of the United States. And the date of the war's end was April 27, 1899 when the Standard Oil Company bought the Anaconda Copper Mining Company and then began very quickly and voraciously to devour all competitors, not merely on the Butte Hill, but in the forests of the west and in many other places in many other ways.

Idaho, too, was a rich country. Politically it developed very differently from Montana, however. The key to that difference lies in the fact that the capital for the development of Idaho's riches remained diversified. Let that, too, be said of other rich western territories and states—such as California.

As long as competition existed among those seeking out the wealth of the earth, the political process could work, because it could pit one power against the other. It may not, indeed, have worked as effectively and as freely as it should—but it could still work. In Montana it could not—and it did not.

From 1900 to 1915 what happened in Montana was inherently conditioned by the near total monopoly of all capitalization by one company with huge resources and—a company of great efficiency and great ruthlessness. In 1915 Standard Oil had to divest itself of the Anaconda Company for violation of Federal anti-trust acts. But by then the pattern of political control rooted in economic control was far too firmly set to be broken. Also, by then, Anaconda itself was no longer merely a finger on the long arm and hand of Standard Oil. It had been magnificently managed and now, in its own right, it was one of America's biggest corporations.

Montanans had not, however, been entirely asleep at the switch. And when the first political pressures were felt, they fought back. We use the phrase "the War of the Copper Kings" to describe this period, but that is not really accurate. Only the last scrimmage in the War of the Copper Kings actually involved opposition to Standard Oil. I will not chronicle that battle but will only characterize it. And with this preface. It was not wrong or bad then. It was the nature of control over that exportation that mattered.

Anaconda (or Standard Oil) won that battle with two enormously potent weapons. On a massive basis it went into the newspaper business. It bought out all the principle daily papers in the state save one and it essentially controlled many of the weekly newspapers. Montana from 1903 to 1958 had no free press. That is a situation without parallel in the history of any state in the Union—and any and all political machinery designed to serve the people of any region, will and must wither without a free press. Ours withered.

Secondly, to control a legislature, grown very fractious in the three years between 1900 and 1903, the Company announced that unless the legislature met in special session to pass a bill which would in effect, destroy the last resistance to its hegemony, it would close *all* its interprises in Montana.

And it did precisely that. On October 22, 1903, it ceased all operations in Montana. The Boston Beacon described the results. Noting that 20,000 men had been precipitously thrown out of work, the Beacon remarked: "The effect of this act is to bring home to the body of the people their utter dependence on the good will of the trust."

Indeed, it was so. Roughly ¾ of the wage earners of the state, directly and indirectly were dependent on Anaconda.

This closure meant, in other words, the total, complete and catatonic economic paralysis of the sovereign state of Montana.

The governer had no choice. He called the special session, it passed the bill demanded by the Company—and Montanans were permitted to go back to work.

Well, you may say that happened a long time ago. So what? So this: When things legislative did not suit the Company—periodically throughout the years the Company threatened again to do what it had once done—and to do what is so clearly had the power to do again.

If the press was now captive, so was the legislature. And it was not until the late 1940's that the legislature began to assert, slowly, its independence. That captivity, like the captivity of the press, has never happened in any other state in the Union. The Company's slow decline in power meant Montana's slow rejuvenation.

So, political power in Montana has, historically, been unique—because if one defines political power in terms of a people expressing their will through a popularly elected legislative body, Montanans have simply had no political power until very recently. Again, it was not that we were a raw materials producing area and hence an exporting area that constituted our problem.

Unfortunately, it is not merely in regard to mining and lumbering that we have suffered an eclipse. The eastern part of the state has also seen in its own hot crucible.

The story is too complex even to review very briefly here. But let me try to get at the essence of it nevertheless.

The wealth in grass, cattle and sheep in eastern and central Montana was, indeed, very great. But it is and was fragile wealth upon a fragile land. The great trauma for that region lay in the impaction of that land by too many people, too fast and with too little knowledge of the land, its cyclical weather patterns, and its fragility.

Between 1909 and 1917 roughly 80,000 people came into eastern and central Montana because a great national campaign was conducted by the railroads, Chambers of Commerce and by state government itself.

They came to engage in dry land farming. They came to plow deep and sow wheat. And from 1909 to 1917, they did well. The wet period was upon land. A war was raging in Europe and the price of wheat was high. So they plowed up millions of acres. They built dozens of new towns. They formed 23 new counties and then, as it inevitably must, as it has, periodically, for thousands of years, the drought came. And between 1917 and 1925, 60,000 of the 80,000 people who had come, left the land and the state. Eleven thousand farms vanished, farm mortgage indebtedness reached $175,000,000; 214 banks failed—more banks than we have in Montana today.

What has this to do with politics and political power? Consider the continuing cost of maintaining 23 new counties created in the expectation that the population of eastern Montana would sky-rocket. Between 1914 and 1922 the cost of county administration rose 149 percent—overall governmental expenses increased 587 percent. Taxes per acre rose 140 percent. The value of farm land decreased by $320,000,000. And soil conservation studies in some of the homestead areas, studies done in 1965, demonstrate that the land is still 75 percent depleted.

The philosopher George Santyana once said, "A people who ignore their history are doomed to repeat it." Maybe we should keep that in mind as we prepare to strip mine our coal under hundreds of thousands of fragile acres.

For if, indeed, current statements that this land can be reclaimed are backed by scientific evidence, history seriously questions that evidence. We seem to have short memories. Maybe we should look at the history of eastern and central Montana more closely. The alarms are ringing. The question is as Montanans, are we listening?

I have not been very cheerful about all this—but there are some cheerful things to be said.

We no longer have a captive press; we no longer have a captive legislature. We have severe problems. But with rapidity which is startling to me, we are coming out of a long sleep—and the morning looks very fresh. It is a cliché, but let it stand. Today is the first day of the rest of our lives.

We are recapturing some control over the destiny of our own state. We can increase it if we understand how we once lost it. We can lose it again—unless we are very vigilant and unless we understand that we cannot buy tomorrow by spending everything we have today.

Must we trade short range advantages as we have so consistently done, for long range devastation?

I, for one, ardently hope that we need not, should not and must not. But that decision still remains to be made. I pray that we make it on the basis of thorough investigation and not in panic, and not just for ourselves.

One fact towers over all others. Yet we so often fail to understand that one utterly basic circumstance. It is this: We really owe no debt to the past and no debt to the present. Those debts are academic; they are the stuff of polemics, momentary political advantage or the shelf indulgence of revenge or guilt.

The real debt we owe is to our progeny. The abiding obligation is to leave them a livable world, a livable state.

Our real obligation is not to give our children nirvana; it is to give them all the ingredients of rational hope. It is to leave them a place and a time in which they can in fact, and not in theory, become better people than we are—building better structures than we have built.

The great sin would be for us to borrow what we cannot repay. Which is to say, quite simply, we must buy *our* present with their future.

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EXHIBIT 2

THE ENERGY CRISIS AS A COAL MINER SEES IT

(By Arnold Miller, president of the United Mine Workers of America)

*"You can't talk about energy without talking about oil. You can't talk about oil without talking about politics. You can't talk about politics without talking about corruption."*

I was born in the mountains of West Virginia, and my views are the views of a coal miner. Coal mining is hard, dirty work, and when you have time to think on the job, you mainly think about your survival. I have spent most of my life just trying to survive, and what free time I had left over I spent on trying to reform the union I belonged to. That is hard work, too. So my views are generally geared to getting from one day to the next.

When I first began thinking about what I wanted to discuss at the Center, a number of possibilities struck me. I could concentrate on what it is like to try to run a union in the process of reforming itself. Or I could discuss coal miners and the energy crisis. Then I began thinking about your name—The Center for the Study of Democratic Institutions—and it occurred to me that coal miners don't have much opportunity to study democratic institutions, because there are so few such institutions where we live. Our union is only now getting serious about democracy. The industry we work for is totally undemocratic. The state legislatures that it controls pay lip service to democracy, but that is as far as they are willing to go. There are a few congressmen and senators from coal states who are a credit to democracy, but most of them are not interested in it unless the price is right. Then there is the White House. The people there are supposed to know about democracy and they also have a great deal to do with policies affecting coal miners. But based on what I have seen and heard from there, especially since Watergate, the idea of "democratic institutions" doesn't impress *them* much. So I come down to the idea that I would like to talk about democratic institutions if only because it is such an unfamiliar subject to me.

Of course it is too big a subject for anyone to handle. I know I ought to narrow it down. However when I was still working underground, long before I knew any people who called themselves environmentalists, I ran across what the founder of the Sierra Club, John Muir, said: "When we try to pick out anything by itself we find it hitched to everything else in the universe." I think that is about as true as any idea I ever heard. You can't talk about coal without talking about energy. You can't talk about energy without oil. You can't talk about oil without talking about politics. You can't talk about politics without talking about corruption. You can't talk about corruption without talking about companies that are so big that they can give half a million dollars to a politician without its even showing up on their books. You can't talk about companies like that without talking about energy, because they supply it. And you can't talk about energy without talking about coal. So I will talk about all of these things, and if I wander around, you can blame it on the Sierra Club. That is what the coal industry does.

I still run into people who think that the coal industry died when railroads converted from steam locomotives to diesel. They are very surprised when I point out to them that their electrical appliances burn coal. They don't see it because it is delivered by wire. The steel that goes into their cars could not have been produced without coal. That is true even if they are driving a Japanese car, because it is exported American coal that the Japanese steel industry uses—and then sends back to us, at a comfortable profit. I am sure, though, that you all know enough about our economy to realize that coal is the basis of it. If we stopped digging coal in September, the country would shut down in October, after the stockpiles ran out. It is that simple.

We are producing, at this point, about 590 million tons of coal a year from twenty-four states. West Virginia and Kentucky are the leading producers. They account for about forty per cent of last year's total between them. In the east, the other principal coal-producing states are Pennsylvania, Ohio, Illinois, Indiana, Maryland, Virginia, Tennessee, and Alabama. Moving westward, there is production in Oklahoma Arkansas, Iowa, Kansas, and Missouri. The big reserves are in the Rocky Mountains and the Northern Plains.

All this coal is being mined by an estimated 150,000 men, which makes coal one of the most productive industries in the country. About 125,000 of those men belong to the United Mine Workers (our total membership, including retired miners, is about two hundred thousand). You can get some sense of how the coal industry has changed through mechanization by realizing that thirty years ago we were producing roughly the same amount of coal every year, but then it required a work force of about six hundred thousand to do it. Today the coal industry is about ninety-eight per cent mechanized.

More than half of the coal we produce goes to electric utilities. We deliver about ninety million tons to the steel industry. We export about fifty-seven million tons. We deliver the rest to a wide variety of other industries, particularly those producing chemicals, which rely heavily on coal and coal by-products.

Mainly because of mechanization and the high productivity that results from it, the price of coal traditionally has stayed low. That is the price to the consumer. The hidden cost of coal is the one we pay—the people who mine it. It is a high price. We get killed. Since the Bureau of Mines started keeping records of such things back in 1910, about eighty thousand of us have been killed. No other industry comes close to that. And we get black lung, from exposure to fine coal dust in the mine air. That priblem has been with us through the history of the industry, but the companies and the company doctors have denied it even existed. They were still denying it in 1969 when the Public Health Service finally got around to releasing a study it had been sitting on for sixteen years that showed that one hundred thousand or more miners and retired miners were afflicted thousand or more miners and retired miners were afflicted. And "afflicted" isn't a strong enough word. Dying of cancer is no worse. This old disease has become worse with mechanization because the high-speed mining machines stir the coal dust up much more intensely than in the old pick-and-shovel days. We have had our technological progress in coal, just as in other industries, but we are still being smothered to death.

There are other hidden costs in coal. Underground mining produces acid wastes and gob piles. Strip mining destroys mountains and poisons watersheds. It also poisons people's lives. There is probably nothing worse than knowing those big shovels are coming to take your land and the house you grew up in. If you are poor, you don't have too many ways to fight back, and it is tempting to take whatever they offer you. That brings me back to John Muir's idea about everything's being hitched together to everything else. You are poor in the first place because of the coal industry—if you live in an Appalachian coal camp. They make you poor and then they come and take advantage of it. That is a hidden cost. Anybody who has had to fight the coal industry knows what it is like to pay it.

We have learned from bitter experience that when you fight the coal industry, there are terrible odds against you. The concentration in the industry is extreme. Of course, the industry says this is ridiculous. The industry spokesmen are always pointing out that there are five thousand mines and 1,200 mining companies. And then they ask how any industry with that many companies in it could possibly be concentrated. They get away with this question because few people know anything about the industry. But the simple fact is that fifteen companies produced 301,208,359 tons last year, which was fifty-one per cent of the total. The top fifty companies combined produced 400,000,000 tons—two-thirds of the total. I am not an economist, but you don't have to be to know that any industry which has half of its production controlled by fifteen companies is concentrated. It is more concentrated, in fact, than those figures indicate. And what is really important is to understand where the concentration goes—where the puppet strings lead to, to put it another way.

First, let me list the top fifteen companies by their coal industry names, and you can see how many you recognize. Peabody Consolidation, Island Creek, Clinchfield, Ayrshire, U.S. Steel, Bethlehem, Eastern Associated, North American, Old Ben, Freeman & United Electric, Westmoreland, Pittsburg & Midway, Utah International; and, in fifteenth place, a group: Central Ohio Coal, Central Appalachian Coal, Windsor Power House Coal, Central Coal, and Southern Ohio Coal.

If you have ever heard more than five of those names, you must have grown up in Appalachia, or you have been studying the industry. But the next question is harder. Who owns those fifteen companies? How many of them speak for themselves?

Peabody Coal is a wholly-owned subsidiary of Kennecott Copper. Consolidation Coal is a wholly-owned subsidiary of Continental Oil. Island Creek is a wholly-owned subsidiary of Occidental Oil. Clinchfield is a wholly-owned subsidiary of the Pittston Company, which operates oil refineries and owns the Brink's armored car company so that it won't have to pay someone to carry its cash around. Ayrshire Coal is a wholly-owned subsidiary of American Metal Climax (Amax). U.S. Steel and Bethlehem own their own coal-mining operations. Eastern Associated is a division of Eastern Gas & Fuel. North American Coal is independent. (You have to get down to number nine on the list to find an independent coal company.) Old Ben is a wholly-owned subsidiary of Standard Oil of Ohio. Freeman Coal and United Electric are wholly-owned subsidiaries of General Dynamics. Westmoreland Coal is independent. Pittsburg & Midway is a wholly-owned subsidiary of Gulf Oil. Utah International is independent, but not strictly a coal company. It has worldwide operations in copper, iron ore, and other minerals. And that last group—Central Ohio Coal, Central Appalachian Coal, Windsor Power House, Central Coal, and Southern Ohio Coal—is a division of American Electric Power, the biggest private utility company in the world.

You realize very quickly that the coal industry is not what it seems to be at first glance. You have oil companies controlling two of the top three. Kennecott Copper controls the biggest of them all—a company which produced nearly seventy-two million tons last year and plans to double that by 1980. This one company, which gets about eighty per cent of its coal from strip mining, produces about twelve per cent of the industry total. In fact, Peabody alone outproduces the combined effort of the seven companies at the bottom of the top-fifteen list.

In the coal industry a very small number of very large companies not only sets the pace for the rest but also has the power to swamp them financially. What other industry has this same pattern? Everybody knows: oil. But not everybody knows that the oil industry effectively controls the coal industry. It shares that control to some degree with other industries—with Kennecott, with the steel people, and with utilities. I don't deny that they have their differences of opinion from time to time, and maybe even a little competition. But not very much competition, and less of it every day.

We are all slowly learning that the oil industry is more than that now. It has wide-ranging interests: coal, natural gas, uranium. It is an energy industry, though that is too polite a name. The Federal Trade Commission recently observed that "the industry operates much like a cartel" and filed suit to try to break it up. Exxon, Texaco, Gulf, Shell, Standard Oil of California, Atlantic-Richfield, Standard Oil of Indiana, and Mobil between them control fifty-one per cent of crude oil production, sixty-four per cent of crude oil reserves, fifty-eight per cent of all refining, fifty-nine per cent of refined gasoline, and fifty-five per cent of gasoline marketing. "A nation that runs on oil can't afford to run short," they say in their advertising. In the long run, it may be much more true that a nation that runs on energy can't afford to fall into the hands of a cartel. We already have some firsthand experience with shortages. But today's are nothing compared to tomorrow's. I think shortages are directly connected with concentration. The experience of the coal industry here is likely to be educational.

It should be admitted right off that concentration in the coal industry has had some notable advantages, even though we have not all been allowed to benefit from them. In the earlier part of this century the coal industry was about as mixed up as a pig's breakfast. Many thousands of companies competed with each other. You could get into the business without much money. If you could get a railroad to put some tracks near your mine and send you a few empty cars every now and then, you could fill them up and send them away and make a profit. The lower you kept the wages of your miners, the more money you made. But there was chronic overproduction, and after 1920, when oil and natural gas began creeping into coal's heating markets, the overproduction got worse with every year. It was a logical thing for the bigger producers to work at getting still bigger and combining their assets through mergers so that they could carve out a secure place for themselves. They did that. They did it with increased speed after World War II, when John L. Lewis forced mechanization into the mines by driving wages up to the point where it was cheaper to put machinery into the mines than it was to pay pick-and-shovel men.

Full-scale mechanization was something only big companies could afford. They paid for it out of working capital or with long-term loans at relatively favorable interest rates. The smaller companies couldn't keep up, even if they were relatively well managed. The record of the industry was too unstable to attract capital to small operations. An investor or a bank with a choice between a company with thirty-five mines and long-term contracts for its coal or a company with one or two mines that could be bankrupted by a strike at either of them—and that had only spot contracts—which do you think it would choose? But the trouble with this trend was that there was no stopping it. And now we have an industry in which the smaller independent operators have no leverage at all. But the irony is that the smaller companies are answerable to somebody. They are local, on nearly local. You can get at them. What is true of all the giants is that ordinary citizens can't get at them. They are not accountable to us.

They should be, because there are some important questions they should be forced to answer—and not just with the usual symphony of public relations they pump out whenever they are being criticized. First of all, they should be forced to explain how they are going to deal with the future energy needs of this country. Lately we have had truckloads of studies indicating one thing: by 1985, the United States will be running out of domestic oil and domestic gas, and relying even more heavily than we already are on supplies imported from the Middle East. Most of the studies also give some passing mention to coal. Some of them point out that we will need to produce about 1.5 billion tons of it a year in order to keep our lights burning. That is more than double the six hundred million tons per year we produce now. In effect, it means building a whole new industry on top of the one we already have.

That might be possible if the coal industry were expanding production steadily, about ten per cent each year. But total production last year was less than in 1947. The National Coal Association forecast for 1973 shows little or no increase over 1972. At this point even that forecast seems to be off the mark; production is now runing five to ten per cent behind last year, and it is likely to stay that way for some time. At this rate, there is no way that the coal industry will be producing 1.5 billion tons a year by 1985—or for that matter, at any time after that.

Part of the reason is concentration. It is just not possible for independent coal companies to expand in competition with the giants. And some of the legislation that has been passed in recent years has not made it any easier for them. The 1969 Coal Mine Health and Safety Act has probably brought about the closing of numerous smaller mines which simply couldn't afford the investment in new equipment required by the very strict standards of the act. I don't think the act should have been less strict—if anything it could have been even tougher—but I wonder whether provisions should not have been made to provide some sort of relief to the smaller companies. I do not mean tax relief, which is equivalent to an outright subsidy; I can't see any value in rewarding a company for having had a consistent record of failing to provide a safe work place, as too many smaller companies did. But I think it might have been a good idea to establish something like a Small Mines Safety Bank that could have provided low-interest loans to be used for safety equipment and training. It may not be too late to do that, and it might have the effect of subsidizing competition.

The bigger companies, with effective control of their market, have no incentive to expand except when they are absolutely certain in advance of selling every ton of coal at acceptable prices. Their goal is to remove every last bit of risk from the business (except in the area of safety, where they are still willing to take all kinds of risks).

This was true even before they started being devoured by the oil industry; it is twice as true now. The oil industry knows that you don't refine more gasoline than you think the country will need, because if you do, the price will go down. In the days of competition you had less chance of manipulating the total production. These days, when competition in the oil industry is a joke, you can manipulate whatever you feel like manipulating, starting with the White House and the Interior Department and going on from there. The biggest oil-coal combines are sitting on vast reserves of readily recoverable coal. But that coal will come out of the ground only when the men who own it can be sure of the price they will get for it.

That is a simple objective, but it immediately becomes complicated. Coal, oil, and gas are largely interchangeable as far as electric utilities are concerned. They all produce Btu's. Many generating plants have been designed to take any or all three. If coal were still one hundred per cent competitive, there would be an incentive to mine more of it, sell it to the utilities at the lowest possible prices, and undercut oil and gas, which are increasingly difficult to find and bring to market, especially if you have to go overseas to do it. But coal is not one hundred per cent competitive. It has problems of environmental damage and it is hard to transport efficiently. More importantly, however, it is being kept in the back room by the oil industry. When the other commodities are gone from the shelves, the industry will bring out coal. And it will sell for what the industry wants it to sell for.

Not long ago I was reading the testimony of John O'Leary, the director of licensing with the Atomic Energy Commission, before the Senate Interior Committee during its June hearings on energy problems. Mr. O'Leary is an economist by training. He was also director of the Bureau of Mines until someone in the White House decided that he was doing too good a job and got rid of him. He knows a great deal about oil companies and their interests in coal and other fuel sources. I was impressed by the clarity of something he said:

"Oil companies today have two overwhelming interests. The first is to increase the value of their domestic reserves, thereby enhancing their book value. The second is to liquidate as rapidly as possible their foreign holdings, thus maximizing current income from these holdings should these holdings for one reason or another be denied in the future.

"These strong and practical motivating forces run absolutely counter to the current public interest in energy research and development, which calls for rapid development of alternatives to conventional fuels. For the oil industry as a whole . . . a world without alternatives to conventional oil and gas is a better world than one which had available the sorts of alternatives that can be developed through research and development."

Not only is this a valuable summary of a dangerous situation, but it happens that the very day after Mr. O'Leary made these remarks, the A.E.C. put out a huffy statement to the effect that these were O'Leary's personal views and had nothing to do with those of the A.E.C. The oil people must have been on the phone to all the right places the moment he finished testifying. They rarely have to listen to that kind of truth from anyone within the government these days.

I like Mr. O'Leary's language because he steers clear of any talk of conspiracy. Words like that still tend to put people off. Instead, he describes in matter-of-fact language a situation in which the oil industry is on a collision course with the rest of us, and he uses the word "practical" to describe the industry's motivation. I think he is right. What is practical for eight or ten companies may be disastrous for two hundred million people. In that situation, the industry obviously must yield. But when was the last time we saw the oil industry yielding?

For coal miners, this isn't just a little spare-time exercise in industry-baiting. The idea of an unrestrained oil-coal-gas-uranium cartel is terrifying to us. We already know what it is to work for people who think of themselves as above the law. The coal industry has always been that way. If you don't believe it, look at what is left of the company towns they built—and then sold to us when they no longer needed them. Look at the schools in eastern Kentucky. Look at the roads all over Appalachia. Look at the men who were battered and broken in the mines, and then forgotten. Look at the stripped hills and the rivers running red with acid. Look at all that, and look at the coal companies' tax returns, and then tell me the coal industry isn't above the law.

The coal industry has its own "practical" reasons for being the way it is. If we have any warning to pass on to the rest of the country, it is to watch out for large industries with practical motivations. Mr. O'Leary could not have put it better.

Going back to what he was talking about, let us look at a few aspects of the current energy situation. We are already using twenty-four trillion cubic feet of natural gas per year, and finding less than half that much in our reserves. Demand has increased about seven per cent per year since World War II. There is no leveling off in sight. The Federal Power Commission says we have a sixty-five-year supply of natural gas, but that figure is based on a demand increase of 1.4 per cent a year, which is ridiculously out of date. Mr. O'Leary sees us running out of domestic gas reserves by 1986. With luck, assuming there are more undiscovered reserves than we think, we might make it to 1995.

We are not quite as badly off in oil reserves, but the forecast is no more encouraging. We were using 14.7 million barrels a day in 1970. We were producing 11.6 million barrels a day from domestic wells. That gave us a deficit of 3.1 million barrels a day. We made it up with imports. Looking ahead, even the most conservative estimates for 1985 show domestic demand running at 30.2 million barrels a day, more than twice the consumption of 1970. With luck, domestic wells will be producing fifteen million barrels.

There is a deficit of 15.2 million barrels a day to be accounted for. It has to come from the Middle East, for the most part. In the back of my mind right now is the question: What are we going to be doing with all those B-52 bombers now that they are not bombing Cambodia any more? I don't think it is wrong to start worrying about what the Pentagon is up to—or will be up to. When we have too much dependence on foreign supply, as we now do, the temptation to go in there on some flimsy pretense and clean out all those sheiks will be strong. If the B-52's are too clumsy, we will do it with subversion and the C.I.A.

We don't have to do that, of course. We could be pouring money into research that would speed the day when we can convert coal to pipeline gas and synthetic gasoline. Very few people have come to grips with one vitally important fact. That fact is that we could run this country on coal, if we wanted to. Not tomorrow, no. But, with a sufficient commitment, we could be doing it before 1985.

Some time in the future, we will be running this country with fast-breeder nuclear reactors, though I won't live to see it. When my children are my age the first of these reactors will be making an impact. Beyond that, we will get the sun's energy harnessed. My children won't live to see that—at least not on a nationwide commercial scale. Meanwhile, we ought to be concentrating on figuring out how to use our conventional fuels. We have just about run out of gas. We are low on oil. What about coal?

We sit squarely on top of the largest readily available supply of coal on earth—about 1.3 trillion tons in all, with about 390 billion tons considered to be readily recoverable. That is a six-hundred year supply, at current consumption levels. Even when you double or triple our consumption, the supply will outlast any conceivable period of demand.

Coal overpowers gas and oil in terms of available reserves. The U.S. Geological Survey figures that coal accounts for 87.1 per cent of everything we have left. Oil is 3.5 per cent. Gas is 4.6 per cent. Sheer common sense should tell us to put all our efforts into developing coal.

Unfortunately, common sense has almost nothing to do with the way we consume energy in America. Not only do we consume more of it than we should—it is a widely quoted statistic that we add up to six per cent of the world's people and burn up about forty per cent of the world's energy—but we consume more of it all the time. Population increased fourteen per cent from 1961 to 1973; per-capita consumption of energy went up forty per cent. And while we are busily consuming more every day, we are burning up the wrong things. Oil and natural gas account for 77.9 per cent of our current total energy consumption—almost a direct inversion of the figure for available reserves. Coal accounts for 17.5 per cent. Hydroelectric and nuclear sources provide the remaining 4.6 per cent. It is not just because I am a coal miner that I consider this a ridiculous situation. It is also because I am a citizen. My interests as a citizen are not being served by this kind of arrangement.

There are various reasons why coal is low on the list of fuels currently supplying our energy requirements. The biggest reason has to do with simple expediency. Aside from the fact that coal is difficult to transport and requires large storage facilities, it also comes out of the ground mixed with various impurities. The most serious is sulphur. The burning of coal produces other impurities—fly ash, particulates—but electrostatic precipitators and redesigned boilers have largely brought those under control. But sulphur is not under control, and that is a very serious problem, since a high percentage of the coal we mine in the East is high-sulphur.

A few months ago I was in a meeting with some coal barons who were wringing their hands about the sulphur problem and how it was affecting their sales. I couldn't argue that it was having that effect, but I could still ask them a question: "Gentlemen, when did you first discover there was sulphur in coal?" I knew the answer as well as they did. The discovery goes back hundreds of years. The next question was: "Gentlemen, how much money has each of your companies spent researching ways to handle the sulphur problem?" They changed the subject.

I can understand that they would, because research is not something the coal industry has been comfortable with. Some coal companies will tell you that they have a research department, and in the annual report you will find a picture of a man in a white coat squinting at a piece of coal; but when you go to their headquarters and ask to see the research department, either they have nothing at all or their "research" consists of a technician working out of a converted broom closet fixed up with a Bunsen burner and two or three beakers. All he does by way of research is to analyze random samples coming out of the company's mines.

Having said that, in fairness I should point out that the coal industry's trade association has a research wing, Bituminous Coal Research, Inc., which carries out research for the entire industry. But B.C.R. did not get serious about sulphur problems until the mid-nineteen-sixties. Even then, its involvement was slight.

Further, the industry does not pay its own way in research. It siphons money, through contracts, from the federal Office of Coal Research, which is part of the Department of the Interior. Electric utilities have been criticized because they spend less than a fourth of one per cent of revenues on research. That puts them one-fourth of one per cent ahead of the typical coal company. The coal industry waits for Department of Interior to do it.

Unfortunately, Interior does not do it. The Office of Coal Research, which was lobbied into existence in 1960, is a storefront operation which hands out contracts but does little or no basic research itself. Compare it with the Atomic Energy Commission, which is pushing coal's principal competition after gas and oil reserves run out, and you can see the absurdity of our situation. During the current fiscal year, A.E.C. is operating on a budget of $2.2 billion dollars. O.C.R. has a budget of fifty-eight million dollars. A.E.C. employs 5,800 people; O.C.R. thirty-seven.

About fifteen years ago, the utilities companies on the East Coast began moving away from coal. Gas was the ideal fuel—clean and cheap, and nobody said anything about running out of it. Oil was almost as good, especially since removing sulphur from oil is easier than removing it from coal—if you use low-sulphur residual fuel oil, you do not have to deal with the sulphur problem at all. The coal industry responded to the threat like the two men sitting at the table with their feet up telling each other, "Next week we've got to get organized."

The industry wanted the government to do more research but it would rather disappear than let the government exercise any control over the results. For the past fifteen years various people have been proposing a national fuels policy to replace the mess we have now. The coal industry said that would be fine, as long as the people administering such a policy had no actual influence. The coal industry's thinking on free enterprise is stubborn and basic—and, as far as I am concerned, about as enlightened as the robber barons who got the whole thing started a hundred years ago.

While the industry was fending off socialism (or what it thought would become socialism, given half a chance), it was losing its market. One by one the East Coast utilities switched—particularly to gas and residual fuel oil. The trend moved inland as well. Coal had sixty-seven per cent of the the utilties as recently as 1965. By 1972, that figure had dropped to fifty-four per cent.

It is still dropping, despite the coming shortages of other fuels. Meanwhile, residual fuel imports during the first three months of this year amounted to 192 million barrels, representing an 11.4 per cent increase over the same period in 1972. That increase alone, translated into terms of coal, would come to 4.7 million tons. That is more that eight hundred mining jobs.

Now the utilities are beginning to hesitate. It may be that fewer of them will convert—not because they don't want to, but because they can't be sure of future supplies of oil and gas. In at least one state—New York—the Public Service Commission has ordered utilities not to convert unless they retain the capability of switching back to coal. Naturally the coal industry is pleased with this development, though it did nothing to bring it about.

But this development needs to be looked at in context. And the context is that the key coal reserves being held for future use belong either to the oil industry or to corporations based in the western part of the United States. Western coal is generally of lower heat value than Eastern coal and it is still more remote from its markets, even though the country's growth continues moving westward. But Western coal is generally low-sulphur. And it sits there in gigantic quantities.

The Fort Union coal formation, which underlies eastern Montana and part of North Dakota, is the largest single block of coal in the world. Other coal formations underlying Wyoming, Colorado, New Mexico, and Arizona are enormous. Getting at them is easy, because they lie under less than three hundred feet of "overburden," as the strip-mining industry calls it. You have none of the engineering requirements of a major underground mine, and you need a fraction of the lead time to get started. Your biggest problem is waiting for delivery of a dragline, which will cost you around twenty million dollars to buy. It's worth it. One man operates it, and the bucket picks up anywhere from fifteen to two hundred tons at a swoop (depending on the size of the machine). Even with a small dragline you can load two thousand tons an hour. That is more than a medium-sized Appalachian underground mine can load in a whole shift.

Obviously, Western mining has another attraction. Almost no workers. In the East, the general rule of thumb is that you need about two hundred men to get out a million tons a year. In fact that is the minimum work force needed. In the West, you can clear the same tonnage with ten men. If I were a coal baron, I'd be heading west. And they are. They are gloating about it, too. Ed Phelps, president of Peabody Coal, told his colleagues about it at the National Coal Association convention a few weeks ago: "Talking about Western coal reminds me of that old fisherman's prayer which you sometimes see printed on wooden plaques for sale in sporting goods stores. It goes, 'O Lord, let me catch a fish so big that when I tell about it later. I won't even have to lie.' Western coal reserves are like that fish." That is true, and Ed Phelps's company has already leased an estimated 8.7 billion tons of Western coal. That would last 125 years if he shifted all his equipment west and maintained his current level of production. But his company is looking for more. Meanwhile, he is getting a good start by digging up the Navajo reservation at Black Mesa.

Ed Phelps's prize black fish isn't the biggest catch in the West. Burlington Northern has more than eleven billion tons, and Union Pacific has ten billion. Continental Oil has 8.1 billion. Amax has four billion; Westmoreland Coal, 1.2 billion; Northern American Coal, 2.6 billion; Montana Power, a billion. And there are numerous others we haven't begun to identify, because they buy up coal under assumed names and we do not have the manpower to track through all the records.

So the West sits there, waiting to be developed. There are huge mines in operation there now, of course. But they do not represent a fraction of what is coming if the energy cartel is allowed to pursue its own timetable. The ranchers and environmentalists who are fighting against strip mining in the Northern Plains haven't seen anything yet. Look at the tonnages I've just mentioned, and compare them against Montana's total production last year, which was about eight million tons. There are more than thirty billion tons of coal under Montana, and eight million tons is only two-tenths of one per cent of that. We have a long way to go, and if there is any ranchland left in Montana when Ed Phelps is finished, I will be very surprised.

I know all about what they promise: reclamation. "Land as good as it ever was." I know about the "reclamation" in Appalachia because I have to live with it. The reclamation in Appalachia—to borrow a phrase from a former officer of our union—is the small end of nothing, shaved down to a point.

This kind of talk usually gets me into trouble. Several thousand members of our union are stripmine employees and they don't like to hear their president talking like an environmentalist. What is more, the U.M.W.A. has launched an organizing drive in the West, on the theory that wherever there are men digging coal they should be members of the United Mine Workers. Whenever I say anything critical of the industry I find that it is reproduced and distributed with blinding speed among the men we are trying to organize. Strategically it would be much better to stay silent. But there is a tradition of speaking out in my union, and the westward trend of coal mining creates an issue we have to confront. In West Virginia and Kentucky, all over Appalachia, we found out, as our fathers found out before us, that when the companies no longer need you or want you, all you have left are your scars and the dust in your lungs. And in our hills, what we have left are the scars and the mud slides and the streams choked up with silt where we used to fish.

Sometimes it is much worse than that. Sometimes gas explodes underground and we lose as many as seventy-eight men at a time, as we did in West Virginia in 1968 at one of Consolidation Coal's mines. Or a dam made out of coal wastes lets go in the early morning, and 125 people are carried away and drowned or suffocated under millions of tons of mud. That was Buffalo Creek in February, 1972. That was the Pittston Company's operation, and the industry showed its remorse this year by electing the president of Pittston to the presidency of the National Coal Association.

The moral is simple: beware of industrialists bearing gifts. Fifty years ago they promised to develop Appalachia, and they left it in wreckage. Now they promise to develop the Northern Plains. They will leave it in ruins. A dragline operator working seven days a week can make more than twenty-five thousand dollars a year. I can understand his enthusiasm for the industry he serves; but somewhere we have to find the common ground between miners and "eagle freaks."

"Eagle freaks" are what coal men call the ranchers who liked Montana and Wyoming the way they were before the draglines moved in. Recently I read a magazine report about the Northern Plains problem, and about a rancher named Boyd Charter, who decided he did not want to sell to Consolidated Coal. "Some people can't understand that money is not everything," Mr. Charter said, "I told that man that I knew he represented one of the biggest coal companies and that he was backed by one of the richest industries in the world, but no matter how much money they came up with, they would always be $4.60 short of the price of my ranch." It doesn't matter that he is a rancher and I am a miner. I know what he means. If I owned my hills of West Virginia I would have kept the price $4.60 higher than the industry could pay to strip them. But they had the price and now we have the mud.

The man from Consolidation Coal did not think much of Mr. Charter. "You can be as hard-boiled about this as you want. But we'll get you in the end." That's how he put it. I know that kind of language. I've heard it all my life.

Government, of course, ought to be protecting, Mr. Charters ranch just as it ought to be protecting my fishing, just as it ought to be protecting my safety. But that is not the kind of government we have in Washington. What we have in Washington now is a very well-oiled job-shuttle system. You start out in industry and shuttle over to government for a while and shuttle back into industry again. Let me just briefly cite some examples that come to mind:

Carl Bagge starts out as a lawyer for the Santa Fe Railroad, then is appointed to the Federal Power Commission. He leaves the F.P.C. to become the president of the National Coal Association.

Lawrence O'Connor starts out as director of the Independent Petroleum Association, leaves to join the Federal Power Commission, then leaves the F.P.C. to become vice-president and chief Washington lobbyist for Standard Oil of Ohio (SOHIO).

Albert Gore is defeated for re-election as a populist senator from Tennessee, leave a lifetime of good works and becomes chairman of Island Creek Coal, Occidental Petroleums wholly-owned subsidiary.

Hollis Dole, Assistant Secretary of Interior for Mineral Resources, leaves government to become president of TOSCO, an oil-shale development consortium in which the principal company is Atlantic-Richfield, run by Robert O. Anderson, a major Republican fund-raiser and G.O.P. national committeeman from New Mexico. Dole is then appointed vice-president of the National Petroleum Council, the half-government, half-industry group that "advises" Interior on energy policy. In his new capacity he returns to Washington to speak for industry. All within a matter of weeks.

Edward G. Failor, a lobbyist and Republican campaign strategist, is put in charge of safety enforcement at the Bureau of Mines. He leaves in June, 1972, to go to work for Charles Colson of the White House, "monitoring" Democrats in Miami Beach.

John B. Rigg leaves the Colorado Mining Association to become Interior Deputy Assistant Secretary for Mineral Programs.

Henry Moffett serves the American Mining Congress as its chief Washington lobbyist for thirty-one years. Then he joins Interior as Deputy Assistant Secretary for Minerals and Energy Policy.

Stephen Wakefield becomes Assistant Secretary of Interior after serving the oil industry as an attorney at Baker & Botts, the Houston law firm, where he represented Pennzoil, the firm which had a hand in "laundering" the Watergate money. At Interior, Mr. Wakefield dismisses any talk of antitrust action against the oil cartel. "A large number of people grasp at the most simplistic solutions," he says. "They must find a culprit. Industry, especially the largest companies, are obvious candidates."

You bet they are.

I would not claim that industry and government are one and the same, because my experience with the federal bureaucracy is that it is a world all to itself. But I do believe that industry and government are much closer together and much less distinguishable than they have a right to be. And I believe that when we talk about developing an intelligent energy policy in this country—a policy designed to serve us all, not just a corporate few—we'd better know that the odds are bad, and the size of the job is almost overwhelming.

As far as coal is concerned, I define the job this way: we must greatly expand total production, on a crash basis, and aim at a goal of domestic energy self-sufficiency as quickly as possible.

We must not rush into development of the West at the expense of the East. A headlong commitment to super-scale Western mining means that over the next five years between twenty-five thousand and forty thousand mining jobs will be lost in the East. Of course, that concerns us as a union of miners. It concerns us also because we have lived through an unending depression in Appalachia, and we simply cannot sit silently and watch another one come rolling in on us. Finally it concerns us because you cannot turn underground coal production on and off like a light switch. If we arrive at a rational fuels policy five or six or seven years from now, and decide to strengthen our emphasis on Eastern mining, the mines will not be there, and neither will the miners.

We must not rush into development of the West at the expense of the West. Our western members need jobs, and we believe they should have them. But that does not mean that we want to see eastern Montana wiped out.

We owe it to ourselves and our children to develop a National Energy Policy that means something more than giveaway. To do that, we will have to make some very tough decisions that nobody is going to be entirely happy about. What I mean by that is that there must be some form of authority empowered to say no to the most powerful corporations in the United States. At the moment there is no such authority anywhere, and there will be none during this Administration.

I know that sounds pessimistic. I am not a pessimist but I would prefer to try to be realistic now than to be taken by surprise later.

I am optimistic about some things. I am optimistic about our union, the United Mine Workers of America.

We came into being in 1890. We survived a terrible time when ten-year-old children worked fourteen-hour days as "breaker boys," and when the coal barons ran their mines without interference from anybody—and we were killed in wholesale lots. Under John L. Lewis, we became "the shock troops of American labor." The Steelworkers, the Auto Workers, the whole C.I.O. grew out of the mine workers' union. We slid back into a dark time, and when Jock Yablonski tried to lead us out of it he and his wife and daughter were shot to death. Reform did not come to the U.M.W.A. without a price. But it came. Last December when all the votes were counted we had the sense of turning a corner.

We have had numerous difficulties since then, and the job has been even harder than we thought it would be. We are in the process of restoring autonomy to our districts, some of which have been under "trusteeship" for nearly half a century. Being under trusteeship, of course, meant that union officers in Washington appointed the district officials. There was a time when such a policy may have served a valid purpose—when the U.M.W.A. was in grave danger of going under, and John L. Lewis necessarily took drastic steps to pull it together. But those days are long gone. Without district autonomy, we would have no accountability to the rank-and-file members of the union. With it, we run the risk of constant brushfire wars as various factions jockey for influence. This is a problem, and it consumes much more of our time than I like to admit. But you don't clean house without stirring up dust. In time, it settles.

We are still heavily involved in housecleaning, and will be for some months to come; the last of our district elections are still being scheduled. Until this process has been completed, we are unavoidably tied down with the basic business of getting ourselves back on the right track. I say this by way of answering various friends of ours who expected the new administration of the U.M.W.A. to begin making great waves immediately after we took office. They have been waiting, sometimes impatiently, every since. There is probably more waiting to be done.

On the other hand, some small waves that we have been generating are of considerable importance to our members, even though they go unnoticed elsewhere. We cut our salaries, which has not been the prevailing pattern in organized labor (or anywhere else). We served notice during our campaign that coal would be mined safely or not at all. It was not an empty threat. We could not stand by and let the death toll go on and on. Since December, we have spent countless hours meeting with mine operators, monitoring the mine inspection program of the Bureau of Mines, holding seminars for our members, developing our own Safety Division. We have launched the first major organizing drive in the U.M.W.A. in a generation. We have begun to explore various ways in which we can assist our members beyond the immediate range of collective bargaining; one small wave has been the setting up of a credit union that, over time, will put a wall of protection between our members and the cutthroat banks and loan agencies that fester in Appalachia.

This December, we will convene the U.M.W.A.'s forty-sixth convention. Out of it will come constitutional changes and a raft of rank-and-file resolutions—a grass roots voice in U.M.W.A. policy for the first time in anyone's memory. The convention is being held in Pittsburgh, in the heart of the coalfields—nothing notable about that, except that the last two conventions were held in Florida and Denver, where coal miners are few and far between.

Finally, I think it may be important that the three chief officers of the U.M.W.A. still think of themselves as coal miners. We work in Washington in the union's ornate headquarters but we are not at home there. We think as miners, we react as miners. We see the world through coal miners' eyes. You learn to get by without much light in a mine. You develop good instincts—if you don't, you do not survive. We survived long enough—and by "we" I don't mean just Mike Trbovich, Harry Patrick, and myself, but a whole army of miners who never stopped believing in the U.M.W.A. We survived long enough to grapple with the people who thought our union was something that belonged to them personally, and we got it away from them. Now, if we don't lose our way of looking at things, and our instincts, and our eyes, I think we may see a day again, not too far off, when people think of coal miners as "the shock troops of American labor."

EXHIBIT 3

[From the Missoulian, Nov. 27, 1973]

STRIPPING CAUSES BALANCING ACT

(By John Hamer)

Strip mining is at the heart of one of America's most nagging and difficult domestic dilemmas: How to balance urgent energy needs with vital environmental protection.

Stripping, as the controversial surface mining method is often called, has inflicted severe damage on the land in Appalachia and the Midwest, and is now moving into the Northern Great Plains and the Southwest.

The nation is hungry for power, and coal—America's most abundant energy resources—can be extracted quickly, easily and cheaply by strip mining. As the Arab oil embargo puts a squeeze on U.S. heating fuel and gasoline supplies, "King Coal" is being called upon to ease the imminent energy shortages.

Coal is not likely to help much during the coming winter, however. There is not enough available now to meet emergency demands, and other key shortages will deter a rapid increase in supply. Diesel fuel for power shovels, coal trucks and barges is in short supply and under fuel allocation controls. Railroad cars have been plagued by shortages, along with ammonium nitrate—a strip mining explosive—and roof bolts used in underground mines to hold up tunnel ceilings.

But coal's future seems bright because there is so much of it. "We can take heart in the fact that we in the United States have half of the world's known coal reserves," President Nixon said in his Nov. 7 broadcast to the American people on the coming energy crunch.

The Interior Department estimates that there are 3.2 trillion tons of coal underground in this country, or 90 per cent of all domestic fossil fuel resources, yet coal today supplies less than 20 per cent of all U.S. energy. Gasification and liquefaction—processes which convert coal into synthetic oil and gas—have assumed new importance and will receive increased funding.

Many citizens are concerned that strip mining may destroy much of the country in order to save it. Environmentalists contend that the nation's needs could be met by a return to deep mining. Indeed, the Bureau of Mines estimates that only 45 billion tons of coal are "economically strippable," while some 355 billion tons could be readily recovered by underground mining.

Russell E. Train, administrator of the Environmental Protection Agency, has said: "The sooner we can make underground (mining) more economically attractive, more technologically feasible and more socially acceptable as a way of life, way of employment, the better off we're going to be."

Coal industry spokesmen argue that underground mining is costlier and more hazardous. But environmentalists claim that a ban on stripping would raise the cost of electricity to consumers by less than $1 per person per year, and they contend that strict enforcement of the Coal Mine Health and Safety Act would solve safety problems.

Most arguments against strip mining concern the environment rather than economics or safety. The Soil Conservation Service last year estimated that an area of land the size of New Jersey, about 7,820 square miles, had been disturbed by stripping operations.

That would constitute a barren swath more than two miles wide from New York to San Francisco. If all remaining strippable reserves were mined, the area would increase to 71,000 square miles—larger than Missouri—and the hypothetical swath would grow to more than 20 miles wide.

Stripping proponents insist that reclamation is the key word in the lexicon of the industry today. But the word means different things to different people. Rep. Ken Hechler, D-. Va., says reclamation "is like putting lipstick on a corpse."

On the other hand, National Coal Association President Carl E. Bagge says that "mined land can and will be reclaimed." John B. Rigg, deputy assistant secretary of interior for energy and minerals, states: "There is no excuse for not doing reclamation work; the technology is available."

But reclamation is a tricky and expensive business. In flat or rolling terrain some efforts have been successful, but in hilly or mountainous areas it seldom works. Great Britain and West Germany reclaim strip mined land completely, but only under strict government controls. The difference is "meticulously detailed planning," says Peter Borelli of the Sierra Club. "There is no American control comparable to the European systems."

Although many of the nation's coal-producing states have passed some laws to control stripping, most are hampered by weak regulations and poor enforcement. As for federal legislation, Congress has experienced extended delays. Control measures were introduced as early as 1940 and in every Congress since the 86th (1959–60).

Last year the House passed a bill but the Senate failed to act. Last month the Senate passed a bill, but the House postponed floor action until January, at the earliest.

Many environmentalists accused the coal industry of deliberately delaying action in the hope that a cold winter replete with fuel shortages will destroy the chances of enacting a tough control bill.

Coal no doubt will play an important role in years to come, but how it is mined and how it is used are questions that clearly need public policy debate.

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CAN COAL BAIL US OUT?

(By Bruce Ingersoll)

Interior Secretary Rogers C. B. Morton has been calling the 1 trillion, 581 billion tons of coal beneath the U.S. surface "our ace in the hole" for the energy-tight years to come.

Environmental leaders, however, fear that much of the antipollution progress made in the last five years will be erased in the process of tearing that "ace" out of the ground and burning it in power-generating stations and industrial plants.

The Sierra Club's Brock Evans, for one, is bracing for an all-out "assault on the Clean Air Act."

And should the coal industry's demands for a more lenient policy on mine safety and the prevention of black lung disease prevail in Washington, officials of the United Mine Workers foresee a run of bad luck for the miners—more fatal cave-ins, more underground explosions, more black-lung cases.

President Nixon is looking to the coal industry to lead the nation toward energy self-sufficiency by 1980. Coal executives in the Midwest say their mines are running at, or very close to, full capacity, and are pessimistic about stepping up production in the next several years.

Carl Bagge, president of the National Coal Association, explained the pessimism at a recent White House meeting with the President and his energy aides.

"I pledged the industry's support for Mr. Nixon's Project Independence by 1980," recounted Bagge. "But I also said, 'You fellows have got to understand the nature of the coal-mining industry. It is based on long-term contracts between the mines and the utilities.

" 'We can't get the capital to expand our mines unless we can bank on long-term exemptions (from air-pollution regulations),' I told them."

Nixon has asked Congress to empower the Environmental Protection Agency to exempt power plants and other big fuel consumers from state and federal pollution restrictions. These exemptions will be for naught, said a vice president of Peabody Coal Co., the nation's largest, if they last only one year.

"I'm talking about a minimum of 15 years—more like 25 years," said Peabody's William G. Stockton. "We cannot amortize our investment (in new mines) over any shorter period."

In the haste to replace lost Mideast oil supplies with coal, many conservationists expect the Clean Air Act will be so gutted that air pollution will become as bad as ever before.

Richard Kates, chairman of the Clean Air Coordinating Committee, said he doesn't believe it is necessary to forfeit clean air for energy. Federal and Illinois environmental officials agree with him. They maintain the power industry has the technology to curtails sulphur fumes from coal burning, notwithstanding the contentions of utilities to the contrary.

Bagge, the vice chairman of the Federal Power Commission before he became the coal industry's chief lobbyist, estimates $8 billion will have to be raised in the next eight years to "bring coal center-stage, to make it the primary fuel for power generation and heavy industry."

But that kind of money won't be raised, he said, if the strip mine reclamation bill passed by the U.S. Senate becomes law. Bagge claimed it would "prohibit strip mining," as would another bill pending in the House.

Peter Flanigan, a top federal energy policy-maker, shares his concern. "We think the Senate bill would inhibit the coal industry unduly."

Yet, Sen. Richard Schweiker, R-Pa., points out that his state's coal output has increased since a nearly identical mine-reclamation law was passed nine years ago.

As the demand for coal grows, the price is bound to rise. And few conservationists and union officials would begrudge the mining companies a price increase, particularly if the additional revenues were used for restoring strip-mined areas to their original contours and for making underground mines safer and healthier for the miners.

Bagge, however, contends that even the existing strip mine controls are too stringent and that "overzealous" mine inspectors are interfering with productivity.

For these assertions, Thomas Bethell, research director for the United Mines Workers, has a sharp retort. "The mining industry has never had any problem in finding someone to blame for its problems. Outsiders are always to blame. This is an industry which has always deeply resented anybody telling it how to conduct its operations."

Coal executives claim productivity has fallen anywhere from 12 to 30 per cent since the Coal Mine Health and Safety Act of 1969 went into effect. The requirements for dust-discharge ducts hamper mining "significantly," said a spokesman for Freeman Coal Mining Corp., a subsidiary of General Dynamics.

"I won't argue with that," Bethell said. "But do you want to bring coal worker's pneumoconiosis under control or do you want another 45,000 miners to get black lung?"

The Freeman Coal spokesman also complained about having to scoop loose coal from mine floors in order to keep dust levels down. "It's like having your wife on a non-stop vacuuming marathon right in the middle of a dinner party."

"That's ridiculous," Bethell said. "You stir up dust when you walk on loose coal. It there's methane around, the combination of the two can cause an explosion.

"You can get the equivalent on a Hiroshima underground. Eighty thousand men have been killed in these kinds of disasters. That's enough."

Going soft on mine-safety enforcement, he said, would mean sacrificing a work force in the name of more energy.