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ENERGY AND THE AGED: THE IMPACT OF NATURAL GAS DEREGULATION

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SPECIAL COMMITTEE ON AGING
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ENERGY AND THE AGED: THE IMPACT OF NATURAL GAS DEREGULATION

THURSDAY, MARCH 17, 1983

U.S. SENATE,
SPECIAL COMMITTEE ON AGING,
Washington, D.C.

The committee met, pursuant to notice, at 9:07 a.m., in room SR-385, Hon. John Heinz, chairman, presiding.

Present: Senators Heinz, Percy, Grassley, and Melcher.

Also present: John C. Rother, staff director and chief counsel; Michael Rodgers, Ann Gillespie, and George Tenet, professional staff members; Eileen Bradner, minority professional staff member; Robin L. Kropf, chief clerk; and Angela Thimis and Kim Heil, staff assistants.

OPENING STATEMENT BY SENATOR JOHN HEINZ, CHAIRMAN

Chairman HEINZ. The Special Committee on Aging will please come to order.

Today, the committee will explore an issue of major importance to this Nation, namely, the future of energy costs faced by older Americans who heat their homes with natural gas.

When Congress passed the Natural Gas Policy Act in 1978, we sought to achieve the twin objectives of establishing price incentives for the development of our domestic gas supply and insuring adequate consumer protection from price increases. At the core of our actions at that time was an overriding concern to protect retired persons and the poor from potential increases in natural gas prices, which we addressed by retaining price controls on old gas. At the same time, we also sought to insure an adequate supply of gas by incentive pricing to spur exploration for and production of new supplies.

Since 1978, however, a series of events occurred which we could not have anticipated. These events require a reexamination of natural gas regulatory policy.

Natural gas prices rose across the Nation over the past year at an average rate of approximately 25 percent, and in many parts of the country, this increase reached 40 to 50 percent. Prices have increased despite the sizable surplus of deliverable gas and despite energy conservation measures by consumers which have demonstrably reduced demand.

I am keenly aware of the impact that rising natural gas prices have had. The citizens in my home State of Pennsylvania, and

many others, know too well that gas prices have outstripped their ability to pay.

For example, between 1978 and 1981, the income of a Pennsylvania manufacturing employee increased by 30 percent while his natural gas bill increased by 127 percent.

Between September 1978 and September 1982, the gas rates charged by the six pipelines serving Pennsylvania increased an average of 175.6 percent, while the Consumer Price Index rose by only 47.2 percent.

Over the same period, between 1978 and 1982, gas prices charged to residential consumers in the city of Philadelphia increased by over 94 percent and in Pittsburgh by over 86 percent.

Rising energy costs, in combination with unemployment, are causing a soaring number of people across the Nation to be disconnected from their gas supply due to inability to pay. In Harrisburg, Pa., cutoffs are up 28 percent from last year.

The energy costs faced by older Americans, especially those at the poverty level, are even more alarming. Older people pay far more for energy as a percentage of their income than any other group—nearly 30 percent of their average incomes compared to 8 percent for the average household. Those who are living on fixed incomes cannot make the substantial financial rearrangements necessary to pay for escalating energy costs or for retrofitting to make their homes more energy efficient.

The elderly poor are perhaps the most vulnerable group of all Americans attempting to cope with gas price increases. The National Consumer Law Center has estimated that after paying his or her natural gas bill, an elderly Pennsylvanian receiving the maximum—and I stress, the maximum—SSI payment of $317.60 a month would be left with only $41 per week for all other living expenses—that is food, that is clothing, that is everything.

Clearly, the present situation with respect to price increases must be addressed by the Congress. When this Nation grappled with the problem of petroleum shortages and dependence on foreign oil, the Congress acknowledged an overriding responsibility to protect the elderly and the most vulnerable in our society from the impact of our national energy problems. We enacted at that time the windfall profits tax bill in 1980, and we did so with a specific commitment to use part of the revenues it generated to meet the energy needs of the elderly and the poor. Frankly, I doubt that this legislation could have passed without that commitment.

So, as we grapple with the possibility of decontrolling natural gas as well as other energy policies, we must remain quite mindful of our continuing obligations to those who cannot readily adapt to price changes.

The purpose of today's hearing is to examine the potential impact on elderly consumers of the administration's proposals to decontrol natural gas. We have asked our witnesses to address three specific issues.

First, we would like to examine the impact of current price increases in natural gas to residential consumers, along with the problems that elderly consumers are having in paying their utility bills, and the extent to which the elderly are threatened by utility cutoffs.

Second, we want to review the effects of anticipated price changes in natural gas under the administration's proposal on the elderly consumer, and the appropriateness of consumer safeguards included in the administration's proposal.

Third, we want to explore the adequacy of current Federal resources that will be needed in the future to offset projected increases in energy costs themselves, and our ability to continue to assist low income and elderly consumers with their energy bills.

Senator John Glenn, the ranking minority member of this committee, Senator Larry Pressler, and Senator Christopher Dodd, cannot be with us today because of prior commitments. They have, however, submitted statements for the record, and without objection they will be inserted at this point.

[The statements of Senators Glenn, Pressler, and Dodd follow:]

STATEMENT OF SENATOR JOHN GLENN

Mr. Chairman, I am pleased that the Special Committee on Aging is holding this hearing today to discuss the effect of proposed natural gas deregulation on elderly consumers. Our hearing has special importance for the 12 million elderly persons across the Nation who depend on natural gas to heat their homes. In recent years, these elderly persons, living on fixed incomes, have had to deal with energy costs that are increasing faster than the overall rate of inflation. While their disposable incomes continue to shrink, many elderly persons have literally had to choose between heating and eating. The proposed deregulation of natural gas presents another threat to the economic and physical health of elderly persons.

The administration's proposal to deregulate all natural gas prices is complicated, and it raises many complex questions. For example, under the administration's proposal, there would be a moratorium on purchased gas adjustments so that pipelines would be unable to automatically pass through wellhead gas costs. Purchased gas costs would be allowed to only increase at the rate of inflation. Additional costs would be allowed only after Federal Energy Regulatory Commission (FERC) approval. How would FERC balance consumer protection with the need to pass through additional gas costs? In the absence of an answer to this question, it is hard to see how the objective of consumer protection would be attained.

Another problem arises with respect to the removal of price controls. The administration's bill eliminates wellhead price controls on new and renegotiated producer/pipeline contracts enacted up until December 31, 1984 and eliminates all wellhead price controls on January 1, 1986. Either party will be allowed to withdraw from any old contract after January 1, 1985. The bill will permit the deregulation of most new gas and certain intrastate gas on January 1, 1985, as currently scheduled under the Natural Gas Policy Act (NGPA). This gas will be subject to a gas cap price during 1985 unless the gas is sold under a contract that is executed or amended after enactment of the bill. Also during 1985, there would be substantial increases in old gas prices since the proposal allows either producers or purchasers to exercise a market-out provision on all contracts. Hence, under the administration's proposal, we could have price increases for old gas and the category scheduled under NGPA. While the Department of Energy (DOE) estimates that the real average wellhead gas price would increase less than that under the NGPA, DOE has not told us what assumptions are made concerning the renegotiation of old gas contracts during 1985. It is therefore conceivable that conditions could arise that could cause a substantial increase in average wellhead gas prices above and beyond those estimated under NGPA.

DOE's analysis of the administration proposal is based on assumptions concerning oil prices, gas demand, economic growth, and the composition of natural gas reserves. DOE claims that their proposal could provide net national benefits in the range of at least $1 to $2 billion. They note that an earlier study based on higher oil prices generated economic efficiency gains of $25 billion. Unlike the present analysis, this previous one estimated rather sharp increases in average natural gas prices. The question thus arises as to how we can have two studies each showing positive net economic benefits, but with one estimating price increases and the other price declines.

Finally, while the administration's natural gas proposal recognizes that there is no simple solution to the disorder in gas markets, its proposal may create more reg-

ulatory problems than it could potentially solve since the role of FERC and its potential importance has been expanded.

There are many additional questions that could be asked about the administration proposal than I have outlined here. In the absence of definitive answers to these questions, I oppose the adminstration's proposed deregulation of natural gas on the grounds that it could have a devastating impact on elderly and other low-income consumers.

A report by the Department of Energy indicates that a majority of the elderly—51 percent of elderly households—use natural gas for their heating needs. While oil prices have been coming down, natural gas prices have been increasing at an alarming rate. Between the years 1972 and 1979, natural gas costs rose a dramatic 150 percent. This increase in natural gas prices compares with an overall increase of 74 percent in the Consumer Price Index for the same period. Since 1980, natural gas prices have skyrocketed even more, an average of 25 to 30 percent. In 1980, the average annual energy bill for a natural gas consumer in the Northeast was $530. In 1981, the annual cost rose to $1,026.

These large increases in natural gas prices have had a particularly heavy impact on low-income and elderly citizens. The poverty rate among elderly persons is 15.7 percent. A disproportionate share of the income of poor and elderly persons goes to pay for energy needs. The Department of Energy has estimated that in 1980 the median poverty-level household used 32.4 percent of its disposable income for energy. The working poor used 24.9 percent of their income, and nonpoverty households used 10.8 percent. During the bitter winter months, elderly consumers in my own State of Ohio sometimes must pay up to 50 percent of their monthly income toward gas bills. And we have all heard the tragic stories of elderly persons who were unable to meet their excessive gas bills, were subsequently cut off from service by the local gas company, and froze to death from hypothermia.

In the late 1970's, Congress took action to alleviate the effects of rising energy prices on low-income and elderly persons by enacting the low-income home energy assistance program and the Federal weatherization program. The $1.975 billion home energy assistance program has helped pay the fuel bills of many low-income and elderly persons. Federal funds are distributed to the States and the States may make three basic types of energy aid under this program: fuel assistance payments, emergency assistance payments, and weatherization payments. I am particularly proud of the innovative "energy credit" program that the State of Ohio has developed, which was highlighted during a hearing I conducted for this committee in Akron in 1979.

The $145 million Federal weatherization program has enabled many elderly persons to practice some "preventive medicine" against their energy bills by making their homes more energy efficient. There are four benefits to weatherization. First, improving the energy efficiency of a home provides greater comfort with less consumption. Second, weatherization improvements are permanent; energy savings accrue each year following a one-time investment. Third, reducing consumption reduces fuel bills for low-income households, thereby lessening the demand for low-income home energy assistance funds. And fourth, weatherization is a labor intensive activity that will put unemployed people back to work. Right now, only 6 percent of eligible households have received assistance under the current program. If $1.5 billion were set aside for weatherization assistance, 1.2 million households would benefit and 61,600 direct and indirect jobs would be created.

Unfortunately, the Reagan administration has proposed a 34-percent budget cut for the home energy assistance program and abolishment of the Federal weatherization program. In addition, the administration proposes to change the allocation formula in order to target funds to States with the most severe winter climates. This formula change could have life-or-death consequences for elderly in Southern States who depend on home energy assistance funds for their cooling needs. It is a medical fact that older persons are more sensitive to extreme temperatures, and have increased susceptibility to hypothermia in cold temperatures, and hyperthermia in hot temperatures. The heat wave of 1980 was responsible for the deaths of 2,000 persons, many of them elderly. Some of the deceased persons died of hyperthermia while an electric fan stood stationary. They were afraid to use it because of rising electric bills. The administration proposal to slash home energy assistance funds and prevent cooling aid is unfair and dangerous.

In conclusion, Mr. Chairman, I believe that the administration's proposed deregulation of natural gas prices and its budget cuts for low-income energy assistance and weatherization raise serious questions about its willingness to provide adequately for the needs of low-income and elderly Americans. I look forward to the testimony from today's witnesses and am confident that the information they provide about

the impact of the administration's proposals will be helpful to the members of the Aging Committee as we attempt to be responsive to the needs of older Americans.

STATEMENT OF SENATOR LARRY PRESSLER

Mr. Chairman, the subject of this morning's hearing is very important and timely, and has special meaning for this country's older Americans. Both as a member of this committee and as a member of the Commerce Committee I have been very concerned about the effect of natural gas deregulation. I have supported legislation to lower natural gas prices by allowing the Federal Energy Regulatory Commission the authority to modify the "take or pay" provisions that currently induce pipelines to buy the highest priced gas, thereby raising prices to an artificially high level.

I am worried about how the residents of my home State of South Dakota will be affected by the administration's new proposal with respect to natural gas. The object, of course, is to bring down the price of natural gas. Past experience with deregulation makes me wary, however, States like South Dakota have suffered disastrous effects from the decontrol of the airline industry, for example.

People in my home State already pay artificially high prices to stay warm in the winter. South Dakota has long, cold winters. Sixteen thousand households in my State received help with their heating bills in 1982. That is almost 10 percent of all the households in the State. A large number of those are elderly households whose incomes are severely limited. On the average, these older people spend about half of their income on energy payments in the winter months.

Sixty South Dakota towns, which comprise about 40 percent of the State's population, are served by natural gas. The Energy Information Administration estimates that 51 percent of the elderly use natural gas as their primary fuel source. I believe that the decontrol of natural gas would have a potentially disastrous effect on older Americans in my State as well as many others. I am extremely concerned about the proposal and I hope that our witnesses here this morning will be able to shed some light on this subject.

STATEMENT OF SENATOR CHRISTOPHER J. DODD

This hearing of the effect of natural gas deregulation on the aged is an important part of the deliberations on the natural gas issue. It is easy for us to get involved in all the economic and technological aspects of the gas issue, but we should remember that there is a human side to any energy issue—that all of us depend on energy for our basic living needs. One of the responsibilities of good government is to insure that those who are most needy and vulnerable to economic pressures, such as many of our senior citizens, are protected from changes that could be debilitating to them. Certainly the recent rises in natural gas prices come in this category.

While I applaud the effort of this administration to develop a comprehensive solution to the natural gas problem, there are many aspects of the administration's proposal that concern me because of their potential impact on consumers, particularly on the elderly and others who might be on fixed incomes. It remains to be demonstrated that this proposal is really in the best interest of consumers. It is not clear, for instance, how the deregulation of old gas, on which much of New England depends, will benefit the elderly in that region. Yet we must be concerned about the potential impact of any proposal on the elderly, for a substantial percentage of low-income elderly benefits are spent in energy bills, and fuel assistance provides at most a third of present energy expenditures in many States. Substantial fuel price increases could have dire effects on our elderly population, who cannot switch their gas lines or their fuels as the free market might suggest.

I hope that through this hearing we can direct the debate on natural gas legislation to these very serious and compelling questions.

Chairman HEINZ. It is a pleasure to welcome for the first time our relatively new Secretary of Energy, Donald Hodel, who has, by everybody's account, in an extraordinarily short time, somehow managed to master the intricacies not only of the Natural Gas Act, but an even greater challenge, the Natural Gas Policy Act and its amendments of 1978. It has been my privilege to have Secretary Hodel before the Energy Committee, where he, I must say, has been equal to virtually every question that that committee has

been able to throw at him, and when he has not, he has admitted as much and gone back and, wherever necessary, relatively few times, to do additional homework.

Mr. Secretary, we are glad to have you here, and I do not know where we are going to come out on the administration bill, but it is a very thoughtful piece of work, and we would very much appreciate hearing from you as you address the issues that this committee is concerned about.

STATEMENT OF HON. DONALD PAUL HODEL, WASHINGTON, D.C., SECRETARY, U.S. DEPARTMENT OF ENERGY

Secretary HODEL. Thank you, Mr. Chairman. I appreciate your very generous remarks, and I wish I felt up to them.

I have spent an inordinate amount of time since becoming Secretary trying to learn about the Natural Gas Policy Act, the Natural Gas Act. I must say it seems that each level of knowledge simply opens new vistas of unknown complexities which I had not previously seen or understood.

I do have a prepared statement, which I would like to submit for the record, if I may.

Chairman HEINZ. Without objection, so ordered.[1]

Secretary HODEL. It is clear to me from the work I have done with regard to natural gas, Mr. Chairman, that there are no easy answers. There are no simple answers, or we would not have had the struggle that we had in 1978 as a Nation, trying to resolve what ought to be done about the natural gas system. We are no better off today, in terms of having simple or easy answers. That is why, in trying to come to grips with this problem, I felt it was important that the administration try to present a comprehensive proposal which was based on essentially sound features.

I have emphasized—and I do not know whether this is wise strategy or tactics, but it is true—that we are not wedded to the precise words of the proposal which we have submitted to the Congress, but rather, we think that the principles set forth there are valuable and essential.

In the broadest context, the issue that is presented to the country is, are we going to have a natural gas supply system which provides an adequate supply at a reasonable price, and words like "adequate" and "reasonable" are to some extent defined within the perception of the beholder. We think what we have proposed reaches those goals more effectively than any alternatives of which we are aware. Obviously, that matter is not free of some argument and dispute; and it will be, I am sure, strongly debated in both Houses of Congress.

I do not think it is necessary for me to review the history, as I have done previously before you, Mr. Chairman, in another hearing, of how we got to where we were in 1978; but we do know that, through a series of controls, the country found itself in the interstate gas market short of gas. The consequences of shortage, the impact of shortage, on senior citizens, homes, hospitals, schools, major cities, industrial activities, and the like, came home to us

[1] See page 15.

with a strong message. We realized something had to be done to stimulate supply. I was not a participant in that process, so when I say "we," I mean the Nation recognized that something had to be done. It led to the extended debate and, ultimately, the conclusion.

The clear, underlying philosophy in the Natural Gas Policy Act was that we had to do something to stimulate production. In order to do that, there was a recognition that there had to be a return on investment sufficient to warrant investors placing their money in exploratory and production efforts in natural gas.

The Natural Gas Policy Act is a rigid price control system, moving toward a partially free market. But, as we have noted on several occasions, in 1985, after the act has pretty much run its course, approximately 43 percent of the gas in the country at that time still will be under price control and will be under price controls until that gas supply is exhausted.

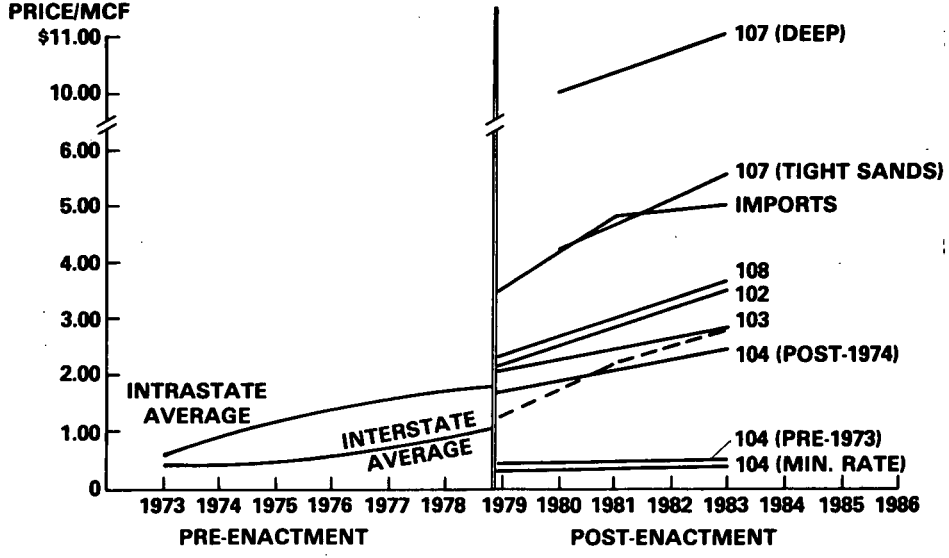
I think it is fairly clear that the NGPA is not working as planned. Chart 1 illustrates what has happened. I think that circumstances changed from what were anticipated under the NGPA, and we have this vast array of gas prices, some of which are as high as $10 and $11 per 1,000 cubic feet, which are so clearly above what the market will sustain today. In a period of surplus, they are simply not able to find a market for gas at those prices.

The average price has gone up quite markedly under NGPA, as shown in chart 2. But, I would submit that was anticipated by the framers of the act and recognized as a needed incentive to the production of supply.

CHART 1

NATURAL GAS PRICE PATH

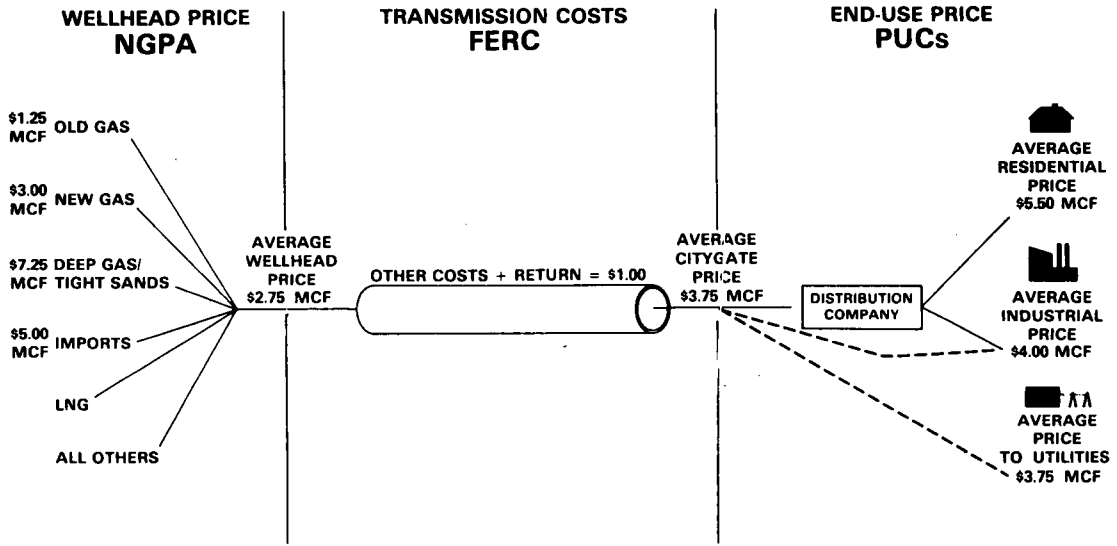
NATURAL GAS POLICY ACT



NATURAL GAS POLICY ACT

CHART 2

THE NATURAL GAS MARKET
(SCHEMATIC)



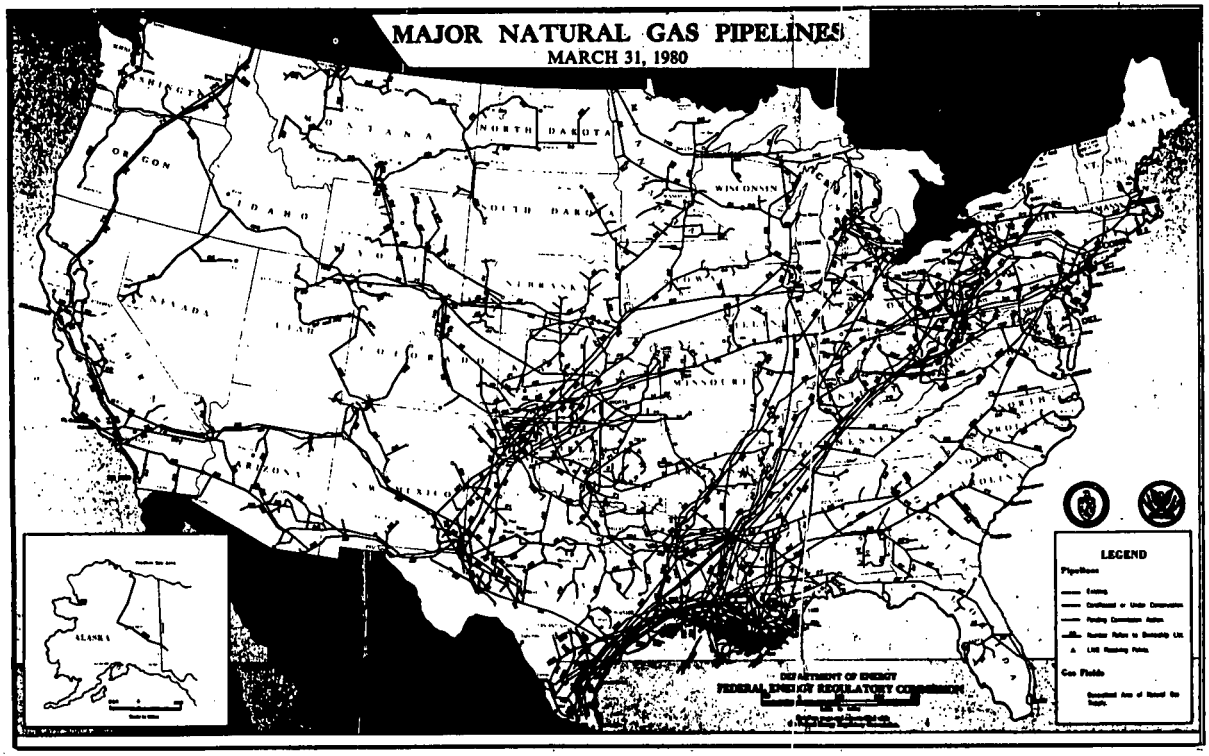
PRICES ARE REPRESENTATIVE FOR PRESENTATION PURPOSES AND DO NOT REFLECT PRECISE ESTIMATES.

U.S. DEPARTMENT OF ENERGY

The rate at which the price has gone up, I think, has been greater than anticipated, Mr. Chairman, and I think this is due to a combination of circumstances. One has been the mix of the gas, because the amount of high-cost gas and the price at which some of the high cost has come in has been higher than anticipated and has had an upward averaging effect beyond what was anticipated. Second, we are all familiar with the take-or-pay contract provisions, which have had the effect, during this period of surplus, of having pipelines actually taking high-cost gas because of their contract provisions, while they have low-cost gas available which they would not take. There are thousands of low-cost wells in the country today which are shut in.

One of the arguments that we encounter is that the gas market is different from the oil market. I have been struck, as I have studied this issue, by the tremendous opportunity for a market between the producer and the pipelines. There are over 200,000 gas wells in the country; there are over 12,000 separate producers. The large producers do not control a large share of the market. Our figures, based on a couple of years of available statistics, indicate that the largest 4 producers own only 16 percent of the market; the largest 16 producers control 42 percent of the market. Those are not figures which normally represent monopoly control or oligopoly control of the market.

CHART 3


MAJOR NATURAL GAS PIPELINES
MARCH 31, 1980
NORTH DAKOTA
WISCONSIN
ALASKA
LEGEND
DEPARTMENT OF ENERGY
FEDERAL ENERGY REGULATORY COMMISSION

The opportunity for competition exists in that market, and chart 3 shows the pipelines in the country. What struck me as I looked at that map, when I became involved in this process, was there are numerous paths which gas can follow to users. In fact, there is a study which indicates that the average distribution company in this country—the one that actually sells the end-user the gas—is buying from two pipelines. Now, this could be in some cases, one pipeline, in some cases, three pipelines, but on average, two pipelines supply each distributing company. If that is true—and I believe it to be true—then that means that no one pipeline's condition is the ultimate determinant of what happens to those separate companies.

Looking at this market and looking at this situation, we concluded there were certain essential features that a piece of legislation had to have. First of all, we had to try to provide freedom to negotiate so that we could move that market toward a free market; second, we wanted to eliminate those disincentives that exist today for low-cost gas to reach the market.

As a society, it makes no sense for high-cost gas to be coming to the market while low-cost gas is available and not coming to the market. None of the proposals that I have dealt with, other than our proposal at the present time, seem to provide the necessary incentive to achieve that. I think it is important for us to remember that.

Finally, while we believe the market will work, and as the market works, the price of gas will drop compared to where it would be under the Natural Gas Policy Act, it is our view we ought not to be asking the consumer to run the risk of our assumption that the market will work. One of the questions that I get frequently, Mr. Chairman, is, "How do you know that your proposal will work?" I can explain why I think it will. Nobody knows how any proposal will work in the real world, where you have 12,000 producers, over 40 pipelines, tens of thousands of contracts, and numerous distribution companies. In the end, individual attitudes and perceptions will affect how it works. We can discuss—and I suspect we will—what I think will happen. But, the fact is, there is no guarantee any of us can make about future actions of individuals. Therefore, we propose a consumer guarantee approach which provides protection to the consumer during this transition period. This approach gives us a chance to review how that market is, in fact, working before there is an opportunity for it to impact consumers adversely, if it did not work as we anticipated.

We looked at consumer guarantees of different natures. We looked at the freeze and concluded that does not accomplish any of the objectives that we are looking for. The freeze proposals that are afoot today, Mr. Chairman, in my estimation, are illusory. No proposals that are afoot today would roll the price of natural gas back far enough that if next winter is a normally cold or colder winter, consumers will see lower gas bills than they have seen this year. Therefore, with a warm winter behind us, or nearly behind us, and a possible cold winter next year, if consumers are told there is a price rollback or a price freeze, they will perceive they ought to have lower prices next year; but there is no guarantee that they will. The net result could well be consumer outrage over the fact

that their prices have gone up when they thought they were supposed to be going down. No proposal, including ours, is immune from that kind of reaction if it passes.

We looked at the windfall profits tax. I was advised by representatives of consumer groups that they have not been happy with the operation of the windfall profits tax on oil. First of all, they recognize now that that price, ultimately, is paid by the consumer. One way or another, we pay for everything in this society, either as taxpayers or ratepayers; and the consumer ends up paying that windfall profits tax in due course.

Second, when the Government takes the money, as you indicated, there were some implied or direct commitments as to how that money would be spent. But, the fact is, when it gets into the hands of the Government, it is massaged and manipulated, and finally, some of it trickles out to the place where it was supposed to go. There are arguments whether it was in the right amounts or whether it reached the right groups the right times to be of assistance, but it is a very thin protection.

The third problem and, I think the most serious, is if we passed some attempts to remedy the Natural Gas Policy Act problem and included a windfall profits tax, the way it operates is that the price goes up, creating the opportunity for the windfall profits tax to be applied. That cost increase passes right through the pipeline, to the distributing company, to the consumer, and the consumer has to pay it. Then we go out and collect the windfall profits tax from the producer who has obtained the windfall and go back through that process we have talked about.

In other words, there is no consumer protection against price rises in a windfall profits tax. So, it seemed to us that was not the solution.

We had another solution we looked at, which was a contract revision proposal. This simply provided a contract provision that the producers who got increased revenues would have to pass them through, in a contract rebate process, to the distributing companies for distribution to those who had received higher gas bills than were anticipated, or planned, or were averaged, or some such calculation. We concluded that to try to implement such a system would—I kiddingly say—probably take four more Forrestal Buildings full of regulators to try to enforce such a proposal. That did not seem like a viable approach. That is when we came up with our passthrough limitation approach, which we feel shifts the burden of responsibility and helps create a real market out there. The pipelines would have an absolute necessity to negotiate for the least cost gas first and try to move that to the market because they would bear the risk that increased prices would be on their shoulders.

Now, there are a number of other provisions in our bill. I know you have heard my testimony before. I suspect most of the people in the room behind me have, also, because I think they do attend most of these hearings. Rather than going into that kind of detail today, Mr. Chairman, let me just comment on the three matters which you identified and sought comments from the witnesses.

First, the impact of the current increase on consumers. As I believe you know, shortly before Christmas I went to Kansas City,

Kans., because I had received a number of visits from delegations from that part of the country telling me about the serious problems in their area. I went out, and I visited the homes of people who were senior citizens, low income, some on welfare, some who had received low-income energy assistance and weatherization funding. I visited with the director of the weatherization program in Kansas City, Kans. It was apparent to me that, as I looked at bills which had gone from $120 per month the prior year to $200 per month already this year, a proposal such as was then under consideration to freeze the prices or to roll them back 6 months, which would have a net effect of saving $10, $20, or $30 for those consumers, simply would not be of a magnitude to help them. Their problem was not $20 or $30; their problem was $80 in that month.

I realized what we were being asked to do at that stage was to turn the whole natural gas system, the whole energy system, on its head and provide price protections for all of us, including those of us who should be paying the real cost of that fuel, in order to protect a small percentage of the people who are in difficulty trying to pay those bills. It seemed to me that where we must go with that is to say that the system ought to be a proper system. If there are people who must have service from the system who cannot afford it, we need to find a way to provide relief to those people, and it ought to be direct relief. I ought not to be receiving the benefits of an energy assistance program by virtue of turning the system on its head and freezing the prices or subsidizing the prices to all consumers. In the long run, that sends all the wrong signals into our system.

I also am aware that there are significant efforts going on in the field to minimize the impacts of cutoffs, to minimize the impacts on low-income families, whether elderly or not. In Kansas City and in other areas, there are local programs involving funding and efforts to weatherize. There are significant efforts put together between the welfare agencies and the gas companies to identify people who may be in those categories, unable to pay their bills, and not merely refusing to pay their bills, so that a cutoff does not occur where a person simply may not be able to pay his bill. There is a real effort to communicate between the welfare systems, the low-income energy assistance programs, and the gas company.

Second, one of the questions you have asked is what would be the effect of the price changes that would occur under the administration approach. Clearly, if I am right that the price of gas would come down somewhat under our proposal, as I believe I am, it would have a beneficial impact. But I do not want to claim too much for that. If the impact would be 1 to 5 to 10 percent at the burner tip, I am right back to where I was. That is $20 on a $200 bill. That will not solve the problem for the people I think you will be hearing from today.

Our proposal aims at trying to rationalize the gas market so that we provide an adequate supply at a reasonable price, and I had said that depends on definition. "Reasonable," it seems to me, does not mean a price that necessarily everybody, every industry, every commercial establishment can afford, but, rather, it is a price that is reasonable in terms of its relation to the cost of development, transmission, distribution, and rate of return on the investments

necessary to transmit it to market. If that reasonable price is above the level some people in this society can afford, then we have to find some other mechanism to soften that, permit transition, move them to other fuels, weatherize their homes, or whatever. But, again, we ought not destroy the whole economic fabric of the system in order to do it. So, let me say, I think the price changes under our proposal, while beneficial, would not be any more sufficient than any of the price changes that I believe can occur under any of the other proposed bills to remedy the problems you identified in your opening statement about the number of people who are today faced with cutoffs or being cut off. The numbers will not change dramatically under the kinds of changes any of these proposals represent.

Third, you asked for some comment regarding the resources necessary to offset these increases that occur. Under the Natural Gas Policy Act, we foresee increased prices. Under our proposal, we see a drop followed by increased prices. If all of our assumptions in this country have been that the lower cost gas supplies are being depleted, that there is not a vast array of new, low-cost gas to be found—although I believe that with incentives, there will be more than we anticipate—it still, over the long haul, will be that we have used up low-cost, medium-cost, and will move on to high-cost gas over the years ahead. As we do that, the general direction of price is up.

What I cannot evaluate, and frankly, the Department of Energy is not, in my estimation, the proper agency to be testifying, is what the need level is of individuals with regard to either financial assistance for energy payments or financial assistance for weatherization. It appears to us that our expertise should be applied in the area of what ought to happen to the energy system. Our expertise can be applied in the area of conservation and weatherization as to what works and what kinds of savings can be expected for what kinds of expenditures. We have numbers indicating that there may be 6 to 12 million low-income homes in this country which are underinsulated. I cannot tell you, and it would be beyond my ken, for the Department of Energy to try to advise you how many of those are low-income, how many of those are senior citizens, or the like. But, it seems to me, this is the kind of thing which other departments of the Government work with time and time again, day in and day out. It seems to me it is proper for them to be considering those questions.

What I am trying to focus on with our bill is an effort to rationalize that system. We look to this committee, and to others within the Government, for guidance on those other questions, which are really beyond the scope of this bill.

With that, Mr. Chairman, I would be happy to entertain questions.

[The prepared statement of Secretary Hodel follows:]

PREPARED STATEMENT OF DONALD P. HODEL

Mr. Chairman, it is a pleasure to have this opportunity to meet with you today to discuss the proposed natural gas legislation and its impacts on our elderly citizens. We understand your concern that the proposal should adequately address consumer interests, including those of the elderly.

The administration is committed to insuring that an adequate supply of natural gas is available to all consumers at reasonable prices. Decades of Federal price controls have resulted in inefficiencies and inequities. The complex regulations that govern natural gas markets have produced conditions, reflected in contract terms between producers and pipelines, which are not responsive to current market realities. Today's producers have few incentives to develop low-cost gas resources. As a result, gas prices to consumers continue to rise, despite the availability of plentiful supplies, and consumers are paying more than we believe they will in a free market.

The most efficient means for assuring that consumers, regardless of financial circumstances, have access to adequate supplies at reasonable prices, and that producers have incentives to develop natural gas resources, is to remove impediments to the free market. This is the long-term goal of our proposed legislation. At the same time our bill contains provisions to ease the transition from regulation to a free market. As we explored all of the facets of the natural gas issue with consumers (including the elderly), producers and suppliers, we concluded that the transition to a free market must be based on three key principles:

(1) Freedom to negotiate new contracts which operate on their own terms.
(2) Elimination of disincentives to produce and sell low-cost gas; and
(3) Consumer protection.

Consumers have faced substantial increases in the price of gas since the passage of the Natural Gas Policy Act, and we know that movement to a decontrolled market raises concerns, particularly among those on fixed incomes, that prices might continue to increase rapidly. The decontrol of oil prices raised similar concerns, but our experience in the 2 years since the President removed petroleum price and allocation controls demonstrates the benefits of a free market policy.

Our analysis of natural gas markets and the effect of the proposed natural gas legislation indicate that we can expect similar results for natural gas prices. We fully expect that under our proposal, natural gas prices will actually decline. Under current market conditions, we expect that our bill will result in a decline in the national average price of gas between 10 and 30 cents per 1,000 cubic feet in the first year after enactment. Our estimates indicate that the administration's proposal will result in prices that are 20 to 40 cents lower than prices that would occur under the NGPA.

Decreased gas prices will reduce the rate of inflation by a small amount both directly and by reducing the cost of goods and services which are produced with natural gas. Other benefits of our proposed legislation include an estimated decline in oil imports of 100,000 to 200,000 barrels per day in the first year following enactment.

In summary, we project that our proposal's benefits to the consumer through 1990, compared to what would happen if the NGPA played out, will be at least $7 billion, using a discounted present value. It is obvious that a decline of only a few cents in the price that would be expected under NGPA has substantial and beneficial effects on costs to consumers. Despite our confidence in these conservatively based estimates, we do not expect consumers to rely on our analysis solely as a matter of faith, and we have therefore included provisions to guarantee consumer protection against unreasonable price increases.

Under our proposal, pipelines will be prohibited from automatically passing through to customers price increases above the rate of inflation. Gas costs that exceed the rate of inflation must be examined and approved by the Federal Energy Regulatory Commission in a public proceeding before they can be passed on to consumers. In addition, cost increases in excess of inflation cannot be put into effect subject to refund—an important departure from present practice that will reinforce the consumer protection features of our proposed bill.

As further protection to consumers, we are proposing a "gas price cap" based on the average price of gas purchased through new and renegotiated contracts following enactment. This provision will benefit consumers by assuring that prices are responsive to market forces.

While our legislative proposal is aimed at protecting all consumers from excessive gas prices, we are sensitive to the problems of elderly citizens with fixed and low incomes who are particularly vulnerable to rising gas prices. According to the most recent data available to the Department of Energy, more than 12 million households headed by individuals 60 years or older use natural gas as their main heating fuel. Of these, about 3.6 million, or 28 percent, have incomes below 125 percent of the poverty line.

The human concerns behind these statistics were apparent during my trip to Kansas City just before last Christmas. In my efforts to find out how individual consumers were dealing with natural gas prices, I visited a variety of homes in several

neighborhoods throughout the city. I found senior citizen, low-income households spending a high percentage of their monthly income on their gas bills. The problem for these people is not saving a few dollars—$10 or $20. It is not uncommon for elderly families to have energy bills of $200 or more per month during the peak of the winter heating season. We cannot expect a price control system to be able to provide the level of assistance needed to help these families. Similarly, the entire system cannot be turned on its head in a vain attempt to help a few. We believe there are other ways to solve the problems that exist.

It is important to distinguish the problems our bill addresses and the special difficulties faced by those whose incomes are not sufficient to provide life's basic necessities. Legislation to assure adequate, reasonably priced supplies of natural gas cannot—and in my judgment, should not be expected to—address problems which may only be amenable to handling through income maintenance programs. The Federal Government has proven itself to be inefficient and ineffective in its attempts to regulate the marketplace, especially when a massive regulatory structure is imposed in order to solve the problems of a small number of persons. Realistically, control proposals do not exist which will cut the price to a level which will help those in need of assistance. And if they did exist, a natural gas shortage would be guaranteed to America in short order. Programs which seek to restructure the market through regulation do not solve the low-income problem, but they do deny the benefits of the free market to consumers at all income levels. Assistance programs, on the other hand, do offer an appropriate response to low-income needs.

As we attempt to protect all of our citizens including the elderly and those on fixed incomes, it is important to remind ourselves from time to time that all of these problems cannot be completely solved by the Federal Government. There is even greater potential for solutions when a cooperative effort is undertaken in conjunction with State and local governments and the private sector.

As an example, the citizens of Kansas City, Mo., have demonstrated a strong commitment to low-income residents by initiating a multimillion dollar weatherization program to weatherize 1,000 homes by the fall of 1983. Support for the program is provided through $1.5 million in cash contributions from the business community, building materials supplied at cost by local merchants, labor provided at a reduced rate by union craftsmen, and supervision from a local contractor at no charge. The project was made possible, in part, by the State of Missouri's 50 percent State tax credit for weatherization.

The effort clearly demonstrates to me that cooperative efforts between government, business, labor, and service organizations represent the best approach to solving community problems. These are the kinds of programs we must consider to assist those who require a helping hand, including low-income elderly citizens faced with natural gas costs they find difficult to manage. Finally, I believe that the job of assisting the elderly would be made easier by enactment of our proposed legislation.

The natural gas issue is of great concern to all of us, not just the elderly. We have proposed a comprehensive solution that I am convinced will work well and provide substantial benefit to all of this Nation's citizens. I look forward to working with the members of this committee in obtaining serious and expeditious consideration of our proposal. I will be happy to respond to your questions and comments.

Chairman HEINZ. Very well, thank you, Mr. Secretary. I am going to come back to your last comments in a minute, but I want to try and pin down what we might expect to happen under the administration bill.

You say that you do expect prices to moderate somewhat if the administration bill is adopted, and your rationale for that is that you will limit the take-or-pay contracts, you will modify some of the price escalators, and you will enact some consumer safeguards limiting passthroughs; and you also, in addition, propose a gas cap that will result in a level of protection.

If a gas cap is proposed temporarily under the administration proposal, why not simply put in a ceiling for the next year, rather than leave it up to this floating cap?

Secretary HODEL. The theory and what we want to do is move toward the free market, and that the determination of what the market is ought to be the newly negotiated and the renegotiated

contracts that take place out there in the marketplace. That is why we propose to do that, rather than to pick a figure or peg a figure and establish that as our cap.

Chairman HEINZ. I am advised Senator Percy has to get back to the Foreign Relations Committee, and I would be very happy to yield to him for any statement or questions that he would like to ask at this time.

STATEMENT BY SENATOR CHARLES H. PERCY

Senator PERCY. Thank you very much, Mr. Chairman.

First, I would just like to say, for the Senate record, and to the board of directors of the Alliance To Save Energy, the hundreds of corporations and foundations that have contributed to it through the years, and the five Cabinet members who are honorary chairmen including Don Hodel as Secretary of Energy, who serves as the honorary chairman for energy, how deeply grateful I am for your accepting the chairmanship of that board. It is one of the most distinguished boards in the country. We did have a meeting in which Secretary Hodel and I participated—due to your unfortunate illness that day, you could not be with us—but we passed out awards to 48 major corporations, and Secretary Hodel stood right there and shook hands with each corporation head to thank them for their dedication to conservation, and to making this Nation a more energy-efficient Nation. We paid tribute to the Advertising Council, also, for contributing $115 million of free radio and television time, since we began that program with Gregory Peck. The opportunity I will have to act as cochairman with you on the alliance board, as well as to continue work on this committee, is one of the most meaningful parts of my Senate career.

I would like to just simply say, however, that all of us in the Senate and the House are receiving tremendous numbers of letters expressing concern and frustration by people who are just exasperated and literally shocked by their recent gas bills. Consumers and businesses in Illinois have faced as much as a 60-percent increase in gas bills over the past year, and 65 percent of the 11.5 million people of that State live in homes that burn natural gas. Elderly people on fixed incomes have been particularly hard hit by these increases. They face a no-win situation. They are forced to pay more to heat a home. They have to take money away from other necessities, like food or clothing. Sometimes, they turn thermostats way down at serious risk to their health.

I am going to be with my 90-year-old mother this weekend, and I know once again—though she promises each time I come to see her that she is not going to do it—that she will raise the question of her gas bill again. The last time she did it, which was last weekend, she just held it up and said, "How can other people who live just on social security turn the thermostat down? At our ages, we cannot do that. I am bundled up in sweaters. I am trying to save energy, but my bill has doubled, and this has been a mild winter."

So, if I get it from my own 90-year-old mother, I know I will get it all from across the State. People are really confused about these prices. A growing number of them simply cannot pay their gas bills. For them, March 31 is the day of reckoning. Suddenly, they

will face many months' worth of debt and in some cases may even find themselves shut off.

Yet, despite this situation, the administration wants to decrease funding for low-income energy assistance by roughly a third in 1984. They propose to eliminate entirely the low-income weatherization program. They say they want to reprioritize these funds. But I say "reprioritizing" means "to reduce," and we just simply cannot do this. I cannot allow them to neglect the more than one-half million low-income elderly people in Illinois who qualify for this assistance. Twenty-five of my colleagues, including Chairman Heinz and several others on this committee, recently joined me in sending letters to the chairmen of three Senate committees, expressing strong opposition to any proposals to cut these funds. I am confident that Congress will not let these funds be cut.

Yet, I recognize that funding for these programs only provides a part of the answer. We must address the fundamental disorder in the current gas market, which has resulted from a very complex regulatory system. As we all know, we are faced with a sluggish economy and a sluggish demand for natural gas. Low-priced domestic gas supplies are not being sold. At the same time, consumers are paying immense prices for new, expensive supplies of natural gas, sometimes from exotic sources. Why? Because Government regulations have discouraged cost-cutting efficiency and enabled pipelines and others to simply pass extra costs on to consumers. In normal economic times, this would be foolish, but in a time of recession and high unemployment, it is really what people consider an outrage.

The problem must be dealt with, and prices must be brought down, particularly when in a free market now, oil prices are crashing down and OPEC is in a disarray. We are glutted on one side, and yet gas prices continue to skyrocket. I know this is a matter of concern to the Secretary.

The administration has submitted a proposal that says it will remedy these market disorders. However, they have yet to really clearly show how the proposal will affect consumers, and in particular the elderly, who have been hardest hit by these price increases. That is why today's hearing is especially important. In addition, the administration proposal does not address an issue which is affecting millions of elderly in the State of Illinois today—the continued import of natural gas at extremely high prices. In Illinois, 101 of our 102 counties receive imported gas at prices 2 to 3 times those for domestic gas. Why should elderly Americans be asked to pay these outrageous prices? There is no good reason.

That is why, along with nine of my Senate colleagues, I have introduced a resolution calling on the Secretary of State, with assistance from the Secretary of Energy, immediately to enter discussions with nations presently exporting natural gas to the United States, and to report back to the Congress on the progress of these discussions within 30 days. In addition, Senator Dixon and I have introduced a bill which would set an upper limit on the price of regasified, liquefied natural gas. We are sending as clear a signal as possible to our trading partners that we cannot tolerate unreasonable gas prices any longer.

And, speaking as the chairman of the Foreign Relations Committee, Mr. Chairman, I have met individually with ministers and/or ambassadors from all of the affected countries—Canada, Mexico, and Algeria; they are the countries that are exporting and sending in natural gas to us. The price for Canadian gas at the Toronto gate is half the price at the Springfield, Ill., gate, when the gasfields of Canada are closer to Springfield than they actually are to Toronto. We are paying twice as much, but on Algerian natural gas we are paying three times as much as domestic prices, and domestic producers are shutting down wells because they do not have the market for them.

This winter, Mother Nature was the best friend we have had. We are really grateful for this mild weather. Throughout the eastern half of the United States, including Illinois, we enjoyed the mildest winter weather in years. Next year, the cold winds could once again blow, the snowdrifts pile high, and the gas prices and gas bills rise to unaffordable levels. Mr. Chairman, we in the Senate must not rest until we have tried to figure out, in partnership with the administration, what can be done about this, and one part of it is the movement forward in renegotiating these contracts.

We have negotiated gas prices steadily in the past up, up, up. Now it is time to take into account that there is an excess supply, and the market ought to rule. With that glut on the market, those prices ought to come down, particularly when its counterpart oil has been coming down.

I have just two questions, if you could yield for those.

Chairman HEINZ. Please proceed.

Senator PERCY. I have received a petition, Secretary Hodel, from a town I am sure you know about—Roodhouse, Ill. Roodhouse is a small town near Springfield, Ill. The petition was signed in this tiny town by 1,150 people, 90 percent of the registered voters of Roodhouse, Ill. Their gas bills went up by 65 percent over the past year. They are angry, they are confused. I have received similar petitions from other cities and towns across Illinois, and I know my colleagues have in their own cities.

What will the administration bill do for Roodhouse, Ill.? Can you tell me specifically what effect it would have on gas prices in the Midwest, and in particular, they want to know what is going to happen next year if Mother Nature is not quite as good to us.

Secretary HODEL. Senator, those are excellent questions. I was struck as you spoke about this problem, particularly with regard to the elderly, about what I think is often overlooked by those who are not familiar with the problems of the elderly. That is they are more hard pressed to retain their health in cooler rooms. My wife's grandmother, who is 100 years old, lives with us. It is apparent that she needs a much warmer climate than we can tolerate, and we have to make provision for that. So I am acutely aware of that problem and am sensitive to it, as circulation problems arise with advancing age.

Let me answer the question you raised with regard to what will this do. In our view, our proposal will have a downward pressure on the price. Our midrange estimate indicates that, through the dual effect of the price cap and the passthrough limitations which we propose—assuming higher oil prices than exist today, which

will have further downward pressure on the gas prices—we would see drops of 5 percent at the burner-tip in the bill, when compared with a continuation of the NGPA. The point I made, I think shortly before your arrival, is what concerns me is that this bill, and I think other bills before Congress, will not roll prices back far enough that, if we go from a warm winter this year to a cold winter next year, as you raise the point, that the actual outlay per month per consumer will be less. It may be less per unit, but a 5- or 10-percent decrease in unit price is more than eaten up by a 15-percent colder weather, which could easily be the case, or worse.

Further, all we have been talking about are the gas portions of the price. In actuality, we estimate that in this last year, of the price increases that Roodhouse, Ill., and other areas have seen, on average in the country, only 50 percent of those price increases have come as a result of gas price increases. The other 50 percent has to do with the transmission costs, the distribution costs, and so on. That, of course, varies from place to place. I do not know specifically, in the case of Roodhouse, Ill., whether that is an exact ratio. Nonetheless, a portion of the 65-percent increase that they have seen will have been gas; the remainder may well have been other aspects of the cost of distribution.

I assume that Roodhouse, Ill., also receives a significant share of that high-cost Canadian gas, it being in that area. I do not know that that is true——

Senator PERCY. Right.

Secretary HODEL. But if that is true, thanks to your leadership and the leadership of others in the Congress, and our determination to work with importers, I believe there is a distinct recognition on the part of Canada, particularly, that something does need to be done about that border price.

Now, Canada has sent several strong signals that they want to be a part of natural gas supply market to the United States. They have recently indicated that 9.3 trillion additional cubic feet of gas will be made available for export to the United States from Canada. In the face of a temporary surplus situation, such as we have today, and the clear recognition that something has to happen to our prices, and that market clearing price is well below $4.94, I think that is a clear signal from the Canadians they are prepared to negotiate such prices as are necessary to be competitive in our market.

One cautionary note: They have a very difficult time, politically, explaining to their people why they ought to reduce their price of gas below the price of gas which we are also purchasing from domestic producers in the United States.

For instance, as was shown in chart 1 [see page 8], some gas now is being bought at $7, $8, $9, $10. Some of this deep gas that is being bought at those prices is well known to the Canadians, so that the Canadian leadership is in a position of going to the Canadian people and saying, "We want to drop the price in order to remain competitive in the United States." The answer from their own people is, "But the Americans are buying gas at $7 from their own producers, in some instances."

One of the things that I think would occur from the passage of our proposal would be to move us toward a national market clear-

ing price, which would be well below $4.94. I think the Canadians would be prepared to meet that price, and that would have a significant effect on Roodhouse. Whether it would be enough to offset a cold winter, I simply do not know. As I suggested to Senator Heinz earlier, it seems to me that, if any system we employ involves increasing prices over time, even if there is a temporary dip, if the long-term direction is increased prices, we need to identify those people in this society who cannot afford to pay the price and find ways to assist them. We should not turn the whole economic system on its head and provide lower cost prices for those of us who can afford and should be paying the true costs in order to protect a small percentage of people who cannot afford to pay the cost. We need to find ways to do that.

Senator PERCY. Thank you very much, and I take it that unequivocally, you have come down on the side that gas prices imported into this country are excessive now and that we ought to move very rapidly, and I can assure you of the full cooperation of the State Department. Having talked directly to the producers, ministers, ambassadors in Canada, and other countries, they are cognizant of this. Canada wants to keep their 40-percent share of this market. It is 40 percent of their exports into the United States, and they know as a free market country, that they cannot keep that share of market if people are going to convert. I mentioned in another hearing that one major industrial plant is going to lay off 135 people. He is going to shut down, and he is going to convert from his natural gas facility, because he cannot make money and he cannot stay in business at these prices. He is out. So he is going to lay 135 people off for months while he takes the risk of converting over, just for the purpose of getting another source of energy for that plant. And that is being manifested across the State.

One last question—and I do hope, Senator Heinz, that you, in your new capacity as chairman of the Alliance To Save Energy, will take a look at the very high rate of return on investment on retrofitting. We know when we go into public housing, when we go into low-cost homes, when we go into homes that are getting refinanced now, as part of the recycling of the so-called windfall profits task, that we are paying a part of their cost. We can get our money back by retrofitting, helping them finance it somehow in 3 years. That is the highest payoff. I have never been able to make a third of that on my money when I worked in industry. That is the biggest single payoff we can make. Take rural communities and homes and look at the desperate condition of farmers today, with liquidations, bankruptcies, and so forth. They cannot afford to put that money in, yet those farms were built on very cheap oil, cheap heating costs, and they need to be retrofitted and tightened up. We will get the money back in less than 3 years on rural housing, and we have somehow got to work with the private and public sector in combination, to see that we do bring our dwellings—90 million of them—up to a standard that will mean that we are energy-efficient.

A final thing. The ERA decision in the *Trunkline* case said DOE needed up to 6 months to decide whether LNG prices are too high. Is that 6 months really needed any longer? You have already indicated how high they are. If the Canadian prices are high at double

the price—that is, $6.78 in Springfield against $3.39 in Toronto when Toronto is farther from the fields—then LNG, at three times the domestic price, must be high—why do we need 6 months to decide that this is high? Can't we decide it right now, save the 6 months, and then move into what we do about it with our friends in Algeria—and I say "our friends in Algeria" very seriously, because they have been marvelous friends of this country. In our hostage situation alone, they stood up like no other country did at that point and helped us. We want to keep a market with Algeria, but we cannot at these particular prices and insure them they are going to be in this market very long.

Secretary HODEL. Senator, with regard to that decision, the fact we are moving out of the winter heating season, and the fact that we believe those most directly involved in the process are best able to come up with proposals, we think 6 months provides the negotiating time that is necessary. I think ERA sent a fairly strong signal to them that a negotiating activity is clearly needed or some actions will be forthcoming. I think there is no question about the messages being sent from Congress. I think that also helps clearly in that negotiating process.

It is our hope that will take place. If it does not take place, we will know well in advance of next fall. I think that gives us an opportunity to deal further with them.

Senator PERCY. Fine. Thank you very kindly. And, just so I have discharged my obligation to at least one city, Roodhouse, Ill., I would ask that the letter from Girard R. Phillips, who is the president of the Ministerial Association of that great little city who has sent the petitions in, be incorporated in the record at this point.

Chairman HEINZ. Without objection, so ordered.

[The letter referred to follows:]

ROODHOUSE MINISTERIAL ASSOCIATION,
Roodhouse, Ill., February 21, 1983.

Hon. CHARLES H. PERCY,
U.S. Senator,
Washington, D.C.

DEAR SENATOR PERCY: Our community of Roodhouse, like many others, is plagued with an exorbitant increase in natural gas prices. Our rate is 65 percent higher than 1 year ago. An additional 15 percent increase is approved for March 1, 1983. These increases are too absurd for words.

This situation is creating impossible problems for many of our citizens. Limited incomes cannot absorb such increases. We have, so far, experienced a mild winter and it has been a God-send. A severe winter at these prices would have created a totally unmanageable set of financial, medical, nutritional, and stress-related problems.

The enclosed petitions containing more than 1,150 individual signatures reflect the anger, fear, and helplessness which we feel. We have 1,280 registered voters in Roodhouse. Obviously, the spontaneous response is very high.

It seems that our consumer interest "watchdogs" have turned on us in favor of an industry which is not responsive to the free, competitive marketplace. You did not create our problem, but we sincerely hope that you will use every power at your disposal and every available influence to help correct this hopelessly oppressive situation.

You have asked for the privilege of representing us, your constituents. We desperately need for you to fight in our behalf in this crucial issue. May we count on your help?

Yours very truly,

GERALD R. PHILLIPS,
President.

Senator PERCY. Thank you very kindly, Mr. Secretary, and I again will enjoy working very closely with you and your very able staff on these particular matters, and we appreciate your dedication.

Secretary HODEL. If I may say this, Mr. Chairman, I was struck at that meeting with a story which you told, Senator, about the difference in the beneficial impact of millions of pounds spent by the Government in England, in their own interpretation, and the difference in the beneficial impact on conservation among the people who saw those ads. With the private sector activity you carried forth—$300,000 is the figure that comes to mind—you have obtained not only a first-class commercial, which does not say, "This is brought to you by the Department of Energy," which would probably turn a lot of people off; but, you also obtained $115 million worth of advertising time. If it had been a Federal program, I am sure the commercials would have been neither as good nor as effective, and we would have had to pay for much of that time, I fear, and it would have been nowhere near as successful.

I think it is a tremendous tribute to what you have done and to what the alliance has done, and I am delighted that Senator Heinz is on that committee.

Senator PERCY. Thank you very much.

Just so that it is on the record, then, as to what obligation the new chairman has——

Chairman HEINZ [interrupting]. I am in trouble. [Laughter.]

Senator PERCY [continuing]. We had approved a resolution in your absence to raise $300,000, separate from our budget, to do another Gregory Peck series. He has offered to volunteer his time. We have used his time for so long now. But the advertising council says that the $300,000 investment, will bring another $100 million. The support is just unbelievable. The radio stations and the TV stations found those ads to be the best. And the Minister of Energy came in from Great Britain to see me and talk about this. He said, "We spend 12 million pounds a year, but we must put the logo, 'Ministry of Energy' at the bottom." He said, "We get a 60-percent negative response. There is the Government, telling us once again what to do." We surveyed, and we have not had a single negative response. Here is Gregory Peck, saying, "Let's not blow it, America. Here is a way you can fit in to create greater energy efficiency, save money by saving energy, and be also a more secure Nation." We have done this in the private sector with the encouragement of the Department of Energy and their support. Secretary Schlesinger said to me, "Without the Alliance To Save Energy, I could not possibly do my job as Secretary of Energy. You supplement our efforts so effectively."

We look forward to assisting in every way we possibly can, the tremendous responsibility you carry.

Chairman HEINZ. Senator Percy, before you leave, I would just like to correct the record in one respect. The Alliance To Save Energy was your brainchild, and it has proven, as Secretary Hodel has said, to be one of the most outstanding examples of what citizen and corporate participation efforts can achieve. In my judgment, you deserve about 110 percent of the credit for its success. It is absolutely remarkable what it has been able to achieve. I hope

that we will be able to achieve a satisfactory result, measured against what you have done.

Senator PERCY. I would like to tell the story of Hubert Humphrey, when I went in to see him and said, "Here is an idea. It should be bipartisan. Will you, with the tremendous responsibilities you have, be the cochairman?"

He thought for a minute, just looked out the window, and I thought, well, he was thinking up some reason to say no. He turned to me and said, "Yes, I will do it. It could be the most important single thing I do in my lifetime."

And, thinking back on his useful lifetime, I said, "Hubert, when was the last time you said that?"

He said, "Yesterday, about 2 o'clock." [Laughter.]

He did a tremendous job, and I would strongly recommend we select a cochairman among our Democratic colleagues to continue in that bipartisan spirit. I think you will find it a rewarding and satisfying effort, and it dovetails very beautifully with your work on this committee and in the Senate. The alliance shows the way this country really operates—Government working with the private sector, and here, we have pooled all of them together—labor, management, philanthropy, et cetera—to solve a national problem.

Speaking from a foreign policy standpoint, there is nothing more important for our security. If we were cut off right now in the Straits of Hormuz—if a stick of dynamite went off in there—that strait would be out of commission for 2 to 3 years. There is no way we could put it back together. It would literally cripple our economy and our national security, and would bring Japan to its economic knees. We have spent $18 million now to just protect it with rapid deployment forces. That is how dependent we are on energy, and that is why our Governmental Affairs Committee created a Department of Energy. This is the same Governmental Affairs Committee which the President's request to abolish the Department has to go through. I am going to study that proposal very carefully for at least another 2 years. It may be 6 more years, before we report that bill out.

Chairman HEINZ. Thank you, Senator Percy.

Secretary HODEL. Mr. Chairman, as Senator Percy leaves, I perhaps should note that as of this time, Senator, we do not have a renewed reorganization proposal before the Congress.

Senator PERCY. That is the best news I have ever heard. Thank you very much.

Chairman HEINZ. Mr. Secretary, I am tempted to ask whether that was a quid pro quo for your taking the job, but I will not do that.

Thank you very much, Chuck. We appreciate your coming.

On page 3 of your prepared testimony, Mr. Secretary, you estimated that under the terms of the administration proposal, the benefits to the consumer through 1990, would be about $7 billion more than what you would anticipate if we allowed the NGPA to play itself out.

In contrast to that, a number of consumer groups claim that your proposal will mean a 60-percent increase in residential gas bills over the next 4 years, and that decontrol of old gas alone will add $40 to $50 billion to the Nation's gas bill. One of the argu-

ments they make is that the prices of old gas will go up, and that the prices of so-called new gas will not come down.

How do you respond to your consumer critics?

Secretary HODEL. First of all, I do not think there is any way to reach the numbers they reach if they have read our bill. Our bill quite clearly does not permit that passthrough to take place. More importantly, they must make some incredible assumptions about the market. Just because gas prices are able to rise when there is a surplus of supply over demand today, because we have a controlled market, I think they assume the same thing will somehow occur in a decontrolled market.

Now, what we have learned in every market situation that I am aware of, including the oil market, where there is an excess of supply over demand, the price comes down. The only place that has not been happening is in natural gas, because we do have these controlled prices which have become floors, not ceilings. In fact, all the NGPA levels became floors.

When you look at the analysis, and you analyze what the market clearing price for gas should be today, it should be lower than the prices that NGPA is providing. What is happening today is we have a continuum in the prices of gas. We have some low-cost gas, which is at a fixed price and under the present law may not be increased. We have intermediate-priced gases, on up to very high-priced gas. The incentives under NGPA have been to go out and look for and try to market the high-cost gas. Now, if we had a magic wand today and we removed all controls on price, but did not deal with the contracts, then there could be what was called a fly-up; there could be this rapid rise. Obviously, we dealt with this in our proposal, and I know you dealt with it in yours. Efforts to recognize those contract provisions must be dealt with if you seek to permit the market to operate.

If you followed what would happen under those escalator clauses and continued take-or-pay clauses, you could come up with all kinds of horrible examples. It would not surprise me if the numbers looked like that $67 billion. But that cannot happen under our proposal.

Chairman HEINZ. Mr. Secretary, may I interrupt you at this point?

Secretary HODEL. Surely.

Chairman HEINZ. I have some questions about the way the bill actually operates, and I think that we ought to focus on that. Frankly, I know that the discussion as to what happens over the longer term becomes progressively more speculative. None of us can predict the future. Let us then focus on the short term between now and January 1, 1986. It is for this period that there are a number of provisions in the administration bill that appear on the surface to have some consumer protection functions associated with them.

One of the things that you have pointed to, as I understand it, is that the interim accountability standard freezes a pipeline's purchase gas adjustment, its PGA passthrough, at an allowed rate that is defined as a pipeline's average cost per 1,000 Btu for gas delivered in the month prior to the enactment of S. 1615, plus an inflation adjustment. Do I understand the legislation correctly so far?

Secretary HODEL. I believe you stated that correctly.

Chairman HEINZ. Now, apparently, this allowed rate portion of the purchased gas adjustment is subject to no FERC review at all. The pipeline may exceed its allowed rate if FERC issues an order allowing such a rate. The Commission also must allow such rates if it determines that costs are just, reasonable, and prudently incurred. Am I correct so far?

Secretary HODEL. Let me clarify something. The first question you asked had to do with inflation, and that goes through automatically. So you have the pipeline's current price plus the inflation factor; that passes through. Any amount in addition to that would have to be approved by FERC in a public proceeding with standards which are different from the standards that now apply to their retrospective view of PGA's.

Chairman HEINZ. And how would you characterize those standards?

Secretary HODEL. "Just and reasonable and prudently incurred" are the words of the statute. We also have in the statute additional language which goes on and says, "In making this determination of what is just and reasonable and prudently incurred, the Commission"—meaning FERC—"shall consider the reasonable availability of lower cost supplies to the pipeline, and the necessity of such costs"—these would be the increased costs—"for the pipeline to render adequate service to its existing customers"—not future, but existing customers.

We think that provides a definitional framework for "just and reasonable and prudently incurred," indicating they have to be looking for those low-cost supplies. They cannot be doing what is happening today, shutting in low-cost and taking high-cost gas.

Chairman HEINZ. Well, here is the problem I have. The allowed rates under your proposal for pipelines which have been purchasing high-cost gas—Senator Percy has given an example of high-priced gas; we have them all over the United States, as you know—while shutting in supplies of low-cost gas because of unreasonable contract commitments or poor management, the fact is that the base on which all these additional price increases would be allowed would be the base that exists today, which includes that very high-priced, in my judgment, unreasonably high-priced, and imprudently committed for, gas. So it would seem also, not only does that therefore perpetuate the problem that we now seem to have, but it would also seem to me that between now and the date of enactment in this legislation, that it would be in a pipeline's best interest to raise the purchased gas adjustment as high as possible in order to assure itself an allowed rate of the highest proportions.

Secretary HODEL. With regard to the last point first, let me say this is a reason why the sooner any legislation on this subject is passed, the better the whole system will be. Second, if it appears during the course of debate on a proposal relating to natural gas that that kind of activity is, in fact, taking place, I suspect the remedy would be relatively simple. What one would do is to move back the date to some prior date. In other words, you might go back to the date of introduction of such legislation or an arbitrary date, such as January 1, 1983.

Chairman HEINZ. What about the issue of locking in the currently high base?

Secretary HODEL. If the contract is not renegotiated by the pipeline, the pipeline's price will be capped at the lower of the NGPA levels, which would presumably be its current level, or the average of the newly renegotiated contracts or new contracts out there in the market. We believe that would have the effect of driving that price downward. I believe in the case of a newly negotiated contract, what you say, I believe, is accurate, that the pipeline would have as its locked in base point that higher average.

Now, there is one other factor here that applies to that. The inflation factor is calculated on an average gas price. So, if inflation goes up—say the average price is $3, and inflation is 10 percent—that would be a 30-cent increase. A 30-cent increase would be allowed to all pipelines. A $2 pipeline would have a 30-cent increase, which is in effect a 15-percent increase for that pipeline. A $4 pipeline would have a 30-cent increase, which would be a 7½-percent increase for that pipeline. So, there is a tendency toward leveling in the way the inflation factor applies; but, in the broader sense, you would have a pipeline base price against which FERC would apply this test at a higher level.

Chairman HEINZ. Now, one of the things you mentioned——

Secretary HODEL. May I say one other thing in that regard?

Chairman HEINZ. Excuse me; yes.

Secretary HODEL. However, when that pipeline comes in with any increase, it may have the effect of freezing the price for that pipeline. If we are correct about what will happen, that pipeline will have access to lower priced gas out there in the market. It will not be able to come in with price increases in excess of inflation for the foreseeable future until the national average reaches that level. So, it would have a tendency to freeze that price, because they could not make a showing to FERC, presumably, that they should be charging higher prices.

Chairman HEINZ. The problem is that if gas prices stay where they are or go up with an inflation adjustment, an extremely critical situation will be created for the distribution companies in States, such as my home State of Pennsylvania. Since August of last year, the price of delivered industrial gas has been above the market clearing price for alternative fuel oil. That means, of course, that shifting is occurring, and more will occur. The result, as I am sure we will hear later from other witnesses, could be catastrophic in many respects.

Secretary HODEL. This is taking place, as we have both acknowledged, in a market in which we have a set of controls which are supposed to prevent that kind of activity from taking place.

Chairman HEINZ. Nobody disagrees that we have got to do something. The question is, what?

You made a point well worth examining, which is that under your legislation, there are some reasons for pipelines to renegotiate their contracts, and in a sense, to lower at some point the prices on gas contracts that are too high. One of the things that troubles me about some of your provisions is that they would seem to operate against the long-term interest of the pipelines which choose to renegotiate contracts. For example, your legislation gives the gas

purchaser the right to reduce its take-or-pay level to 70 percent—fine. Let us not argue whether it should be 50 percent or 70 percent. You allow the purchaser to get out of some of the take-or-pay obligation. But when that right—available until January 1, 1986—is exercised, the seller, the gas producer, may permanently terminate the contract with regard to the portion of the gas not taken.

Now, as a result, the pipeline cannot ever reincorporate that 30 or 50 percent. It is gone. They no longer have the right of first refusal. It would seem to me that this would cause a lot of pipelines to think twice before exercising this kind of take-or-pay, opt-out, provision. The same situation would result from the indefinite price escalator provisions you have proposed.

Secretary HODEL. Undoubtedly, there are so many variants in the market today, that one or another possibility we can anticipate will take place. I would think the majority of pipelines, which have onerous take-or-pay provisions, would find themselves wishing to exercise that 70-percent reduction in capability.

I think we found a surprising amount of effort to do that voluntarily, even where the contracts do not provide it. In some cases, some pipelines have done it involuntarily. They have simply advised their producers they will not take at that high rate, because they cannot market the gas.

The point is, I think, there is a recognition on the part of producers they cannot move gas to market which is way above the market clearing price, except for the fact of Government regulation. If it were not for Government regulation, they would not have a chance to do that.

So, these parties would have every incentive to sit down and negotiate not just what is going to happen to that take-or-pay, but also to negotiate what is going to happen to the total contract, because they are in a position where, ideally, neither wants to hurt the other. They have a reason for wanting to stay together. The producer wants to market his product at his best possible price. The pipeline wants to be the person marketing it to keep the pipeline full. Sensible people will operate in that fashion. That is not to say everybody will operate in that fashion. Undoubtedly, and you will have every permutation of the process imaginable to man; but, I think that the bulk will renegotiate and will not simply arbitrarily exercise the 70 percent overnight without taking into account the impact. I think those will be negotiated.

Chairman HEINZ. Well, Mr. Secretary, I am not yet convinced, that the administration's bill is going to operate the way the administration thinks it is going to operate. In fact, I am worried that the decontrol of old gas will lead to much higher average prices, not lower ones. I am concerned about the way the pipeline accountability standards operate short term. Although we did not discuss the long term this morning, I am also concerned that we not return to the same kind of practices that got us into this very serious problem. Finally, I am not sure that the way you are dealing with some of the contract problems—take-or-pay, indefinite price escalators—will provide the necessary incentive for renegotiation to take place.

How that legislation will be written is not the jurisdiction of this committee. Maybe that is good, because it is clearly a tough job.

I would like to mention two programs that involve both this committee and you—although we do not have jurisdiction over them per se—they are the low-income weatherization program and the low-income energy assistance program. Earlier, you said, "Well, we are not experts on the way weatherization operates." Nonetheless, that program happens to be in the Department of Energy. The low-income energy assistance program is in the Department of Health and Human Services.

Secretary HODEL. If I said what you just quoted me as saying, then I misspoke. What I am trying to say is that the determination of who should be the recipients, how it should be applied, where it is needed, and what income levels require it, are not the kinds of things the Department of Energy is well-equipped to handle. As I did try to say, I think where we can be useful is identifying useful technologies, how they should be installed, and what the anticipated savings could be. That clearly does fall within our area of expert knowledge. As you may either personally be aware, or certainly have heard, I have received more than a few inquiries through all my budget hearings about our whole proposal with regard to low-income weatherization. I have suggested that we feel the funding for that program ought to come through the Health and Human Services Department—HHS.

Chairman HEINZ. But unfortunately, there is no budget for it. There is no budget authority proposed, either by you or by the President for the Department of Health and Human Services to assume control of the weatherization program.

Secretary HODEL. Until yesterday, Mr. Chairman, the answer I provided was—and I have to modify it as a result of a discussion I had yesterday with Chairman Ottinger in the House committee—the position I presented was that it was our view it should be in HHS. We could not show a direct tracing of the funds. I could not show you that the $233 million directly transferred over to HHS for the program. Under their low-income energy assistance program, they do allow up to 15 percent to be used by the State for the weatherization program. What I was advised yesterday, and simply have not had a chance to verify—I have been in hearings continuously since that time—is that the Health and Human Services Department does not have a program for this money to funnel through. The suggestion that we agreed to yesterday was that if that be the case, if our theory is sound, we at least ought to be proposing that the program be constituted in HHS and funded there, to be consistent with our theory. If we do not do that, obviously, it is inconsistent, and I cannot continue the view that I have previously presented to the committee.

Chairman HEINZ. I salute you on recognizing that, Mr. Secretary. You were not the Secretary of Energy last year when we arrived at a compromise on both low-income energy assistance, which is in the HHS budget, and weatherization, which is yours. The administration wanted to block grant those two programs, but the Congress decided—the Senate decided—that that was not a good idea. We compromised, however, in deference to the fact that we felt there might be different priorities in different States. We permitted up to 15 percent of the low-income energy assistance program to be used for weatherization. That 15 percent, however, was not meant

to supplant the weatherization program, as you yourself, I think, now realize.

I would hope that the Energy Department would take responsibility for the weatherization program, and I gather that you are now willing to see that it does have a permanent home. Is that correct?

Secretary HODEL. Yes, I am, Mr. Chairman, and further than that, I need to point out that, while some may disagree about the manner of our execution of the responsibilities—and I regret that—it is my desire to see to it that we carry out the program to the extent it is funded as Congress intends. We had considerable dispute and debate about that yesterday, but it is my intention to do that, and I will continue to try.

Chairman HEINZ. My last question is probably my toughest for you. I've saved the best for last. It has to do with the low-income energy assistance program. Although this program is not in the Energy Department budget, I feel that my question is totally fair.

As you yourself noted, you have seen firsthand what is happening to people out in the Midwest due to the fact that the natural gas prices have risen the extent they have, and in your opening remarks, you indicated that the best way to address this kind of hardship is through some kind of targeted program, rather than through energy policy, per se. Can you really in good conscience agree that we ought to cut the low-income energy assistance by one-third, as has been proposed?

A simple "yes" or "no" would suffice.

Secretary HODEL. You would not allow me a "yes" or "no"?

Chairman HEINZ. No; that is correct. [Laughter.]

Secretary HODEL. Mr. Chairman, I would be most uncomfortable trying to answer that question with a simple "yes" or "no."

Chairman HEINZ. That is too bad——

Secretary HODEL. But which may, in part, be an answer to your question.

Chairman HEINZ. It is inevitable that it is going to be uncomfortable, because I think the answer is pretty obvious.

Secretary HODEL. The problem I have with it is I do not have personal knowledge of the extent and the scope of these needs. Now, depending on who one talks to—for instance, I have had said to me by, I think, quite a reputable person involved with the Alliance To Save Energy, that an additional $1 billion is required. I do not know whether $1 billion would do the job or not. I think it depends how you define the job and who needs assistance. Are we talking about low-income energy assistance for winter conditions? Are we also talking about low-income energy assistance for summer conditions? Frankly, I think one of the serious problems for the elderly in this country, certainly, statistically, is a heat wave, which is more damaging to the senior citizens in this country than is a cold spell, just in terms of the number of people who suffer. So, it depends greatly on how you define the size of the group to be protected, and then second, the level of protection to be provided.

Chairman HEINZ. Did you find in your field trip that people were adequately protected today?

Secretary HODEL. It varied from home to home. In some homes which were eligible, clearly, they seemed much better able to accommodate the situation. They either had better insulation or a smaller home. I am sure you are aware one of the serious problems is, in many cases, our senior citizens are living in very old homes, probably the least well insulated, sometimes the largest homes. One of the questions you face is, do you as a society—and you know, I am way past my depth as an Energy Secretary when I say this, Mr. Chairman—but, do you provide an adequate level of funding for someone, a single individual, living in a 14-room house?

Chairman HEINZ. Mr. Secretary, I would characterize your testimony as follows. In answer to the question, "Can we justify a one-third decrease in low-income energy assistance as gas prices are going up?" the answer that your head tells you is clearly, "No," but as a member of the administration who wants to be loyal to the President, you have to say, "Well, I cannot answer that question." Is that a fair characterization?

Secretary HODEL. Mr. Chairman, if it appears to you that is fair, then I would assume it is a fair characterization. I am often struck by the fact, Mr. Chairman, that I was once told there are two classes of people in the world, the righteous and the unrighteous, and that the classification is done by the righteous. But, it is in the eyes of the beholder; and it seems to me that I really am not well equipped by personal experience and knowledge. That was a very small sample. For instance, I would hate to say, based on that sample, what level of income is insufficient; there are too many variables.

Chairman HEINZ. Mr. Secretary, I would be willing to take you up to Pennsylvania at any time to give you a statistically more valid sample, and maybe we can pursue this at another time. I think I know where you stand. I will not prolong your balancing act any longer.

Thank you very much for being with us.

Secretary HODEL. Mr. Chairman, I want to thank you for holding the hearing. I think it is important that, as we deal in the energy committees with the substance of an energy-oriented bill, we not lose sight of the corollary, which is what this hearing is really all about. That is, how does it impact people, because in the end, I think that you, the administration, and your colleagues in the Congress of both parties, desire the same thing; that is an adequate supply at that reasonable price—only we need to know what we mean when we say "reasonable," and how it will affect people.

So, I think you have done a good thing by holding this hearing today, and I welcome the opportunity to be here.

Thank you.

Chairman HEINZ. Mr. Secretary, we appreciate your being here.

Thank you.

[Subsequent to the hearing, Chairman Heinz and Senator Christopher Dodd submitted questions in writing to Mr. Hodel. Those questions and Mr. Hodel's responses follow:]

QUESTIONS FROM SENATOR JOHN HEINZ

Question 1. Mr. Secretary, on page 3 of your testimony you estimate that the benefits to the consumer through 1990 under the terms of your proposal compared

to what would happen if NGPA played out will be at least $7 billion. How did you arrive at this calculation?

Response. If enacted, S. 615 will immediately reduce the price that consumers pay for gas. In addition, because S. 615 encourages the immediate production of low-cost gas that is currently shut-in under NGPA, there is higher conventional domestic production of gas in the near term and consequently lower requirements for the more expensive deep and tight sands gas, as well as some reduction in oil imports, through 1990 with S. 615 relative to the NGPA. This combination of a lower cost mix of gas supplies and some displacement of oil in the industrial sector would represent a cost-savings to consumers. I would point out that this savings estimate is based on the most conservative scenario, projecting no additions to old gas reserves from S. 615. This number grows appreciably under the base case assumptions of 5 Tcf additions to old gas reserves. The $7 billion estimate is a discounted present value expressed in 1982 dollars at a 6-percent real discount rate.

Question 2. How do you account for the fact that consumer groups claim your proposal will mean a 60-percent increase in residential gas bills over the next 4 years and that the decontrol of old gas alone will add $40 to $50 billion to the Nation's gas bill?

Response. We are not aware of any analysis of our bill that projects the price increases cited in the question.

The analysis done by the Consumer Labor Energy Coalition (C/LEC) was not based on the administration's proposal. The C/LEC analysis is based on a hypothetical decontrol proposal which does not take into account several elements of our proposal, including the gas price cap and the limitation on automatic passthrough of increased gas costs. The C/LEC analysis mistakenly assumes that the market determined price of gas at the wellhead is 70 percent of the market price of crude oil. Under current market conditions, however, the wellhead price of gas after deregulation will be no more than 50 to 60 percent of the price of crude. C/LEC also uses a higher crude oil price projection than does DOE. The combination of an arbitrarily high ratio of gas to crude oil prices and generally high crude oil prices results in the C/LEC finding that gas prices after decontrol will always be above NGPA price levels. In addition, the C/LEC analysis ignores the effect that the current gas surplus will have in terms of pushing down gas prices after decontrol. Finally, the C/LEC analysis inflates the estimated effects of deregulation by expressing price increases in nominal instead of real dollars.

More than half of C/LEC's estimated consumer cost increases are based on the assumption that decontrol will cause gas prices to rise. Our analysis of the impacts of S. 615, the administration's proposal, indicates exactly the opposite—that gas prices will fall. A recent GAO analysis, "Analysis of the Administration's Natural Gas Decontrol Plan (S. 615)," supports this conclusion.

Question 3. What evidence do you have that new and deep gas prices will be able to drop enough to fully offset the price increases which will result from the decontrol of old gas?

Response. The issue is not one of price decreases for new and deep gas "offsetting" price increases in old gas if old gas is decontrolled. Rather, the issue is one of all gas prices reflecting the true market value, and moving to the lowest cost mix of gas supplies.

First, our analysis under the most conservative assumptions projects that deregulation of old gas will result in a decrease in average natural gas prices of 10 to 30 cents per Mcf in the first year after enactment, 20 to 40 cents per Mcf lower than the prices that would occur in the same year if NGPA controls on old gas are continued. The recent GAO analysis projects similar decreases of 27 cents in the first year to 40 cents in the second year.

Second, by removing controls on old gas, the administration's bill will result in increased incentives for the production of lower cost supplies. With moderate increases in the wellhead price of old gas, there are numerous ways to economically extract additional supplies from older wells that are not presently producing because the current system of artificially constrained prices makes investment in additional productive capacity uneconomic.

Third, deregulation of old gas will eliminate the subsidy that it provides for high-cost production. In today's market, pipelines with large supplies of old gas use this "cushion" to bid up above market levels the price of already expensive supplies, such as LNG, deep gas, and imported gas.

These effects, in combination with current surplus market conditions and provisions of S. 615 to reduce high-cost take-or-pay obligations and impose a gas price cap, will lead to a lower cost mix of gas supplies.

S. 615 will not create a situation in which new and deep gas price decreases simply "offset" price increases in deregulated old gas. S. 615 actually will result in both price decreases for high-cost supplies and a change to a lower cost mix of supplies. The outcome will be lower prices to consumers than will occur if controls on old gas are continued.

Question 4. Why won't producers holding "decontrolled" old gas have the leverage needed to bargain old gas prices to sharply higher levels?

Response. Producers must market their gas in order to stay in business and those who might attempt to leverage sharply higher prices for "decontrolled" old gas will not be able to do so, simply due to competitive pressure and end user demand response.

In today's market, estimates of excess gas deliverability range from 1.4 to 3 Tcf. Demand for gas is declining in part because prices in some areas are no longer competitive with prices for alternative fuels. Passage of S. 615 will create incentives for increased production of lower cost supplies.

Geological factors also impose a high cost on any producer who delays production in an attempt to leverage up prices. These conditions, in combination with the highly competitive nature of the natural gas industry at the wellhead will mean that producers who attempt to demand excessively high prices for their gas supplies will find themselves without buyers.

Question 5. What will the long-term supply response be if we deregulate old gas?

Response. Decontrol of old gas will maximize the production of lower cost gas over the short and long terms. Artificial constraints on section 104 gas are causing premature abandonment of older wells because capital investments that would increase productive capacity are not economical. With a moderate increase in wellhead prices, there are numerous ways economically to extract increased supplies from old wells and thereby gain the benefits of additional low-cost supplies.

Industry estimates of the gas reserve additions attributable to old gas decontrol range from 2.5 to 11 Tcf. These reserve additions will come from increased capital investments in existing section 104 gas wells. It is important to note that the highest estimate of 11 Tcf comes from what appears to be the most extensive study, which examined the abandonment pressures for gas wells in 14 of our largest gasfields, accounting for 37 percent of the Nation's old gas reserves. Regardless of the precise amount of the supply response, this Nation simply cannot afford to forgo the tremendous potential for low-cost gas supply response.

The table below shows projected old gas reserve additions and production under the NGPA and S. 615.

[Billion cubic feet]

Year	NGPA		S. 615	
	Production	Reserve additions	Production	Reserve additions
1983	7,984	0	8,504	0
1984	7,282	0	7,683	0
1985	6,791	0	6,989	875
1986	6,168	0	6,385	735
1987	5,578	0	5,820	615
1988	4,994	0	5,249	520
1989	4,442	0	4,693	435
1990	3,921	0	4,209	365

Question 6. Without the roll-in capacity of old gas, will we be able to afford to explore and develop some of the more promising areas which are particularly expensive to develop? Why?

Response. S. 615 provides increased incentives to develop low-cost supplies of gas and assurance that expensive gas supplies will not be developed until it is economic to do so. By removing wellhead controls on old gas, our proposal guarantees that lower cost supplies will be developed first and that they will continue to be developed until they are exhausted. In contrast, current law and regulations create incentives to develop expensive, high-cost supplies—some of which are actually priced far above market-clearing levels—while low-cost supplies are being shut-in and may never be developed if controls are contained. The result is higher prices to consum-

ers than would occur under a market-based system, less production, and a serious misallocation of national resources.

It does not make sense to continue a system that suppresses low-cost production and provides incentives to high-cost production. S. 615 insures that expensive supplies of gas will not be produced and brought to the market before lower cost supplies.

Question 7. What role do the marketplace principles behind the provisions in your legislation have in the public utility business?

Response. We should deregulate those of any industry in which the potential for greater competition exists in order to achieve the economic advantages of the marketplace.

In the wellhead market there are over 12,000 producers competing to sell gas. Elimination of all gas price controls at the wellhead will allow full competition among these producers and offer public utilities the opportunity to obtain adequate supplies at the lowest possible cost—something which is not happening in today's market. The provisions of the proposal insure pipelines have both the proper incentives and the opportunity to take advantage of this free wellhead market. The fact that S. 615 maintains some regulatory oversight over pipelines and distribution companies is not a justification for continued controls over what is a highly competitive wellhead market.

For example, regulated electric utilities make purchases of deregulated coal supplies. Regulation to prevent monopolistic pricing in end-use markets while purchasing from competitive supply markets are compatible concepts.

Question 8. On page 4 of your testimony you state that "pipelines will be prohibited from automatically passing through to customers price increases above the rate of inflation."

(a) In practical terms, doesn't your legislation condone the purchasing practices of pipelines who have acted imprudently and denied consumers access to the lowest cost gas which may have been available? If no, please explain why not?

(b) Why should consumers feel protected when on January 1, 1986, you advocate the return to the guaranteed passthrough accountability standard that exists today in section 601(c)(2) of NGPA?

Response. (a) No, the administration's proposal does not condone imprudent purchasing practices of pipelines, and it should be noted that S. 615 does not alter provisions of the Natural Gas Act that permit FERC to review pipeline purchasing practices, nor does it alter provisions of the NGPA that allow FERC to deny passthrough of purchase gas costs if FERC determines those costs were "excessive due to fraud, abuse, or similar grounds."

To the extent that some acquisition prices rise for certain individual pipelines as old gas contracts are renegotiated or terminated through market-outs, this will tend to put upward pressure on those pipelines' average acquisition costs. There are, however, several factors that will work in favor of these pipelines at the same time. First, downward price pressure in new and high-cost gas as well as falling oil prices will help mitigate the upward price pressure for high-cushion pipelines and establish a market-clearing limit on how high those costs will be. Additionally, the use of a national average for the inflation factor will aid those pipelines whose costs are below the national average rate. Finally, in evaluating applications for higher passthroughs, FERC will consider the physical depletion of old reserves as a relevant factor in whether to approve each request.

The proposal is designed to eliminate bidding disparities between pipelines by eliminating the distinction between old and new gas as new purchase agreements are concluded. Before this transition is complete, individual high-cushion pipelines may have to work harder than other pipelines in keeping their costs at a minimum. This serves to protect consumers from large price increases during the transition period. After 1985, all pipelines will have an equal ability to bid for supplies in the market. All pipelines are being helped by the contractual remedies provided in this bill. We cannot insure that the benefits of this bill are distributed with exact equality. However, the short-term adjustments in past regulatory entitlements are a small price to pay for the end-objective of a rational gas market.

(b) The limited duration of the passthrough provision of S. 615 is intended to insure a smooth transition from decades of Federal regulation to a free market and to protect consumers from unwarranted price increases during that period. After January 1, 1986, natural gas prices will be determined by market forces, including the price of competitive fuels, competition among natural gas producers, the quantity of gas available for sale, and consumer unwillingness to pay higher prices. Recent analyses by DOE and GAO, as well as our experience with decontrol of oil prices, clearly demonstrate that the free market will best serve consumers by insuring that

adequate supplies of natural gas are and will continue to be available. The experience of the winter of 1976-77 demonstrates the large economic losses that occur when regulation constrains available supplies.

Question 9. Is it not in fact the case that pipelines with high PGA's prior to the enactment of S. 615 will be rewarded, while pipelines who have purchased prudently on behalf of their consumers will be punished?

Question 10. Will not the end result be that pipelines which have achieved the lowest mix of gas will have little opportunity to buy new gas supplies in competition with imprudent interstate pipelines as well as intrastate purchasers who will be in a position to offer higher prices without FERC approval under the terms of your legislation?

Responses. The answer to both questions 9 and 10 is no. DOE analysis indicates that of the 20 largest interstate pipelines which transport 85 percent of all interstate gas, 13 reflect domestic purchased gas costs that are above our projections of wellhead costs under S. 615 giving them ample room to negotiate new contracts and renegotiate existing contracts without requiring a special purchased-gas adjustment to recover higher gas costs.

More importantly, we expect that very few of the remaining seven pipelines will need to apply to FERC for approval of an increase in purchased gas costs. Most of these seven pipelines have significant volumes of new and high-cost gas and imports. The effect of the administration's bill will be to lower new gas prices through the gas cap and to lower high-cost gas prices through renegotiation of existing contracts. Thus, the seven pipelines with currently low average domestic prices will experience declining prices on a significant proportion of their gas supplies. The average prices paid by these pipelines should be further restrained by increasing supplies of low-cost gas from production capacity that is currently shut-in. Finally, by basing the inflation adjustment factor on a national average, S. 615 will give pipelines with gas costs below the national average more flexibility in renegotiating contracts for old gas and in acquiring new sources of gas.

Question 11. Will not the regulatory delays involved in an FERC approval or disapproval serve as a disincentive to bring gas into the interstate market? Is this not true especially since intrastate purchasers would not be subject to the same limitations and would therefore be in a position to outbid interstate pipelines?

Response. It is highly unlikely that intrastate pipelines will be able to outbid interstate pipelines for natural gas supplies. Currently, there is an excess of deliverable natural gas estimated from 1.4 to 3 Tcf. It is unlikely that, under current law, demand will absorb this surplus very soon. Furthermore, the provisions in S. 615 will cause the purchased gas costs of most interstate pipelines to decline, giving those pipelines ample room to negotiate for future gas supplies. Due to both the surplus and the interstate pipelines' ability to purchase new supplies of gas and still remain below their purchase gas cost caps, interstate pipelines will be able to compete with intrastate pipelines for supplies.

It is also important to remember that the bill does not freeze gas cost increases. It only limits the amount of increased gas purchased costs pipeline may pass through immediately. Under the bill, pipelines may pass through gas cost increases above their allowed rate plus inflation only after these cost increases are found by FERC to be just, reasonable, and prudently incurred. Accordingly, this requirement will not prevent interstate pipelines from competing equally with intrastate for new supplies, but it will increase the rigor with which they attempt to negotiate the lowest possible price for such supplies.

Question 12. Under the terms of your legislation are you not recreating the dual market for gas which the NGPA sought to and in fact effectively eliminated?

Response. No. S. 615 provides similar treatment to interstate and intrastate markets, with the exception of two provisions: The passthrough limitation and the contract carriage authority, which apply only to interstate pipelines. These provisions are limited to interstate markets because State regulatory commissions are the appropriate agencies to regulate intrastate rates and to impose mandatory obligations on intrastate pipelines.

The dual market that existed prior to NGPA resulted from the expectation that Federal price controls on interstate gas would continue indefinitely. As a result, intrastate markets were considered to be more attractive for gas sales. Under S. 615 nonprice regulation will cease at the end of 1984, all price regulation will cease by the end of 1985, and the purchase gas cost limitation will expire on January 1, 1986. Therefore, there is no distinction between the interstate and intrastate markets that would make one more attractive than the other, and a dual market will not be recreated.

Question 13. How did you arrive at a 70-percent take-or-pay level? Who did you consult with prior to making this determination? What have you heard from the pipelines on this? Is it not true that the Interstate Natural Gas Association of America has testified that the maximum take-or-pay obligation should be limited to 50 percent over a 3-year period?

Response. The 70-percent take-or-pay level specified in S. 615 was chosen after extensive consultation with many individuals, companies, and trade associations involved with and knowledgeable about the natural gas industry. We consulted with both gas producers and pipelines.

The 70-percent take-or-pay level was commonly used in contracts prior to the enactment of the NGPA. It was chosen in this context as a compromise figure that would balance the interests of the pipeline companies and the producers. The administration believes that the high take-or-pay provisions in many current gas contracts are the result of nonprice bidding by pipelines for gas supplies subsequent to the gas shortages of the mid-1970's and the enactment of the NGPA in 1978. The high take-or-pay provisions were an industry response to NGPA regulations, and do not reflect the provisions that would have likely been agreed to in a free market.

We understand that the Interstate Natural Gas Association of America has testified that take-or-pay obligations should be reduced to 50 percent.

Question 14. By not granting pipelines that right of first refusal, why will they have an incentive to invoke a lower take-or-pay requirement when they know they risk losing a significant amount of their supply?

Response. We believe that the take-or-pay reduction allowed in S. 615 will not result in pipelines losing needed supplies. Involving a take reduction will not affect the 70 percent of deliverability that remains. The producer will still be bound by the existing contract to continue delivering at 70 percent of deliverability. The reduction will give pipelines an opportunity to avoid the unnecessary costs of gas that must be purchased due to take-or-pay requirements but is shut-in because it cannot be sold to consumers at prevailing prices.

Pipelines should exercise sound business judgment when determining whether to invoke the take-or-pay reduction and when subsequently negotiating new contract terms. Such deliberations should include careful consideration of the nature of the market served by the pipelines and the amount of gas needed to provide adequate supplies at reasonable prices to that market. To allow pipelines the right of first refusal over direct sales by producers would defeat the purpose of the take-or-pay limitation.

The right of first refusal would continue the same type of regulatory intervention which created the take-or-pay problem in the first place. Pipelines would have less incentive to anticipate the needs of consumers and to rigorously negotiate new contract terms. Pipelines would be in the unique position of being able to negate the competitive pressures imposed by producers, consumers, or other pipelines simply by exercising their right of first refusal over contracts that the other market participants have worked hard to negotiate and agreed to freely. Indeed, if pipelines have the right of first refusal, the disincentives will be so great for other participants to negotiate contracts on undelivered gas that there will be virtually no such contracts negotiated. Thus, consumers may not receive the full benefits of greater supplies and lower prices that the reduction in take-or-pay requirements offer.

QUESTIONS FROM SENATOR CHRISTOPHER J. DODD

Question 1. Your bill assumes that deregulation will lead to lower overall prices for natural gas. If, in fact, prices rise immediately as a result of deregulation, what measures would be available to assist particularly vulnerable groups such as elderly persons on fixed incomes? Specifically, would the administration propose increases in low-income energy assistance to compensate for a rise in prices?

Response. It is important to distinguish between the purposes of S. 615, which is intended to eliminate distortions in the natural gas market and insure that adequate supplies are available to all consumers at reasonable prices, and the special needs of those groups and individuals who cannot adjust to even those prices because of fixed and low incomes. S. 615 cannot—and should not be expected to—meet the needs of those who require income assistance to obtain the basic necessities of life.

DOE's analysis estimates that prices will decrease 10 to 30 cents per Mcf in the first year after enactment of S. 615 and will be 20 to 40 cents lower than prices that would occur under NGPA. GAO's recent analysis confirms these estimates and projects decreases of 27 cents in the first year after enactment to 40 cents in the second

year below prices under NGPA. We are not aware of any analysis based on S. 615 that projects that its enactment will result in price increases.

Specific analyses and policy recommendations in the area of low-income assistance and other income maintenance programs should be addressed by agencies with an expertise in these fields such as the Department of Health and Human Services and U.S. Department of Agriculture.

Question 2. How would you assure the residential consumer, who is locked into a particular gas pipeline system, that contract decisions made between producers and pipelines would be made in his best interest under your proposal?

Response. Residential consumers who are dependent on one distribution company will benefit from and be protected by the provisions of S. 615 in a number of ways.

The primary assurance that can be offered to residential consumers is that natural gas prices will be responsive to market forces, including downward price pressures, thus resulting in contracts that reflect the price decreases projected by DOE's analysis and confirmed by GAO's recent analysis. However, consumers are not expected to rely on these projections as a matter of faith, and S. 615 includes specific provisions to protect consumers.

The purchase gas cost limitation which will prevent pipelines from automatically passing on to consumers increased gas costs above the rate of inflation, and imposition of the gas price cap which guarantees that gas prices will reflect market levels are the central consumer protection features of S. 615. They will guarantee that consumers are not faced with unwarranted and incessant price increases.

In addition, S. 615 eliminates the incremental pricing program and modifies the Fuel Use Act which have both caused industrial consumers to switch to alternative fuels, thus leaving residential consumers to bear increasingly larger portions of the fixed cost of gas supply systems.

The contract carriage provision of S. 615 will allow distribution companies to seek the lowest cost gas available by facilitating direct transactions with gas producers.

The provisions of S. 615, in combination with current excess gas deliverability and strong competition among natural gas producers will insure that the interests of residential consumers are served. Consumer interests will be further served by immediately lower prices and the security of adequate supplies now and in the future.

Question 3. How would total deregulation, as proposed in your legislation, benefit consumers in regions such as New England, which are heavily dependent on supplies of old natural gas?

Response. We believe S. 615 will lower gas prices, even in several regions of the country that now rely heavily on low-cost, old gas supplies. This will occur because the combination of existing long-term contracts and NGPA provisions currently encourage pipelines to continue purchase of significant volumes of high-cost gas while reducing their takes from low-cost supplies. New England is a good example of where consumers are denied the benefit of low-cost gas supplies.

New England will enjoy the direct benefits of lower gas prices under S. 615 as well as other indirect economic benefits. S. 615 will reverse the current incentives toward purchase of high-cost gas, bringing low-cost supplies to the market first, including substantial amounts that currently are shut-in. These same incentives will bring a great amount of pressure to reduce the very high costs now paid for imports of gas from Canada. S. 615 will allow gas to compete more effectively with oil, particularly in the industrial sector, reducing oil imports by several hundred thousand barrels per day. Lower demand for oil imports will tend to push oil prices downward and particularly benefit the oil consuming and importing regions of New England. Finally, deregulation will release valuable economic resources for use in other industrial activities and, thereby, reduce costs and increase output and employment throughout the economy.

Tennessee Gas and Texas Eastern are the two major interstate pipelines providing gas to New England (Texas Eastern sells over 90 percent of its gas to Algonquin which actually delivers the gas to New England). About 60 percent of their supplies come from old gas reservoirs. However, consumers do not pay low prices because of these inexpensive supplies. Both pipelines purchase large quantities of gas from either high-cost wells or costly supplies from other pipelines that vastly increase their purchase price of gas. Of the 20 largest interstate pipelines, Tennessee and Texas Eastern had, respectively, the 9th and 12th most costly supplies as of March 1, 1983.[1] As this case illustrates, the consumers at present do not benefit from low-

[1] C. M. Butler III, table 5-1 in "Responses to Additional Questions for Natural Gas Hearing Record of March 12, 1983."

cost gas; it is the producers of high-cost gas and suppliers of imported gas that reap the benefits of the inexpensive regulated supplies.

Another major advantage of S. 615 is the clear set of incentives it provides to add to the Nation's reserves of old, low-cost gas. Under the NGPA, capital investments that would increase the production life of old gas wells are discouraged in many cases because the regulated price for gas from those wells is insufficient to cover the costs of enhanced recovery techniques. S. 615 will deregulate the price of all gas, including old gas, and will encourage the maximum economic production of low-cost gas reserves.

Chairman HEINZ. Our next witnesses are a panel, including Susan M. Shanaman, chairman of the Pennsylvania Public Utility Commission in Harrisburg, Pa., and George Lawrence, the president of the American Gas Association.

First, I would particularly like to welcome Susan Shanaman to Washington, D.C. She serves with great distinction as chairman of our public utility commission in Pennsylvania. She has to make a lot of tough decisions.

Ms. Shanaman, not only do I welcome you on behalf of the committee, but I think we all look forward to hearing your particular views as a State regulator and what the administration proposal means to you and how you think Congress can better address this issue.

Please proceed.

STATEMENT OF SUSAN M. SHANAMAN, HARRISBURG, PA., CHAIRMAN, PENNSYLVANIA PUBLIC UTILITY COMMISSION

Ms. SHANAMAN. Mr. Chairman, I thank you for the kind remarks, and I would only note that some of those tough decisions were also made by you, particularly on some legislation that we dealt with last year.

I have a written statement, and I would hope that that could be printed in full in the record.

Chairman HEINZ. Without objection, so ordered.[1]

Ms. SHANAMAN. Thank you. I am honored to be here before the Senate Special Committee on Aging, and I would like to thank you for inviting me and commend you for your concern with the issue of soaring natural gas prices and, more specifically, with the impact of soaring gas prices on the elderly. I believe you have every reason to be concerned.

Natural gas prices have risen by an average of 20 percent in each of the last 6 years. Reports issued by a number of sources, including the Federal Government, indicate that similar increases are not unlikely this year and in the next several years. The impact of such increases on low-income and fixed-income elderly Pennsylvanians is extremely traumatic, and will continue to be so unless Congress and the Federal Energy Regulatory Commission take action on their behalf.

Pennsylvania's problem with rising gas prices is one of large scope. Nearly half of the dwellings in our State are heated by natural gas. Sixteen percent of Pennsylvania's households are characterized as low-income households, and fully one-third of those are headed by elderly persons. Pennsylvania suffers from higher than average gas prices and colder than average winters.

[1] See page 43.

Rising natural gas prices are exacting a terrible toll on the budgets of senior citizens, particularly those dependent on fixed-income sources like social security and SSI. For example, in 12 States, an elderly person living alone on SSI has no money left, after making the energy payment in their coldest winter month—no money to pay rent, buy food or clothes, or pay uninsured medical costs. In Pennsylvania, such an individual is far better off—and I say that somewhat tongue in cheek—having the princely sum of $10 per week left over for all other expenses.

I think everyone will agree that we have a problem in our elderly communities with rising gas prices—people forced to choose between heating or eating, or today, between heating and medical prescriptions.

Ultimately, the question that Congress must answer is whether that problem should be addressed through the natural gas pricing structure and its regulation or through social programing.

Social security and SSI—I certainly do not think I need to tell anyone here that social security is a system facing great difficulties of its own. You already have a herculean task on your hands in keeping the system solvent for future generations without adding the senior citizen natural gas bill burden to it.

The Federal low-income home energy assistance program is, in my opinion, a viable method of helping some people meet energy bills that they otherwise could not handle. But, as I have said on several occasions, this program is critically underfunded. Compared against some estimates of need, LIHEAP supplies less than half of what is required.

An additional problem is that senior citizens identify energy assistance as a form of charity, and many are simply too proud to accept it. How effective can such a program be when many senior citizens would have to sacrifice their dignity to use it? Not very. In the 1981 fiscal year, LIHEAP benefits reached only 39 percent of elderly persons in Pennsylvania below 100 percent of the Federal poverty line.

State programs such as service termination moratoriums are not the answer, either. While such programs are indeed a boon to many low-income customers by staving off winter termination, we, in some cases, succeed only in allowing low-income consumers to dig a deeper hole. Even with long-term repayment plans, we cannot save them forever. As far as I know, there are no programs that require a company to turn on the heat in January for a customer whose service they terminated in July.

I should point out that the elderly are joined in their plight by the poor and that natural gas prices are also a problem for Pennsylvania industry. Senator Heinz, I believe you cited a potential job loss to Pennsylvania of 50,000 if gas prices continue on their present path. And Pennsylvania's gas distributors have lost more than 100 industrial customers in the past year to alternative fuels and to industrial mortality.

Among the key areas of interest to you this morning, I am sure, are the recent natural gas deregulation proposal by President Reagan and the counterproposals by groups of Congressmen and consumerists. I am glad these proposals are now on the table, be-

cause the current discussion indicates that at the very least, Government intends to do something.

The deregulation proposal would, of course, deregulate all gas beginning January 1, 1986. Deregulation could begin on a piecemeal basis as soon as the President's proposal gains enactment through the renegotiation of existing contracts. The President included a 1-year consumer protection clause, from January 1, 1985, to January 1, 1986, intended to help ease the transition to deregulation for consumers.

There are several points that I would like the Congress to look into as they consider this total deregulation plan.

First, deregulation seems to be hanging its hat on the renegotiation of contracts. And from what I have read, everyone is looking at renegotiation in a purely positive sense. I do not believe there are any ironclad guarantees that renegotiation has to be a lessening influence on natural gas prices.

I would like to see some discussion of exactly which contracts can be renegotiated and what impact upward renegotiations of old gas contracts would have on consumers. I would also like to see a hard definition of renegotiation. What elements of a contract would have to change before the contract price would become deregulated?

I recognize that pipelines should be motivated to seek reasonable price considerations in return for signing a renegotiated contract, but I do not like the thought of leaving this solely to their discretion.

A third consideration should be the abrupt termination of consumer safeguards. The reports upon which the President's proposal is based are looking at fairly level oil prices. While the Department of Energy may have full confidence that oil prices will remain stable, I cannot say I believe it as thoroughly. What happens if oil prices take off again, say in February 1986? Under a totally deregulated scenario, I believe natural gas prices could take off right along with them. The impact of such an occurrence would be devastating to residential oil and gas customers. Many industries would suffer as well. Even those with dual fuel capabilities would have no viable alternative to change to.

The discussion of the natural gas issue has been entered, and the battlelines have been drawn. Cynics will tell you that whatever the final solution happens to be, it undoubtedly will not be one of the original proposals.

Natural gas pricing is an issue that will have a great impact on many elderly Americans, people who have already reached the limits of what they can afford, or have passed them. During 1982, 15 percent of Pennsylvania's residential gas heating customers could not afford to pay their bill on time.

I believe Congress must be aware of the financial limitations of your elderly constituents as you deliberate on this issue. And, you must be aware that remedial social programing is not necessarily the sole answer. I think you must be leery of any policy that permits a necessity of life to reach a price level where a large portion of the population needs Government grants to purchase it.

I would point out that in Pennsylvania, if every eligible person received the energy assistance dollars which Pennsylvania receives, they would get one-third dollars per year, as compared to an aver-

age annual gas bill of $800. One hundred dollars is not even going to cover the cost of what the increases are that we are seeing. So I think that is a very deep concern that obviously, I must express to you today.

I thank you, and I will try to answer any questions.

Chairman HEINZ. Chairman Shanaman, thank you very much.

[The prepared statement of Ms. Shanaman follows:]

PREPARED STATEMENT OF SUSAN M. SHANAMAN

Good morning. I'm honored to be here before the Senate Special Committee on Aging, and I'd like to thank Senator Heinz for inviting me. You are concerned this morning with the issue of soaring natural gas prices, and, more specifically, with the impact of soaring gas prices on the elderly. From my perspective as Chairman of the Pennsylvania Public Utility Commission, I believe you have every reason to be concerned.

Natural gas prices have risen by an average of 20% in each of the last six years. The prices of very few products can match that dubious record. And reports issued by a number of sources, including the Federal Government, indicate that similar increases are not unlikely this year and in the next several years. The impact of such increases on low-income and fixed-income elderly Pennsylvanians is extremely traumatic, and will continue to be so unless Congress and the Federal Energy Regulatory Commission take action on their behalf.

Pennsylvania's problem with rising gas prices is one of large scope.

-- Some 2.1 million dwellings, nearly half of our state's total, are heated by natural gas.

-- The incomes of an estimated 1.7 million Pennsylvanians fall below 125% of the federal poverty line, and an estimated 16% of all Pennsylvania households are characterized as "low income."

-- 33 percent of Pennsylvania's low-income households are headed by persons aged 65 and older.

-- 15 percent of Pennsylvania's low income population are age 65 or older.[1]

-- Natural gas prices paid by Pennsylvania residential consumers are 5% above the national average.[2]

-- Pennsylvania's climate is 20% colder than the national average.[3]

-- Pennsylvania has the nation's third most mature population, indicative of our large senior citizen population, according to an October 1982 report of the Pennsylvania Department of Aging.

-- Nationally, some 7 million senior citizens have incomes below 150% of the federal poverty line, and 267,000 elderly Pennsylvanians fall below the 125% of that line.[4]

This collection of statistics indicates that there is a large group of senior citizens, in Pennsylvania and in the nation, who face financial difficulty, and that those in Pennsylvania are prone to have difficulty with high winter heating costs. Now, what is the extent of that difficulty for those who consume natural gas?

Rising natural gas prices are exacting a terrible toll from the budgets of senior citizens, particularly those dependent on fixed-income sources like Social Security and Supplemental Security (SSI).

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[1]Grier, Eunice and George Grier. High Energy Prices and Low-Income Pennsylvanians: An Analysis of Needs and Options, October 1982.

[2]The American Gas Association. Gas Facts 1981 - A Statistical Record of the Gas Utility Industry. c. 1982.

[3]Grier, Op Cit.

[4]Grier, Eunice and George Grier. Poor + Old = Cold. Report to the National Council of Senior Citizens, Inc. April 1981.

For example, in 12 states, an elderly person living alone on SSI has no money left after making the energy payment in their coldest winter month. No money to pay rent, buy food or clothes, or pay uninsured medical costs. I must note that in Pennsylvania, such an individual is far better off, having the princely sum of $10 per week left over for all other expenses.

Let me sketch out a case for you, based on averages from the 1980 census, concerning a low-income Pennsylvania family of three. The average income of Pennsylvania's low-income households, according to the census, is $5,015, or $418 per month in disposable income.

Also according to the census data, the average rent in Pennsylvania is $326 per month. Add to this a $52 per month gas heating bill, a $29 non-heating electric bill[5] and a $144 food bill (based on U.S. Department of Agriculture estimates for a family of three after food stamps) and you find a case study based on the averages is already $33 in the hole. Nothing else was figured in here, no clothes, medical care, transportation or additional services, but this statistically average low-income Pennsylvania family of three has already overspent its meager budget.

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[5]Grier, Eunice and George Grier. High Energy Prices and Low-Income Pennsylvanians: An Analysis of Needs and Options. October 1982.

I think everyone will agree at this point that we have a problem in our elderly community with rising gas prices - people forced to choose heating or eating, or in many cases today, heating or medical prescriptions. Ultimately, the question that Congress must answer is whether that problem should be addressed through the natural gas pricing structure and its regulation or through social programming. First, I'd like to address the social programming options.

1. Social Security and SSI: I don't think I need to tell anyone here that social security is a system facing great difficulties of its own. You already have a herculean task on your hands in keeping the system solvent for future generations without adding the senior citizen natural gas bill burden to it.

2. Federal Low Income Home Energy Assistance (LIHEAP): This program is, in my opinion, a viable method of helping some people meet energy bills that they otherwise could not handle. But, as I've said in letters to Senator Heinz, former Health and Human Services Secretary Richard Schweiker and President Reagan, this program is critically underfunded. Compared against some estimates of need, LIHEAP supplies less than half of what is required. In the current year, LIHEAP has less than half the funds available to it that Congress agreed to commit with the 1980 Crude Oil Windfall Profits Tax. Congress had to tack on an extra $200 million in the 11th hour this year to keep the program going at last year's level.

There is another problem with federal energy assistance to the elderly that I see in letters from senior citizens every day. Senior citizens identify energy assistance as a form of welfare, a kind of charity. And, they are simply too proud to accept it. I have to question the wisdom of entrusting their ability tc afford winter heat to a program that so many of them consider to be a slap in the face. How effective can such a program be when many senior citizens would have to sacrifice their dignity to use it? Not very. In the 1981 fiscal year, LIHEAP benefits reached only 39% of elderly persons below 100% of the federal poverty line.[6]

3. State Programs such as Service Termination Moratoriums: While as a rule, I dislike the use of the term moratorium as it applies to winter heating service terminations, Pennsylvania and a number of other states do have such programs. In Pennsylvania, gas and electric utilities may not turn off heating service without approval of the Public Utility Commission between December 1 and March 31. While such programs are indeed a boon to many low-income consumers, I don't believe they can be the answer to the gas price problem either. On April 1 each year, we are going to see utilities, who want the money owed to them, approaching those who were saved from termination over the winter. And I don't imagine that delinquent customers will suddenly be able to come up with the money to pay off the arrearages they built up in the winter.

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[6]Grier, Eunice, George Grier and Richard Saul. Out in the Cold - The Expected Impact of Rising Natural Gas Price on the Poor, the Elderly, and the Unemployed. Prepared for the National Consumer Law Center. January 1983.

By staving off winter termination, we in some cases succeed only in allowing low-income consumers to dig a deeper hole. Even with the long term repayment plans we can't save them forever. And, as far as I know, there are no programs that require a company to turn on the heat in January for a customer whose service they terminated in July.

I should point out that the elderly are joined in their plight by the poor, and that natural gas prices are also a problem for Pennsylvania industry. Senator Heinz, I believe you've cited a potential job loss to Pennsylvania of 50,000 if gas prices continue on their present path. And Pennsylvania's gas distributors have lost more than 100 industrial customers in the past year to alternative fuels and to industrial mortality.

Among the key areas of interest to you this morning, I'm sure, are the recent natural gas deregulation proposal by President Reagan and the counterproposals by groups of Congressmen and consumerists. Let me first say that I have a bit of a problem with the current wisdom that says because the Natural Gas Policy Act's partial deregulation morass hasn't worked to keep the natural gas pricing mechanicsm functioning properly, we should throw out regulation altogether. I think we should all hesitate a minute before we rush off to endorse such a notion.

As Senator Heinz pointed out in his introduction of S.689, the NGPA had twin objectives of consumer price protection and adequate supply development. Additional supplies have been found.

However, the controlled, methodical deregulation of natural gas, as attempted in the NGPA, hasn't worked well from a pricing perspective because natural gas producers have been allowed to turn NGPA provisions topsy-turvy to suit their purposes. Federal regulators have liberally interpreted the Act's "watchdog" provision, and failed to deal with the issue of prudency in contracting as an equal to propriety in contracting. Pipeline-producer contracts have been permitted to convolute the gas market, when stricter interpretation of FERC authority over the contracts could have kept the market functioning properly. That may be 20/20 hindsight, but I think the case must be made that regulation is not something we need to make great sacrifices to avoid. Nor, for that matter, should senior citens be required to make great sacrifices to avoid gas price regulation.

As I noted a minute ago, we've seen several packages recently proposed to deal with the natural gas pricing issue.

President Reagan's proposal would, of course, deregulate all gas beginning January 1, 1986. Deregulation could begin on a piecemeal basis as soon as the President's proposal gains enactment, through the renegotiation of existing contracts. The President included a one-year consumer protection clause (January 1, 1985 to January 1, 1986) intended to help ease the transition to deregulation for consumers, a measure apparently designed to appease some pro-consumer lawmakers.

I'm glad that proposals are now on the table, because the current discussion indicates that, at the very least, government intends to do something.

At this point, I'd like to make several observations about the President's proposal, points that I would like to see Congress look into as they consider a total deregulation plan.

First, deregulation seems to be hanging its hat on the renegotiation of contracts. And from what I've read, everyone is looking at renegotiation in a purely positive sense. I don't believe there are any ironclad guarantees that renegotiation has to be a lessening influence on natural gas prices.

For example, if I were a natural gas producer, and a pipeline came to me hollering about renegotiating contracts, the first ones I'd suggest are the "old gas" contracts, and I'd want them to renegotiate the price up, not down.

I'd like to see some discussion of exactly which contracts can be renegotiated, and what impact upward renegotiations of old gas contracts would have on consumers.

I would also like to see a hard definition of renegotiation. What elements of a contract would have to change before the contract price would become deregulated? I recognize that, in theory, pipelines should be motivated to seek reasonable price considerations in return for signing a renegotiated contract, but I don't like the thought of leaving this to their discretion.

A third consideration should be the abrupt termination of consumer safeguards. The reports upon which the President's proposal is based are looking at fairly level oil prices. While the

Department of Energy may have full confidence that oil prices will remain stable, I can't say I believe it as thoroughly. What happens if oil prices take off again, say in February 1986? Under a totally deregulated scenario, I believe natural gas prices could take off right along with them. The impact of such an occurrence would be devastating to residential oil and gas customers. Again, I go back to the elderly, who already are straining or breaking the limits of their fixed incomes. They need this like a man on the edge of a cliff needs a push. Many industries would suffer as well. Even those with dual fuel capabilities would have no viable alternative to change to.

I believe Congress should look at another possibility. Can the NGPA be made to work? A more stringent interpretation of improper contracting, and of costs that should be rejected instead of passed through, could make the NGPA more effective, at least in the short term.

Perhaps a system could be developed wherein pipelines would be required to prove their ability to serve demand out of "old gas" reserves. The difference between old gas potential and total demand could be priced at "new gas" rates. Regardless of their contract mix, pipelines would be responsible for the "old gas" potential through "old gas" prices. In order to utilize such a system without causing undue hardship to pipelines, take-or-pay contract clauses would probably have to be mitigated, particularly in "new gas" contracts, but I think it could be a viable and fair way to halt runaway rates at the consumer level.

The discussion of the natural gas issue has been entered, and the battle lines are being drawn. Cynics will tell you that whatever the final solution happens to be, it undoubtedly will not be one of the original proposals.

Natural gas pricing is an issue that will have a great impact on many elderly Americans, people who already have reached the limits of what they can afford, or have passed them. Many Americans cannot tolerate more price increases. During 1982, 15% of Pennsylvania's residential gas heating customers could not afford to pay their bill on time.

I believe Congress must be aware of the financial limitations of your elderly constituents as you deliberate on this issue. And, you must be aware that remedial social programming is not necessarily the answer. I think you must be leery of any policy that permits a necessity of life to reach a price level where a large portion of the population needs government grants to purchase it.

Thank you.

Columbia Gas of Pennsylvania, Inc.
Comparison of Selected Items for 1972 vs. 1981

Pipeline Dependent

1. Purchased Gas

Year	Volume Mcf	Price	Cost Per Unit
1972	148,394,156	$89,225,754	$0.60
1981	126,126,515	$407,061,621	$3.23

2. Comsumer Price Index: 1967 = 100 base year
1972 at 125.3 all items
1981 at 272.4 all items
1981 Increase over 1972 CPI is 117%

3. Increases in Operational and Maintenance expenses for the period

Gas Supply	+357%
Customer Account	+155
Administrative & General	+119%
Distribution	+ 85%
Sales	+ 39%

4. % Increase in O&M expenses excluding Gas Supply Expenses: +101%

5. Number of Customers:

Residential	+0.3%
Commerical	-1.6%
Industrials	-10.5%

6. Sales Volume, Increase/(Decrease)

Residential	(15%)
Commercial	(11%)
Industrials	(15%)

Hypothetical January Natural Gas Bill
for a Residential Customer using 25 mcfs.

1983	$147.13
1982	122.19
1981	96.68
1980	78.49
1979	70.53
1978	70.46
1977	59.07
1976	51.05
1975	41.65
1974	32.75
1973	30.41
1972	30.26

For Columbia Gas of Pennsylvania, Inc.
Rate Residential (RS) ♦ (SHS) Pa. P.U.C. Tariff #8 and #3 and corresponding Gross Receipt Tax and State Tax Adjustment Surcharge Rates, Gas Cost Rates, Fuel Cost Adjustments and Purchase Gas Adjustments for January usage.

Equitable Gas Company
Comparison of Selected Items for 1972 vs. 1981

Producing Company

1. Purchased Gas:

Year	Volume Mcf	Price	Cost Per Unit
1972	100,319,510	$ 41,382,416	$0.41
1981	97,136,714	$212,747,512	$2.19

2. Consumer Price Index: 1967 = 100 base year
1972 at 125.3 all items
1981 at 272.4 all items
1981 Increase over 1972 CPI is 117%

3. Operational & Maintenance expense increase for the period:

Gas Supply	414%
Customers Accounts	227%
Underground Storage	203%
Admin. and General	180%
Distribution Exp.	164%
Production	159%
Exploration & Development	(69%)

4. % Increase in O&M expenses, excluding Gas Purchase Expense:
156%

5. Number of Customers, Increase/(Decrease):

Residential	2.7%
Commercial	(9.0%)
Industrial	(5.0%)

6. Sales Volume, Increase/(Decrease)

Residential	(13.0%)
Commercial	0.6%
Industrial	(40.0%)

		25 mcf in a Month (January)
Columbia	1972	$ 30.26
	1981	96.68
	1983	147.13
Equitable	1972	$ 28.32
	1981	93.074
	1983	138.19
Peoples	1972	$ 29.69
	1981	88.75
	1983	132.87

UGI CORPORATION

COMPARISON OF SELECTED ITEMS - 1972 vs 1981

1. Purchased Gas

Year	Volume DTH	Price $	Cost Per Unit
1972	62,284,202	33,165,594	$0.53
1981	72,517,299	221,586,181	$3.06

2. Consumer Price Index 1972 vs. 1981 117% increase

3. Operational and Maintenance expenses % increase 1982-1981:

Purchased Gas	568%
Administrative and General	199%
Customer Accounts	196%
Distribution	59%
Sales/Customer SVC	51%

4. % Increase in O&M Expenses, excluding Total Production Expenses

122%

5. Number of Customers, Increase/(Decrease):

Residential	2%
Commercial/Industrial	19%

6. Sales, Volume, Increase/(Decrease):

Residential	4%
Commercial/Industrial	15%

Hypothetical Natural Gas Bill for a Residential Customer
Using 25 MCF's a Month (January)

1983	$175.84
1982	138.91
1981	112.22
1980	101.03
1979	90.21
1978	84.43
1977	84.08
1976	73.53
1975	62.43
1974	49.64
1973	47.27
1972	47.71

For UGI Corporation
Rate Residential (R) Pa. P.U.C. Tariff #4 and #3 with corresponding State Tax Adjustment Surcharge and Gas Cost Rate, Fuel Cost Adjustment or Purchase Gas Adjustment for January usage.

The Peoples Natural Gas Company
Comparison of Selected Items, 1972 vs. 1981

Producing Company

1. Purchased Gas:

Year	Volume Mcf	Price	Cost Per Unit
1972	121,533,135	$ 62,503,167	$0.51
1981	99,083,589	$279,487,422	$2.82

2. Consumer Price Index: 1967 = 100 Base Year
1972 at 125.3 all items
1981 at 272.4 all items
1981 Increase over 1972 is 117%

3. Operational and Maintenance expense increase for the 10 year period:

Gas Purchases	347%
Customer accounts	239%
Gas Production	210%
Distribution Expense	131%
Exploration & Development	112%
Admin. & General	111%

4. % Increase in O&M Expenses, excluding Gas Purchase Expense:
112%

5. Number of Customers, Increase/(Decrease):

Residential	7.0%
Commercial	3.0%
Industrial	3.0%

6. Sales Volumes, Increase/(Decrease):

Residential	(12.0%)
Commercial	(13.0%)
Industrial	(1.0%)

		25 mcf in a Month (January)
Columbia	1972	$ 30.26
	1981	96.68
	1983	147.13
Equitable	1972	$ 28.32
	1981	93.074
	1983	138.19
Peoples	1972	$ 29.69
	1981	88.75
	1983	132.87

Chairman HEINZ. Mr. Lawrence.

STATEMENT OF GEORGE H. LAWRENCE, ARLINGTON, VA., PRESIDENT, AMERICAN GAS ASSOCIATION

Mr. LAWRENCE. Mr. Chairman, I certainly want to express our appreciation at being invited to testify here before your committee and the other witnesses representing the senior citizens groups, and I particularly appreciate the chance to share this panel with Chairman Shanaman.

AGA represents natural gas distribution and transmission companies, some 300 of them, regulated at the State level by public utility commissions and at the Federal level by FERC. We operate this million-mile transmission and distribution system that brings more than 55 percent of the energy to our homes, the largest supplier of industrial energy. It is really the envy of the industrialized Western world, this transmission system. We have a tremendous resource base of energy.

We have some problems now, and we need to address those. We are delighted to see that the National Association of Regulatory Utility Commissions that Ms. Shanaman is a part of presented testimony before the Energy and Natural Resources Committee last Saturday. They have some solutions that we think get at the problem. We may quibble with some parts of their proposal, some parts of the administration proposal, even with some parts of your proposal, perhaps, Senator, but we think your proposal and the NARUC proposal are essentially on target and in line with the solutions that we see are needed.

If you just go back a few years to the mid-1970's, we had this concern of resource base. Natural gas had nothing to contribute. As a long-term future energy, it was out of it. That has changed, and the NGPA changed that. And it was a phased deregulation of new gas to provide this exploration incentive for new drilling, new exploration, not old gas. And it has made some dramatic contributions.

In the 10-year period preceeding the NGPA, 1968 to 1978, the average new reserves added were less than half of what we produced, 48 percent exactly. In 1979, that went up to about 70 per-

cent. In 1980, it went to about 90 percent. In 1981, it went to 114 percent—the first time since 1968, we added more reserves than we produced. So that new exploration and new drilling incentives do work, and we do not want in this solution to the gas pricing problem to go back to a period of reimposing controls on new gas and new exploration, as some have proposed before the Congress. Consumer frustrations will gain some supporters for reimposing controls, but neither your proposal or the NARUC proposal does that, and we do not want to see that happen, either.

There are really two ways to address this pricing problem as we see it at the moment. One is low-income fuel assistance, and the other is the gas contracting problem itself. The low-income fuel assistance, AGA has been in the forefront of fighting for, as have you, Senator. We vigorously supported adding to the amount that Congress had already appropriated; were instrumental in getting the $1.975 billion approved for low-income fuel assistance, and we think that is essential.

My answer to your question to the Secretary, should fuel aid be cut by a third—absolutely not. You know that, and I know that. And I say it not from the standpoint of one who has any expertise in the welfare business; I say it to you as one who has some experience in the energy industry. We know that all of the solutions, long term, to our gas pricing problem do have a common thread, whether it is deregulating U.S. supplies, whether it is Canadian, Mexican, LNG, coal gasification, Alaska, whatever—and every one of them can beat imported oil, incidentally, as an alternative. But all of those solutions have a common thread: The price is going up. There are people in our society who cannot stand that. As a part of a sound energy policy, we are going to have to acknowledge that, and we are going to have to accommodate that. Low-income fuel assistance is a vehicle to that end, and we vigorously support it.

In fact, the Crude Oil Windfall Profit Tax Act of 1981 actually contemplated about $3 billion of low-income fuel assistance. We would like to see it get back up there.

Now, another phenomenon has occurred, and it has really proliferated this winter, and that is the private sector funding for low-income fuel assistance for weatherization. We have here, which we have introduced into the record—and incidentally, I would like my prepared statement to be introduced in the record.

Chairman HEINZ. Without objection, so ordered.[1]

Mr. LAWRENCE. This publication [holding up paper] has been sent out to all members of the committee and made available to a lot of people.[2] Of all of our member companies that have private sector low-income fuel assistance programs and private sector-funded weatherization programs, we have 35 in low-income fuel, 27 in weatherization, and many of those are duplicates. So it is a good start, and we want this to be an example to more of our member companies to do it. Now, it is going to be a long time before this private sector fund is the equivalent of the Federal fuel fund assistance, but it is a start in the right direction. And as the Secretary pointed out in Kansas City, that is a good example of all segments

[1] See next page.
[2] See page 67.

of the business community, labor, the energy companies, consumer groups, working privately to do something about that. It is very impressive. That is point 1.

Point 2 is, as we move through this phased deregulation of new gas under the NGPA to a deregulated new gas market, we knew it was going to be kind of a rocky road. You do not get off of 25 years of fuel price regulation that easily. But that has been worsened by restrictions in demand, falling oil prices, competition in the industrial market, and we have got some dumb things happening now; we know that. And we are urging Congress to correct that.

We have told Secretary Hodel and his people this, and incidentally, I appreciate the chance to appear at the same hearing with him. I have a real appreciation of what he has done since he has been there, he and his key staff. They got on this problem with some intelligence, with some energy. They have focused on it, they have sold the administration on sending a bill up here, and I think it is a good place to add momentum to Senator McClure's committee, Congressman Dingell's committee in the House, to get at this problem. We have some problems with their bill. We do not like their deregulation of old gas, and we think their consumer protection with the deregulation of old gas in there is illusory. We do not like their massive transformation of the pipeline industry structure into one of common carriage or mandatory contract carriage, as they characterize it. It is an 18-point proposal that is tremendously complex, and on this subject, the main point I would like to leave with you today, Senator, is I think we have all got to focus on something less than these tremendously complex proposals. Every one of them that have been introduced today are pretty complex. Again, I think yours focuses on the source of the problem, and that is new gas contracts, a bilateral market out for those, and it does it without any effort to reimpose controls on new gas. That is great. But I think we are going to have to focus on that solution in the simplest way possible so that we can get legislation and get it passed this summer, hopefully.

I see the red light is on, Senator, so I will slow down at that point and await your questions.

Thank you.

Chairman HEINZ. Thank you very much.

[The prepared statement and enclosure of Mr. Lawrence follows:]

PREPARED STATEMENT OF GEORGE H. LAWRENCE

Mr. Chairman and members of the committee, I am George H. Lawrence, president of the American Gas Association. AGA is a national trade association, composed of approximately 300 natural gas distribution and transmission companies, serving over 160 million consumers in all 50 States. Together, these companies account for nearly 85 percent of the Nation's natural gas utility sales and provide the primary heating fuel, natural gas, used by 55 percent of the residential housing market.

Many older Americans, particularly those who are poor and living on fixed incomes, face especially difficult social, economic, and medical problems because of energy prices. Older Americans have less income to absorb higher fuel costs, and less savings to make necessary home improvements. Their problems are reflected in the following statistics: More than 11.2 percent of Americans are age 65 and older; yet, older people make up only 3 percent of the total U.S. labor force; not surprisingly, the median income of older persons living alone or with a nonrelative is low—$4,303; and about 11.4 percent of persons age 65 plus are below the poverty level.

Thus, the sheer number of older people, their proportion of the population, and their economic status are important in assessing energy problems.

Although fuel prices continue to rise, they are not matched by increased social security or supplemental security income benefits, pensions, and most other sources of retirement income. By spending a greater proportion of their income on fuel, older people often must limit their spending on food, clothing, transportation, and medical services. Thus, rising energy costs affect budget priorities.

The energy problem also affects the health of elderly people. The severity and incidence of illness increase with age. Eighty-five percent of people who are 65-plus and living outside of institutions, have at least one chronic health condition. A study for the Community Services Administration reported that:

"Altogether, 51 percent of the low-income elderly live in the colder-than-average North Central and Northeast regions—a slightly higher proportion than low-income households of all ages. * * *

"Elderly people, by reason of their age, will often find it harder to adapt to lower home temperatures. Many have infirmities, such as chronic respiratory ailments and arthritis, that can become worse under cold and drafty conditions. At the same time, their already stretched budgets and the fact that most of their energy expenditures already go for home heating, leave them fewer options for change." (Energy Crises and Low Income Americans, 1978.)

Indeed, older Americans have been lowering their thermostats—making them vulnerable to hypothermia, the lowering of body temperatures to hazardous and sometimes fatal levels. Heat stress in the summer, when elderly consumers avoid using air-cooling equipment, may also cause health problems.

For consumers of all ages, an average heating bill this year might be $923 for electric resistance heat, $647 for oil (based on $28.50/barrel), $532 for a new electric heat pump, or $453 for natural gas. A total 1983 natural gas bill might be $646. For all energy consumers, those bills are expected to rise. These price rises are particularly perplexing for natural gas because they are occurring in a time of surplus. By all the rules of classical economics, gas prices should not be escalating.

Rising gas prices are primarily caused by: (1) Increases at the wellhead; and (2) Federal, State, and local taxes. In 1971, 32 percent of the burner-tip gas price was attributable to wellhead gas costs. Ten years later, in 1981, 62 percent of the burner-tip gas price came from wellhead gas costs. Half of the 1982 (October 1981 to October 1982) residential price increase is directly attributable to increases at the wellhead. There were also increases in State severance taxes, State sales tax and pipeline compressor fuel. When these indirect costs were added in, nearly 60 percent of the 1982 residential gas price increase was directly or indirectly attributable to the wellhead. To illustrate the effect of rising wellhead prices and taxation, in the last 10 years, distribution utilities have controlled their costs very effectively at a rate of increase of only 5.7 percent per year. That increase is almost 2 percentage points below inflation.

There are two ways to attack the problem of rising natural gas prices: (a) Public and private fuel assistance; and (b) legislation to amend the clauses in wellhead gas contracts that are driving the price spiral. The Congress does not have to choose one or the other option. Indeed, both remedies go hand-in-hand.

PUBLIC FUEL ASSISTANCE FOR LOW-INCOME CONSUMERS

AGA was the first industry organization to support permanent and adequate Federal energy assistance. We have been actively supporting public fuel assistance since 1979, when AGA formed a special task force on fuel subsidies. Last year, we were again ardent supporters of Federal funding. The fiscal year 1983 continuing appropriations resolution appropriated $1.975 billion for Federal assistance. That was a measure on which AGA worked long and hard, as did you Mr. Chairman, and so many of your colleagues. Because energy prices are continuing to rise, we certainly support proposals to raise the fuel aid authorization to $2.5 billion, but an authorization is not an appropriation. When the authorization is raised, it is vital to follow through with a full appropriation.

We also worked for new legislation to keep the Department of Health and Human Services from deducting private fuel aid contributions from supplemental security income or aid to families with dependent children. The continuing appropriations resolution solved this problem for fiscal year 1983. Then, an amendment to the gasoline tax act (the Surface Transportation Assistance Act of 1982) sponsored by Senator Danforth and Chairman Heinz extended the prohibition to 1985. We especially appreciated your efforts Mr. Chairman, and many elderly Americans are better off because of your work. We worked with you for these amendments because compa-

nies with corporate fuel aid programs did not want to see their contributions to those in need used to offset SSI and AFDC benefits.

We are pleased that an amendment to the so-called emergency jobs bill—the Emergency Expenditures To Meet National Needs Act, H.R. 1718—would increase Federal weatherization funds. The DOE low-income home weatherization program currently has $145 million. The House version of the jobs bills would add an additional $150 million for this program. while the Senate version would add $100 million. Since it costs approximately $1,000 to weatherize a single house, the two versions of the bill would cover an extra 150,000 to 200,000 homes. The difference in appropriations will be adjusted by the House-Senate conference before the bill is sent to the President. The administration does not support the DOE weatherization program and virtually proposed to eliminate it in fiscal year 1984 by transferring it to the HHS low-income energy assistance program.

PRIVATE FUEL ASSISTANCE FOR LOW-INCOME CONSUMERS

Our companies' corporate fuel assistance programs provide direct financial aid to gas consumers for help on energy bills and for weatherization/conservation projects. Some companies have special billing procedures that allow delinquent customers to continue or resume gas service under certain conditions. Other companies have self-imposed moratoria for service terminations. A compilation of corporate fuel assistance, weatherization, special payment, and nontermination programs is being provided to the committee. This AGA "Gas Industry Manual on Fuel Subsidies and Innovative Energy Efficiency Programs" is our most complete handbook on corporate energy assistance to date. We intend to revise the manual as more and more of our companies send in descriptions of their energy assistance efforts. Currently, the manual describes 35 corporate fuel assistance programs for direct financial aid to low-income consumers. There are 27 corporate weatherization programs to help consumers save energy. There are six descriptions of special rates and billing programs for needy energy users and five self-imposed special rules to delay or prevent service termination.

As an organization, AGA is a leader of the Energy and Aging Consortium, a network of more than 50 utilities, government agencies, consumer groups, and other organizations. The Consortium is compiling a manual, "The Elderly as Resources," that will spotlight energy suppliers that use senior citizens as paid or voluntary assistants. Last fall, the Consortium and the U.S. Office of Consumer Affairs sponsored a 2-day conference in Seattle to discuss weatherization, conservation, and fuel assistance for older persons. AGA's consumer affairs committee, in conjunction with the Administration on Aging (AoA) and other groups, has produced a slide/tape show—"Staying Warm"—that explains how older Americans can prevent hypothermia. This media kit uses the latest scientific and medical facts on hypothermia and is available to both AGA members and nonmembers. We are also partially funding a study on hypothermia by the Center for Environmental Physiology.

PROPOSALS TO AMEND THE NGPA

Although a consensus was forged between industry and consumers on public and private fuel assistance, there is no unanimity on proposals to amend the Natural Gas Policy Act of 1978. Some groups believe that only total decontrol will stabilize gas markets. This puts unwarranted price pressure on consumers without corresponding supply benefits. Decontrol proposals are matched by proposals to roll back or freeze prices and to reimpose controls on new gas wells. This will only lead to supply problems in the future, higher consumer prices, and an unsound national energy policy. AGA and the companies we represent have a middle-ground position that focuses on the problem at its source—the contract provisions and prices in new gas contracts, defined in the NGPA as post-April 1977 contracts.

Our basic legislative principles are:

(1) Take-or-pay requirements in existing new gas contracts should be reduced to 50 percent of deliverability for 3 years. This provision would lower average gas prices by allowing pipelines to buy more low-cost gas instead of high-cost gas.

(2) Indefinite escalator clauses should be limited by a floating cap that reflects market conditions. Third party most favored nation clauses should be banned. These clauses raise gas prices automatically without regard to the marketplace.

(3) Either party should be able to terminate a contract for section 107 gas, within 1 year of enactment; a pipeline should have a right of first refusal if the producer terminates. A right to end these very high priced gas contracts would insure that the price is renegotiated.

(4) Demand restraints in the Fuel Use Act and the NGPA's title II incremental pricing should be repealed. When utilities cannot add new industrial customers, residential consumers have to bear more of the utilities' fixed capital costs.

(5) The standard for purchase gas adjustment filings should be strengthened to include a prudence standard, for postenactment contracts. A tougher FERC standard would make pipelines more responsive to their customers.

(6) Intrastate pipelines should have access to offshore, imported, or surplus interstate gas. This provision could forestall regional gas shortages.

(7) Thus, we are not proposing to amend title I of the NGPA. Neither decontrol of old gas nor recontrol of new gas is the answer to today's rising gas prices. Decontrolling old gas or recontrolling new gas would mean lower gas supplies and higher prices in the long run.

We are on sound ground when we advocate contract relief. The average gas heating bill—for all ages and incomes—falls when we compare the gas price under the NGPA today to the NGPA as we would change it.

Residential gas bills will level off this winter if legislation is enacted that defuses indefinite escalator clauses and caps take-or-pay requirements at 50 percent. Our analysis shows that in calendar year 1984, national average gas bills are expected to increase only $22 (3.4 percent), or just over half the inflation rate, if these contract clauses are amended. Thus, legislation aimed at gas contracts will cause a decline in gas prices in constant dollars. In contrast, without this legislation the national average residential bill is projected to increase $48 (7.4 percent).

While the estimated price relief from this legislation is significant in 1984, it is much greater in 1985. Contract relief is estimated to save the average homeowner $119 in 1985—a 17-percent reduction in gas bills. Its effect on low-income consumers, with less than $5,000 in family income, is dramatic. Our proposal lowers the percentage of disposable family income spent on gas in 1985 from 20.9 percent under the status quo to 17.9 percent under amended gas contracts. Thus, defusing indefinite escalator clauses and reducing take-or-pay requirements is projected to save low-income households 3 percent of their total income.

S. 689, THE NATURAL GAS POLICY ACT AMENDMENTS OF 1983

Of course, we could not resist comparing our legislative goals with the provisions of Senator Heinz' S. 689. When we put them side-by-side, we found many provisions that shared a common ground.

For example, we agree that take-or-pay requirements should be reduced to 50 percent of deliverability, but only for 3 years. The Senator's bill sets take requirements at 50 percent in perpetuity. High take-or-pay requirements are an interim problem. When gas demand is down—as it is now because of the recession, conservation, and low residual oil prices—pipelines scale back their takes to the absolute contract minimum. Problems arise when the contract minimum forces the pipeline to take a larger percentage of high-cost gas than previously. Once high-cost contracts are renegotiated and gas demand picks up, there will be no need for a Federal limit on take requirements. We believe that a 3-year/50-percent limit on take requirements will solve the problem.

We also agree with S. 689 that Congress should defuse indefinite escalator clauses. Currently, indefinite escalator clauses act very well to raise prices in response to market forces. Unfortunately, they are inflexible when market forces require prices to fall. These clauses have acted, in the current market, to keep prices artificially high, and in 1985 will automatically drive prices even higher. Our solution is to limit them with a floating cap that reflects the gas market and to ban all third party indefinite escalators that tie the price of gas to an outside party's contracts. Third party indefinite escalators cannot be controlled by either party to the original contract. They are anticompetitive, and, we believe, against public policy. Senator Heinz' solution is to ban all indefinite escalators outright. While either approach provides an adequate solution for current problems, we believe that a policy to ban all indefinite escalator clauses must be carefully balanced against a policy to encourage flexible contracts. The law should allow pipelines and producers to sign contracts that will vary over the long term in response to market forces.

S. 689 also inserts a market out clause in all new gas contracts. Many producers have several contracts with one buyer. Allowing the producer to walk away from all his contracts gives him tremendous leverage. Although our legislative principles limit market-outs to the most offending section 107 gas contracts, I personally see considerable merit in the Senator's proposal and expanding a market-out clause to other new gas contracts is presently being considered by our policy group.

We agree in principle with our understanding of Senator Heinz' provision to strengthen the present "fraud and abuse" standard for purchase gas adjustment filings to include a prospective prudence standard. We emphasize that the standard should only apply to postenactment contracts. Pipeline decisionmakers should not be second-guessed by a retroactive standard.

Although we did not include transportation among our pricing principles, we also agree that pipelines need incentive rates for voluntary third-party transportation. We are strongly opposed to the mandatory common carriage provisions of the administration bill.

While the above points, with minor modifications, indicate the high regard we have for this bill, there is one point that we believe is seriously flawed. This is proposed section 202(c) that would eliminate all the inflation adjustment factors in the NGPA. In lieu of an automatic inflation adjustment, the bill forces FERC to determine producers' costs and cost increases. In many ways, this marks a return to the wellhead pricing scheme that FERC administered before the NGPA and which was abandoned in 1978 as unworkable.

As to the automatic inflation adjustments for new gas, i.e., sections 102, 103, and 107, we believe that a market reflective floating cap would reduce gas price. As to the automatic inflation adjustments for old gas, i.e., sections 104 and 106(a), at anticipated rates of inflation, the adjustment factor only raises prices 5 to 6 cents/Mcf/year. This slight increase is not worth stimulating the old gas decontrol issue. Furthermore, retaining this modest, inflation-based allowance may avoid premature abandonment of old wells and encourage more low-cost production. Despite transitional problems of which we are all painfully aware, the NGPA has proven that an orderly transition to decontrol will bring forth new supplies—just as the pre-NGPA price controls lead to shortages. New legislation should not put us back on the road toward a discredited era.

THE ADMINISTRATION'S DECONTROL BILL

A brief comment on S. 615, introduced by Senator McClure and developed by the administration, is in order. We agree with many parts of the bill and are pleased that Senator McClure introduced it, thereby giving much needed momentum to the legislative solutions discussed above. In our testimony just last week before the Senate Energy Committee, we opposed old gas decontrol on January 1, 1985, the rigid PGA ceilings in the bill, and mandatory common carriage.

Our opposition is twofold: The bill will increase price and decrease supply. On the supply side, the administration's own economic analysis shows that decontrolling old gas will force the new gas price down. A depressed new gas price inevitably translates into lower incentives to drill and then into fewer reserve additions. On the price side, we calculate that over a 5-year period, old gas decontrol would transfer $33 billion from consumers and new gas producers to old gas producers. We oppose the old gas decontrol provisions of S. 615, the limits on PGA filings, and the conversion of interstate pipelines into mandatory common carriers. As in Senator Heinz' bill, however, the contract relief provisions in the administration's bill are a good starting point for solving the gas industry's contracts problems.

CONCLUSION

We believe that the Nation needs a bill that focuses on price relief—without adding the cost of decontrolling old gas. At the same time, we should avoid going to the opposite extreme of recontrolling new gas. There is a "middle ground" between recontrol and decontrol. We think Senator Heinz' bill occupies this middle ground. We also think our own legislative principles occupy this middle ground. Both would lower consumer prices and leave supply incentives intact.

Enclosure.

ENERGY ANALYSIS

American Gas Association

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1983-4

March 17, 1983

IMPACT ON LOW INCOME AND ELDERLY CONSUMERS OF TAKE-OR-PAY AND INDEFINITE PRICE ESCALATOR CLAUSES IN GAS CONTRACTS

Digest

This analysis estimates the impacts on residential gas bills of eliminating the adverse effects of take-or-pay and indefinite price escalator clauses in gas purchase contracts. It estimates that on a national average, gas consumers can expect to save $26 in 1984 and $119 in 1985 if these gas purchase contract provisions are modified. For low income families, the savings imply that 17.9% of their income will go for gas in 1985 rather than the 20.9% that would otherwise be required. Elderly families could expect to pay 5.5% of their income, rather than the 6.4% that would be required without the modifications.

Natural gas will remain the most economic residential heating fuel, requiring 1.9%-2.3% of median family income during 1982-1990, compared to 2.7%-3.5% for oil heat, 4.4%-4.9% for electric resistance heat and 2.5%-2.8% for an electric heat pump.

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IMPACT ON LOW INCOME AND ELDERLY CONSUMERS OF TAKE-OR-PAY AND INDEFINITE PRICE ESCALATOR CLAUSES IN GAS CONTRACTS

Introduction

The most recent American Gas Association projections of natural gas prices indicate that prices on average will grow more slowly during the coming years than they did over the past decade. Nevertheless, high take-or-pay requirements and indefinite price escalator clauses in many gas purchase contracts are likely to keep gas prices -- and, as a result, residential gas bills -- artificially high for the next two to four years unless some remedial action is taken. Concern is growing about the impacts of natural gas price trends on residential consumers -- especially those with low or fixed incomes.

This analysis estimates the impact on residential gas bills of eliminating the adverse effects of take-or-pay and indefinite price escalator clauses in gas purchase contracts, with particular attention to the expected impacts on low income and elderly families. It also estimates the economics of gas heat as compared to oil or electric heat.

Executive Summary

Legislative initiatives to reduce take-or-pay requirements and to defuse indefinite price escalator clauses in gas purchase contracts would have significant beneficial effects to gas consumers over the next two winters. These effects would be of particular importance to low income groups, whose gas bills require a proportion of their family income that is six times greater than the national average, and to the elderly, whose gas bills require nearly three times the national average proportion of family income (see Table 1).

- On a national average, gas consumers can expect to save $26 on their total gas bills in 1984 and $119 in 1985 if these gas purchase contract provisions are modified -- reducing the 1985 gas bill from 3.3% of median family income to 2.8% (see Table 1).
  - Without contract modification, the increase in the average residential gas bill between 1984 and 1985 will be four times greater than it would be if these contract provisions were modified ($123 vs. $30).
  - In 1985, the average residential gas bill will be 17% higher if contracts are not modified ($817 vs. $698).
- Low-income families (whose 1985 income is less than $7000) can expect to pay 20.9% of their income for gas in 1985 if contract provisions are not modified. With modification, this proportion would fall to 17.9% -- saving these families three percent of their total income (see Exhibit 1).

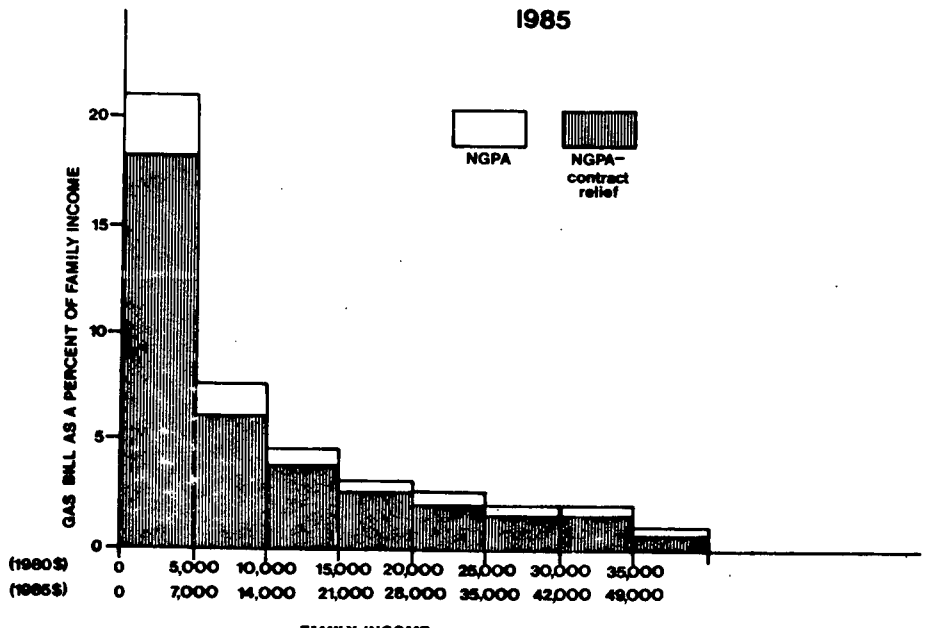
Table 1

ESTIMATED EFFECTS OF MODIFICATIONS TO GAS PURCHASE CONTRACTS
ON RESIDENTIAL NATURAL GAS BILLS FOR ALL FAMILIES,
LOW INCOME FAMILIES AND ELDERLY FAMILIES
1985

	Residential Gas Bill			Residential Gas Bill as a % of Median Family Income		
	NGPA	NGPA-Contract Relief	Percent Difference	NGPA	NGPA-Contract Relief	Percent Difference
1984						
All Families	$694	$668	3.9%	3.1%	2.9%	6.9%
Low Income Families	616	593	3.9	19.2	18.5	3.8
Elderly Families	668	643	3.9	5.9	5.7	3.5
1985						
All Families	$817	$698	17.0%	3.3%	2.8%	17.9%
Low Income Families	725	620	16.9	20.9	17.9	16.8
Elderly Families	786	672	17.0	6.4	5.5	16.4

Exhibit I

ESTIMATED IMPACT OF MODIFICATIONS TO GAS PURCHASE CONTRACTS ON U.S. INCOME GROUPS 1985



- Similarly, elderly gas consuming households can expect to pay 6.4% of their income for gas in 1985 under the status quo, compared to 5.5% if take-or-pay and indefinite price escalator clauses are defused.

Natural gas will remain the most economic residential heating fuel, requiring 1.9%-2.3% of median family income during 1982-1990 under current conditions.

- Families heating with oil (on a national average basis) would require an estimated 2.7%-3.5% of median family income to pay heating bills.

- Electric resistance heat would take 4.4%-4.9% and electric heat pumps would require 2.5%-2.8% of median family income (see Table 2).

Background

Recent and expected increases in the average wellhead price of natural gas may be attributed to two prevalent features of the natural gas contracting procedure. One is the fact that contracts for higher-priced categories of natural gas (negotiated primarily during the supply-constrained period of 1977-1981) have contained higher take-or-pay requirements than were present in contracts for lower-priced gas (typically negotiated prior to 1977). As a result, when demand for natural gas fell in 1982, pipeline systems reduced their "takes" of lower priced gas in order to fulfill their higher take-or-pay commitments for higher priced gas, and the overall average purchase cost of natural gas increased. The higher prices in turn, reduce natural gas demand even further, which renews the cycle of price increases.

The second feature of natural gas purchase contracts is the existence of indefinite price escalator clauses, including clauses that provide that the price of gas be "the highest allowed price under law" (which currently impede gas prices from falling) and clauses that would take effect upon decontrol of the gas under contract (January 1, 1985 in most cases). These indefinite price escalator clauses have the potential to raise the price of the affected gas far above a market-clearing level until such time as the contracts can be renegotiated or the escalator clauses legislatively defused.

The implications of these two types of contract provisions have significant implications for natural gas consumers, and especially for elderly and/or low-income consumers for whom fuel costs represent a sizeable proportion of the family budget. This report examines the implications for consumers of natural gas price increases expected to result from gas contracts as currently written as compared to the price increases that would be expected if take-or-pay requirements were reduced and indefinite price escalator clauses were defused.

Table 2

PROJECTED NATIONAL AVERAGE RESIDENTIAL HEATING BILLS
BY FUEL TYPE

	Estimated Average Residential Heating Bill (nominal dollars)					Median Family Income (nominal dollars)	Average Residential Heating Bill as a % of Median Family Income				
	Gas		Oil	Electricity			Gas		Oil	Electricity	
	NGPA	NGPA-Contract Relief		Resistance*	Heat* Pump		NGPA	NGPA-Contract Relief		Resistance	Heat Pump
1982	$425	$425	$703	$ 906	$522	$19,926	2.1%	2.1%	3.5%	4.5%	2.6%
1983	453	453	647	923	532	21,201	2.1	2.1	3.1	4.4	2.5
1984	491	473	710	1048	604	22,745	2.2	2.1	3.1	4.6	2.7
1985	576	493	754	1207	696	24,595	2.3	2.0	3.1	4.9	2.8
1986	559	514	786	1234	712	26,298	2.1	2.0	3.0	4.7	2.7
1987	514	532	817	1278	737	28,277	1.9	1.9	2.9	4.5	2.6
1988	556	553	849	1392	803	29,991	1.9	1.8	2.8	4.6	2.7
1989	589	591	878	1460	841	31,545	1.9	1.9	2.8	4.6	2.7
1990	623	623	905	1512	872	32,976	1.9	1.9	2.7	4.6	2.6

*Electricity bills are influenced by the price of gas used to generate electricity. Therefore, projected electricity bills would be lower in 1985 and 1986 if the NGPA-Contract Relief case for gas were assumed. Specifically, electric resistance heating bills would be an estimated $997 in 1985 and $970 in 1986 while electric heat pump bills would be an estimated $575 in 1985 and $559 in 1986 if the modified gas price were in effect.

This report also compares the expected cost of natural gas used for home heating to that of the other major house-heating fuels -- fuel oil and electricity. For that comparison, only the heating portion of the total gas bill is discussed. Elsewhere in the report, trends in the total gas bill (which is generally about 40% higher than the heating bill, for total-gas homes) are considered.

Methodology and Assumptions

The "NGPA" projections presented in this report were derived from a modified version of The Winter 1983 A.G.A.-TERA Base Case, published February 8, 1983. The NGPA forecast discussed here differs from the Winter Base Case only in its assumed refinery acquisition cost of crude oil, which is $28.50 per barrel in 1983, rising at a 2% "real" annual rate (i.e., above the rate of inflation) thereafter. The Winter Base Case had assumed a $32 oil price in 1983, also rising at a real annual rate of 2% thereafter. Among the assumptions which this NGPA forecast shares with the Winter Base Case are the following:

1. Natural gas wellhead prices were assumed to follow the NGPA schedule. In 1985, that portion of currently flowing Section 102 and 103 gas subject to indefinite price escalator clauses with no "market-out" clause was assumed to be priced at 110% of the Btu-equivalent price of distillate fuel oil, phasing down to "market clearing" by 1987. All other Section 102 and 103 gas deregulated in 1985 moves to "market clearing" (estimated to be 55% of the crude oil price)in 1985 with no "fly-up".

2. Projected rates of economic growth and inflation were taken from the economic projections reported in A.G.A.'s Five Year Economic Outlook (Arlington, VA, A.G.A., December 30, 1982).

3. Unit house heating gas demand is assumed to decline by 0.4% for each 1% current dollar increase in fuel price. This representation implicitly assumes a trend toward a more energy-efficient stock of housing and heating appliances, and results in a national average decline in heating fuel use per household of approximately 6% between 1981 and 1990. Recent conservation studies indicate that this projected decline may be conservative. Consequently, these projected heating bills may be somewhat overstated in the outer years.

The "NGPA-Contract Relief" case is identical to the NGPA case except that take-or-pay requirements are assumed to be limited to 50% and indefinite price escalator clauses are assumed not to be activated in 1985. Rather, the average gas wellhead price is assumed to clear the market, at a price that was estimated to equal 55% of the price of crude oil in 1985 and

thereafter. These projections were made using the TERA model (Scenario DM8326L, dated March 2, 1983).

National average residential gas bills were derived by multiplying TERA residential sector gas prices by TERA residential sector total gas use per residence. Gas heating bills were calculated using the TERA residential sector heating use per residence. Estimated average heating bills for alternative fuels (assuming comparable household insulation, house size, family size and behavior) were derived in the following manner:

1. Btus of fuel consumed were based on the gas consumption data for gas-heated homes, adjusted to reflect only fuel efficiency differences in heating appliances. Other factors, such as family size, house size, house age and insulation, which tend to vary for the different heating fuels, were held constant for purposes of this analysis. The "average" gas furnace was assumed to be 65% efficient, the "average" oil furnace 61% efficient, electric resistance heaters 98% efficient, and the electric heat pump 170% efficient on a U.S. average.

2. Heating fuel consumption per household was multiplied by the projected fuel price to derive the estimated heating bill.

Estimated total gas bills for specific age and income groups were based on fuel consumption patterns revealed in the U.S. Department of Energy's Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 through March 1981 (Washington, DC: U.S. Government Printing Office, September 1982). The calculations were carried out via the following procedures:

1. The distribution of gas consumption by age and income group relative to the national average was calculated from the data reported by DOE. These distributions were then applied to the national average gas use projections from TERA to estimate future gas use by group. Implicit in this procedure is the assumption that future energy conservation measures will be evenly distributed across age and income groups. While there are theoretical reasons to suspect that energy conservation would be affected to some degree by age or income, a comprehensive treatment of this issue was beyond the scope of this analysis. Therefore, to the extent that lower income groups are not able to make energy conserving investments, for example, these results may overestimate the differential between the gas bills of low-income and high-income households.

2. Projected gas consumption by age and income group was multiplied by projected residential gas prices to derive estimated total gas bills.

National median family income projections were based on the 1980 median family income of $17,710 as reported by the U.S. Census Bureau's Current Population Reports, Series P-60. Median family income after 1980 was assumed to increase at the projected rate of family income derived from the economic forecast underlying A.G.A.'s Five-Year Economic Outlook of December 30, 1982. The 1980 family income categories taken from the DOE report were also expanded to current year levels using the projected rates of family income growth. For example, the "less than $5000" income category in 1980 would be a "less than $6400" category in 1984, "less than $7000" category in 1985, "less than $7500" category in 1986 and "less than $8000" category in 1987.

Discussion of Results

The major impacts of the contract modifications analyzed here would be felt in 1984-1987. Without relief from onerous take-or-pay provisions and indefinite price escalator clauses, the national average residential gas price is projected to rise from $5.59 per million Btus (MMBtu) in 1983 to $5.94 in 1984 and then to $7.17 in 1985. If these contract provisions are defused, the 1984 price would be only $5.72 and the 1985 price only $6.12 (see Table 3). Significant but diminishing discrepancies between the two scenarios remain during 1986 and 1987, during which time the NGPA projection assumes that contracts are renegotiated to eliminate gradually the adverse effects of high take-or-pay and indefinite price escalator clauses.

As a result of the lower gas prices projected in the NGPA-Contract Relief case, total gas use per gas home is somewhat higher in 1985 and thereafter than is true for the NGPA case (see Table 3). This increases the residential gas bill in the NGPA-Contract Relief case from the level that would be expected if the lower gas price had no demand effect. Nevertheless, the expected reduction in residential gas bills is substantial. In 1984, the NGPA projected gas bill is $694 compared to only $668 for the NGPA-Contract Relief case -- a difference of $26. By 1985, the difference grows to $119 (a total gas bill of $817 under the NGPA vs. $698 with contract relief) and in 1986 the expected savings from contract relief remain significant at $66 ($796 vs. $730).

Compared to family income, the savings are also significant. While gas on average only requires about 3 percent of the median family income today, this proportion would rise to 3.3% in 1985 as a result of high take-or-pay and escalator clauses, compared to only 2.8% if these clauses were modified (see Table 4).

These effects vary widely by age and income group, however, since low income groups typically spend a larger proportion of their income on such essentials as fuel needs than do higher

Table 3

ESTIMATED EFFECTS ON RESIDENTIAL NATURAL GAS BILLS OF MODIFYING TAKE-OR-PAY REQUIREMENTS AND INDEFINITE PRICE ESCALATOR CLAUSES IN GAS PURCHASE CONTRACTS

	Total Gas Use Per Gas Home (MMBtu)		Residential Gas Price (nominal $/MMBtu)		Total Residential Gas Bill (nominal dollars)	
Year	NGPA	NGPA-Contract Relief	NGPA	NGPA-Contract Relief	NGPA	NGPA-Contract Relief
1982	117.9	117.9	$5.11	$5.11	$602	$602
1983	115.6	115.6	5.59	5.59	646	646
1984	116.8	116.8	5.94	5.72	694	668
1985	113.9	114.1	7.17	6.12	817	698
1986	111.0	111.4	7.17	6.55	796	730
1987	108.3	108.7	7.14	6.98	773	759
1988	105.7	106.1	7.53	7.45	796	790
1989	103.2	103.5	8.21	8.18	847	847
1990	100.7	101.1	8.93	8.88	899	898

Source: NGPA projections from A.G.A.-TERA Scenario DM8328L, February 25,1983.

NGPA-Contract Relief projections from A.G.A.-TERA Scenario DM8326L, March 2,1983.

Table 4

PROJECTED NATURAL GAS BILLS
AS A PERCENT OF FAMILY INCOME

	Total Residential Gas Bill (nominal dollars)		Median Family Income (nominal dollars)	Residential Gas Bill as a % of Family Income	
	NGPA	NGPA-Contract Relief		NGPA	NGPA-Contract Relief
1982	$602	$602	$19,926	3.0%	3.0%
1983	646	646	21,201	3.0	3.0
1984	694	668	22,745	3.1	2.9
1985	817	698	24,595	3.3	2.8
1986	796	730	26,298	3.0	2.8
1987	773	759	28,277	2.7	2.7
1988	796	790	29,991	2.7	2.6
1989	847	847	31,545	2.7	2.7
1990	899	898	32,976	2.7	2.7

Source: Total gas bills from Table 3.

Median family income from U.S. Bureau of Census, Current Population Reports, Series P60, 1980.

income families. Table 5 shows projected gas bills, and the proportion of income required to pay them, by income group for 1984-87 under the two scenarios. Under the NGPA assumptions, families in the lowest income category can expect their gas bills to increase from 19.2% of their income in 1984 to 20.9% in 1985. With the NGPA-Contract Relief assumptions, this proportion would decline from 18.5% in 1984 to 17.9% in 1985. Further declines would be anticipated, reaching approximately 17% in both cases by 1987.

Gas use by the elderly (ages 60 and older) is only slightly below the national average, according to the U.S. Department of Energy. Therefore, elderly households can expect to pay about the national average amount for natural gas. However, since elderly households typically receive much lower incomes than average ($8781 in 1980 compared to a national median of $17,710 according to the U.S. Census Bureau), their gas bills represent a significant proportion of their household budgets. Therefore, reduction of take-or-pay requirements and defusing of indefinite price escalator clauses in gas contracts would be of particular benefit to the elderly. As shown in Table 6, such modifications of gas contracts would reduce an elderly homeowner's gas bill from an estimated 5.9% of his or her family income in 1984 (NGPA case projections) to an estimated 5.7% (NGPA-Contract Relief case). Much greater savings could be realized in 1985, when the NGPA case projects a gas bill equal to 6.4% of elderly family income, compared to only 5.5% for the NGPA-Contract Relief case. The savings remain large in 1986 (5.9% vs. 5.4% of elderly family income).

Finally, it should be noted that natural gas is expected to remain the most economical home heating fuel for the foreseeable future. Table 2 compares projected heating bills for natural gas (under both scenarios), fuel oil, electric resistance heat, and the electric heat pump. Natural gas heat is projected to require only 1.9%-2.1% of median family income throughout the 1980's (2.3% in 1985 unless contract modifications are achieved). Oil heat will require 2.7%-3.1% (the 3.5% level is estimated to have been achieved in 1982 and is not expected to recur). Electric resistance heat is expected to take 4.4%-4.9% and the electric heat pump 2.6%-2.8%. These are national average projections based on standarized house and family size; only fuel price and efficiency variations were considered in making these comparisons.

Conclusion

Natural gas is expected to remain the most economical fuel choice for most homeowners throughout the 1980's. However, adjustments in gas contracts are necessary to relieve high take-or-pay requirements and indefinite price escalator clauses which are putting upward pressure on gas prices and could adversely affect consumers -- particularly elderly and low income families.

Table 5

PROJECTED NATURAL GAS BILLS
BY FAMILY INCOME
1984-1987

1980 Family Income	Total Gas Bill (nominal dollars) NGPA	Total Gas Bill (nominal dollars) NGPA-Contract Relief	Total Gas Bill as a % of Median Family Income NGPA	Total Gas Bill as a % of Median Family Income NGPA-Contract Relief
1984				
Less than $5,000	$616	$593	19.2%	18.5%
$5,000-9,999	642	618	6.7	6.4
$10,000-14,999	635	612	4.0	3.8
$15,000-19,999	668	643	3.0	2.9
$20,000-24,999	752	724	2.6	2.5
$25,000-34,999	746	718	2.1	2.0
$35,000 or more	817	787	1.3	1.2
1985				
Less than $5,000	$725	$620	20.9%	17.9%
$5,000-9,999	756	646	7.3	6.2
$10,000-14,999	748	640	4.3	3.7
$15,000-19,999	786	672	3.2	2.8
$20,000-24,999	885	757	2.8	2.4
$25,000-34,999	878	751	2.3	2.0
$35,000 or more	962	822	1.4	1.2
1986				
Less than $5,000	$707	$648	19.0%	17.5%
$5,000-9,999	736	675	6.6	6.1
$10,000-14,999	729	668	3.9	3.6
$15,000-19,999	766	702	2.9	2.7
$20,000-24,999	863	791	2.6	2.4
$25,000-34,999	855	784	2.1	1.9
$35,000 or more	937	859	1.3	1.2
1987				
Less than $5,000	$687	$674	17.2%	16.9%
$5,000-9,999	715	702	6.0	5.9
$10,000-14,999	708	695	3.5	3.5
$15,000-19,999	744	730	2.7	2.6
$20,000-24,999	838	823	2.3	2.3
$25,000-34,999	831	815	1.9	1.9
$35,000 or more	911	893	1.1	1.1

Source: Gas bills calculated by using the distribution of gas use by family income as reported by U.S. Department of Energy, Energy Information Administration, Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 through March 1981 (Washington, DC: U.S. Government Printing Office, September 1982) pages 52-55.

Median family income assumed to be the midpoint of each 1980 income category, escalated by the growth in family income as projected by A.G.A. for the Five-Year Economic Outlook (Arlington, VA: American Gas Association, December 30, 1982).

Family income categories shown are stated in terms of the 1980 family income categories reported in the DOE report. In nominal terms, these categories would have expanded according to the growth in family income since 1980. For example, the "less than $5000" income category in 1980 would be a "less than $6400" category in 1984, "less than $7000" in 1985, "less than $7500" in 1986 and "less than $8000" in 1987.

Table 6

PROJECTED NATURAL GAS BILLS FOR
ELDERLY FAMILIES AND ALL FAMILIES

	Total Gas Bill (nominal dollars)		Gas Bill as a % of Median Family Income	
	NGPA	NGPA-Contract Relief	NGPA	NGPA-Contract Relief
1984				
All Families	$694	$668	3.1%	2.9%
Elderly	668	643	5.9	5.7
1985				
All Families	$817	$698	3.3%	2.8%
Elderly	786	672	6.4	5.5
1986				
All Families	$796	$730	3.0%	2.8%
Elderly	766	702	5.9	5.4
1987				
All Families	$773	$759	2.7%	2.7%
Elderly	744	730	5.3	5.2

Source: Gas bills for all families from Table 3.

Gas bills for the elderly calculated by using the distribution of gas use by the elderly as reported by U.S. Department of Energy, Energy Information Administration, Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 through March 1981 (Washington, DC: U.S. Government Printing Office, September 1982) pages 52-55.

Median family income for elderly families for 1980 was taken from the U.S. Census Bureau, Current Population Reports, Series P-60, 1980 (Washington, DC: U.S. Government Printing Office, 1982), and escalated by the growth in family income as projected by A.G.A. for the Five-Year Economic Outlook (Arlington, VA: American Gas Association, December 30, 1982). To the extent that elderly families do not experience the national average income growth, these projections underestimate the impact of gas bills on elderly family budgets.

Chairman HEINZ. Mr. Lawrence, you say you think the idea of decontrolling the old gas is a bad idea. So do I. The Secretary argues, of course, that there will be some increase and that they will be offset by renegotiation of the so-called new gas contracts.

What evidence do you see, if any, that there really will be some successful renegotiation down of the new gas contracts? The group that you represent is the group that is going to be on the firing line, so to speak, in doing that kind of renegotiation. Is it going to happen, and if not, why not?

Mr. LAWRENCE. Senator, the way we see it is in the 3 years following this throwing the cards up in the air on January 1, 1985, on old gas and letting everything be renegotiated, in a 3-year period, there is about $7 billion a year, or $20 billion in that 3-year period, that is going to be transferred from somebody to old gas producers. Now, for a period of 15 years, AGA has supported this deregulation of new gas for the incentives and opposed the deregulation of old gas because of the upward price pressure without supply benefits. So somebody is going to pay that $20 billion. The Secretary's proposal is that the new gas producers will accommodate that, and they will negotiate their prices downward.

We do not see that. There might be some, but we do not see that. We think it is going to be very easy. And the old gas is owned by 75 percent of the top 20 major producers, and it is an average price right now of about $1.30. It is going to be very easy for those producers to negotiate that price up to the market level somewhere between $2.75 and $3. But the new gas, which is owned more by the independents, in a range of 50 to 60 percent, is going to be much more sticky for them to negotiate downward. So we do not see that offset happening, and to the extent that it does not happen, then the consumers are going to pay the bill.

Chairman HEINZ. What you are pointing out is that the old gas and the new gas are not owned by the same people; they are owned by different people.

Mr. LAWRENCE. Yes.

Chairman HEINZ. And, as we have learned, many of the so-called independents are not able, therefore, to do the kind of averaging that is implied.

Let me ask you this. Why wouldn't the independents be able to renegotiate prices downward—notwithstanding the fact that they probably would not want to do it?

Mr. LAWRENCE. I think they are going to have more specific financial obligations depending on those contracts—bank loans, joint venture, partners, leasing arrangements with other interests—that are not going to permit them that flexibility, to say nothing about just the financial hardship that they are going to incur in negotiating them downward.

Chairman HEINZ. Are the independents in a financially strong position now?

Mr. LAWRENCE. No; I think the exploration and drilling industry, that pendulum swung from a low point of some 1,800 rigs a day up to a high of 4,600, and now it is back down to below 2,500 today, and the exploration and drilling industry is hurting, and it is falling most heavily on the independents, as you would expect.

Chairman HEINZ. Now, in your prepared testimony, you indicate that indefinite escalator clauses should be limited by a floating cap that reflects market conditions. Can you explain what those market conditions might be, and could you also state why indefinite price escalator clauses should not simply be banned, as I propose in my legislation.

Mr. LAWRENCE. We will go part way with you on the banning, or what we think would get at most of the problem, and that is to ban the most favored nations clauses. This is the one that said I could get what somebody else got in his contract, or even what somebody else got on another pipeline system. We think the favored nations clauses are the biggest offenders that make these very aberrant contract prices just kind of cascade throughout the industry, so I would say again, Senator, we are with you on about 90-plus percent of what you are proposing to do there on banning indefinite escalators. Indefinite escalators is a serious problem and is going to cause tremendous strife on January 1, 1985. We do think that the administration's proposal of capping those escalators, in addition, we would ban the most favored nations; if they would cap the escalators at a market-reflective renegotiated price, we think under current market conditions that contracts, both new and renegotiated, are going at less than the NGPA new gas price of $3.30—there is a lot of gas going in the range of $2.75 to $3 now. So we think it would be a market-reflective cap that would serve to reduce prices now. But a very key part of it, again, Senator, is the banning of certain of these most offensive clauses, which is the direction you are going.

Chairman HEINZ. Well, I am not quite clear on what you are saying in terms of the floating cap. Are you saying that the floating cap is at the last price negotiated by the newest guy on the block with new gas; is that what you are saying?

Mr. LAWRENCE. Well, we are saying a weighted average of contracts over some previous period, 3 months, or something like that.

Chairman HEINZ. Of newly negotiated contracts for new gas supplies coming onstream for sales.

Mr. LAWRENCE. Yes, sir, or renegotiated contracts of existing new contracts, which I think your bill would encourage that renegotiation. And incidentally, the Secretary's bill calls for that, too, and some of the producer groups are opposing that, because they feel the renegotiated prices would be lower than the new prices, but we would like both of them to be calculated in.

Chairman HEINZ. Now, I believe you said before the Energy Committee, and as I recollect, in your testimony today, that the administration's legislation would have the effect of punishing the pipelines who have been prudent purchasers to date. Is that accurate?

Mr. LAWRENCE. I think that was probably a statement that Mr. McGrath, representing Interstate Pipelines, made, but I do think I would, in essence, agree with him on this proposal, because if you are going to have this tremendous upward price pressure of deregulating old gas, this elimination of the PGA passthrough is not going to be sufficient, and there is going to be tremendous pressure there to take it out of the pipelines' hide. And I know you are not going to get that $20 billion transfer of wealth out of the transmission companies, because they can add up all their total net income, and

I am sure it will not hit $1 billion. So there is that prospect, if there is that "cold turkey" old gas decontrol on January 1, 1985.

Chairman HEINZ. Ms. Shanaman, would you care to add anything to Mr. Lawrence's answers to my questions? Do you generally agree with him, or do you disagree? Are there any points of major disagreement where he has responded?

Ms. SHANAMAN. I would generally agree. I think the contracts do have to be renegotiated. I think there is a concern, though, as to just how the renegotiation is going to take place. Now, I sometimes am somewhat amused at the thought that producers who have asked for decontrol since 1954, because they wanted additional profits, would now suggest that total decontrol would, in fact, give them lesser profits; I do not believe that is the case, and I suspect that they would not intend to have a massive transfer of wealth from them. So I am greatly concerned in that I think contracts do have to be looked at—take-or-pay, indefinite escalator clauses—I hope Congress takes a very strong look at how those contracts are being renegotiated.

Chairman HEINZ. Here is a great question for you. If you had the responsibility for writing some amendments to the Natural Gas Policy Act, what would be your top two or three amendments—I will not ask you to write the entire bill.

Ms. SHANAMAN. Thank you. Let's see, I can start with yours. I think contracts and the terms of contracts obviously have to be in there. I think an appropriate interpretation of fraud and abuse—how FERC interprets fraud and abuse, I think, is much too limited. I think that perhaps some standard that the FERC might use in suggesting that we hold the producers or the distributers to the amount of old gas that they have to serve the system and use that as a pricing mechanism.

What has happened is that you have turned the whole——

Chairman HEINZ. Is that the suggestion you make on page 9 of your testimony?

Ms. SHANAMAN. Yes.

Chairman HEINZ. I am not sure I fully understand it. I am intrigued by it. Please elaborate, and then I am going to ask Mr. Lawrence to comment on it, because it strikes me as a different and innovative approach.

Ms. SHANAMAN. It seems to me that the whole marketplace has turned topsy-turvy. You are correct when you introduced your bill and as you introduced the session today, that the NGPA had two purposes in mind. One was supply, and one was consumer price protection. We have gotten the supply, but we have not gotten the consumer price protection. Part of that is that instead of using the NGPA and the supplies we get from that to be an additional supply for old gas, to meet the demands, the producers have been allowed to substitute all the new gas for the old gas, and we have shut in the old gas. Now, part of that is due to the contract provisions, obviously. It seems to me that if we put it at a FERC level, do something which is done in State regulatory arenas in terms of prudence and how we judge whether or not those new supplies should be totally used, is to hold them to a tough standard and say that to the extent your old gas reserves can in fact serve the demand you have, then that is what the price should be to the consumers. To

the extent that you need the new gas to meet the difference in the demand between what you have got in old gas to supply that and what your demand is, then to that extent, recognize the new gas prices. I think that might have a way of, at least in the short term, and if the FERC would act in that manner, would keep prices or bring prices down or have an impact, until Congress would have an opportunity to act.

Chairman HEINZ. Now, what is the difference between that and incremental pricing?

Ms. SHANAMAN. I do not see the two as being the same.

Chairman HEINZ. Maybe I misunderstood your proposal. What I thought you said was that you, in a sense, would reserve the old gas for the residential consumers.

Ms. SHANAMAN. No, I did not say that.

Chairman HEINZ. All right. I misunderstood something you said, and I apologize. Then there is no parallel, so forget my question. I thought I heard you say residential.

Mr. Lawrence, what is your reaction to Ms. Shanaman's proposal?

Mr. LAWRENCE. I think she is on the right track, and I think that is essentially where the Federal regulatory process needs to head. As we cut back on these onerous take-or-pay provisions, there should be a prudent standard that says we would bring on the most cost-efficient mix of gas, at the time.

I think there is a veritable parade of legislation that is going to change the fraud and abuse standard and the NGPA as narrowly interpreted to something that would add a prudent standard, and I think that is good.

Chairman HEINZ. Let's explore that for a minute, because that is going to be one of the central issues. What are the pipeline accountability standards for the future, post-1985 or 1986, going to be? In my bill, I seek to return to the prudent standards, in effect, and I reference back to sections 4 and 5 of the Natural Gas Act. Other people are trying to develop, and maybe they have introduced legislation that has succeeded in developing, a rather different approach. If I understand what they want to do, they essentially want rate of return calculations made by gas distribution companies as a means of making pipelines more prudent purchasers. If I have misstated what they are trying to do, I apologize, but I am not quite sure I fully understand what they are trying to do. Essentially, they are operating downstream by getting a series of calculations made that would put pressure on the pipeline. Are you familiar with that proposal?

Mr. LAWRENCE. Generally, Senator. I think what they are trying to do is offer an incentive for low-cost, efficient operations and an improved rate of return. I guess my biggest concern is I just hope we do not try to write that into a Federal statute and impose certain guidelines on the FERC, but I think it is certainly something any regulatory commission should be free to consider.

Chairman HEINZ. Is it a sound approach?

Mr. LAWRENCE. I am not really sure, Senator. I think there are going to be arguments pro and con on that, and I think it would be a real subject of a generic proceeding before any State commission under the circumstances. I think also that in addition to the pru-

dent standard, though, there are many distribution companies that want to be sure there are generic rulemaking proceedings by the FERC that will really focus on rate design principles and will be sure that market signals flow more responsibly from distributor to pipeline to producer, and I think that is probably good.

May I just say, I think the commission is heading that way now, but I think the statutory instruction would nail it down.

Chairman HEINZ. One other question for both of you, but to Chairman Shanaman in particular. The reaction of many of the gas producers to the kind of pipeline accountability standards that I would like to see is not just price regulation at the wellhead, but price regulation all over again. Is that right or not?

Ms. SHANAMAN. I would disagree. I do not think we have to have our elderly or our poor or our industrial customers pay an undue price for any form of government regulation. I do not feel we have to throw out totally government regulation to have a good pricing system, and I think State commissions have traditionally dealt with just and reasonable standards, or prudent standards, and there is no reason why the FERC cannot also do that.

Chairman HEINZ. Ms. Shanaman, I want to introduce Senator Chuck Grassley of Iowa, who has served with great distinction on the Committee on Aging. He served on the House Committee before he came to the Senate, about 2½ years ago. I have a brief commitment I must meet at 11 o'clock, and I will be back in about 15 or 20 minutes.

Chuck, the chairman of the Pennsylvania Public Utilities Commission, Ms. Shanaman, has testified, and so has Mr. Lawrence, and I have asked them some questions. If you have any questions you would like to ask them, please feel free to do so. Ms. Shanaman has testified as to some of the problems with the administration's proposal on the deregulation of old natural gas. She has cited a number of statistics showing the really desperate plight of many residential consumers of gas.

Mr. Lawrence has expressed a series of reservations about the administration proposal to deregulate the old gas. He has also raised questions as to whether the contract renegotiations that would be anticipated under that proposal would in fact work the way the administration thinks they are going to work. He was joined in that concern by Ms. Shanaman.

We have also been asking our witnesses to comment on the weatherization and low-income energy assistance programs. Ms. Shanaman did, in her testimony, comment that those programs are underfunded now, and that the idea of cutting them another third would be ridiculous. I happen to agree with her totally.

Mr. Lawrence pointed out that the AGA has been a longtime supporter of the low-income energy assistance program, and continues to support a strong program. Both he and Ms. Shanaman also point out that when the windfall profits tax was enacted, there was a commitment to substantially more, in the neighborhood of close to $3 billion more, that was supposed to be earmarked for low-income energy assistance.

I give you that brief, probably totally inadequate summary, to let you know what you have just walked into. We have two very fine witnesses, and I am sure they would be willing to answer any ques-

tions you have. If you do not have any questions, please proceed to our next panel.

Senator GRASSLEY. Your summary was neither brief nor inadequate.

Chairman HEINZ. I think I thank you.

I now turn you over to Chairman Grassley.

Mr. LAWRENCE. Very quickly, Senator, before you leave, I forgot in my oral opening to again express our appreciation for the lead role you took in the lameduck session to be sure we had legislation enacted that private low-income fuel assistance did not offset against supplemental security income recipients' benefits. I think that is very important.

Senator GRASSLEY [presiding]. I do think the chairman probably did do a very good job of summarizing for me where you have been to this point, and you were obviously, Mr. Chairman, in the question and answers, right?

Chairman HEINZ. Right.

Senator GRASSLEY. I did not come with questions specifically for you, but I would like to comment, and my comment might invite—particularly from you, Mr. Lawrence, but also from Ms. Shanaman—a comment on the President's program as I have had a chance to review it, both listening to people who are for the bill, as well as those who maybe are not opposed to the bill, but surely have a lot of questions about it. In my State, we have a higher proportion of gas coming in as old gas or at least lower priced gas. From that standpoint, I have had it pointed out to me that a couple of parts of the President's bill would be very detrimental to the consumers of Iowa.

If you have any comments on that, I would like to have them, because both of you come from ends of the business where your expertise is going to be needed before we reach a conclusion.

Mr. LAWRENCE. Senator, your State is served by Inter-North and to some lesser extent by Natural Gas Pipeline System. They are both very well-endowed with a large proportion of old gas supplies. So I think that assessment is correct, that your State would be more severely affected by the decontrol of all old gas on January 1, 1985. And we do not support that, but we just as fervently do support the ultimate decontrol of new gas so that we will have this new exploration and new incentive. We want to keep the price down, but we also want to look to the future and be sure that we have adequate gas supplies, because with all of the pricing problems we have on natural gas today—and they are very dramatic—it is still 70 percent the price of home heating oil and less than one-third the price of electricity for heating homes.

Senator GRASSLEY. Is your association both producers and distributors, or just one or the other?

Mr. LAWRENCE. Distributors and transmission companies. That would be Inter-North, it would be Iowa Power & Light. We do not represent producers.

Senator GRASSLEY. OK. Based on your knowledge of the industry and the legislation affecting that industry, do you think that there is some sort of compromise where the interests of the consumers in my State can be protected and still have the accessibility to natural

gas so we do not go back to the pre-1977 days? Do you think that is possible?

Mr. LAWRENCE. Yes, I do, and we have even complimented the administration for sending this comprehensive bill up, to help get momentum underway. This is a tough issue for Congress to have to grapple with, but I think the momentum is there now. I think the key congressional committees are going to make a decision, and I think we will have one hopefully this summer, and I predict it will be a reasonable one.

Senator GRASSLEY. Did you have anything you wanted to comment on as to the situation as it might be different in the Midwest compared to your State?

Ms. SHANAMAN. I believe it is a lot the same. I would agree, certainly, with the comments made by Mr. Lawrence, and I would maybe add one thing, to hopefully lend an urgency to Congress deliberations.

Last year in Pennsylvania, nearly 15 percent of the residential customers were having a problem paying their gas bills on time. That was under those prices last year, without the additional price increases that are either projected or predicted to come along this year.

This year, we expect, when our winter moratorium is completed on April 1, nearly 4,000 gas customers will be terminated due to their failure to have been able to reach and maintain payment arrangements. That is a 35-percent increase over last year. We have lost in Pennsylvania over 100 industries from our gas distribution systems to either alternative fuel sources or to industrial mortality and the loss of jobs, and what that means to the State's economy, you certainly can well appreciate.

So I think, if I could only add those couple statistics to give you a sense of the urgency of the need for Congress to take action.

Senator GRASSLEY. In your State of Pennsylvania, have the utility companies been responding to the problem of termination and trying to ease that on their own, or have they been pushed by the State legislature to do something in that area?

Ms. SHANAMAN. Well, perhaps, a little bit of both and pushed by the State public utility commission. We do have a winter moratorium, meaning that no terminations can occur unless approved by the commission, between December 1 and April 1. The gas industry, along with the electric industry in our State, is beginning to move toward additional self-help-type programs—I mean by that, additional monetary programs for low-income people—so that a combination of both, and the surveys that we have gone through and the reconnections, we have helped encourage the gas industry to make, I think has sharpened their attention and their focus on the problem.

Senator GRASSLEY. Do the staff of any other Senators have questions for this panel?

[No response.]

Senator GRASSLEY. At this point, then, I would thank you and call the next panel.

The next panel includes Ed Rothschild, assistant director of the Citizen/Labor Energy Coalition; Vita Ostrander, president-elect of

the American Association of Retired Persons; and Joseph Rourke, assistant to the president, National Council of Senior Citizens.

Prior to this panel, I have a statement that I want to read into the record.

STATEMENT BY SENATOR CHARLES E. GRASSLEY

Senator GRASSLEY. I first of all want to thank Chairman Heinz for calling this hearing to examine the impact of natural gas deregulation on older Americans, because this is a very important aspect of the proposed legislation, and it is certainly appropriate that we consider it right now.

All of us on this committee recall the way in which rhetoric and posturing delayed honest debate on the social security issue for far too long. This issue of natural gas and heating problems of senior citizens is another one that is tailor made for this sort of unnecessary and harmful delay. Regulatory action on natural gas has a 45-year history that culminated in the Natural Gas Policy Act of 1978. This legislation has not worked, mainly because it was not examined realistically and so debated. Because I did not support this legislation as a Member of the House of Representatives, I am particularly aware that we in Congress must not continue to inflict such energy unreality on the American people.

Those of you who have testified this morning and will be testifying must know that nearly 75 percent of our senior citizens in America own their own homes, and that 65 percent of these residents use gas for heating or for some other purpose. The remaining 25 percent who are not institutionalized, rent or share expenses with other people or relatives.

We must benefit from the lessons of the social security legislation and avoid a quick-fix solution followed by a stretch-out period of procrastination and finger pointing. The American people deserve better than that. Natural gas is an important form of energy but is not the only source of energy, and accordingly, it must be considered as part of a complete, overall energy policy, which I hope will be the tenor of hearings on this subject not only in this committee, but in other committees that are going to be dealing with this issue on the Senate side.

I would ask that we would go in the order of the presentation on the program: Mr. Rothschild, Ms. Ostrander, and Mr. Rourke, in that order, if that is satisfactory with the panel.

Then, I would ask each of you to present your testimony. If you summarize, that is naturally what we prefer, and your entire statement will be printed in the record, as is the usual procedure, and then we will ask questions upon the completion of the testimony of all three of you.

Mr. Rothschild.

STATEMENT OF EDWIN ROTHSCHILD, WASHINGTON, D.C., ASSISTANT DIRECTOR, CITIZEN/LABOR ENERGY COALITION

Mr. ROTHSCHILD. Thank you, Mr. Chairman.

I would be happy to summarize our prepared statement.

Mr. Chairman, I want to thank you for the opportunity to testify this morning. All too often, the real life impacts created by energy

policy decisions are overlooked or relegated to a minor part of the debate. This committee has a long record of focusing on the consumer implications of rising fuel costs and has provided a great deal of valuable and necessary information in this area.

The Citizen/Labor Energy Coalition is a nationwide organization which represents over 300 labor, community, church, farm, and senior groups. Our activities at the local and State levels have brought us firsthand knowledge of the pain and devastation caused by rapidly rising natural gas prices. Our experience at the Federal level has shown us that congressional action is required in order to lessen that pain and provide necessary price relief.

Millions of gas-using Americans are facing a crisis. Natural gas prices quite simply have become unaffordable for many Americans to use in their homes, businesses, churches, farms, or schools. The problem is particularly acute for those consumers, many of them elderly, who have little opportunity to switch to other fuels because of insurmountable front-end costs or for those who have already taken every conservation opportunity open to them.

Over the past 8 years, energy has gone from taking $1 out of every $6 in income for the Nation's poorest households to $1 in $3. The National Council of Senior Citizens has reported that the average low-income elderly family spends 19 percent of its income on home energy after receiving fuel assistance, although only less than half of that group is provided aid. This compares to an average energy expenditure of 5 to 6 percent for the median-income family. It is important to note that the elderly continue to pay more for energy despite a 20-percent drop in consumption and a 13-percent reduction in living space caused by people moving to smaller homes or apartments and shutting off rooms during winter months.

As this committee knows all too well, the high price of energy creates serious problems for our elderly citizens. There are 2.8 million elderly over 65 who live alone and are in poor health, making them potential hypothermia victims.

High natural gas bills are forcing the elderly to choose between heat and other essentials—medical care, food, and housing. Heating bills are a particular problem because over half the elderly population owns or rents homes built more than 40 years ago, when little attention was paid to energy efficiency.

Finally, evidence of the problems facing the 60 percent of the low income and elderly who heat with gas can be seen by looking at the record number of disconnections which have occurred this winter.

Unfortunately, our estimate in an earlier study, "Cold and Dark: Utility Disconnections in the United States," that 300,000 households will be disconnected this winter appears to have been understated. In Kansas City, there are 6,000 people without heat; in Detroit, disconnections are twice last year's level. In Louisville, 100 people per day were being shut off at the start of the winter. In Ohio, 60,000 households had been terminated before the heating season began, and next month, as many winter moratoria end, thousands more will lose utility service with little hope of reconnection, even though winter weather may continue or serious health threats persist. Many families owe so much on past bills

that they can never be expected to catch up. For the elderly, many of whom find it difficult to qualify for monthly budgeting plans, falling behind on gas bills is a major threat.

Obviously, Federal energy assistance programs have not met the identified need. According to Resources for the Future, compensation programs provided only $4 billion in 1978 to 1980, although the elderly and low income lost $14 billion in purchasing power during that same period. The average benefit payment was only $182. Those who did receive aid, therefore, were left to pay the rest of their bills, meaning that many had to pay as much as $1,000 out of very limited income. In 13 States, benefits paid less than 20 percent of annual fuel bills. Yet, this administration continues to advocate a 30-percent reduction in a program which would leave the elderly even more vulnerable to increasing gas prices.

Similarly, the administration persists in its efforts to eliminate the low-income weatherization program.

Mr. Chairman, the problems faced by the elderly and other gas users highlight the need for congressional action to end the spiral of higher fuel bills. Unfortunately, just as the President's position on fuel assistance and weatherization would remove needed protections, the administration's proposal, presented by Secretary Hodel this morning, on natural gas pricing, would make a bad situation even worse.

The President's proposal does nothing to resolve any of the major problems regarding the reason that gas prices are increasing. Its consumer protection mechanism that is so highly touted by the President serves only as a flimsy veneer on the real purpose of the legislation, which is to decontrol old natural gas prices. The only barrier between decontrolled wellhead prices and the consumer is the Federal Energy Regulatory Commission, which has been given the authority under the President's proposal to determine just how high prices will go. Given its record and the numerous statements of its Chairman that gas prices should be raised, the so-called assurance of having FERC act on their behalf provides already beleaguered gas consumers with small hope.

Decontrol of old gas—that is, gas wells drilled before 1977 and for which investments have already been made and recovered—would not increase production, but could add $40 billion to the Nation's gas bill.

The energy coalition believes that the severity of the natural gas pricing problem facing the elderly and other consumers is too great to allow inaction. Comprehensive legislation is needed to restore prices to affordable levels and provide adequate assurances that future increases will be limited.

We are supporting the principles contained in the Natural Gas Consumer Relief Act, which was introduced yesterday by a bipartisan coalition in the House. The coalition supports a similar approach that is being prepared in the Senate.

Mr. Chairman, for the typical gas-heating household, enactment of comprehensive reform legislation would save $1,170 over 4 years compared to current law. It would save the typical household nearly $2,000 compared to accelerated decontrol.

In conclusion, Mr. Chairman, it is evident that the tremendous burdens being placed on the elderly, the low income and other gas

users cannot be relieved adequately through Federal assistance programs. Those consumers most vulnerable to high natural gas prices are continually losing ground in their attempt to meet their basic needs and retain dignity.

The choice before the Senate is clear. The approach the energy coalition supports guarantees lower prices while the administration's bill would raise them. We ask for your support in drafting legislation that effectively solves the gas problem and provides true consumer relief.

Thank you, Mr. Chairman.

Senator GRASSLEY. Thank you, Mr. Rothschild.

[The prepared statement of Mr. Rothschild follows:]

PREPARED STATEMENT OF EDWIN ROTHSCHILD

Mr. Chairman and members of the committee, I want to thank you for the opportunity to testify this morning. All too often, the real-life impacts created by energy policy decisions are overlooked or relegated to a minor part of the debate. This committee has a long record of focusing on the consumer implications of rising fuel costs and has provided a great deal of valuable and necessary information in this area.

The Citizen/Labor Energy Coalition is a nationwide organization which represents over 300 labor, community, church, farm, and senior groups. Our activities at the local and State levels have brought us firsthand knowledge of the pain and devastation caused by rising natural gas prices. Our experience at the Federal level has shown us that congressional action is required in order to lessen that pain and provide necessary price relief.

THE CURRENT PROBLEM

Millions of gas-using Americans are facing a crisis. Natural gas prices quite simply have become unaffordable for many Americans to use in their homes, businesses, churches, farms, or schools. The problem is particularly acute for those consumers, many of them elderly, who have little opportunity to switch to other fuels because of insurmountable front-end costs or for those who have already taken every conservation opportunity open to them.

Since enactment of the Natural Gas Policy Act in 1978, wellhead natural gas prices have tripled and residential gas bills have more than doubled. This winter alone, prices have shot up 25 percent on average, with some regions experiencing increases of 50 percent or 60 percent, despite the current glut of gas. The following table shows dramatically the sharpness with which gas has risen over the past several years.[1]

RESIDENTIAL PRICES IN SELECTED CITIES, SELECTED YEARS, 1970–82

Location	1970	1974	1978	1982
U.S. average	$0.91	$1.28	$2.83	$6.08
Atlanta	.84	1.24	2.71	5.29
Boston	1.53	2.23	3.32	8.20
Chicago	1.00	1.31	2.78	4.94
Cleveland	.87	1.21	2.18	5.11
Dallas	.86	.92	2.50	6.23
Los Angeles	(1)	(1)	1.85	5.71
Philadelphia	1.43	1.88	3.88	7.54
St. Louis	.95	1.35	2.34	6.15
San Francisco	.71	1.12	2.14	6.26
Seattle	1.18	1.62	3.74	6.99

[1] Not available.

[1] "Natural Gas Price Increases: A Preliminary Analysis." General Accounting Office. Dec. 9, 1982.

Those increases have put enormous burdens on all gas users, but they are especially serious for the elderly on fixed incomes and the poorest low-income elderly, about 3 million persons, who spend 30 percent of their incomes on home energy.

In the past 8 years, energy has gone from taking $1 out of every $6 in income for the Nation's poorest households to $1 in $3. The National Council of Senior Citizens has reported that the average low-income elderly family spends 19 percent of its income on home energy after receiving fuel assistance, although only less than half of that group is provided aid. This compares to an average energy expenditure of 5 to 6 percent for the median-income family. It is important to note that the elderly continue to pay more for energy despite a 20 percent drop in consumption and a 13 percent reduction in living space used caused by people moving to smaller homes or apartments and shutting off rooms during winter months.

Studies by the National Council of Senior Citizens and the National Council Law Center provide graphic evidence of the problems faced by the elderly. In the winter months, more than 70 percent of the low-income elderly spend more than 20 percent of their income on home fuel; one in four spends more than 40 percent. Individuals in 41 States receiving the maximum supplemental security income benefits will have less than $50 left each week this winter after paying their energy bills. It is small wonder that in recent polls, senior citizens have listed fuel bills as their primary concern.

As this committee knows all too well, the high price of energy creates serious problems for our elderly citizens. There are 2.8 million elderly over 65 who live alone and are in poor health, making them potential hypothermia victims. Temperatures as high as 65° can present deadly health threats, yet many seniors are forced to turn back the thermostat far below adequate levels. Unfortunately, there are numerous examples of the personal suffering which results. In Colorado, low-income elderly are living in bathrooms, huddled around kerosene heaters, because they cannot afford to turn on their furnaces. We have received numerous letters from people who spend winters in bed, wrapped in blankets and clothing, because they cannot afford heat.

High natural gas bills are forcing the elderly to choose between heat and other essentials—medical care, food, and housing. Many senior citizens, too proud to accept fuel assistance or to leave utility bills unpaid, struggle to make do on already-insufficient incomes. Increasingly, fuel bills are becoming a major problem for the elderly who need the stability and security of their own home or apartment but are forced to leave because they cannot afford fuel payments. One survey in New Hampshire found that many of the low-income elderly would have lost their homes without energy assistance benefits.

Heating bills are a particular problem because over half the elderly population owns or rents homes built more than 40 years ago, when little attention was paid to energy efficiency. Forty percent of the country's 2.3 million inadequate owner-occupied homes belong to the elderly. Those homes, like many older rental units, often lack insulation, have cracks in walls, loose windows, and so forth. To give an idea of the difference in energy efficiency between older and newer buildings, a home in the Northeast built before 1939 uses about 160 million Btu's per year. A home built between 1969 and 1975 uses only 66 million Btu's.

Finally, evidence of the problems facing the 60 percent of the low income and elderly who heat with gas can be seen by looking at the record number of disconnections which have occurred this winter. In December, the energy coalition issued the second in a series of reports on disconnections, "Christmas Without Cheer: A Half Million Americans With No Heat." Our survey, based on a sampling of 11 locations in 10 States, concluded that at least 500,000 people in 175,000 households spent Christmas without heat because they could not afford to pay fuel bills. That number is an underestimation of the total national problem as it only focuses on gas-using households and does not account for the thousands of households, like those elderly in Colorado, who voluntarily go without heat or heat their homes to inadequate levels.

Unfortunately, the estimate in our earlier study, "Cold and Dark: Utility Disconnections in the United States," that 300,000 households will be disconnected this winter appears to have been understated. In Kansas City, there are 6,000 people without heat. In Detroit, disconnections are twice last year's level. In Louisville, 100 people a day were being shut off at the start of the winter. In Ohio, 60,000 households had been terminated before the heating season began. Next month, as many winter moratoria end, thousands more will lose utility service with little hope of reconnection, even though winter weather may continue or serious health threats persist. Many families owe so much on past bills that they can never be expected to

catch up. For the elderly, many of whom find it difficult to qualify for monthly budgeting plans, falling behind on gas bills is a major threat.

ADEQUACY OF ENERGY ASSISTANCE PROGRAMS

As long ago as 1979, the DOE Fuel Oil Marketing Advisory Committee recommended fuel assistance levels of $3.2 billion with a 75-percent participation level.[2] Last summer, the Committee for Economic Development and the Conservation Foundation estimated that $5 billion would be needed to offset the $3 to $7 billion that low-income households have last year over the past decade to higher energy prices.[3]

Obviously, Federal energy assistance programs have not met that identified need. According to Resources for the Future, compensation programs provided only $4 billion from 1978 to 1980, although the elderly and low income lost $14 billion in purchasing power during that same period.[4] Last year's fuel assistance program provided assistance to only one-third of the 21 million eligible. The average benefit payment was only $182. Those who did receive aid, therefore, were left to pay the rest of their bills, meaning that many had to pay as much as $1,000 out of very limited incomes. In 13 States, benefits paid less than 20 percent of annual fuel bills. Yet, the administration continues to advocate a 30-percent reduction in the program, which would leave the elderly even more vulnerable to increasing gas prices.

Similarly, the administration persists in its efforts to eliminate the low-income weatherization program. Admittedly, the program is reaching only a fraction of those in need because it is woefully underfunded and because of a lack of commitment on behalf of the Department of Energy. At current spending, it would take well into the next century before the majority of low-income homes could be weatherized. But the answer is not to jettison the program altogether; it is, rather, to increase its effectiveness through higher funding levels and greater outreach programs.

Outreach activities in all programs aimed at serving senior citizens is a major component that is often overlooked. The Nation's elderly are not looking for handouts. They have worked all their lives and want to remain independent, self-respecting members of the community. Often, it takes outreach not only to let the elderly know about existing programs but to convince them to participate. Attempts to limit or eliminate outreach in the fuel assistance and weatherization programs would be a major disservice to the elderly and would result in real needs being overlooked.

Finally, I would like to say just a word about the lack of concern and attention paid to the problem of hypothermia. Under earlier funding programs now curtailed, attempts were made to both study the problem of hypothermia and to seek avenues to mitigate the problem. For example, in Connecticut, a program was established in which mentally impaired individuals knitted "hypothermia kits" for the elderly; provided blankets, slippers, hats, and scarves. That project has been terminated because of lack of funding. As natural gas prices continue to increase, the threat of hypothermia becomes that more real. More attention needs to be paid to this problem and to the problem of hyperthermia facing the elderly in warm-weather States.

THE ADMINISTRATION'S NATURAL GAS PROPOSAL

The problems faced by the elderly and other gas users highlight the need for congressional action to end the spiral of higher fuel bills. Unfortunately, just as the President's position on fuel assistance and weatherization would remove needed protections, the administration's proposal on natural gas pricing would make a bad situation even worse.

There are four major reasons why natural gas prices have soared since passage of the Natural Gas Policy Act. They are:

(1) The inability of consumers and utilities to signal to producers that prices are too high, allowing producers to charge the highest allowable prices. Over 90 percent of all contracts, including those entered into prior to the NGPA, have been written or amended to require that purchasers pay the highest allowable price, regardless of market conditions.

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[2] "Low-Income Energy Assistance, a Profile of Need and Policy Options." Fuel Oil Marketing Advisory Committee of the U.S. Department of Energy, July 1979.

[3] "Energy Prices and Public Policy." Committee for Economic Development and the Conservation Foundation.

[4] "High Energy Costs: Uneven, Unfair, Unavoidable?" Hans Landsberg and Joseph Dukert, Resources for the Future, 1981.

(2) The market dominance of producers has resulted in pipelines agreeing to unreasonable contract provisions. Take-or-pay contracts, those requiring pipelines and their customers to pay for high percentages of high-priced gas even if there is no demand for that gas, present a major problem today. Indefinite price escalators, many of which would raise prices above oil levels or to the highest price any one in the region was willing to pay, will have serious consequences if deregulation is allowed to occur.

(3) The insulation of pipelines from the risks of high prices by purchased gas adjustments and rates which do not create incentives for least cost purchases. The Federal Energy Regulatory Commission has failed to use its authority to prevent passthroughs of imprudent natural gas purchases, so there has been little incentive for pipelines to negotiate for the lowest priced gas available.

(4) The Federal Energy Regulatory Commission has taken a string of actions to increase prices. The latest decision was to allow producers to charge for gathering and compression costs on top of ceiling prices, a move which will cost $10 billion over the next 4 years. Before that decision, those costs had been included under the NGPA ceiling prices.

The President's proposal does nothing to solve any of the problems listed above. Instead of lowering prices, it will raise them by 67 percent over the next 4 years, at a total cost of $50 billion above current law. The consumer protection mechanism so highly touted by the President serves as only a flimsy veneer on the real purpose of the legislation—to decontrol old gas prices. The only barrier between decontrolled wellhead prices and the consumer is the Federal Energy Regulatory Commission, which has been given the authority under the President's proposal to determine just how high prices will go. Given its record and the numerous statements of its Chairman that gas prices should be raised, the so-called assurance of having FERC act on their behalf provides already beleaguered gas consumers with small hope. For the 60 percent of the low-income elderly heating with gas, the result could be deadly.

I would now like to discuss briefly why the energy coalition believes the administration proposal would act against the interests of consumers and fail to solve the crisis of high gas bills facing senior citizens.

Prices. Today's prices are already too high. Price ceilings need to be rolled back to provide real consumer relief. The administration bill removes price ceilings, including price ceilings on the Nation's supply of lower cost old gas. Decontrol of old gas, gas from wells drilled before 1977 and for which investments have already been made and recovered, would not increase production but could add $40 billion to the Nation's gas bill. The gas cap, which is supposed to act as a consumer protection, will provide little relief since it is considerably above the prices old gas would receive under the NGPA. Moreover, the gas cap operates only until January 1, 1986, when there is no longer any limit on how high prices can rise.

Contracts. The administration proposal does little to rectify current problems with take-or-pay provisions and virtually nothing to prevent indefinite escalator clauses from coming into play when gas is deregulated. Again, even minimal protection ends by January 1, 1986, when contract provisions would be allowed to operate against the consumer interest.

Automatic passthroughs. The limitation on automatic passthrough of the cost of gas purchased by pipelines is the centerpiece of the administration's consumer protection mechanism. In reality, the passthrough provisions actually limit FERC's authority to protect against unjustified costs being flowed through to gas users. First, FERC can pass through additional costs after review, which it is likely to do given its past track record. Second, there appears to be little ability to block unsound purchases from being flowed through to consumers if they are at the inflation rate, even though much-needed price relief could be afforded by limiting unwise costs below the inflation rate. Finally, once again, the limitation against automatic pass through ends on January 1, 1986.

FERC implementation. The administration proposal does not address the misuse the FERC has made of its discretionary authorities under the NGPA. FERC would continue to have discretion to raise old prices administratively and to add categories of gas to the high-cost section as it has done in the past.

The administration claims that its legislation will reduce prices and, that if it does not, consumer protection provisions will prevent consumers from facing gas price increases greater than inflation. The administration asks Congress, the public, and the elderly and low income already unable to pay their natural gas bills to trust them. Consumers are asked to trust that major producers will lower their prices for gas, even though they have kept them at levels above market-clearing prices in many areas. Consumers are asked to trust that the pipelines, who have not negotiated on their behalf in the past, will suddenly do so in the future. Consumers are

asked to trust that the Federal Energy Regulatory Commission, which has consistently acted to raise gas prices in the past, will seek to lower gas prices in the future. And consumers are asked to trust that an uncompetitive market which is in total disarray will become competitive by January 1, 1986, when all Federal review is removed.

For the elderly who have seen this administration propose to slash fuel assistance, eliminate low-income weatherization, require them to pay more for utilities in public housing, cut social security and medicare benefits, lower food stamp benefit levels, limit funding for meals-on-wheels, and so on, it is hard to believe that the administration is suddenly acting on their behalf. Rather, the administration's proposal will help the major oil companies, who own nearly 75 percent of all gas, at the expense of the Nation's gas users who can ill afford the price tag of decontrol.

THE NEED FOR COMPREHENSIVE CONTROL

The energy coalition believes that the severity of the natural gas pricing problem facing the elderly and other consumers is too great to allow inaction. Comprehensive legislation is needed to restore prices to affordable levels and provide adequate assurances that future increases will be limited. We are supporting the principles contained in the Natural Gas Consumer Relief Act, which was introduced by a bipartisan coalition in the House this week. The coalition also supports a similar approach being proposed by several Members of the Senate, including Senator Kassebaum. Those proposals, unlike the administration's, will assure consumers of protection, since they would lower gas prices immediately and prevent rapid rises in the future. Price increases over the next 4 years would be held to 27 percent, compared to 55 percent compared to current law and 67 percent under accelerated deregulation.

For the typical gas-heating household, enactment of comprehensive reform legislation would save $1,170 over 4 years compared to current law ($640 in direct costs and $530 in indirect). It would save the typical household nearly $2,000 compared to accelerated decontrol. ($1,020 in direct costs and $910 in indirect).

Any legislation adopted by the Senate should, we believe, include the following provisions in order to provide the comprehensive approach needed to solve current problems.

Prices. Gas prices must be lowered by rolling back bloated NGPA ceiling prices and then changing the rate of future escalation. Instead of guaranteeing future increases at a high rate, escalators should be sensitive to changes in supply and demand. Thus, if energy prices were to fall in the future, gas ceilings should similarly decrease, allowing ceilings to reflect true market conditions. Price controls on new gas should be extended for 2 years, in order to allow the presently chaotic market time to achieve a semblance of order. Old gas prices should remain under controls as in present law. High-cost gas should be capped at 150 percent of the new gas level, unless a producer could justify, based on cost of production, a higher price. Those provisions would provide Congress and the gas-using public with the certainty that gas price increases would be abated.

Contract provisions. Unlike the President's bill, which allows take-or-pay provisions to continue operating and only limits indefinite price escalators for controlled gas until 1986, our approach is to limit take-or-pay percentages to 50 percent for 3 years and eliminate indefinite price escalators and most-favored nation clauses.

Automatic passthrough. While we continue to believe that the Federal Energy Regulatory Commission already has adequate authority to require that pipelines makes prudent purchases, the Commission has failed to interpret its authority in that manner. Because of that, positive steps are needed to return to standards which require purchases be just, reasonable, and in the public interest. Unlike the President's proposal, that language would allow FERC to act to lower today's prices. And, again unlike the President's proposal, FERC's authority would be permanent.

FERC implementation. Given FERC's past propensity to use the discretionary authority contained in the NGPA to increase prices, we believe that action must be taken to reign in FERC and prevent it from acting in an anticonsumer manner in the future. FERC's authority to raise old gas prices administratively and add new categories of "incentive-priced" gas should be removed.

CONCLUSION

It is evident that the tremendous burdens being placed on the elderly, the low income, and other gas users cannot be relieved adequately through Federal assistance programs. Those consumers most vulnerable to high natural gas prices are continually losing ground in their attempt to meet their basic needs and retain dig-

nity. A recent survey by Honeywell's Energy Management Information Center showed that 92 percent of all Americans believe high energy costs represent a threat to the U.S. standard of living. That threat is a constant element in the lives of millions of elderly Americans.

The choice before the Senate is clear. The approach the energy coalition supports guarantees lower prices while the administration's bill would raise them. We ask for your support in crafting legislation that effectively solves the gas problem and provides true consumer relief.

Senator GRASSLEY. Ms. Ostrander.

STATEMENT OF VITA OSTRANDER, WASHINGTON, D.C., PRESIDENT-ELECT, AMERICAN ASSOCIATION OF RETIRED PERSONS

Ms. OSTRANDER. Thank you, Senator Grassley.

We have submitted a longer statement than the one I will be presenting.

I am not only president-elect of the American Association of Retired Persons, but I am a member of the association's national legislative council. Recently, the legislative council placed high and rising energy costs among its top three priorities for action in 1983. Decontrol of natural gas is therefore of intense concern to us, and we appreciate having this opportunity to discuss the likely impact on older Americans of the administration's decontrol proposals before the Senate Special Committee on Aging.

Over the last decade, our country has witnessed dramatic and historically unparalleled increases in energy costs. The elderly have been especially vulnerable to increases in energy costs for a number of reasons. First, the majority of older Americans live on relatively low and fixed incomes. One of every four persons aged 65 or over is either poor or near poor, having income at or below 125 percent of the poverty level.

With record-high budget deficits intensifying pressure to cut Government programs on which the elderly rely, this situation is not likely to improve, and indeed, may get worse.

Second, the elderly are, of necessity, disproportionate consumers of health care, the cost of which continues to spiral unabated, even at a time when the overall rate of inflation has been reduced. Health care costs are exerting increased pressures on the already small budgets of the elderly.

A third factor among older Americans vulnerable to rising energy costs is their housing situation. As you have mentioned, about 72 percent of older Americans own their own homes, including many low-income elderly. These homes tend to be old housing stock, which is poorly insulated, requiring more fuel for adequate heating. And renters, who tend to be poorer than owners, are often in worse straits. Finally, older persons have a higher susceptibility to harm from temperature extremes. Soaring energy costs thus have direct and immediate implications for their health and survival.

The specific impact of recent increases in energy prices on the elderly has been drastic. From 1975 to February 1981, natural gas prices rose 141 percent, and over half of all elderly households heat with natural gas. Fuel oil prices rose 208 percent, and electricity prices rose 75 percent. Income levels for those on low and fixed incomes rose far less quickly. Reductions in cost-of-living protection for entitlements and other income maintenance programs such as

are now under consideration by Congress would set the elderly back even further. The poorest consumers have been the hardest hit. Over the last decade, the typical low-income household lost approximately 10 percent of its income to rising household energy prices. And in spite of the fact that the low-income population is forced to devote more of its income to energy expenditures, it consumes about 20 percent less home energy than the national average.

A recent study of the National Consumer Law Center projected that this winter in 41 States and the District of Columbia, single SSI recipients living alone would have less than $50 per week remaining for housing, food, and all other expenses after paying their energy bills.

Congress has responded to the predicament of low-income energy consumers primarily through the low-income home energy assistance program and the DOE-administered low-income weatherization program. Unfortunately, many States are choosing not to utilize the 15 percent set-aside for weatherization available under LIHEAP, or parts of it, simply because the need for direct cash assistance has been growing dramatically. Both LIHEAP and LIW are important to the elderly, with about a third of the households served by each containing at least one elderly person.

Both programs, however, are vastly underfunded. Moreover, the administration is seeking a 34-percent cut in LIHEAP, and total elimination of the low-income weatherization program, which is the only significant Federal conservation program now serving low-income families.

This is the backdrop against which numerous proposals are being offered to amend the Natural Gas Policy Act of 1978. The administration's bill, S. 615, would extend phased decontrol to old gas, while enabling pipelines and producers to reduce the impact of take-or-pay contracts and would as well limit escalator clauses that provide for automatic increases in prices. AARP's position is to oppose decontrol of old gas while endorsing decontrol of new gas, combined with a windfall profits or similar tax on all newly decontrolled gas. We favor neither the administration proposals nor rival proposals to roll back the prices of natural gas.

This position is based not only on our concern about the effects of higher gas prices on the low-income elderly and the desire to create new sources of funds for the low-income home energy assistance program, but also on general economic policy considerations.

No proof has yet been given of the assertion that decontrol of old gas will result in lower average prices. Our presumption, therefore, remains that decontrol of old gas will raise average prices, placing elderly consumers in still greater jeopardy than they find themselves in at present. Predictions of the amount of price inflation under decontrol vary, and hinge in large degree on how much oil prices fall. Any increase beyond what is already scheduled to occur under present law, however, is deplorable. Also, we believe there is no need to give a windfall to holders of old gas supplies. These supplies were developed when prices were much lower, but presumably, furnished enough of an incentive to produce the gas.

To the extent prices actually do rise, certain geographical sections and industries will be disadvantaged relative to other sections

and industries. Those disadvantaged will tend to be the older industrial area already bearing the brunt of the recession.

In summary, the association supports current law with respect to decontrol of natural gas and believes that it should be accompanied by a type of windfall profits or equivalent tax, part of the proceeds of which should be devoted to compensating lower income individuals, including low-income elderly, for higher home heating costs.

Thank you.

Senator GRASSLEY. Thank you.

[The prepared statement of Ms. Ostrander follows:]

PREPARED STATEMENT OF VITA OSTRANDER

I am Vita Ostrander, president-elect of the American Association of Retired Persons and a member of the association's national legislative council. Recently, the legislative council placed high and rising energy costs among its top three priorities for action in 1983. Decontrol of natural gas is therefore of intense concern to us, and we appreciate having this opportunity to discuss the likely impact on older Americans of the administration's decontrol proposals before the Senate Special Committee on Aging.

THE INCOME AND HOUSING SITUATION OF THE ELDERLY

Over the last decade, our country has witnessed dramatic and historically unparalleled increases in energy costs. Without question, energy costs have outpaced increases in practically all other consumer goods and have contributed to inflation associated with costs of other goods and services.

The elderly have been especially vulnerable to increases in energy costs for a number of reasons. First, the bulk of older Americans live on relatively low and fixed incomes. The median income of households headed by persons aged 65 and over was about $10,000 in 1981, as compared to about $22,000 for households headed by their younger counterparts. One of every four persons aged 65 or over is either poor or near poor (having income under 125 percent of the poverty line).

With record high budget deficits intensifying pressure to cut Government programs on which the elderly rely, this situation is not likely to improve, and indeed may get worse.

Second, the elderly are of necessity disproportionate consumers of health care, the cost of which continues to spiral unabated—even at a time when the overall rate of inflation has been reduced. Between 1965 and 1979, health care costs more than quadrupled. In 1980, the per capita health bill for all persons averaged $1,067—an amount which has increased 396 percent since the inception of medicare in 1965. For the elderly, however, the per capita health bill averaged $2,500—an amount which has increased 525 percent over the same period. While the rapid escalation in health care costs has increased the per capita health bill of the elderly, the medicare program pays a smaller share—that is, 38 percent of that bill—than it did when the program first began. The elderly now pay 43 percent of their annual health bill out-of-pocket, and this figure will go higher if administration proposals to increase medicare beneficiaries' cost-sharing liability are accepted. Hence, health care costs, like energy costs, are exerting increased pressures on the already small budgets of the elderly.

A third factor making older Americans vulnerable to rising energy costs is their housing situation. Seventy-two percent of older Americans own their own homes, including many low-income elderly. These homes tend to be old housing stock which is poorly insulated, requiring more fuel for adequate heating. Elderly renters are generally poorer than owners, and older Americans pay a far larger proportion of income for rent than the nonelderly; for instance, the median rent of an elderly woman living alone (representing the majority of elderly renter households) consumes 48 percent of her income. Obviously, such costs combined with those for other basic necessities leave little flexibility for absorbing higher energy costs.

Finally, older persons have a higher susceptibility to harm from temperature extremes. Soaring energy costs thus have direct and immediate implications for their health and survival.

IMPACT OF RISING ENERGY PRICES ON THE ELDERLY

The specific impact of recent increases in energy prices on the elderly has been drastic. From 1975 to February 1981, natural gas prices rose 141 percent—and over half of all elderly households heat with natural gas. Fuel oil prices rose 208 percent, and electricity prices rose 75 percent. Income levels for those on low and fixed incomes rose far less quickly. For example, the main source of income for older adults, social security, rose by only 86 percent during this period. Reductions in cost of living protection now under consideration by Congress would set the elderly back even further.

The poorest consumers have been the hardest hit. Over the last decade the typical low-income household lost approximately 10 percent of its income to rising household energy prices. The 1972–73 "Expenditure Survey" indicated that the poorest 13 percent of the population spent approximately 11 percent of its income on home energy, while the 1979–80 "Residential Energy Consumption Survey" shows that this same group devoted about 21 percent of its income to home energy, an increase of 10 percent. A recent study of the National Consumer Law Center brings this trend up to date: In 41 States and the District of Columbia, the poorest SSI recipients—single persons living alone—were projected this winter to have less than $50 per week remaining for housing, food, and all other expenses after paying their energy bills.

FEDERAL ENERGY ASSISTANCE PROGRAMS

Congress has responded to the predicament of low-income energy consumers primarily through the low-income home energy assistance program (LIHEAP), authorized by the Crude Oil Windfall Profits Act of 1980, and the DOE-administered low-income weatherization program (LIW). Both programs give priority to the elderly, and about a third of the households served by each program have contained at least one elderly person.

Both programs, however, are also vastly underfunded. When LIHEAP was created, Congress acknowledged through its authorization level a need for some $3.1 billion in funding—but the appropriation it received was only $1.85 billion. Since that time, natural gas prices have risen by over 60 percent, yet the funding level has gone up only to $1.975 billion. The Department of Health and Human Services has estimated that only about 40 percent of eligible households are receiving assistance, and benefit levels in many States have had to be reduced due to higher levels of participation.

LIHEAP has been repeatedly targeted for major cutbacks by the administration, including a 34-percent reduction proposed for fiscal year 1984, but Congress has so far refused to go along. Low-income weatherization, a relatively small program funded at $145 million this year, has been slated for elimination in the fiscal year 1984 budget. AARP strongly supports both of these programs, though improvements are needed to coordinate services, expand outreach, and bring funding up to a more adequate level.

The LIHEAP experience has been instructive in view of proposals now being made for decontrol of all natural gas prices. In short, an abrupt increase in crude oil prices was made more palatable by the promise of compensation for low-income persons, to be funded by a "windfall profits tax." That promise has not been fulfilled.

GENERAL CONSIDERATIONS ON GAS PRICE DECONTROL

The question of whether or not to decontrol prices of natural gas really comes down to a decision on "old" gas, since "new" gas (discovered since 1977) is slated for decontrol January 1, 1985, or less than 2 years in the future in any case. It is important to keep this distribution in mind because some of the current discussion has confused the difference. AARP's position is to oppose decontrol of old gas while endorsing decontrol of new gas, combined with a windfall profits or similar tax on all newly decontrolled gas. We favor neither the administration proposals nor rival proposals to roll back the prices of natural gas.

This position is based not only on our concern about the effects of higher gas prices on the low-income elderly, and the desire to create new sources of funds for the low-income home energy assistance program, but also on general economic policy considerations. The principal considerations are these:

(1) There is no need to give a windfall to holders of old gas supplies; those supplies were developed when prices were much lower, but presumably furnished enough of an incentive to produce the gas. Much of this gas, in fact, was found by the major

oil companies in the process of exporing for oil—serendipitiously—and ownership is highly concentrated in a few producers.

(2) There is no need to delay the decontrol of new gas beyond January 1, 1985. Such a delay could represent a subsidy to all users of gas, whether or not they need it, and an incentive to consume more gas than would be used if the price were closer to the market price.

(3) No proof has yet been given of the assertion that decontrol of old gas will result in lower average prices; our presumption therefore remains that decontrol of old gas will raise average prices, placing elderly consumers in still greater jeopardy than they find themselves in at present. Predictions of the amount of price inflation under decontrol vary, and hinge in large degree on how much oil prices fall. Any increase beyond what is already scheduled to occur under present law, however, is unacceptable.

(4) To the extent prices actually do rise, certain geographical sections and industries will be disadvantaged relative to other sections and industries; those disadvantaged will tend to be the older industrial areas already bearing the brunt of the recession.

(5) The decontrol of old gas will not add to the supply of gas, while the decontrol of new gas will allow prices to rise enough to furnish incentives to find and produce more gas, which is what the Nation most needs to avoid repetition of the shortage situation of the mid-1970's.

THE ADMINISTRATION BILL (S. 615) VERSUS THE ALTERNATIVES

As we understand the administration's bill, its major feature is the extension of phased decontrol of old gas, combined with measures that would enable pipelines and producers to reduce the impact of "take-or-pay" contracts, and would, as well, limit "escalator" clauses that provide for automatic increases in prices. Additional features are the following:

(1) The price of gas would be deregulated contract by contract, as new contracts were negotiated or old ones renegotiated, but prices under existing contracts would remain controlled until January 1, 1985, when any contract that had not by then been renegotiated could be broken. The administration bill thus eliminates the distinction between new and old gas.

(2) Presidential authority to reimpose controls if gas prices rise rapidly would be removed and the 1970 act which forbids the use of gas for boiler fuel repealed.

The only feature of the bill we find attractive is that which reduces the impact of take-or-pay contracts and escalator clauses. There is no provision for raising any revenue from newly decontrolled gas, and hence there would be no new revenue for LIHEAP. There is no recognition of the desirability of targeting the resources transferred from consumers via price increases—which will be a painful process—to producers of newly discovered gas, in order to preserve and enhance the incentives to prospect for and produce additional gas. The association must therefore oppose the administration bill. At the same time, AARP opposes legislation which would roll back prices; the latter action would threaten a recurrence of shortages and resulting price disturbances—the same cycle that has caused our current problems.

SUMMARY

Older Americans are extremely vulnerable to increased energy prices by virtue of their disadvantaged income status, their housing situation, and their susceptibility to harm from temperature extremes. The low-income elderly are especially at risk, and Federal energy assistance programs have failed to adequately address their needs—in large part because such programs are greatly underfunded.

AARP opposes proposals to decontrol old natural gas prices, including those embodied in S. 615, the administration bill. Total decontrol would give a windfall to holders of old gas supplies, and is likely to place further upward pressure on natural gas prices at a time when older consumers are already struggling under the burden of high energy costs. Such action would also have unfavorable effects on older industrial areas now bearing the brunt of the recession.

The association supports current law with respect to decontrol of natural gas, and believes that it should be accompanied by a type of windfall profits or equivalent tax, part of the proceeds of which should be devoted to compensating lower income individuals, including low-income elderly, for higher home heating costs. If the rate at which new natural gas is to be decontrolled is accelerated, or if prices for old natural gas are decontrolled, the imposition of a windfall profits type tax will be even more essential.

Senator GRASSLEY. Mr. Rourke.

STATEMENT OF JOSEPH ROURKE, WASHINGTON, D.C., ASSISTANT TO THE PRESIDENT, NATIONAL COUNCIL OF SENIOR CITIZENS; ACCOMPANIED BY ERIC SHULMAN, LEGISLATIVE DIRECTOR

Mr. ROURKE. Mr. Chairman, I will summarize my remarks.

My name is Joseph Rourke, and I am assistant to the president of the National Council of Senior Citizens. I am also a volunteer.

Mr. Chairman, as I speak to our members from all over the country, I hear fear and anxiety expressed over the high and rising cost of utilities more than any other issue. And no wonder—since 1977, natural gas prices have gone up 150 percent, and about 25 percent this winter alone. Residential gas bills over the 5-year period have doubled.

For many thousands of older people, these exorbitant increases in energy costs have put adequate home energy out of reach. Research now being conducted by the National Consumer Law Center reveals, among other things, that in Harrisburg, Pa., Columbia Gas System had an increase of 28 percent in its terminations from 1980 to 1982.

The fear and anxiety these people speak of, Mr. Chairman, is real and is growing every day. Unfortunately, there is little in the way of assistance for these people to depend upon. The one major Federal effort, the low-income home energy assistance program, only reaches about a third of those eligible, and even when it does, the assistance is meager, averaging about $182 for the entire winter. Moreover, President Reagan has proposed a drastic scaling back of this program from its current level.

Mr. Chairman, I would like to submit for the record a series of charts and tables prepared by Richard Saul and the Grier Partnership for the National Consumer Law Center, comparing on a State-by-State basis, energy assistance payments, monthly unemployment benefits, and percentage of income spent on energy for aged and nonaged households.[1] In Pennsylvania, almost 700,000 households were below 125 percent of the poverty level, of which less than half—300,000—receive energy assistance. Yet, despite the program's obvious importance and despite its inadequacy, even at current levels, the administration persists in pressing for a large budget reduction. Now we are being asked to accept the President's promise that decontrol of natural gas will bring lower, not higher, energy prices.

When the President first took office, he decontrolled all crude oil, and gasoline prices shot up 14 cents per gallon. It took 16 months for prices to return to the original level. Moreoever, we can hardly attribute today's lowering gasoline prices to oil decontrol; it has much more to do with the worldwide recession we are just now coming out of, and reduced consumption through conservation.

The administraton's bill, which calls for the complete deregulation of all classes of natural gas, old and new, would rely wholly upon FERC to protect consumers. Yet, this year alone, FERC has made two decisions favoring producers over consumers to the tune

[1] See appendix, page 168.

of $10 billion over the next 4 years. Are we to believe, that overnight, the commissioners will begin rigidly policing producer pipeline contracts with an eye toward lower prices for consumers? If so, why haven't they done so now? Certainly, the Natural Gas Policy Act does not deny pipelines and producers from renegotiating contracts for lower prices now. Is it plausible to assume that, with the passage of the administration's bill, FERC will begin restricting, instead of allowing, and sometimes encouraging exemptions, to current price ceilings?

Mr. Chairman, the national council does not believe the administration's bill is in the best interest of low-income energy consumers. At best, it is a great risk; at worst, it may be the death knell for many thousands of impoverished Americans. That is why we support the Natural Gas Consumers Relief Act. We believe that this legislation is a safer, surer, and better way of protecting consumers without discouraging new production.

As Representative Ed Markey said recently, the issue is not decontrol, it is who controls. As far as we are concerned, consumers' interests will only be represented if the Government plays a role in the process.

The Natural Gas Consumer Relief Act will lower natural gas prices. It will do so by changing the pricing formula to allow prices to drop in a surplus market and prevent exorbitant increases in the future by linking prices to an inflation index.

Moreover, the NGCRA will maintain controls on old gas, discovered before 1977. Old gas decontrol is simply a windfall for the owners of old gas, with no compensating benefit for consumers. In addition, the cost to consumers is enormous as almost half of the gas supplied to interstate pipelines today is old gas.

Mr. Chairman, the National Council of Senior Citizens joins a long and growing list of those who recognize that high prices are attributable to a lack of competition in the energy industry.

We believe the solution to high and rising energy prices is through action rather than inaction. The Natural Gas Consumer Relief Act is a bold, innovative, and direct solution to a very serious problem. The time to act is now, and we urge you to oppose any acceleration of natural gas prices and support the NGCRA.

Thank you very much.

Senator GRASSLEY. Thank you.

[The prepared statement and enclosure of Mr. Rourke follows:]

PREPARED STATEMENT OF JOSEPH ROURKE

Mr. Chairman, my name is Joseph Rourke, I am an assistant to the president of the National Council of Senior Citizens. I am also a volunteer and have been for the past 5 years. I work at the national council because I can see the pressing needs older people have today and want to help in developing solutions.

Mr. Chairman, as I speak to our members from all over the country, I hear more fear and anxiety expressed over the high and rising cost of utilities than almost any other issue. And no wonder, since 1977, natural gas prices have gone up 150 percent, about 25 percent this winter alone—and oil is still cheaper than natural gas as a heating source. Residential gas bills over the 5-year period have doubled.

For many thousands of older people, these exorbitant increases in energy costs have put adequate home energy out of reach. According to a recent study by the Citizen/Labor Energy Coalition, this winter more than 300,000 gas heating households will be or have been disconnected because they could not pay their utility bill. Research now being conducted for the National Consumer Law Center reveals,

among other things, that in Harrisburg, Pa., Columbia Gas System had an increase of 28 percent in its terminations from 1980 to 1982. In Detroit, Mich., Consolidated Gas has concluded that roughly twice the number of households were without any gas utility service in January 1983, compared to January 1982.

The fear and anxiety these people speak of, Mr. Chairman, is real and it is growing every day.

Unfortunately, there is little in the way of assistance for these people to depend upon. The one major Federal effort, the low-income home energy assistance program, only reaches about one-third of those eligible, and even when it does, the assistance is meager—averaging about $182 for the entire winter. Moreover, President Reagan has proposed a drastic scaling back of this program, from its current level of $1.975 to $1.3 billion.

Mr. Chairman, I would like to submit for the record a report [1] prepared by Richard Saul and the Grier Partnership for the National Consumer Law Center, comparing on a State-by-State basis, energy assistance payments, monthly unemployment benefits, and percentage of income spent on energy for aged and nonaged households. In Pennsylvania, almost 700,000 households were below 125 percent of the poverty level, of which less than half—300,000—receive energy assistance. For an older person receiving the maximum SSI benefit of $316, his or her weekly cash balance after paying the utility bill is $41. That's $41 for food, medical care, housing, transportation, and anything else you can think of.

Yet, despite the program's obvious importance and despite its inadequacy even at current levels, the administration persists in pressing for a large budget reduction.

Now we are being asked to accept the President's promise that decontrol of natural gas will bring lower, not higher energy prices. When the President first took office, he decontrolled all crude oil and gasoline prices shot up 14 cents a gallon. It took 16 months for prices to return to the original level. Moreover, we can hardly attribute today's lowering gasoline prices to oil decontrol; it has much more to do with the worldwide recession we're just now coming out of and reduced consumption through conservation.

The administration's bill, which calls for the complete deregulation of all classes of natural gas—old and new—would rely wholly upon FERC, the Federal Energy Regulatory Commission, to protect consumers. Yet this year alone, FERC has made two decisions favoring producers over consumers to the tune of $10 billion over the next 4 years. Are we to believe that overnight the Commissioners will begin rigidly policing producer-pipeline contracts with an eye toward lower prices for consumers. If so, why haven't they done so now? Certainly the Natural Gas Policy Act does not deny pipelines and producers from renegotiating contracts for lower prices now. Is it plausible to assume that, with the passage of the administration's bill, FERC will begin restricting instead of allowing and sometimes encouraging exemptions to current price ceilings?

Mr. Chairman, the national council does not believe the administration's bill is in the best interests of low-income energy consumers. At best, it's a great risk, at worst, it may be the death knell for many thousands of impoverished Americans.

That is why we support the Natural Gas Consumers Relief Act. This bill will do four basic but essential things:

(1) Roll back NGPA price ceilings to levels established before this past winter's huge price increases.

(2) Extend controls for 2 years on the 60 percent of all gas scheduled to be decontrolled on January 1, 1985, and maintain controls on old gas.

(3) Limit so-called "take-or-pay" contracts so gas pipelines do not find themselves locked into long-term obligations for the highest price gas.

(4) Remove FERC's discretionary authority to increase rates above newly established price ceilings.

Mr. Chairman, we believe that this legislation is a safer, surer, and better way of protecting consumers without discouraging new production. As Representative Ed Markey said recently, the issue isn't decontrol, it's who controls. As far as we are concerned, consumers' interests will only be represented if the Government plays a role in the process.

The Natural Gas Consumer Relief Act will lower natural gas prices. It will do so by changing the pricing formula to allow prices to drop in a surplus market and prevent exorbitant increases in the future by linking prices to an inflation index.

Moreover, the NGCRA will maintain controls on old gas, discovered before 1977. Old gas decontrol is simply a windfall for the owners of old gas, with no compensat-

[1] See appendix, page 168.

ing benefit for consumers. In addition, the cost to consumers is enormous as almost half of the gas supplied to interstate pipelines today is old gas.

Mr. Chairman, the National Council of Senior Citizens joins a long and growing list of those who recognize that high prices are attributable to a lack of competition in the energy industry. We believe the solution to high and rising energy prices is through action rather than inaction. The Natural Gas Consumer Relief Act is a bold, innovative, and direct solution to a very serious problem. The time to act is now and we urge you to oppose any acceleration of natural gas prices and support the NGCRA.

Thank you.

Senator GRASSLEY. I would like to call on Senator Melcher from Montana for any statement he may have and to open up the questioning on this panel. The senior Senator from Montana has long been a member of this committee and very interested in the subject before us.

John.

STATEMENT BY SENATOR JOHN MELCHER

Senator MELCHER. Thank you very much, Mr. Chairman.

I might preface my questions to the panel by saying that I wonder whether any bill dealing with the pricing of natural gas will be successful in this Congress, whether it is the administration's bill or some modification of it, or some alternative bill.

We find ourselves in a very mixed-up situation. The Natural Gas Policy Act a few years ago has been a very burdensome bill for producers of natural gas, pipeline companies, and utility companies, and certainly can be blamed for part of the escalation of natural gas prices. But we are now in the third year of President Reagan's administration, and we have been told from the outset that there would probably be a gas bill introduced or recommended by the administration, and we just got it a few weeks ago, and they have it before us in the Senate Energy Committee for consideration.

I had always said if we are going to do this, if we are going to get into this thicket, please present a bill that is easily understood, is easily enforced, and takes out some of the burden of overregulation that is found in the NGPA, the previous act.

I think perhaps the stickiest point remains, as it has remained for a long time, what about this old gas that is obviously selling at a fraction of what new gas is being sold for, and if the price is allowed to escalate rapidly on the old gas, who really benefits from it, and what impact does it have on the consumer.

On the other side of it is—and I will be fair about this—the administration's bill does attempt to deal with the passthrough, with the escalation, with the take-or-pay contracts, so we cannot say it is all bad. But yet, having looked at it and knowing where we are at, I do not know that it simplifies too much and has too much overall merit over and above where we are at right now.

I am interested in what Secretary Hodel says—and I reviewed his testimony that he presented here earlier today before I got here, and see it parallels his testimony before the Senate Energy Committee a couple of weeks ago—he projects a decline in natural gas prices for consumers. And I take it from your testimony, you do not believe that; is that right—you do not believe the study is accurate?

Mr. ROURKE. I do not believe it.

Mr. ROTHSCHILD. Senator, if I could just expand on why we do not believe it. No. 1, the administration premises its conclusion on the basis of the gas surplus and the FERC passthrough restriction, as you noted. The question is what is the surplus made of. The surplus—a lot of it, and we do not know the exact extent of this, because the administration has not even done a study—is old gas that has been shut in, is not being produced, while very expensive gas is being delivered to the consumers. I think the panel prior to ours, particularly Commissioner Shanaman, pointed this out. So we do not know exactly what the surplus is made up of.

The other portion of the surplus is this very expensive, deregulated gas, deep gas, that now cannot be sold because of the high prices that the producers are trying to sell it at. That makes up a large part of the surplus.

The question is, How can those prices come down and force the rest of the prices down, given the President's bill? I am not sure that the new gas prices are going to come down, and old gas prices are going to go up, and there is more old gas that is going to increase in a renegotiation process, while there is little very expensive gas that will decrease. That is point 1.

The second one is the passthrough. First of all, the administration assumes in its passthrough that there will be increases. They are saying that pipelines are going to be able to pass through increases relative to what they had before the enactment of the legislation, plus inflation, and that the FERC then is going to review any additional increases based upon certain reasonable standards, just, reasonableness, and prudent. So they anticipate that there will be additional passthroughs; otherwise, why have that proceeding? They are basically admitting that there will be increases.

So, even from the administration's position, I see that there will be increases. And I go back to the bottom line, which is that under the President's bill, old gas is going to rise. I do not see any renegotiation incentive for any producers, particularly in view of the fact that the administration allows them to abrogate their contracts on January 1, 1985, with pipelines, to renegotiate some of their higher priced gas, particularly in the category of new gas, rather than the deep gas, down.

So, from our analysis, we only see one direction for prices under the administration bill, and that is up.

Senator MELCHER. What would you do about the contracts that are in effect concerning take-or-pay? Some of those contracts were negotiated at prices that looked very attractive at the time, and now are less than attractive, but yet they are contracted.

Mr. ROTHSCHILD. With respect to take-or-pay, in the Natural Gas Consumer Relief Act, for example, that was introduced yesterday, it would allow reductions to 50 percent for a 3-year period. With a reduction in take-or-pay, that means that a pipeline could then gain access and ship those old gas supplies, those less expensive gas supplies that are now shut in, and thereby cut back on the more expensive supplies. So that is the first element of relief, namely, reducing the take-or-pay. Under the administration's bill, they have a take-or-pay reduction of 70 percent, which is not all that much different from the 50 percent—a 20-percent difference—but the real difference is that the benefits of take-or-pay will be reduced

because the administration is allowing old gas prices to rise, so there will therefore be less old gas available to take under the take-or-pay provision.

Senator MELCHER. Well, do you think the difference is just between 50 and 70 percent, or do you think there are other features?

Mr. ROTHSCHILD. No; the second part of my statement, Senator, was that under the President's bill, there would be less old gas because they are allowing it to be deregulated. The benefits of the reduction in take-or-pay is that you get access to the old gas that is now shut in. That old gas will disappear because the President is allowing it to be deregulated.

Senator MELCHER. If it can be taken for granted—and I think we had better take it for granted—that regardless of any action in Congress on any of these bills, or inaction by Congress on any of these bills—it does not make any difference; these utility bills are very high—so the first thing we have to face is the opportunity to provide some assistance to those who find themselves unable to both have sufficient heat in their homes and carry on life—eating, clothing, and shelter. Now, the low energy assistance fund should have a carryover in almost every State this year. Do you have any information on that, what we could reasonably project for that carryover, because we need that information as soon as possible, because Congress, in drawing up both the budget, the congressional budget, and the appropriation bills that will follow, will need to have some idea on whether the $1.9 billion—almost $2 billion—was adequately, or fairly distributed for use, and second, what is the actual carryover.

Do any of you have any figures on that yet or any projections—or will you be able to have them? Do any of your organizations get those projections? It is very simple to do by calling the 50 States—there are not that many involved in it—but calling those that are involved and saying, "What is your carryover, and are you holding that, as the law requires, for next year's heating bills and not absorbing it into your bureaucracy," of whatever State it happens to be, and expending it otherwise.

Ms. OSTRANDER. Senator Melcher, in terms of that question, staff who works on this on a daily basis who are with me have indicated that the National Consumer Law Center is in the process of putting that information together.

Senator MELCHER. All right. It is a program, as I understand the law—and I hope I understand it, and I wish every State would understand it, and every bureaucrat in both the States and the Federal Government would understand it—that those funds are simply for low-energy fuel assistance, and they are not to be used for anything else, and they are to be carried over into the next year, for just that purpose. We need that information. I am keeping track of my own State and insisting that they do just that—hold it for people, not for the bureaucracy of the institutions there, the State agencies, but hold it for the people and make sure it is available for the succeeding year.

Ms. OSTRANDER. Senator, there have been some serious concerns because the level of appropriation has varied over the last few years, and some States tend to protect themselves by having a carryover.

Senator MELCHER. We encourage them to do so. After all, if you have the woodbox by the stove, and it is cold, and the woodbox runs out, and you do not have some more to bring in, you are cold from then on.

Ms. OSTRANDER. So it is a logical thing for them to look at that process and begin to have something on hand.

Senator MELCHER. Well, it is also logical to make sure that law is followed and that nobody violates the law by absorbing those funds into paying salaries or other expenses that they can dream up in their own bureaucracies. And I think it behooves all of the people that you represent to make sure that they are all aware that that is the law, and that their States are obligated to follow the law, because we never do seem to win anything by having lawsuits over these things. They ought to just be on the alert. I know in my own State, they once absorbed some money and used it for something else. Some money was left over at the end of April, and they used it for something else; it was not available the next year.

Ms. OSTRANDER. Senator, in my own State, I work very closely with the Department of Human Resources and the whole energy program. One of the areas of great concern to me, as a result of legislative changes made in 1981, is that Federal data collection and reporting requirements have been greatly curtailed. I have been able to work out now for the State to have data collection.

Senator MELCHER. What is that State?

Ms. OSTRANDER. I am from Georgia.

Senator MELCHER. It does not get so cold there.

Ms. OSTRANDER. It gets cold enough right now where we are having to work with Atlanta Gas Light on a separate fundraising program.

Senator MELCHER. I do not want to appear to——

Ms. OSTRANDER. What I am concerned about is that I think, in a committee such as this, I would imagine that the data collection, had it been maintained, could have been a start to begin to give us some information. Without the data collection that we were permitted to have before, it just compounds the problem of arriving at well-informed decisions.

Senator MELCHER. Thank you very much.

Chairman HEINZ [resuming chair]. Senator Grassley—I know we all are going to have to go and vote in a few minutes—do you have any questions you would like to ask at this point?

Senator GRASSLEY. No. Just thank you for your testimony, and the questions that I had, Senator Melcher has already touched on.

Chairman HEINZ. Very well. Let me say to Mr. Rothschild and Ms. Ostrander and Mr. Rourke—first of all, I apologize that I was not here for your testimony. Sometimes, we get stretched in two different directions. I am very grateful to Senator Grassley for having chaired the hearing.

I do have quite a few questions for you. I am not going to subject you to all of them, though, verbally. There is a question I particularly do want to ask Mr. Rothschild, who indicated, as I understand, that the Citizen/Labor Energy Coalition supports a rollback of NGPA ceiling prices, as well as an extension for 2 years of price controls on new gas. I assume you are suggesting controls on new gas through January 1, 1987.

Some have argued that those proposals will result in the same kinds of supply problems that this country experienced in the seventies—and I remember those, because my home town of Pittsburgh really got cut back on natural gas, and many of my steelworkers were out of work as a result in 1977. How do you respond to those assertions; and if you think they do have any credibility, what kind of incentives should be established to encourage new exploration on the part of producers?

Mr. ROTHSCHILD. No. 1, the extension basically is a reverse safety net. It is a safety ceiling for 2 years. I think that with new gas supplies, the price ceiling under the bill, as anticipated, would still be sufficiently high to encourage continued exploration. Right now, what is depressing exploration is the glut. A producer is not going to invest in a well if he cannot sell the gas from the well. It does not make any sense.

There have been some analyses by Wall Street investment houses suggesting that the finding costs of gas are about 40 percent of the current NGPA ceiling price. If you consider that production costs are very small for natural gas, and you do not have to put a lot of investment in like you do for oil—gas comes up from the ground under natural pressure—we think those ceilings are very attractive, very reasonable, and that we may even find that producers will sell gas at prices below those ceilings.

Chairman HEINZ. So you feel that under your proposal, there will be adequate incentives to keep drilling?

Mr. ROTHSCHILD. Yes; and if you consider it is only an extension for 2 years to 1987, at that time, we can see how it works, and if we find that the prices are insufficient, changes can be made at that time or even before that time.

Chairman HEINZ. Mr. Rourke, we are glad that you are here, representing the National Council of Senior Citizens. Let me ask you a question regarding the low-income energy assistance and weatherization programs.

It is generally agreed that older persons are justifiably proud and independent and do not want to be associated with a program that they perceive in some way, shape, or form, as somehow being welfare. Do you have any specific recommendations for how we might make application procedures, including the documentation of income, more acceptable to older persons, under both the low-income energy assistance program and the weatherization program?

Mr. ROURKE. I do not, really. I have someone with me who worked on energy.

Eric, do you have a comment on that?

Chairman HEINZ. Yes, sir?

Mr. SHULMAN. I am Eric Shulman, legislative director for the national council. We did run an energy outreach program for about 1½ years and one of the things that we found was that a lot of older people were reluctant to walk into the public welfare offices in order to get the benefits, and that to the extent that the agencies administering the programs at the local level or the area agencies on aging, community action agencies, we found a little bit more receptivity on the part of older people to go in and apply for benefits.

Naturally, a lot of the problem with older people is that they are not aware of the program, and there needs to be more publicity and understanding about why the program exists and who it is supposed to benefit.

Chairman HEINZ. Thank you very much. That is very helpful.

Ms. Ostrander, the American Association of Retired Persons has done an excellent job over the years, representing senior citizens, and we have also seen over the years greater partnerships develop between business, government, labor, and other services providers in the energy area. There are a number of excellent examples of fuel companies which, in cooperation with local communities, are sponsoring fuel assistance and weatherization programs.

AARP has hundreds of chapters throughout the country. To what extent are these local AARP chapters involved in planning such programs and in helping to identify needy elderly applicants?

Ms. OSTRANDER. Senator Heinz, that varies from chapter to chapter and is more likely to be happening in parts of the country where they have the additional hardship. We have been working, as you have said, with the private sector, and some of us have become involved in private sector initiatives in supplementing energy funding. I believe our organization is currently involved with one of the Midwest utility companies and using our title V program to administer a fuel bill assistance fund. I serve on the advisory committee of Atlanta Gas Light, which is chaired by Mr. Lebune from HDA. We are doing many things. In terms of telling you what all the chapters are doing, I would say to you, it is a very varied situation.

Chairman HEINZ. Would you hazard a guess as to whether as many as a majority of chapters are so involved?

Ms. OSTRANDER. I would be reluctant to say yes or no. They have become increasingly more aware, simply because our program department has become more active in the energy area, and we have distributed considerable energy material. So, from that perspective, I would say we have created a better awareness. But in terms of a majority or nonmajority, it varies, again, according to the location.

Chairman HEINZ. Well, let me take this opportunity to thank those chapters that are involved, but to urge—and to urge you to urge—those chapters that have the opportunity, but have not yet done so, to become more involved than they are today.

I want to apologize for the fact that we have a vote on, but I think that probably the best thing to do is, at this point, to adjourn the hearing. I appreciate your testimony. I am going to read it carefully. I will probably learn more from that than I will from hurling questions at you at this point.

Let me thank you all very much, Mr. Rothschild, Ms. Ostrander, and Mr. Rourke, for your participation.

The hearing is adjourned.

[Whereupon, at 11:55 a.m., the committee adjourned.]

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SUPPLEMENTAL ANALYSIS OF NATURAL GAS CONSUMER REGULATORY REFORM LEGISLATION

U.S. Department of Energy
May 6, 1983

EXECUTIVE SUMMARY

PURPOSE

This paper is supplemental to the Department of Energy's February 28, 1983, study entitled "Analysis of Natural Gas Consumer Regulatory Reform Legislation." This supplemental analysis was undertaken to show the energy and price effects of natural gas reserve additions attributable to deregulating the price of old gas. This paper includes a comparison of the energy and price effects of the Natural Gas Policy Act (NGPA) and the Administration's natural gas bill (the Natural Gas Consumer Regulatory Reform Amendments of 1983, S.615), as well as an analysis of two other recent legislative proposals on natural gas: H.R.2154, introduced by Representative Gephart, and S.689, introduced by Senator Heinz.

CURRENT PROBLEMS UNDER THE NATURAL GAS POLICY ACT

Since its passage in 1978, the Natural Gas Policy Act has distorted the domestic gas market in three important ways:

1. Forcing consumers to pay increasing prices for natural gas despite a growing surplus

2. Providing incentives for pipelines to purchase a high-cost mix of gas supplies, thereby denying consumers the full benefit of currently available low-cost gas

3. Reducing the incentive to maximize the economic production of low-cost gas from existing fields

In this supplemental analysis, special attention is devoted to this third market distortion caused by the NGPA. By artificially holding the price of old gas below market levels, the NGPA would deny consumers the benefit of 5 trillion to 10 trillion cubic feet of low-cost, old gas reserves. In contrast, the Administration's bill, by deregulating old gas prices, will enable gas producers to produce this additional gas using well-known recovery techniques.

EFFECTS OF THE ADMINISTRATION'S BILL

Within 1 year after enactment of the Administration's bill, average wellhead and retail gas prices should decline by 15 cents to 35 cents per thousand cubic feet. The actual decline in gas prices will depend on future oil prices; and this analysis used two price paths, a high and a low, which bracket current price activity (see Appendix I). During the same period, gas prices under the Administration's bill should be 30 cents to 45 cents per thousand cubic feet--that is, 7 percent to 11 percent lower than prices would be under the NGPA.

After their initial decline, average wellhead and retail gas prices will rise and gradually approach the price levels that would otherwise prevail under the NGPA. If old gas reserve additions are 5 trillion cubic feet, gas prices under the bill should reach NGPA price levels by about 1987 and remain comparable with NGPA prices thereafter. On the other hand, if old gas reserve additions are 10 trillion cubic feet, gas prices would remain below NGPA prices through 1995. This analysis leads to the conclusion that old gas reserve additions of about 10 trillion cubic feet are the more likely case, and potentially could be somewhat higher.

Another important effect of the Administration's bill would be to reduce oil imports. Lower domestic gas prices and higher production as compared to the NGPA would reduce oil imports by 250,000 to 350,000 barrels per day during the first year. In the second year after enactment, oil imports would be 150,000 to 160,000 barrels per day less than under the NGPA.

EFFECTS OF H.R.2154 AND S.689

H.R.2154 and S.689 would lower regulated prices below NGPA ceilings. Both bills would provide gas consumers with near-term relief from high prices but would cause gas shortages and encourage large increases in expensive gas imports in the years ahead. H.R.2154 would cause shortages of 0.6 trillion to 1.1 trillion cubic feet in 1984; and, in 1985, it would require the United States to import 1 trillion cubic feet more gas than

would be the case under the Administration's bill. S.689 would cause shortages of 0.9 trillion to 1.4 trillion cubic feet in 1984; and in 1985, it would require imports of as much as 0.7 trillion cubic feet more gas than would be the case under the Administration's bill. In the past, similar shortages of natural gas have caused factory shut downs and have imposed enormous costs on the U.S. economy.

The price regulation provisions of these two bills also would deny consumers the benefit of 5 trillion to 10 trillion cubic feet of low-cost, old-gas reserves. Under regulation, these reserves are not economic to produce and would be left in the ground forever. By subjecting more gas to price controls, both bills set the stage for extending price controls indefinitely.

I. PURPOSE

This paper is supplemental to the Department of Energy's February 28, 1983, study entitled "Analysis of Natural Gas Consumer Regulatory Reform Legislation." This supplemental analysis was undertaken to show the energy and price effects of natural gas reserve additions attributable to deregulating the price of old gas. The results also reflect minor technical refinements to the modeling approach used in the February 28 study.[1] This paper includes a comparison of the energy and price effects of the Natural Gas Policy Act (NGPA) and the Administration's natural gas bill, as well as an analysis of two other recent legislative proposals on natural gas: H.R.2154 and S.689.

II. CURRENT PROBLEMS UNDER THE NATURAL GAS POLICY ACT

Since its passage in 1978, the Natural Gas Policy Act has distorted the domestic gas market in three important ways:

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[1]The technical refinements and major assumptions used in this paper and the earlier report are described in detail in Appendix I.

1. Forcing consumers to pay increasing prices for natural gas despite a growing surplus

2. Providing incentives for pipelines to purchase a high-cost mix of gas supplies, thereby denying consumers the full benefit of currently available low-cost gas

3. Reducing the incentive to maximize the economic production of low-cost gas from existing fields

The Administration's bill, the Natural Gas Consumer Regulatory Reform Amendments (S.615), is designed to alleviate each of the major distortions caused by the NGPA. The rest of this section is devoted to a brief description of these three market distortions.

The NGPA allows gas prices to rise steadily even when market conditions dictate that prices should be falling. Prices are continuing to rise under the NGPA despite reduced demand, falling oil prices, and a growing surplus of natural gas. The 1982 surplus of deliverable natural gas supplies was estimated to be between 1.5 trillion and 2.7 trillion cubic feet.[2] Nonetheless, from the middle of 1981 to the middle of 1982, the prices industrial users paid directly to interstate pipelines rose from $3.06 per thousand cubic feet to $3.66 per thousand cubic feet, or 20 percent.[3] From 1981 to 1982, the volume weighted average residential price rose from $4.29 per thousand

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[2]Low estimate based on DOE projections derived from the two-market evaluation system. High estimate from the American Gas Association, Natural Gas Production Capability--1982, December 1982.

[3]Natural Gas Monthly, January 1983, page 29, June 1981-1982.

cubic feet to $4.96 per thousand cubic feet, or 16 percent.[4] In the last half of 1982, residential prices appear to have been rising at an even faster rate.

This anomalous situation of rising prices in a soft market is a result of the NGPA. In response to the gas shortages of the mid-1970's and the provisions of the NGPA (as well as other regulations), virtually all post-1978 gas contracts entitled producers to the highest allowable prices. These are the NGPA ceiling prices, which are allowed to rise at or above the rate of inflation. NGPA ceiling prices do not reflect current market conditions, yet they determine prevailing prices because of the way they have been incorporated into contracts.

Although take-or-pay provisions in natural gas contracts are common, the standard rate before the NGPA was low enough that liabilities for undelivered gas were almost never incurred. After the NGPA was enacted, take-or-pay requirements as high as 95 percent became more common. However, pipelines are not permitted to pass through immediately the cost of gas that has been paid for but not delivered to consumers. Therefore, a growing amount of old, low-cost gas is being shut in as pipelines attempt to adjust to falling demand and minimize the cost of take-or-pay requirements. The reduction in the

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[4]Preliminary DOE volume-weighted estimate based on data from the Monthly Energy Review, March 1983, page 97, adjusted to be consistent with the Natural Gas Annual.

proportion of low-cost supplies available to consumers causes gas prices to continue to rise, which, in turn, reduces demand even more.

Recent purchased gas adjustment (PGA) filings by interstate pipeline companies illustrate the problem. Table 1 shows the percentage reduction of projected purchases of low-cost gas and projected increases of high-cost gas production during 1982. The difference between the third and second columns for old gas (392 bcf) indicates that pipeline companies projected that they would be shutting in from 300 billion to 500 billion cubic feet of old gas at the end of 1982.

Table 1

Summary of Recent Interstate PGA Filings[a]
(bcf)

	Mid-1982	Less 8%, Half-Year Decline	Late 1982-Early 1983	Change	
Old Gas (Sections 104, 106)	5,817	5,352	4,960	-857	-15%
New Gas (Sections 102, 103, 108, 109)	3,825	N/A	3,911	+86	+3%
High-Cost Gas (Section 107)	664	N/A	886	+222	+33%

[a]EIA March 1, preliminary data. Projections for 20 major interstate pipeline companies accounting for 85 percent to 90 percent of interstate sales. Filing period is 6 months, but filings are staggered; so actual 6-month period varies by pipeline.

In addition, as of December 31, 1982, pipeline companies who did not take the minimum delivery required by their take-or-pay obligation (and thereby paid for gas that was not delivered) paid an average price of $1.42 per thousand cubic feet.[5] This low average price further confirms that most of the shut-in gas is old interstate gas (Sections 104 and 106).

The problems caused by the NGPA are not limited to the current surplus of deliverable gas supplies. Under the NGPA, about 40 percent of the Nation's proved, producing gas reserves will remain under price controls in 1985. By 1990, more than 20 percent of the Nation's reserves will still be under price controls, a condition that will reduce the incentives of producers to maximize the economic production of old, low-cost gas. Indeed, the two most significant market distortions caused by the NGPA are the result of continued price controls on old gas. First, price controls on old gas subsidize excessive expenditures of the Nation's economic resources on high-cost domestic gas and imports, and cause inequitable disparities in gas prices between regions. Second, price controls on old gas will cause at least 5.0 trillion to 10.0 trillion cubic feet of the Nation's old gas reserves to remain in the ground forever.[6]

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[5]See Table A, page 1 of Testimony of C. M. Butler III, Chairman of FERC, before the House Energy Subcommittee on January 27, 1983.

[6]Appendix II describes the technical evidence that supports the estimate of 5.0 trillion to 10.0 trillion cubic feet.

III. ENERGY AND PRICE EFFECTS OF THE NATURAL GAS POLICY ACT

Table 2 presents the energy and price effects of the NGPA. These estimates were made using the high oil price assumptions described in Appendix I. Under the NGPA, average gas prices will continue to rise under the NGPA despite a surplus of deliverable supply through 1984. During this period, producers are assumed to be willing to reduce minimum take-or-pay requirements, but to be unwilling to renegotiate contract price terms at below-ceiling prices for specific categories of gas.[7] Producers would behave this way to maintain favorable price terms in existing contracts if they expect the current surplus to be temporary.

Table 2 shows that if the NGPA remains in effect the residential and commercial demand for gas will decrease slowly from current levels in response to rising gas prices. In the industrial sector, however, higher economic activity results in steadily growing industrial gas consumption after 1984. Utility consumption of gas also increases, but much more slowly than in the industrial sector.

In 1985, the NGPA provides for the decontrol of most "new" gas, but leaves price controls on "old" gas. When partial decontrol

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[7]This assumption results in somewhat lower prices under the NGPA than would be the case were it assumed that producers would rigidly adhere to and legally enforce all contract terms.

Table 2

Projected Prices and Quantities of Natural Gas with the NGPA[a]
(High Oil Price)

Gas Prices (1982 $/mcf)	1982	1983	1984	1985	1986	1987	1990	1995
Average domestic wellhead	2.67	2.86	3.02	3.24	3.59	4.00	4.39	5.42
Residential	4.96	5.14	5.27	5.43	5.80	6.19	6.60	7.67
Industrial	3.68	3.82	3.96	4.25	4.62	5.02	5.38	6.36
Reserve Additions (bcf)[b]								
Section 104 and 106	0	0	0	0	0	0	0	0
Other	15,038	14,511	14,084	13,567	13,115	12,638	10,694	8,403
TOTAL	15,038	14,511	14,084	13,567	13,115	12,638	10,694	8,403
TOTAL 1982-1995	162,557							
Consumption (tcf)								
Residential	4.64	4.46	4.40	4.38	4.33	4.27	4.25	4.21
Commercial	2.66	2.65	2.64	2.62	2.60	2.56	2.47	2.31
Industrial[c]	6.07	6.19	6.39	6.84	7.06	7.27	7.25	6.29
Electric utility	3.36	3.28	3.36	3.63	3.68	3.60	3.17	3.24
Other	2.12	2.10	2.13	2.17	2.18	2.17	2.05	1.80
TOTAL	18.84	18.69	18.92	19.65	19.85	19.87	19.19	17.84
Supply (tcf)								
Conventional	16.89	16.59	16.67	16.67	16.48	16.22	14.87	12.06
Unconventional	0.85	1.00	1.14	1.29	1.44	1.59	1.99	2.44
Imports	0.95	0.95	0.95	1.55	1.72	1.86	2.13	2.37
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.84	18.69	18.91	19.66	19.85	19.87	19.19	17.84

[a]Estimates based upon high oil price case assumptions (see Appendix I).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

occurs in 1985 under the NGPA, about 43 percent of domestic gas production in that year remains under price controls. If world oil prices stay within $1 to $2 of present levels, there should not be a sharp increase in gas prices in 1985, even if gas demand increases moderately and the current surplus of deliverable gas disappears. Following partial decontrol under the NGPA, however, pipeline companies will continue to pay high prices for deregulated gas because of their continuing supplies of cheap regulated gas. Thus, NGPA price controls on old gas will continue to subsidize the purchase of expensive deregulated gas.

Under the NGPA, average prices rise at about 7 percent to 11 percent per year above the rate of inflation through 1990 because of the depletion of old price-controlled gas supplies, the purchase of more expensive deregulated supplies, and the increase in alternative fuel prices. Also, because the majority of the Nation's residential customers are in the interstate market and because that market experiences more rapid increases in gas costs than the Nation as a whole, average residential gas prices should rise faster than gas prices in other sectors of the economy.

As late as 1990, a substantial quantity of gas--about 20 percent of all domestic proved, producing reserves--will remain price controlled. Price controls discourage production of low-cost gas and encourage inefficient allocation of the Nation's resources through the production of more expensive gas.

IV. THE ADMINISTRATION'S NATURAL GAS BILL (S.615)

The Administration's bill eliminates the three major deficiencies of the NGPA. The bill encourages the renegotiation of existing contracts to reflect market conditions, thereby providing a transition to a deregulated market. The gas cap provision eliminates the upward price pressures caused by the NGPA-regulated prices. The take-or-pay limitations reduce obligations that encourage the shutting in of cheap supplies and the production of more expensive supplies. The market-out provision and deregulation of all new and renegotiated contract prices will stimulate the production of additional supplies of old, low-cost gas that would never be produced under the NGPA. These provisions would eliminate the old gas "cushion" and give pipeline companies an increased incentive to obtain least-cost sources of gas first, purchasing more expensive reserves only as demand warrants.

Old Gas Supply Response

In the February 28 report, we assumed that old gas deregulation would accelerate old gas production but would not increase the ultimate recovery of old gas reserves. We recognized that this assumption was overly conservative, and since February 28, we have carefully studied the old gas supply question. Our findings, which are described in Appendix II, indicate that deregulation of old gas prices will add at least 5 to 10 trillion cubic feet to the Nation's supply of old gas, and reserve additions could be somewhat higher. These reserve

additions occur because deregulation extends the life of old gas wells. It enables gas producers to employ a number of well-known engineering operations (fracturing, acidizing, sand control, and other stimulation techniques) that increase production and ultimate gas recovery.

As described in Appendix II, there also would be an old gas supply response due to infill drilling under S.615. We do not yet have sufficient information to estimate the magnitude of that response, but it could be just as large as the response from extending the lives of old gas wells.

We have chosen to present cases of 5 trillion cubic feet and 10 trillion cubic feet of old gas reserve additions in this analysis because we are extremely confident that the old gas supply response will be at least in that range.

Five Trillion Cubic Feet of Old Gas Reserve Additions

In 1983, using high oil price assumptions, the Administration's bill would cause national average wellhead prices to decline by 15 cents per thousand cubic feet from 1982 levels (see Table 3). The decline in prices would be caused by two factors. First, the reduction in obligatory take-or-pay levels decreases the production of expensive gas and increases the production of low-cost, shut-in gas. Second, the prices agreed

Table 3

Projected Prices and Quantities of Natural Gas Under Administration's Bill[a]
(5 tcf Old Gas Supply Response - High Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.52	2.87	3.09	3.50	3.98	4.44	5.39
Gas cap	3.20	2.96	3.41	3.09	3.50	3.98	4.44	5.39
Residential	4.96	4.81	5.14	5.37	5.79	6.25	6.69	7.66
Industrial	3.68	3.50	3.82	4.03	4.44	4.89	5.30	6.24
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	875	735	615	365	150
Other	15,038	13,925	13,103	12,399	12,031	11,850	10,902	9,434
TOTAL	15,038	13,925	13,103	13,274	12,766	12,465	11,267	9,584
TOTAL 1982-1995	162,018							
Consumption (tcf)								
Residential	4.64	4.54	4.47	4.42	4.35	4.27	4.23	4.21
Commercial	2.66	2.67	2.67	2.65	2.63	2.59	2.49	2.33
Industrial[c]	6.07	6.50	6.54	6.91	7.12	7.23	7.13	6.39
Electric utility	3.36	3.49	3.54	3.64	3.57	3.53	2.96	3.24
Other	2.12	2.19	2.19	2.19	2.17	2.15	2.01	1.81
TOTAL	18.84	19.39	19.40	19.82	19.84	19.76	18.83	17.98
Supply (tcf)								
Conventional	16.89	17.29	17.17	16.85	16.52	16.17	14.79	12.43
Unconventional	0.85	1.00	1.13	1.27	1.40	1.53	1.85	2.21
Imports	0.95	0.95	0.95	1.55	1.72	1.86	1.99	2.37
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.84	19.39	19.40	19.82	19.84	19.76	18.83	17.98

[a]Estimates based on 5 tcf old gas supply response and high oil price case assumptions (see Appendixes I and II).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

to in new and renegotiated contracts would establish a gas cap, which would become the new ceiling price for all regulated categories of gas. The gas cap would approximate current market-determined prices and would be lower than NGPA ceiling prices for most new gas categories. We know that NGPA ceiling prices are above market prices because the ceiling prices have created the current surplus of deliverable gas.

After 1985, the Administration's bill would deregulate all gas prices, except those prices set in contracts that neither party chooses to renegotiate. (Generally, pipelines with contracts that have prices above market-clearing price levels would renegotiate the prices in the contract downward, whereas producers with low, price-controlled contracts would renegotiate the prices upward to the market level.) The Administration's bill also would eliminate the potential problem posed by indefinite price escalators. Pipeline companies that have agreed to these contracts can renegotiate and thereby prevent the contracts from causing a rapid escalation in their average gas costs. In addition, the gas cap provision will remain in effect through 1986, and prices in unrenegotiated contracts would not be allowed to exceed the cap.

Ten Trillion Cubic Feet of Old Gas Reserve Additions

Table 4 presents the effects of 10 trillion cubic feet of old gas reserve additions with the Administration's bill in effect. Because these reserves are added gradually to the

Table 4

Projected Prices and Quantities of Natural Gas Under Administration's Bill[a]
(10 tcf Old Gas Supply Response - High Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.52	2.87	3.06	3.46	3.89	4.37	5.36
Gas cap	3.20	2.96	3.41	3.06	3.46	3.89	4.37	5.36
Residential	4.96	4.81	5.14	5.35	5.75	6.16	6.62	7.63
Industrial	3.68	3.50	3.82	4.00	4.40	4.81	5.25	6.22
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	1,750	1,470	1,230	730	300
Other	15,038	13,925	13,103	12,370	11,972	11,741	10,804	9,393
TOTAL	15,038	13,925	13,103	14,120	13,442	12,971	11,534	9,693
TOTAL 1982-1995	170,514							
Consumption (tcf)								
Residential	4.64	4.54	4.47	4.43	4.36	4.29	4.25	4.23
Commercial	2.66	2.67	2.67	2.65	2.63	2.60	2.50	2.35
Industrial[c]	6.07	6.50	6.54	6.95	7.18	7.37	7.30	6.54
Electric utility	3.36	3.49	3.54	3.69	3.67	3.57	3.07	3.28
Other	2.12	2.19	2.19	2.21	2.20	2.18	2.06	1.84
TOTAL	18.84	19.39	19.40	19.93	20.04	20.01	19.18	18.23
Supply (tcf)								
Conventional	16.89	17.29	17.17	16.96	16.71	16.42	15.14	12.70
Unconventional	0.85	1.00	1.13	1.27	1.40	1.53	1.85	2.20
Imports	0.95	0.95	0.95	1.55	1.72	1.86	1.99	2.37
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.84	19.39	19.40	19.93	20.04	20.01	19.18	18.23

[a]Estimates based on 10 trillion cubic feet old gas supply response and high oil price assumptions (see Appendixes I and II).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

Nation's supply (7.1 trillion cubic feet by 1990), the consumption and price effects are not dramatic in the short run. By 1990, however, wellhead and retail prices will be 2 cents to 6 cents lower than they would be in the 5-trillion-cubic-foot case.

Comparison of S.615 and NGPA

Table 5 compares the effects of the Administration's bill (S.615) with those of the NGPA. Under the Administration's bill, wellhead prices and retail prices would fall 33 cents per thousand cubic feet below NGPA levels in the first year after enactment of the bill. As the current surplus deliverability is produced and as low-cost reserves are depleted, wellhead and retail prices will gradually rise to NGPA levels. In the late 1980's and beyond, gas prices are comparable under both S.615 and the NGPA.

Oil imports would be much lower if the Administration's bill is enacted. S.615 would reduce oil imports below what they would be under the NGPA by 250,000 barrels per day in 1983 and by 160,000 barrels per day in 1984. This reduction in oil import demand will place downward pressure on world oil prices to the potential benefit of oil consumers.

V. ANALYSIS OF ALTERNATIVE PROPOSALS

This section assesses the implications of two alternative legislative proposals to the Administration's bill: H.R.2154,

Table 5

Comparison of NGPA and S.615[a]
(High Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Wellhead Prices ($/mcf)								
NGPA	2.67	2.86	3.02	3.24	3.59	4.00	4.39	5.42
S.615 (5 tcf)		2.52	2.87	3.09	3.50	3.98	4.44	5.39
S.615 (10 tcf)		2.52	2.87	3.06	3.46	3.89	4.37	5.36
Average Retail ($/mcf)								
NGPA	4.13	4.28	4.42	4.65	5.01	5.41	5.77	6.80
S.615 (5 tcf)		3.95	4.28	4.48	4.89	5.33	5.75	6.71
S.615 (10 tcf)		3.95	4.28	4.46	4.84	5.25	5.69	6.68
Residential ($/mcf)								
NGPA	4.96	5.14	5.27	5.43	5.80	6.19	6.60	7.67
S.615 (5 tcf)		4.81	5.14	5.37	5.79	6.25	6.69	7.66
S.615 (10 tcf)		4.81	5.14	5.35	5.75	6.16	6.62	7.63
Conventional Supplies (tcf)								
NGPA	16.89	16.59	16.67	16.67	16.48	16.22	14.87	12.06
S.615 (5 tcf)		17.29	17.17	16.85	16.52	16.17	14.79	12.43
S.615 (10 tcf)		17.29	17.17	16.96	16.71	16.42	15.14	12.70
Total Consumption (tcf)								
NGPA	18.84	18.69	18.91	19.66	19.85	19.87	19.19	17.84
S.615 (5 tcf)		19.39	19.40	19.82	19.84	19.76	18.83	17.98
S.615 (10 tcf)		19.39	19.40	19.93	20.04	20.01	19.18	18.24

[a]Estimates based on high oil price case assumptions (see Appendix I).

introduced by Representative Gephardt, and S.689, introduced by Senator Heinz. Although these bills would provide short-run consumer benefits, they would cause gas shortages and a rapid escalation of prices once decontrol occurs. If either of these bills were enacted, it is likely that wellhead price controls eventually would be extended to avoid sharp price increases. Such an extension of controls would result in market disorders and inefficiencies even more costly than those imposed by the NGPA.

H.R.2154

H.R.2154 would lower most regulated gas prices to January 1, 1982, levels and would restrain future price increases to less than the rate of inflation. The bill would impose a ceiling price (150 percent of the rolled-back Section 103 price) on all "high-cost" gas, including deep gas. Ceiling prices would remain on new gas until January 1, 1987, and on all other gas forever.

Other major provisions of this bill are listed below:

- Take-or-pay obligations would be limited to 50 percent of average daily deliverability for the first 3 years after the bill is enacted.
- Minimum bill requirements would be limited to 50 percent of the contract volume.
- Indefinite price escalator clauses would be prohibited.
- Pipeline companies would be allowed to abrogate any existing or new contract at any time in the future if market conditions no longer justified the contract.

- o FERC could deny the passthrough of purchased gas costs upon the determination that a pipeline company's purchasing practices had not "minimized" costs.
- o Interstate pipelines would be required to transport gas sold by producers to any purchaser.

Table 6 shows the estimated effects of H.R.2154 on gas prices, demand, and supply. The price rollback provision and take-or-pay limitations on high-cost gas will reduce average gas prices, thereby increasing demand and causing the gas surplus to be marketed more quickly than would occur under the NGPA. Prices fall 12 cents per thousand cubic feet compared to the NGPA in 1982.

The price rollback called for in H.R.2154 is not market determined, and thus some prices are maintained at artificially high levels and others at artificially low levels. In 1984 and 1985, because new gas prices are held below market levels, production of new gas declines and demand increases in response to lower average gas prices. The combination of lower supply, higher demand, and inflexible regulated prices causes a shortage of 640 billion cubic feet in 1984. Shortages would be greater in 1985 if not for the assumption that gas imports increase from 0.95 trillion to 2.4 trillion cubic feet in that year.[8] In 1986, a shortage of 860 billion cubic feet occurs because imports have reached their highest licensed levels and

[8]Before 1985, gas imports from Canada are assumed to be limited to present levels of about 0.8 trillion cubic feet. After 1985, imports are allowed to reach maximum levels in current licenses of 2.4 trillion to 2.6 trillion cubic feet. (See Appendix I for yearly quantity assumptions.)

Table 6

Projected Prices and Quantities of Natural Gas Under H.R.2154[a]
(High Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.55	2.61	2.66	2.71	3.98	4.39	5.42
Residential	4.96	4.83	4.88	5.13	5.22	6.23	6.63	7.69
Industrial	3.68	3.55	3.57	3.80	3.88	5.06	5.41	6.38
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	0	0	0	0	0
Other	15,038	13,985	13,197	12,703	12,406	12,536	11,029	8,610
TOTAL	15,038	13,985	13,197	12,703	12,406	12,536	11,029	8,610
TOTAL 1982-1995	161,735							
Consumption (tcf)								
Residential	4.64	4.54	4.53	4.51	4.52	4.34	4.25	4.22
Commercial	2.66	2.67	2.68	2.68	2.68	2.65	2.55	2.39
Industrial[c]	6.07	6.49	6.41	7.24	7.34	7.18	7.14	6.20
Electric utility	3.36	3.49	3.43	3.83	3.58	3.56	3.10	3.21
Other	2.12	2.19	2.17	2.20	2.16	2.13	2.02	1.79
TOTAL	18.84	19.37	19.22	20.45	20.28	19.85	19.05	17.81
Supply (tcf)								
Conventional	16.89	17.28	16.98	16.55	16.04	15.77	14.50	12.01
Unconventional	0.85	1.00	1.14	1.29	1.44	1.58	1.98	2.46
Imports	0.95	0.95	0.95	2.45	2.60	2.28	2.37	2.37
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.84	19.38	19.22	20.44	20.28	19.84	19.05	17.81
Shortages (tcf)	0.0	0.0	0.64	0.0	0.86	0.0	0.0	0.0

[a]Estimates based upon high oil price case assumptions (see Appendix I).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

because domestic demand continues to grow at low regulated prices. Partial decontrol in 1987 provides enough price flexibility to prevent shortages after 1986.[9]

Another shortcoming of H.R.2154 is that higher gas demand and rising residual fuel oil prices will increase the disparity between the market-clearing price of gas and the lower regulated prices in the period prior to partial decontrol. This will result in a sudden increase in gas prices if partial decontrol is allowed to occur in 1987 as planned. Average wellhead prices will rise by 47 percent in 1987 and residential prices will go up by more than $1 per thousand cubic feet.

Finally, because H.R.2154 does not deregulate old gas, it continues to discourage recovery of additional old gas reserves and to subsidize high-cost gas production and imports (both of which are higher in 1990 than NGPA levels) at a high cost to natural gas consumers and the economy.

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[9]There is an important relationship between imports and shortages. If imports were allowed to rise above the levels assumed in this analysis, shortages would be reduced or even fully offset, depending upon the magnitude of the increase in imports. Conversely, if imports were limited to less than the amounts assumed here, the shortages would be larger. However, both imports and shortages impose economic costs. The costs of shortages can be very large if the consumers affected cannot easily reduce consumption or switch to alternative fuels. Imports, on the other hand, represent a costly drain of real resources on the economy, especially when domestic gas supplies could be produced at a lower resource cost.

S.689

S.689 would leave the basic pricing provisions of the NGPA in effect but eliminate automatic inflation adjustments and production cost increases. As written, the bill would lower the price of any gas covered by a pre-NGPA contract to the contract price in 1978. There is an exception for contracts with area rate clauses that specifically refer to congressionally established prices.

S.689 would make 50-percent take-or-pay obligations mandatory in existing contracts. Market-out clauses would be included in all gas deregulated under the NGPA. Other provisions concerning pipelines are important, but they do not substantially affect the statistical analysis that follows.

Table 7 shows the estimated effect of S.689 on gas prices, demand, and supply. It was assumed that Section 104 gas prices would be lowered to the average interstate price in 1978. Section 105 gas under indefinite pricing provisions reverts to the average intrastate price in 1978. Section 103 gas produced in pre-NGPA interstate acreage (about 50 percent of interstate Section 103 gas) reverts to a level equivalent to the post-1974 interstate gas price in 1978. This is a conservative assumption, since in 1980 more than half of all post-NGPA wells

Table 7

Projected Prices and Quantities of Natural Gas Under S.689[a]
(High Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.45	2.53	3.27	3.44	3.93	4.38	5.45
Residential	4.96	4.74	4.80	5.48	5.72	6.19	6.64	7.73
Industrial	3.68	3.44	3.49	4.32	4.55	5.03	5.44	6.44
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	0	0	0	0	0
Other	15,038	13,439	12,929	12,997	12,603	12,170	10,444	8,297
TOTAL	15,038	13,439	12,929	12,997	12,603	12,170	10,444	8,297
TOTAL 1982-1995	157,069							
Consumption (tcf)								
Residential	4.64	4.56	4.56	4.44	4.37	4.29	4.24	4.20
Commercial	2.66	2.68	2.69	2.67	2.65	2.61	2.52	2.36
Industrial[c]	6.07	6.40	6.28	6.73	7.21	7.26	7.06	5.97
Electric utility	3.36	3.46	3.34	3.55	3.84	3.60	3.09	3.15
Other	2.12	2.17	2.14	2.16	2.17	2.13	2.00	1.75
TOTAL	18.84	19.27	19.02	19.55	20.24	19.90	18.91	17.43
Supply (tcf)								
Conventional	16.89	17.17	16.78	16.56	16.21	15.82	14.31	11.53
Unconventional	0.85	1.00	1.14	1.29	1.45	1.60	2.03	2.56
Imports	0.95	0.95	0.95	1.55	2.38	2.28	2.37	2.37
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.84	19.27	19.02	19.55	20.24	19.90	18.91	17.43
Shortages (tcf)	0.0	0.19	0.92	0.0	0.0	0.0	0.0	0.0

[a]Estimates based upon high oil price case assumptions (see Appendix I).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

were governed by pre-NGPA indefinite escalator contracts that do not reference congressional pricing authority.[10]

The price rollback would lower average wellhead prices by 22 cents per thousand cubic feet in the first year. In 1983 and 1984, conventional supply levels are several hundred billion cubic feet above NGPA levels. The current gas surplus is eliminated in the first year as lower prices increase gas demand. In fact, prices are so low that even development drilling (Section 103) declines markedly. Low prices encourage excessive gas demand, and shortages begin to occur by the end of 1983 and reach more than 900 billion cubic feet in 1984.

Take-or-pay limitations are inconsequential once shortages begin to occur. Although a pipeline has the right to cut back on its most expensive gas first in order to lower costs, the massive price rollback on low-cost gas categories creates so much new demand that pipelines need all the gas they can obtain to meet service obligations. In fact, the rollback increases the gas cushion before 1985, and Section 107 gas prices are bid above the levels projected for Section 107 under the NGPA. Unlike H.R.2154, S.689 maintains the NGPA decontrol schedule.

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[10]Data indicating that more than half of post-NGPA wells subject to pre-NGPA contracts with indefinite escalator provisions may be found in Natural Gas Producer/Purchaser Contracts, DOE/EIA-0330, Table 8. Less than 10 percent of pre-NGPA area rate contracts reference congressional authority. See Analysis of Natural Gas Producer/Purchaser Interstate Pipeline Contracts, Decision Analysis Corporation, July 1981, Appendix B.

The price flexibility given to new production after partial decontrol in 1985 is sufficient to prevent shortages from occurring thereafter. However, average wellhead prices will increase 29 percent in 1985 as previously regulated prices must rise to balance supply and demand.

S.689 creates a negative supply effect by rolling back the price of dedicated Section 103 wells to 1978 price levels and by removing inflation escalators. As with the NGPA, S.689 continues to subsidize inefficient production of high-cost gas and consumption of costly imports. Imports are several hundred billion cubic feet greater under the Heinz bill than under the NGPA in the latter part of the decade. The size of the low-cost gas cushion and the inefficiencies associated with it are larger than under the NGPA because the regulated prices are lower under the Heinz bill.

VI. EFFECT OF LOWER WORLD OIL PRICES

NGPA

If world oil prices are lower than the high oil price case and if the NGPA remains in effect, gas prices will continue to rise through 1985 (at 5.8 percent annually), but at a slightly lower rate than under the high oil price case (6.3 percent annually).[11] Prices continue to escalate because gas prices

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[11]See Appendix I for description of low oil-price case assumptions.

are influenced more by NGPA regulatory ceilings than market by conditions. Table 8 shows forecasted gas consumption and prices under the NGPA with low world oil prices. Because of the NGPA's rising price ceilings and the decrease in oil prices, there is massive switching from gas to oil by industrial and utility users; in 1983 an additional 560,000 barrels per day of oil is consumed above current levels. After partial decontrol under the NGPA in 1985, wellhead prices rise at a slower rate (3.5 percent) than under reference case assumptions (5 percent). The cushion of regulated low-priced gas after 1985, as under the high oil price case, continues to subsidize the production of high-cost gas and gas imports.

The Administration's Bill (S.615)

The Administration's bill will allow the gas market to adjust to lower oil prices. If the bill is enacted and oil prices are low, the average wellhead price of gas will fall by 30 cents in the first year. Relative to the NGPA, prices will be 47 cents lower in the first year of the Administration's bill. Table 9 provides detailed estimates of the energy and price effects of the bill. Pipelines, seeking to remain competitive with the low oil prices, will bid down the wellhead price of gas. The Administration's bill allows pipelines to purchase a lower cost mix of supplies in order to remain competitive. As a result, wellhead prices under the bill remain lower than prices under NGPA through 1985 (see Table 11). As compared to the NGPA, oil

Table 8

Projected Prices and Quantities of Natural Gas Under the NGPA
(Low Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.84	3.01	3.17	3.25	3.45	3.67	4.29
Residential	4.96	5.05	5.23	5.35	5.45	5.64	5.85	6.51
Industrial	3.68	3.74	3.94	4.17	4.26	4.44	4.60	4.99
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	0	0	0	0	0
Other	15,038	14,306	13,712	13,336	12,624	11,885	9,832	7,536
TOTAL	15,038	14,306	13,712	13,336	12,624	11,885	9,832	7,536
TOTAL 1982-1995	153,460							
Consumption (tcf)								
Residential	4.64	4.47	4.41	4.40	4.41	4.40	4.46	4.53
Commercial	2.66	2.66	2.65	2.64	2.63	2.62	2.60	2.62
Industrial[c]	6.12	5.95	6.47	6.83	7.01	7.08	6.62	4.93
Electric utility	3.36	3.17	3.27	3.47	3.36	3.22	2.73	2.65
Other	2.13	2.05	2.13	2.16	2.14	2.11	1.97	1.66
TOTAL	18.90	18.31	18.92	19.49	19.55	19.43	18.38	16.39
Supply (tcf)								
Conventional	16.94	16.21	16.68	16.51	16.19	15.79	14.25	11.35
Unconventional	0.85	1.00	1.14	1.28	1.43	1.57	1.93	2.27
Imports	0.95	0.95	0.95	1.55	1.72	1.86	1.99	1.80
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.90	18.31	18.92	19.49	19.55	19.43	18.38	16.39

[a]Estimates based on reference case assumptions but assume low oil price case assumptions (see Appendix I).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

Table 9

Projected Prices and Quantities of Natural Gas Under Administration's Bill[a]
(5 tcf Old Gas Supply Reserves--Low Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.37	2.99	3.08	3.15	3.35	3.65	4.29
Gas cap	3.20	2.71	3.59	3.08	3.15	3.35	3.65	4.29
Residential	4.96	4.61	5.22	5.35	5.43	5.62	5.87	6.51
Industrial	3.68	3.30	3.91	3.99	4.06	4.23	4.42	4.94
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	875	735	615	365	150
Other	15,038	14,003	13,222	12,488	11,752	11,144	9,760	8,305
TOTAL	15,038	14,003	13,222	13,363	12,487	11,759	10,125	8,455
TOTAL 1982-1995	157,003							
Consumption (tcf)								
Residential	4.64	4.59	4.46	4.42	4.42	4.42	4.47	4.54
Commercial	2.66	2.68	2.67	2.66	2.65	2.64	2.63	2.65
Industrial[c]	6.12	6.48	6.70	7.09	7.26	7.33	6.44	4.96
Electric utility	3.36	3.37	3.85	3.37	3.16	2.92	2.75	2.65
Other	2.13	2.18	2.18	2.17	2.14	2.09	1.93	1.66
TOTAL	18.90	19.30	19.37	19.72	19.63	19.41	18.22	16.46
Supply (tcf)								
Conventional	16.94	17.20	17.14	16.75	16.30	15.81	14.20	11.60
Unconventional	0.85	1.00	1.13	1.27	1.40	1.53	1.83	2.10
Imports	0.95	0.95	0.95	1.55	1.72	1.86	1.99	1.80
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.90	19.30	19.37	19.72	19.63	19.41	18.22	16.46

[a]Estimates based on 5 trillion cubic feet of old gas reserve response and low world oil prices. (see Appendixes I and II).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

Table 10

Projected Prices and Quantities of Natural Gas Under the Administration Proposal[a]
(10 tcf Old Gas Supply Response--Low Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.37	2.99	3.08	3.14	3.34	3.63	4.27
Gas cap	3.20	2.71	3.59	3.08	3.14	3.34	3.62	4.26
Residential	4.96	4.61	5.22	5.34	5.42	5.61	5.84	6.48
Industrial	3.68	3.30	3.91	3.99	4.06	4.23	4.43	4.93
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	1,750	1,470	1,230	730	300
Other	15,038	14,003	13,222	12,479	11,737	11,127	9,731	8,265
TOTAL	15,038	14,003	13,222	14,229	13,207	12,357	10,461	8,565
TOTAL (1983-1995)	161,321							
Consumption (tcf)								
Residential	4.64	4.59	4.46	4.42	4.43	4.42	4.48	4.55
Commercial	2.66	2.68	2.67	2.66	2.66	2.65	2.63	2.66
Industrial[c]	6.12	6.48	6.70	7.15	7.34	7.44	6.78	5.16
Electric utility	3.36	3.37	3.35	3.42	3.24	3.06	2.75	2.71
Other	2.13	2.18	2.18	2.19	2.17	2.13	1.98	1.70
TOTAL	18.90	19.31	19.37	19.84	19.83	19.70	18.62	16.78
Supply (tcf)								
Conventional	16.94	17.20	17.14	16.86	16.51	16.09	14.57	11.89
Unconventional	0.85	1.00	1.13	1.27	1.41	1.54	1.86	2.13
Imports	0.95	0.95	0.95	1.55	1.72	1.86	1.99	1.80
Other[d]	.15	.15	.15	.15	.20	.20	.20	.96
TOTAL	18.90	19.30	19.37	19.84	19.84	19.69	18.62	16.78

[a]Estimates based on 10 tcf old gas reserve response and low oil price case assumptions (see Appendixes I and II).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the

Table 11

Comparison of NGPA and S.615[a]
(Low Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Wellhead (1982 $/mcf)								
NGPA	2.67	2.84	3.01	3.17	3.25	3.45	3.67	4.29
S.615 (5 tcf)		2.37	2.99	3.08	3.15	3.35	3.65	4.29
S.615 (10 tcf)		2.37	2.99	3.08	3.14	3.34	3.63	4.27
Average Retail (1982 $/mcf)								
NGPA	4.13	4.21	4.39	4.57	4.66	4.84	5.04	5.62
S.615 (5 tcf)		3.76	4.36	4.45	4.52	4.69	4.95	5.59
S.615 (10 tcf)		3.76	4.36	4.44	4.51	4.69	4.93	5.57
Residential (1982 $/mcf)								
NGPA	4.96	5.05	5.23	5.35	5.45	5.64	5.85	6.51
S.615 (5 tcf)		4.61	5.22	5.35	5.43	5.62	5.87	6.51
S.615 (10 tcf)		4.61	5.22	5.34	5.42	5.61	5.84	6.48
Conventional Supplies (tcf)								
NGPA	16.94	16.21	16.68	16.51	16.19	15.79	14.25	11.35
S.615 (5 tcf)		17.20	17.14	16.75	16.30	15.81	14.20	11.60
S.615 (10 tcf)		17.20	17.14	16.86	16.51	16.09	14.57	11.89
Total Consumption								
NGPA	18.90	18.31	18.92	19.49	19.55	19.43	18.38	16.39
S.615 (5 tcf)		19.31	19.37	19.72	19.63	19.41	18.22	16.46
S.615 (10 tcf)		19.30	19.37	19.84	19.84	19.69	18.62	16.78

[a]Estimates based on low oil price case assumptions (see Appendix I).

imports under the Administration's bill drop by 350,000 barrels per day in 1983 and remain lower through 1987.

Beginning in 1985, it is assumed that old gas contracts are renegotiated. Higher prices for old gas allow producers to undertake activities that were not economic under NGPA prices. Under reference case assumptions, the higher prices elicit 4.7 trillion cubic feet of additional supplies of low-cost gas relative to the NGPA through 1995.

Ten Trillion Cubic Feet of Old Gas Reserve Additions

Table 10 presents estimates of the effects of the Administration's bill if oil prices are low and old gas reserve additions total 10 trillion cubic feet. Notably, the low cost of developing old gas reserves means that reserve additions would be unaffected by low prices. The table shows that average wellhead and residential prices would be slightly lower and consumption somewhat greater than for the NGPA and the S.615 base case (5 trillion cubic feet of old gas reserve additions) presented in Table 11.

H.R.2154 and S.689

Tables 12 and 13 show projected prices and quantities for H.R.2154 and S.689 under low oil price assumptions. Table 14 shows the relative residential prices and gas shortages caused by these proposals under the high and low oil assumptions.

Table 12

Projected Prices and Quantities of Natural Gas Under H.R.2154[a]
(Low Oil Price)

	1982	1983	1984	1985	1986	1987	1990	1995
Gas Prices (1982 $/mcf)								
Average domestic wellhead	2.67	2.51	2.61	2.66	2.71	3.45	3.68	4.29
Residential	4.96	4.74	4.84	5.07	5.13	5.66	5.87	6.52
Industrial	3.68	3.44	3.53	3.73	3.76	4.46	4.60	5.01
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	0	0	0	0	0
Other	15,038	13,981	13,143	12,568	12,127	11,873	10,055	7,612
TOTAL	15,038	13,981	13,143	12,568	12,127	11,873	10,055	7,612
TOTAL 1982-1995	152,614							
Consumption (tcf)								
Residential	4.64	4.56	4.54	4.52	4.54	4.45	4.47	4.54
Commercial	2.66	2.68	2.69	2.69	2.70	2.69	2.67	2.70
Industrial[c]	6.12	6.37	6.37	7.34	7.30	6.89	6.31	4.85
Electric utility	3.36	3.29	3.29	3.66	3.42	3.00	2.72	2.62
Other	2.13	2.14	2.14	2.17	2.12	2.07	1.93	1.65
TOTAL	18.90	19.04	19.03	20.38	20.08	19.10	18.11	16.35
Supply (tcf)								
Conventional	16.94	16.94	16.79	16.36	15.85	15.48	14.00	11.29
Unconventional	0.85	1.00	1.14	1.28	1.43	1.57	1.93	2.29
Imports	0.95	0.95	0.95	2.59	2.60	1.86	1.99	1.80
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.90	19.04	19.03	20.38	20.08	19.10	18.11	16.35
Shortages (tcf)	0.0	0.0	1.07	0.16	1.10	0.0	0.0	0.0

[a]Estimates based on low oil price case assumptions (see Appendix I).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

Table 13

Projected Prices and Quantities of Natural Gas Under S.689[a]
(Low Oil Price)

Gas Prices ($/mcf)	1982	1983	1984	1985	1986	1987	1990	1995
Average domestic wellhead	2.67	2.38	2.45	3.19	3.25	3.45	3.68	4.32
Residential	4.96	4.62	4.70	5.39	5.47	5.66	5.89	6.55
Industrial	3.68	3.31	3.39	4.23	4.29	4.48	4.64	5.08
Reserve Additions (bcf)[b]								
Sections 104 and 106	0	0	0	0	0	0	0	0
Other	15,038	13,345	12,652	12,748	12,269	11,558	9,529	7,304
TOTAL	15,038	13,345	12,652	12,748	12,269	11,558	9,529	7,304
TOTAL 1982-1995	147,982							
Consumption (tcf)								
Residential	4.64	4.59	4.60	4.46	4.43	4.41	4.46	4.53
Commercial	2.66	2.68	2.70	2.69	2.68	2.67	2.65	2.67
Industrial[c]	6.12	6.45	6.27	6.69	6.85	6.89	6.16	4.60
Electric utility	3.36	3.36	3.23	3.41	3.24	3.07	2.72	2.58
Other	2.13	2.17	2.13	2.15	2.12	2.07	1.91	1.61
TOTAL	18.90	19.25	18.93	19.40	19.32	19.11	17.90	15.98
Supply (tcf)								
Conventional	16.94	17.15	16.69	16.40	15.97	15.46	13.72	10.80
Unconventional	0.85	1.00	1.14	1.28	1.44	1.58	1.99	2.41
Imports	0.95	0.95	0.95	1.55	1.72	1.86	1.99	1.80
Other[d]	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.96
TOTAL	18.90	19.25	18.93	19.38	19.33	19.10	17.90	15.97
Shortages (tcf)	0.0	0.04	1.37	0.0	0.0	0.0	0.0	0.0

[a]Projections based upon low oil price case assumptions (see Appendix I).

[b]Nonassociated gas.

[c]Does not include agricultural, mining, and lease and plant consumption.

[d]Includes synthetic natural gas, gas from coal, and potential deliveries through the Alaskan Natural Gas Transportation System (ANGTS).

Table 14

Effects of Oil Prices on H.R.2154 and S.689

	1983		1984		1985		1986	
	High	Low	High	Low	High	Low	High	Low
Residential Price ($/mcf)								
H.R.2154	4.83	4.74	4.88	4.84	5.13	5.07	5.22	5.13
S.689	4.74	4.62	4.80	4.70	5.48	5.39	5.72	5.47
Shortages (bcf)								
H.R.2154	--	--	.64	1.07	--	.16	.86	1.10
S.689	.19	.04	.92	1.37				

	1987		1990		1995	
	High	Low	High	Low	High	Low
Residential Price ($/mcf)						
H.R.2154	6.23	5.66	6.63	5.87	7.69	6.52
S.689	6.19	5.66	6.64	5.89	7.73	6.55

Both bills regulate gas prices at specified amounts. Therefore, lower world oil prices do not significantly lower average wellhead prices if either of the two bills is enacted. The effect is the same as that of the NGPA when oil prices fall below the level at which gas is competitive with oil. Only the prices of new contracts, which have to be priced at market levels to be sold, are affected by low oil prices.

Table 14 shows that lower world oil prices reduce the price increases upon partial decontrol under the two bills. The price increases are lower at the time of decontrol because competing fuel oil prices are lower. However, curtailments increase under the lower oil price scenarios. Two factors account for this phenomenon. First, the demand for gas is higher at oil-equivalent prices because lower oil prices reduce the incentives for industry and electric utilities to reduce oil and gas use by conserving or by converting to coal or other fuels. Second, the supply of gas is lower because the value of gas has declined with the reduction in the price of competing fuels. Therefore, even if future oil prices are low, mandated price rollbacks and price freezes in conjunction with partial decontrol and continued controls on old gas make it very unlikely that the natural gas market will be stable in the years ahead if either of these bills is enacted.

APPENDIX I

MAJOR ASSUMPTIONS AND TECHNICAL REFINEMENTS USED IN MODELING ALTERNATIVE NATURAL GAS POLICIES

MAJOR ASSUMPTIONS

The following section of this appendix describes the major numerical assumptions used in the Two-Market Evaluation System. All of the assumptions described in this section are identical to those used to prepare the analytic findings in the February 28 report.

- Economic growth rates

1983	1984	1985	1982-90
1.7	3.7	4.2	3.4

- Oil price assumptions (1982 dollars per barrel)

High Oil Price Case

Year	Average Refinery Acquisition Cost of Crude Oil	Gulf Coast High Sulfur Residual Fuel (2% S)	Gulf Coast Low Sulfur Residual Fuel (1% S)
1982	33.66	24.66	28.48
1983	31.60	23.43	25.98
1984	30.97	24.01	25.87
1985	31.17	25.46	26.97
1986	31.48	27.20	28.71
1987	31.80	29.87	31.38
1988	32.12	30.91	32.42
1989	32.44	31.26	33.06
1990	32.75	31.55	33.99

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Low Oil Price Case

Year	Average Delivery Acquisition Cost of Crude Oil	Gulf Coast High Sulfur Residual Fuel (2% S)	Gulf Coast Low Sulfur Residual Fuel (1% S)
1982	33.66	24.65	28.48
1983	23.58	20.53	23.49
1984	23.58	22.56	25.23
1985	23.82	22.79	25.46
1986	24.06	23.03	25.75
1987	24.30	24.13	26.85
1988	24.54	25.17	27.84
1989	24.79	24.94	27.78
1990	25.04	24.65	27.72

- Transmission and distribution margins are assumed to remain constant.
- There is 1.5 trillion cubic feet of excess gas deliverability in the natural gas market.
- Producers price their gas at the highest allowable regulated rate. In other words, regulated price ceilings act as price floors.
- Reserve base reflects U.S. Geological Survey median estimates of recoverable reserves.
- Wellhead prices include severance taxes of 7 percent and production related cost "add-ons" of 3 cents per thousand cubic feet in 1982 and 10 cents per thousand cubic feet after 1982.

o Gas Import Assumptions[1]
(Maximum Quantities)

Year	Canada Step 1	Canada Step 2	Mexico Step 1	Mexico Step 2	LNG	Total
1982	800	0	110	0	42	952
1983	800	0	110	0	42	952
1984	800	0	110	0	42	952
1985	1,840	600	110	0	42	2,440
1986	1,680	770	110	0	42	2,602
1987	1,120	1,010	110	0	42	2,282
1988	900	1,320	110	0	42	2,372
1989	770	1,450	0	110	42	2,372
1990	570	1,650	0	110	42	2,372
1991	570	1,650	0	110	42	2,372
1992	570	1,650	0	110	42	2,372
1993	570	1,650	0	110	42	2,372
1994	570	1,650	0	110	42	2,372
1995	570	1,650	0	110	42	2,372

TECHNICAL REFINEMENTS

The statistical findings in this paper differ slightly from comparable estimates in the February 28 report because of five minor refinements in the way gas price and quantity estimates are calculated.

The first refinement corrects a modeling error in the February 28 report that caused little or no Section 104 gas to be shut-in. The algorithm was therefore modified to assume that 10 percent of available Section 104 gas was shut-in during 1982

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[1]Price rules:
Step 1: $5.04 in 1982 ± percent change in world oil price
1982-84: Maximum equal to current level
1985-88: Maximum equal to existing licenses
Step 2: Priced to compete with domestic supplies
1985-95: Current quantities authorized under new licenses

and 1983 and that 5 percent was shut-in during 1984. This change also causes NGPA average wellhead prices to increase above the price levels in the previous report by 4 to 8 cents per thousand cubic feet from 1982 to 1984. Second, a more accurate estimate has been made of the effect of reducing take-or-pay obligations on Section 107 prices to 70 percent, which is shown to cause the average wellhead price of Section 107 gas to fall by more than $1 per thousand cubic feet in 1983. Third, the gas cap is applied to Section 105 gas, which was not done in the February 28 report. This causes wellhead prices to fall more under the Administration's bill. Fourth, residential margins were increased by 10 cents for both the NGPA and the Administration's bill to conform with recent updated empirical data. Finally, the amount of gas imported in 1988 is constrained to authorized levels and is not allowed to reach higher levels, as was the case in the earlier report.

ASSUMPTIONS SPECIFIC TO THE ADMINISTRATION'S BILL

- The bill is enacted in 1983 and the gas cap becomes effective in 1983.
- Old gas contracts are not renegotiated until 1985, at which time all contracts are renegotiated.
- Prudent increases in wellhead gas prices are passed through to consumers. PGA limitation is not binding for any pipeline.

ASSUMPTIONS SPECIFIC TO H.R.2154

- The provision calling for stricter imprudence standard has little effect.

- The bill is passed and implemented in 1983.
- The prohibition on indefinite price escalators does not roll back prices beyond January 1982 levels; it simply prevents a contract-created price spike in 1985.
- The redefined NGPA ceilings continue to act as floors. Producers would succeed in insisting upon these price ceilings because shortages are occurring.

ASSUMPTIONS SPECIFIC TO S.689

- Bill is implemented in 1983.
- Section 104 prices rolled back to 1978 interstate price levels.
- Section 105 gas prices covered by indefinite price escalators rolled back to 1978 prices for such contracts ($1.60 per million cubic feet).
- All Section 103 gas from interstate-dedicated acreage (50 percent of interstate Section 103 gas) is rolled back to the post-1974, Section 104 price level.

APPENDIX II

SUPPLY RESPONSE FROM REMOVING PRICE CONTROLS ON OLD GAS

This appendix summarizes our findings concerning the reserve additions attributable to the wellhead price deregulation provisions in the Administration's bill. The reserve additions described here are additions to the ultimate amount of gas recovered from forever-regulated categories of gas, not the increase in the rate of producing old gas that would occur under S.615. These reserve additions are made up of three components: reserves added as a result of extending the economic life of old gas wells; reserves added by production enhancement techniques; and reserves added from infill wells that would not be drilled under the NGPA.

This appendix begins with a complete description of those categories of gas that are forever regulated under the NGPA. We then provide estimates of the volumes and prices associated with those categories of gas and examine why a number of NGPA mechanisms specifically designed to maximize old gas supply have failed. In this analysis, we are able to provide quantitative estimates of the old gas reserve additions

attributable to longer well life under S.615 (4.9 trillion to 6.1 trillion cubic feet) and attributable to production enhancement (1.5 trillion to 3.0 trillion cubic feet). However, at this point we are able to provide only a qualitative description of the maximum amount of reserves attributable to additional development or infill drilling.

Table II-1 is a description of the different NGPA categories of forever-regulated gas and the April 1983 ceiling prices. These ceiling prices range from 28 cents per thousand cubic feet for minimum rate Section 104 gas to over $5.50 per thousand cubic feet for gas from tight sand formations. The ceiling prices for all these categories of gas escalate monthly at the rate of inflation.

Table II-2 presents estimates of some of the volumes of forever-regulated reserves of gas that would be affected by the price deregulation provisions of S.615. The reserves shown in the table would increase from greater use of production enhancement techniques and extensions in the economic life of old gas wells. These volumes do not include reserves that would be added by additional infill drilling.

Under existing law, there are several mechanisms whereby gas in the forever-regulated categories can receive a higher price, and these mechanisms are described in Table II-3, along with a description of why they fail to provide as large a supply

response as S.615. In fact, only one of these mechanisms--the stripper well incentive price--can be expected to provide significant reserve additions by extending the life of old gas wells. Unfortunately, only a fraction of the potential old gas reserves can be captured in this way. Under the NGPA, most potential old gas reserves that could be produced under an extended well life are lost, because the wells become uneconomic before they reach stripper status.

Table II-1

NGPA Categories and Maximum Lawful Prices for Forever-Regulated Gas Production (April 1983 dollars per million Btu)

NGPA Section	Description	Price Ceiling
Fraction of 102	Gas from an OCS reservoir not discovered before 7/27/76 on a lease issued before 4/20/77	3.367
Fraction of 103	Gas from new, onshore production wells (spudded after 2/18/77) that are on acreage dedicated to interstate commerce before 4/20/77	2.752
All of 104	Gas committed to interstate commerce on 11/8/78 for which a just and reasonable rate was in effect:	
	1. Wells spudded after 1974	2.278
	2. Wells spudded in 1973 and 1974 (small producer)	1.929
	3. Wells spudded in 1973 and 1974 (large producer)	1.474
	4. Contracts replaced or wells recompleted after 1972 (small producer)	1.084
	5. Contracts replaced or wells recompleted after 1972 (large producer)	0.828
	6. Wells spudded before 1/1/73 (small producer)	0.545

(Table II-1 continued)

NGPA Section	Description	Price Ceiling
(All of 104)	7. Wells spudded before 1/1/73 (large producer)	0.463
	8. Permian Basin gas under contract dated after 9/30/68 (small producer)	0.646
	9. Permian Basin gas under contract dated after 9/30/68 (large producer)	0.568
	10. Rocky Mountain gas under contract dated after 9/30/68 (small producer)	0.646
	11. Rocky Mountain gas under contract dated after 9/30/68 (large producer)	0.545
	12. Appalachian Basin (north) gas under contracts dated after 10/7/69	0.514
	13. Other Appalachian Basin contracts	0.481
	14. Minimum rate gas	0.283[a]
Fraction of 105	Gas under intrastate contracts with indefinite price escalations or fixed-rate contracts priced below $1 per thousand cubic feet in 1985.	3.367[b]
All of 106(a)	Gas under rollovers (after 11/9/78) of interstate contracts	0.846[c]
All of 107(c)5	Incentive high-cost gas	
	1. From tight formations	5.504
	2. From enhanced recovery wells	2.278
All of 108	Gas from stripper wells	3.607
All of 109	Gas from all other wells	2.278

[a]Price per thousand cubic feet

[b]Or contract price, if lower

[c]Or prior maximum price, adjusted for inflation, if higher

Table II-2

Volumes of Forever-Regulated Gas Reserves that Would Exhibit a Significant Supply Response Under S.615[a]

Category	Price Treatment	Reserves[b] (trillion cubic feet)		
		1983	1985	1990
Old Interstate (Fraction of 103)	Forever-Regulated at prices lower than the market price	9.9	7.7	3.8
Old Interstate (All of 104 and of 106(a))	Forever-Regulated at low prices	42.4	33.2	16.0
Old Intrastate (Fraction of 105 and 106(b) controlled at low prices)	About 13 percent is priced forever below $1 per thousand cubic feet due to fixed-rate contracts. About 55 percent will be controlled at near-market prices.	4.0	3.3	1.8
Subtotals		56.3	44.2	21.6
All other proved, producing, remaining gas reserves[c]		77.5	88.4	96.8
TOTAL		133.8	132.6	118.4

[a]Estimates of dry gas reserves under the NGPA taken from the two-market supply model, high oil price case. Sections 102(d), 107(c)5, 108, and 109 production also remain forever regulated, but the supply responses from these categories are expected to be small, either because the price ceiling is not significantly below the market price or because the volumes affected are small.

[b]Beginning of year balances. These volumes do not include reserves that would be added by infill wells drilled under S.615.

[c]A small percentage of these reserves are subject to low, fixed-rate contracts under the NGPA and would benefit from higher prices under S.615. In 1980, 20 percent of post-NGPA production was subject to such contracts. (Natural Gas Producer Purchaser Contracts, (DOE/EIA-0330), June 1982, Table 10.)

Table II-3

NGPA Mechanisms That Raise the Price of Forever-Regulated Gas

Mechanism	Description	Effectiveness
Reentries	Old wells (pre-NGPA) that have been abandoned can currently apply for a Section 109 price if they are reopened.	Once an old well has been abandoned and plugged, a reentry can be just as expensive as a new well. To date, there have been virtually no Section 109 prices received for reentries, despite thousands of abandoned wells.
Recompletion in Tight Sands	Old wells that penetrate a tight formation reservoir can apply for a Section 107(c)5 price. FERC currently has approximately 12,000 total tight formation filings. It is unknown how many of these are from old wells.	Limited applicability.
Production Enhancement	Section 105 gas may apply for a Section 109 incentive price ($2.25 per million Btu in January 1983) if a qualifying capital expenditure to enhance recovery is made.	Only intrastate wells are eligible. Pipeline often must agree to a price increase. (Only 500 wells have qualified as of April, 1983.) Section 109 prices ($2.25 per million Btu in January) will be $1 to $2 below a market-clearing price during 1985-90.

Table II-3 (continued)

NGPA Mechanisms That Raise the Price of Forever-Regulated Gas

Mechanism	Description	Effectiveness
Stripper Status	When a well drops below a production rate of 60,000 cubic feet per day, it can qualify for a Section 108 incentive price. To qualify for this price, the filing must show that the well has produced at its maximum rate for the previous 12 months. If, after qualifying as a stripper well, the application of some enhanced recovery technique results in a production rate above 60,000 cubic feet per day, the producer then must make a second filing to show the higher rate is a result of compression, acidization, or other enhancement techniques that were applied after receiving the incentive price. Otherwise, the price ceiling will revert to its pre-Section 108 category level.	The average Section 104/106 well produces 130 to 140 million cubic feet annually. Stripper production eligibility begins at 22 million cubic feet of annual production. Annual operating costs for older and more expensive wells can easily exceed revenues long before stripper production levels are reached. Wells therefore are abandoned under the NGPA that would have a longer and more productive life under a deregulated environment. Water loading, corrosion, and sand can all shorten well life and prevent a well from reaching stripper status.

NOTE: It is sometimes claimed that infill drilling to produce reserves that otherwise would have been produced from an old gas wellbore is one way of raising the price of old gas (gas from an infill well is Section 103 gas). In practice, this mechanism has very limited applicability. Well spacing must be approved by State conservation agencies, which were required to (and did in fact) promulgate strict well-spacing regulations after enactment of the NGPA. To date, there is no evidence of this mechanism being successfully used to increase the ultimate production of old gas.

II-8

ADDITIONAL GAS RESERVES THROUGH PROLONGED WELL LIFE

For any given price of gas from a particular well, there exists a production rate where the revenue generated will no longer cover the operating costs of that well. This is the point at which the producer will typically abandon the well. If the price of the gas were higher, the well could continue to produce in commercial quantities until it reached a new, lower break-even production rate.

Under existing law, a well that drops below a production rate of 60 million cubic feet per day can qualify for a Section 108 incentive price. Because operating costs are high and because old wells are subject to a number of problems that are expensive to solve, most old gas reserves are abandoned before the wells reach stripper status.

Our estimates of the volume and average price of the forever-regulated reserves that would be affected by deregulation are shown in Table II-4 on the following page.

II-9

Table II-4

Forever-Regulated Reserves

	1985 Non-Associated Reserve Level	1982 Price (1982 $/mm Btu)
Old Interstate[a] (Sections 104, 106A)	33.2 tcf	1.29
Old Intrastate Regulated[b] Forever at low prices	3.3 tcf	.28
	36.5 tcf	1.20

[a]Reserve level taken from beginning of year reserve balance, DOE supply model, high oil case. Price taken from PGA data reported in Analysis of Post-NGPA Interstate Pipeline Wellhead Purchases (EIA/DOE-0357), Table 1. The average price of this gas is rising a few cents a year above the rate of inflation.

[b]Beginning of year reserves for all old intrastate gas was 31.1 trillion cubic feet. Using Table 11 of Intrastate and Interstate Supply Markets Under the NGPA (DOE/EIA-0309), we found that 13 percent of old intrastate gas was governed by definite price escalation that would never be decontrolled. The average price of this gas was 28 cents per million Btu in 1979.

The best geological, engineering analysis of this old gas supply response is the work done by C. S. Matthews at Shell Oil.[1] Shell presents geologic data on the 14 largest gas producing fields in the United States and estimates abandonment pressures and current pressures, using conservative engineering judgment. Using these current field pressures, we recalculated

[1]Increase in U.S. Old Gas Reserves Due to Deregulation, C. S. Matthews, Shell Oil, April, 1983.

abandonment pressures under an assumed average price under the NGPA of $1.25 per million Btu. We then calculated the lower abandonment pressure with our estimated 1985 deregulated price of $3.03 per million Btu.

This difference in abandonment pressures implies a fractional increase in reserves for each field. Using the field reserve information given by Shell, we calculated a cumulative 6.9 trillion cubic feet reserve increase as a result of S.615. Our estimate of the proved reserve base benefitting from decontrol in 1985 is 36.5 trillion cubic feet, whereas the proved reserve base in Shell's study was 41.3 trillion cubic feet. Assuming that the 14 fields are representative, we project 6.1 trillion cubic feet of national reserve additions from decontrol after 1985. By examining the abandonment pressures in the sample under regulated prices, it is possible that 20 percent of this estimated reserve increase would occur anyway under the NGPA as wells qualified for stripper status. Therefore, our estimate of reserve additions occurring through lower abandonment pressures under S.615 is 4.9 trillion to 6.1 trillion cubic feet.

RESERVE ADDITIONS FROM PRODUCTION ENHANCEMENT

Production enhancement techniques increase both the rate of gas production from a well and the ultimate amount of gas recovered from that well. Examples of production enhancement techniques

include hydraulic fracturing, acidizing, tubing replacement, compression, and operations to shut off water intrusion. FERC recently allowed the Section 109 price of $2.28 per million Btu for these techniques when applied to old intrastate wells. (Interstate wells are not eligible.) Deregulated prices would result in even more application of these techniques. FERC allows production-related compression costs to be added to maximum lawful prices. However, the compression techniques necessary to actually improve a well's productivity are production costs and are not allowed to be passed through.

A 1982 survey of Sun-operated interstate wells drilled before 1975 indicates a 54-billion-cubic-foot additional reserve response from a $2.18-per-million-Btu allowance for these techniques, a figure that was scaled up to a national level of 2.7 trillion cubic feet, based on Sun's 2-percent production market share. (ARCO made a similar estimate of 2.3 trillion cubic feet.) However since intrastate wells are already eligible, these national estimates should probably be reduced by 40 percent. On the other hand, deregulated prices are substantially above Section 109 prices. We therefore believe that anywhere from 1.5 trillion to 3 trillion cubic feet of additional reserves are available from these relatively inexpensive well stimulation techniques. Indeed, these reserves would be added almost immediately with the decontrol of old gas.

II-12

RESERVE ADDITIONS FROM INFILL DRILLING

Everyone agrees there are substantial reserves to be added through infill drilling. But the NGPA already provides incentives for onshore infill drilling of old reserves through Section 103 provisions. Section 103 wells will be deregulated under the NGPA, except for those wells on acreage dedicated to interstate commerce prior to 1978 and on acreage covered by definite rate contracts. We have been unable to quantify the magnitude of the supply response that would be realized if gas from this acreage were deregulated.

It also is extremely difficult to determine how much prospective acreage is currently covered by old, fixed-rate contracts that do not allow producers to benefit from Section 103 provisions. An EIA survey of 1980 contracts showed that 20 percent of post-NGPA wells were covered only by definite price escalators. Even if this percentage decreases over time as contracts are voluntarily renegotiated, this constraint could prevent substantial gas reserves from ever being produced. (Shell estimates a 21-trillion-cubic-foot unrealized reserve potential from infill drilling.) If only a small percentage of these reserves are covered by low prices, several trillion cubic feet of gas reserves will be lost under the NGPA.

The Section 103 incentive price does not apply to development wells in old reservoirs on old OCS leases. Development wells on these old OCS leases are covered by Section 104 rather than

Section 103 prices. Sun estimates that pre-NGPA, Gulf-of-Mexico tracts have an unrealized new gas potential in the range of 6 percent to 10 percent. This is consistent with ARCO's estimate of a 9-percent increase in ultimate reserves made possible through increased development drilling on old offshore leases. Applying these percentage estimates to DOE'S estimates of old, offshore reserves indicates that there may be up to 2 trillion cubic feet of gas reserves that have yet to be drilled and produced.

In summary, the deregulation of all infill or development drilling can add at least 2 trillion cubic feet of old gas--and potentially much more--to the Nation's supply. These are reserves that will not be produced under the provision of the NGPA that keep some portion of Section 103 gas forever regulated.

OTHER STUDIES OF THE OLD GAS SUPPLY RESPONSE

Four other organizations have studied the old gas supply question. Table II-5 compares our estimates with those made by Shell, ARCO, Sun, and the Natural Gas Supply Association.

Table II-5

Estimates of Old Gas Reserve Additions Due to Deregulation

	DOE	SHELL	ARCO	SUN	NGSA
Extended Well Life	4.9-6.1	27.0	27.6	--	--
Production Enhancement	1.5-3.0	7.0	2.6	2.8	--
Infill Drilling	2.0-2+	18.0	7.8	--	--
TOTAL	8.4-11.1+	52.0	38.0	--	7.5[a]

[a]NGSA arrived at this total estimate by combining only extended well life and production enhancement; it chose not to provide an estimate of the effect of S.615 on infill drilling.

As shown in Table II-5, we estimate that additions to old gas reserves will increase by 8.4 trillion to 11.1 trillion cubic feet if the NGPA is replaced by S.615. This estimate may prove to be too low if further work indicates that reserve additions from additional infill drilling would be greater than 2.0 trillion cubic feet.

OIL DEREGULATION EXPERIENCE

Energy regulations have had a history of creating disincentives to produce both oil and gas in this country. The resulting low levels of oil and gas production have imposed enormous costs on our economy in terms of shortages and an overreliance on expensive imports. Recent history has proved that wellhead oil price deregulation provided the maximum amount of domestic oil at the lowest possible cost, and we believe this experience provides an important lesson for future gas pricing policy.

II-15

Since oil deregulation began in 1979, domestic production of petroleum liquids has risen. This contradicts Government estimates of oil production that were made when the deregulation of oil was under consideration. Those estimates projected domestic oil production to decline significantly, despite a forecast of rising world oil prices. Yet, while world oil prices since deregulation have been lower than projected, domestic oil production is already 0.5 million to 2.0 million barrels per day above the levels projected during those deliberations on oil deregulation.

The deregulation of oil clearly has raised incentives to search more intensively for new oil fields. Moreover, deregulation has encouraged increased investment in processes to increase reserve recovery from old oil fields. From 1977 through 1979, reserve additions from extensions to old reservoirs steadily declined. In 1980, the first year after deregulation began, extensions to old reservoirs sharply increased by about 150 million barrels, reaching a total of 570 million barrels. In 1981, following immediate deregulation, extensions to old reservoirs again increased--this time by 180 million barrels, for a total of 750 million barrels. In comparison, new field discoveries in 1980 increased by 35 million barrels, for a total of 140 million barrels, while new field discoveries in 1981 increased by 110 million barrels, for a total of 250 million barrels. Thus, in the first 2 years following oil price deregulation, extensions of old reservoirs contributed more to the growth of domestic oil reserves than discoveries of new fields.

OUT IN THE COLD

The Expected Impact of Rising Natural Gas Prices on the Poor, the Elderly, and the Unemployed

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I. MAJOR FINDINGS

Millions of Americans face insurmountable budget problems this winter because of high energy costs combined with rising unemployment. After the average unemployed worker has paid his home energy bill--not counting gasoline for his car--there will not be enough left for other necessary expenses. The situation is even worse for the millions of senior citizens and disabled persons who depend on Supplementary Security Income (SSI)--the principal so-called "safety-net" program for the elderly and disabled who lack any other substantial source of income.

If this winter is as cold as last and the price of natural gas continues to go up as expected, after paying home energy costs during the three coldest months:

- o In 38 states the families of unemployed workers will have less than $100 weekly remaining out of the average unemployment check for food, shelter, medical bills and other necessities;

- o In 23 states they will have less than $75 weekly left; and

- o In 7 states they will have less than $50.

Under the same circumstances, elderly persons trying to live independently on SSI will have even fewer dollars left. After paying home energy bills in the three coldest months:

- o In 43 states and the District of Columbia these SSI recipients will have less than $50 weekly remaining for all other necessities; and

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- o In 10 states less than $25 weekly will remain.

Even if the winter should turn out to be no colder than average, and even if gas prices should go no higher than in August of 1982, the budgetary situation would still be grave:

- o The number of states where less than $75 weekly remains out of the average unemployment check would be reduced only from 23 to 19; and

- o The number of states where single elderly SSI recipients have less than $50 remaining would decrease only from 43 to 42.

These figures demonstrate the dilemma which faces not only those who have long existed in poverty, but also the growing millions of "new poor" created by the current economic crisis, as they struggle to meet today's high energy costs. Even these figures only reflect the problem as it is faced by those unemployed who are receiving benefits. Of the 11,551,000 unemployed in October 1982, only 47.6 percent were receiving unemployment benefits. More than 5.7 million of October's unemployed received no benefits; and as unemployment persists and benefits of more persons expire, that number is likely to grow.

The numbers above were generated by a computer model which calculates home energy bills using the most reliable and current data available on energy consumption, prices, and climatic conditions. They are based on two sets of assumptions. The "worst-case" assumption is that this winter will be as cold as, but no colder than that of 1981-82, and that natural gas prices will have increased 20 percent by mid-winter. This is somewhat below the average of 23 to 25 percent anticipated by a number of key suppliers under the terms of the Natural Gas Policy Act of 1978 and current purchase agreements. The "best-case" assumption is that the winter will be of only average severity, and that natural gas prices will be rolled back to the August 1982 levels.

Thus, additional financial help continues to be needed by poor and elderly households if they are to cope with home energy expenses. At present help is provided by the Low-Income Home Energy Assistance Program (LIHEAP). The coverage of this program and the benefits it provides vary greatly among the states. According to the latest published reports from the Department of Health and Human Services (HHS), the Fiscal Year 1981 program reached only 36 percent of those households meeting income eligibility standards of the authorizing legislation, and only 45 percent of those meeting the more restrictive standards which states have the option to impose.

In most states, moreover, average LIHEAP benefits cover only a small proportion of home energy expenses. For example, given cold weather conditions and 20 percent price increases during this winter, the average LIHEAP benefit levels for last year (FY 1982) would represent less than 20 percent of anticipated annual home energy expenses in 21 states, and less than 30 percent in an additional 14 states.

More significant, perhaps, are the dollar amounts of annual home energy expenses that remain outstanding after receipt of LIHEAP benefits. In only nine of the contiguous 48 states and the District of Columbia would LIHEAP benefits at last year's levels leave remaining annual balances of less than $500; and in four of these nine states balances would be between $450 and $500. In 11 states the balances would exceed $1,000, including a high of $1,539 in New York State. Looked at another way, if one compares these balances to unemployment benefits and SSI balances, one finds that in 27 states those receiving unemployment benefits have less than $100 a week for all other necessities even after receiving LIHEAP payments at last year's levels, and in 21 states elderly on SSI have less than $50 weekly. Even under the "best case" price and weather scenario, the amounts remaining are still under $101 and $55 respectively.

II. HOME ENERGY COSTS AND THE UNEMPLOYED

Table 1 shows the estimated average monthly home energy expenditures by low-income households for the three coldest months of the 1982-83 winter--December, January, and February. Two sets of figures are given. The first column is for an average winter at August 1982 prices. The second is for a winter as cold, but no colder than, the winter of 1981-82, and with a projected rise in natural gas prices of 20 percent. For the "newly poor" unemployed, these expenditure figures are probably understatements, because many have not yet learned the energy-conserving lifestyles of the long-term poor and because their homes have a greater number of energy-consuming appliances. These home energy costs also do not include gasoline, which can be an important expense for many of the recently unemployed whose family car is essential for food shopping, schools, and job-hunting.

Table 2 compares average monthly unemployment benefits for each state with the projected monthly home energy expenditures for December, January, and February, showing the percent of unemployment benefit projected to be spent for home energy. Again, two sets of figures are given. The first column is for an average winter at August 1982 energy prices. The second projects a cold winter like that of 1981-82 and natural gas price increases of 20 percent. Under the second scenario monthly home energy costs in these three months will exceed 60 percent of the average monthly unemployment benefits in five Northeastern states, and in three more will exceed 50 percent. In a total of 12 states energy costs will exceed 40 percent of unemployment benefits, and in 19 states they will exceed 30 percent.

While these percentages are often lower in the states with the higher rates of unemployment, this can be misleading as a measure of impact on individual households. For example, in Alabama, which has the second highest rate of unemployment, home energy expenditures represent only 28 percent of average unemployment benefits. However, Alabama's benefits are among the lowest, so that only $57 per week remains after

TABLE 1

ESTIMATED AVERAGE MONTHLY HOME ENERGY EXPENDITURES IN WINTER

Low-Income Households

State	Average Winter At August 1982 Prices	Cold Winter Like 1981-82 If Gas Prices Increase 20%
Alabama	$ 78	$ 96
Arizona	76	72
Arkansas	87	116
California	66	68
Colorado	96	108
Connecticut	237	264
Delaware	194	218
District of Columbia	105	123
Florida	109	108
Georgia	81	100
Idaho	173	189
Illinois	139	177
Indiana	130	165
Iowa	148	180
Kansas	113	143
Kentucky	113	137
Louisiana	91	113
Maine	236	250
Maryland	178	206
Massachusetts	233	262
Michigan	141	169
Minnesota	163	189
Mississippi	83	101
Missouri	117	149
Montana	105	120
Nebraska	138	168
Nevada	124	119
New Hampshire	238	261
New Jersey	205	234
New Mexico	111	113
New York	232	259
North Carolina	102	119
North Dakota	163	187
Ohio	118	148
Oklahoma	86	103
Oregon	128	135
Pennsylvania	142	168
Rhode Island	233	260
South Carolina	76	90
South Dakota	164	187
Tennessee	84	101
Texas	90	102
Utah	104	113
Vermont	237	258
Virginia	112	130
Washington	131	137
West Virginia	124	152
Wisconsin	163	190
Wyoming	95	105

TABLE 2

COMPARISON OF UNEMPLOYMENT BENEFITS AND
MONTHLY HOME ENERGY EXPENDITURES IN WINTER

State	Unemployment Rate Oct. 1982	Average Monthly Unemployment Benefit	% of Benefit Spent for Energy: Average Winter at August 1982 Prices	% of Benefit Spent for Energy: Cold Winter Like 1981-82 If Gas Prices Increase 20%
Alabama	15.0%	$340	23%	28%
Arizona	10.5	447	17	16
Arkansas	9.6	403	22	29
California	10.3	429	15	16
Colorado	8.2	599	16	18
Connecticut	6.9	452	52	58
Delaware	7.6	356	54	61
Dis. of Col.	11.1	609	17	20
Florida	9.2	411	27	26
Georgia	7.8	411	20	24
Idaho	8.0	466	37	40
Illinois	12.0	629	22	28
Indiana	11.9	398	33	42
Iowa	7.8	573	26	31
Kansas	7.0	545	21	26
Kentucky	10.6	492	23	28
Louisiana	10.9	609	15	19
Maine	7.5	410	58	61
Maryland	8.0	489	36	42
Massachusetts	7.2	479	49	55
Michigan	14.9	644	22	26
Minnesota	7.6	570	29	33
Mississippi	12.2	333	25	30
Missouri	8.7	387	30	39
Montana	8.3	477	22	25
Nebraska	5.6	401	35	42
Nevada	11.0	493	25	24
New Hampshire	7.1	393	61	66
New Jersey	8.3	475	43	49
New Mexico	10.4	466	24	24
New York	9.0	408	57	64
North Carolina	9.3	437	23	27
North Dakota	5.5	536	30	35
Ohio	13.2	606	19	24
Oklahoma	6.3	565	15	18
Oregon	10.3	494	26	27
Pennsylvania	11.2	607	23	28
Rhode Island	9.1	439	53	59
South Carolina	10.8	407	19	22
South Dakota	5.0	503	33	37
Tennessee	11.2	375	23	27
Texas	7.6	540	17	19
Utah	8.0	553	19	20
Vermont	6.0	426	56	61
Virginia	7.8	459	24	28
Washington	11.4	538	24	25
West Virginia	15.3	543	23	28
Wisconsin	10.5	575	28	33
Wyoming	6.3	581	16	18

TABLE 3

WEEKLY BALANCE REMAINING OUT OF AVERAGE
UNEMPLOYMENT BENEFITS AFTER WINTER HOME ENERGY EXPENDITURES

State	Unemployment Rate Oct. 1982	Average Winter at August 1982 Prices	Cold Winter Like 1981-82 If Gas Prices Increase 20%
Alabama	15.0%	$ 61	$ 57
Arizona	10.5	86	87
Arkansas	9.6	74	67
California	10.3	85	84
Colorado	8.2	117	115
Connecticut	6.9	50	44
Delaware	7.6	38	32
District of Columbia	11.1	117	113
Florida	9.2	70	71
Georgia	7.8	77	73
Idaho	8.0	68	65
Illinois	12.0	114	105
Indiana	11.9	62	54
Iowa	7.8	99	92
Kansas	7.0	101	94
Kentucky	10.6	88	83
Louisiana	10.9	121	116
Maine	7.5	40	37
Maryland	8.0	72	66
Massachusetts	7.2	57	51
Michigan	14.9	117	111
Minnesota	7.6	95	89
Mississippi	12.2	58	54
Missouri	8.7	63	55
Montana	8.3	87	83
Nebraska	5.6	61	54
Nevada	11.0	86	87
New Hampshire	7.1	36	31
New Jersey	8.3	63	56
New Mexico	10.4	83	82
New York	9.0	41	35
North Carolina	9.3	78	74
North Dakota	5.5	87	81
Ohio	13.2	114	107
Oklahoma	6.3	112	108
Oregon	10.3	85	84
Pennsylvania	11.2	108	102
Rhode Island	9.1	48	42
South Carolina	10.8	77	74
South Dakota	5.0	79	74
Tennessee	11.2	68	64
Texas	7.6	105	102
Utah	8.0	105	103
Vermont	6.0	44	39
Virginia	7.8	81	77
Washington	11.4	95	93
West Virginia	15.3	98	91
Wisconsin	10.5	96	90
Wyoming	6.3	113	111

home energy expenditures for all other necessities under the "worst-case" assumption. In seven states high energy expenditures combine with low unemployment benefits to leave less than $50 weekly for other necessities. In a total of 23 states less than $75 weekly remains after home energy expenditures. Many of these states, such as New York, New Jersey, Massachusetts, and Missouri, although not those with the highest rates of unemployment, are among those with the highest numbers of unemployed, which is the significant factor in the determination of overall need for assistance. (See Table 7)

More than half of the unemployed receive no benefit either because they are ineligible or because their benefits have expired. As noted earlier, of the 11,551,000 unemployed in October 1982, less than 48 percent received benefits. Two other factors should be kept in mind when considering the data shown in Table 3. First, as a result of seniority rules, many of the recently unemployed are younger workers who often have young children at home and a home that is heavily mortgaged. Second, as reported in the New York Times of October 31, 1982, it has been estimated that eight million of the more than 11 million unemployed at that time had lost health insurance coverage; and, according to health officials, many appeared to be deferring necessary medical care.

III. HOME ENERGY COSTS AND THE ELDERLY

Tables 4 and 5 give dramatic evidence of the hardships that are faced by single elderly persons dependent on Supplementary Security Income (SSI) payments. With a cold winter like that of 1981-82 and expected natural gas price increases of at least 20 percent, in all but four states these elderly will have weekly balances of less than $50 remaining out of maximum SSI benefits after home energy expenditures. In 10 states weekly balances will be less than $25; in 43 states they will be less than $50. (Figures are not available for Illinois.) As noted earlier, in 21 of those 43 states elderly on SSI still have less

TABLE 4

COMPARISON OF S.S.I. BENEFITS FOR SINGLE ELDERLY AND MONTHLY HOME ENERGY EXPENDITURES IN WINTER

State	Maximum Monthly S.S.I. Benefit	% of Benefit Spent for Energy: Average Winter at August 1982 Prices	% of Benefit Spent for Energy: Cold Winter Like 1981-82 If Gas Prices Increase 20%
Alabama	$284	28%	34%
Arizona	519	15	14
Arkansas	284	31	41
California	451	15	15
Colorado	341	28	32
Connecticut	386	61	68
Delaware	284	68	77
District of Columbia	299	35	41
Florida	284	38	38
Georgia	284	28	35
Idaho	358	48	53
Illinois	N/A	N/A	N/A
Indiana	284	46	58
Iowa	284	52	63
Kansas	284	40	50
Kentucky	284	40	48
Louisiana	284	32	40
Maine	294	80	85
Maryland	284	63	72
Massachusetts	421	55	62
Michigan	308	46	55
Minnesota	319	51	59
Mississippi	284	29	35
Missouri	284	41	52
Montana	284	37	42
Nebraska	369	38	46
Nevada	331	37	36
New Hampshire	330	72	79
New Jersey	309	66	76
New Mexico	284	39	40
New York	347	67	75
North Carolina	284	36	42
North Dakota	284	57	66
Ohio	284	42	52
Oklahoma	363	24	29
Oregon	284	45	48
Pennsylvania	316	45	53
Rhode Island	334	70	78
South Carolina	284	27	32
South Dakota	299	55	62
Tennessee	284	30	36
Texas	284	32	36
Utah	294	35	38
Vermont	331	71	78
Virginia	284	39	46
Washington	322	41	43
West Virginia	284	44	54
Wisconsin	384	42	50
Wyoming	304	31	35

TABLE 5

WEEKLY BALANCE REMAINING OUT OF
MAXIMUM SSI BENEFITS FOR SINGLE ELDERLY
AFTER WINTER HOME ENERGY EXPENDITURES

State	Average Winter At August 1982 Prices	Cold Winter Like 1981-82 If Gas Prices Increase 20%
Alabama	$ 48	$ 44
Arizona	103	104
Arkansas	46	39
California	90	89
Colorado	57	54
Connecticut	35	28
Delaware	21	15
District of Columbia	45	41
Florida	41	41
Georgia	47	43
Idaho	43	39
Illinois	N/A	N/A
Indiana	36	28
Iowa	32	24
Kansas	40	33
Kentucky	40	34
Louisiana	45	40
Maine	13	10
Maryland	25	18
Massachusetts	44	37
Michigan	39	32
Minnesota	36	30
Mississippi	47	43
Missouri	39	31
Montana	42	38
Nebraska	54	47
Nevada	48	49
New Hampshire	21	16
New Jersey	24	18
New Mexico	40	40
New York	27	20
North Carolina	42	38
North Dakota	28	23
Ohio	39	32
Oklahoma	65	60
Oregon	36	35
Pennsylvania	41	35
Rhode Island	24	17
South Carolina	49	45
South Dakota	31	26
Tennessee	47	43
Texas	45	42
Utah	44	42
Vermont	22	17
Virginia	40	36
Washington	44	43
West Virginia	37	31
Wisconsin	52	45
Wyoming	49	46

than $50 weekly during the winter months, even after receiving LIHEAP benefits at last year's levels. Out of these small balances they have to pay for all necessities other than home energy, including food, clothing, shelter, and medical care, during those months.

IV. THE STATUS OF HOME ENERGY ASSISTANCE

Tables 6 and 7 set out two major weaknesses of the Low-Income Home Energy Assistance Program (LIHEAP): inadequate benefit levels and low rate of coverage. Table 6 compares last year's average benefit levels (FY 1982) with anticipated annual home energy expenditure levels for this year, projecting a cold winter similar to last year and a 20 percent rise in natural gas prices. This table reveals that in 21 states benefit levels cover less than 20 percent of anticipated annual home energy expenses. In an additional 14 states they cover less than 30 percent.

The last column in Table 6 translates these percentages into the dollars of annual home energy expenditures not covered by LIHEAP. (Since LIHEAP payments are generally made once annually, we do not use a monthly comparison here.) In only five of the contiguous 48 states are these annual balances less than $450; in 11 states, mostly in the Northeast, they exceed $1,000, with a high of $1,539 in New York State. These 11 states, with the exception of Michigan which has an unusually low average benefit level, represent areas of relatively cold climate combined in most cases with a preponderance of heating oil as the primary heating fuel. They reflect the fact that as a heating fuel, oil is still considerably more expensive than natural gas. However, the present rate of natural gas price increases, if continued, will bring the price of natural gas up to that of fuel oil in a few short years; and more and more states will be in the situation of these 11.

TABLE 6

COMPARISON OF ENERGY EXPENDITURES BY
LOW-INCOME HOUSEHOLDS TO FY 1982 LIHEAP BENEFITS

(Cold Winter if 20% Increase in Gas Prices)

State	Annual Home Energy Expenditure	Average FY 1982 LIHEAP Benefit	% of Annual Expenditure Covered by LIHEAP	Balance of Annual Expenditure Not Covered by LIHEAP
Alabama	$ 580	$ 50	9%	$ 530
Arizona	479	160	33	319
Arkansas	737	75	10	662
California	539	68	13	471
Colorado	774	268	35	506
Connecticut	1,660	512	31	1,148
Delaware	1,267	256	20	1,011
Dist. of Col.	838	311	37	527
Florida	482	152	32	330
Georgia	607	146	24	461
Idaho	1,225	265	22	960
Illinois	1,101	184	17	917
Indiana	1,053	235	22	818
Iowa	1,104	273	25	831
Kansas	874	167	19	707
Kentucky	841	159	19	682
Louisiana	653	46	7	607
Maine	1,703	429	25	1,274
Maryland	1,196	227	19	969
Massachusetts	1,725	375	22	1,350
Michigan	1,137	81	7	1,056
Minnesota	1,203	462	38	741
Mississippi	582	155	27	427
Missouri	898	197	22	701
Montana	867	335	39	532
Nebraska	1,053	321	30	732
Nevada	847	162	19	685
New Hampshire	1,726	444	26	1,282
New Jersey	1,547	240	16	1,307
New Mexico	776	235	30	541
New York	1,707	168	10	1,539
North Carolina	829	146	18	683
North Dakota	1,113	614	55	499
Ohio	972	189	19	783
Oklahoma	709	123	17	586
Oregon	988	174	18	814
Pennsylvania	1,095	275	25	820
Rhode Island	1,690	230	14	1,460
South Carolina	554	149	27	405
South Dakota	1,086	350	32	736
Tennessee	695	195	28	500
Texas	612	82	13	530
Utah	787	296	38	491
Vermont	1,707	395	23	1,312
Virginia	842	323	38	519
Washington	972	162	17	810
West Virginia	964	173	18	791
Wisconsin	1,243	239	19	1,004
Wyoming	774	411	53	363

TABLE 7

COMPARISON OF POVERTY AND UNEMPLOYMENT
WITH HOUSEHOLDS RECEIVING LIHEAP BENEFITS

State	Estimated No. Households Below 125% Poverty 1981	Number of Persons Unemployed October 1982	Estimated No. Households Receiving LIHEAP Benefits 1981-82
Alabama	352,800	259,000	172,100
Arizona	178,000	142,000	20,000
Arkansas	223,300	101,000	63,900
California	1,299,500	1,268,000	474,000
Colorado	151,800	130,000	82,000
Connecticut	125,200	111,000	62,000
Delaware	28,400	22,000	14,500
District of Columbia	44,500	36,000	10,000
Florida	747,700	459,000	104,000
Georgia	447,300	209,000	96,300
Idaho	54,000	36,000	25,800
Illinois	589,700	667,000	475,000
Indiana	264,800	310,000	115,200
Iowa	155,600	109,000	77,000
Kansas	122,500	83,000	61,100
Kentucky	312,800	184,000	31,700
Louisiana	374,400	208,000	113,300
Maine	73,900	38,000	44,700
Maryland	167,000	174,000	69,300
Massachusetts	273,700	220,000	170,000
Michigan	477,600	637,000	565,000
Minnesota	216,300	166,000	104,000
Mississippi	274,900	130,000	56,700
Missouri	357,700	200,000	157,900
Montana	48,200	32,000	14,900
Nebraska	94,800	44,000	35,200
Nevada	39,400	53,000	10,700
New Hampshire	43,200	34,000	23,900
New Jersey	311,400	300,000	200,000
New Mexico	103,400	64,000	35,600
New York	1,050,000	716,000	1,000,000
North Carolina	463,400	276,000	143,700
North Dakota	40,000	17,000	13,200
Ohio	575,800	681,000	320,000
Oklahoma	252,300	91,000	65,700
Oregon	150,600	135,000	76,000
Pennsylvania	690,500	621,000	300,000
Rhode Island	55,700	44,000	30,500
South Carolina	225,100	159,000	60,600
South Dakota	48,900	16,000	16,000
Tennessee	382,200	243,000	84,400
Texas	990,600	555,000	265,000
Utah	67,000	54,000	35,500
Vermont	37,100	17,000	19,000
Virginia	272,600	206,000	100,000
Washington	211,300	233,000	101,000
West Virginia	155,800	120,000	54,000
Wisconsin	215,200	260,000	161,000
Wyoming	24,500	16,000	8,800

In considering the impact of natural gas price increases on the need for energy assistance, it is important to note that three times as many low-income households heat their homes with natural gas as with fuel oil. This means that today's increases in natural gas prices create three times the need for energy assistance as did comparable increases in fuel oil prices in past years.

This impact is already being felt. Energy assistance benefit levels in 32 states were reduced below FY 1981 levels in FY 1982. In 20 of these states the cuts were substantial, ranging from $60 to as high as $277 in Oklahoma, with many states reducing average benefits by well over $100. In addition, 12 states, including several of the same states, reduced eligibility standards in the FY 1982 program. As natural gas prices and unemployment continue to rise it seems inevitable that more states may further limit both benefit levels and eligibility criteria in attempts to stretch the limited funds available for the program.

These burdens do not fall on only those poor, elderly, and unemployed who live in the coldest states. Energy expenditures tend to be lower in the southern and "sun-belt" states, but so do benefit levels. There are 13 of these states that contain approximately 43 percent of the nation's poor and 35 percent of the unemployed (Alabama, Arizona, California, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Texas, and Virginia). In six of the 13, FY 1982 LIHEAP payment levels represent less than 20 percent of annual home energy costs estimated for this year; and in another four they represent not more than 30 percent. At the same time, estimates of the FY 1982 LIHEAP program indicate that on average the program in these states served only about 28 percent of households below 125 percent of poverty. In other words, the energy crisis of the poor, the elderly, and the unemployed is a national, not a regional, problem.

Furthermore, it is a problem that has been exacerbated by the fact that as energy prices have continued to rise, the funds available for energy assistance have remained the same for the past three years. In many states they have actually declined as a result of allowable transfers to other programs. Since the Fall of 1980, home energy prices have risen an average of 25 percent, while in the FY 1982 LIHEAP program 32 states actually reduced benefit levels from the 1981 levels, and 12 states imposed more restrictive income eligibility criteria.

Table 7 shows three sets of figures: the estimated number of households below 125 percent of poverty in 1981, the number of persons unemployed (many of whom are the main support of an entire household) in October 1982, and the estimated number of households which received LIHEAP benefits in FY 1982. Both the number of poor and the number of unemployed are relevant to the demands that will be made on available home energy assistance funds. However, the number of unemployed cannot simply be added to the number of poor. There are both gaps and duplications in the figures, but they do give some indication of the sheer numbers of households in need of energy assistance. In FY 1981, LIHEAP reached only 36 percent of those eligible for assistance under the income standards of the Federal statute. The elderly fared even worse: LIHEAP benefits reached but 39 percent of elderly persons below 100 percent of poverty, which is a far lower income eligibility standard than that set by any of the states.

Continued high unemployment and rising natural gas prices can only lead to a worsening of the situation. In the long run, more resources devoted to conservation and alternative energy development might well reduce dependency on Federal assistance and even create jobs in the process. In the meantime, if the poor, the elderly, and the unemployed are to survive, their need for home energy assistance must be met.

V. METHODOLOGY

The state-level figures on home energy expenditures for the coming winter were developed by The Grier Partnership's "Energybill" computer model. This model calculates the contributions of each of the major factors that determine home energy bills, using as inputs the most reliable data currently available for each of these factors. It then combines them into overall estimates of average annual and seasonal expenditures for each state. The computer also performs the work of comparing them to various kinds of benefits.

The major factors which determine residential energy expenditures are four in number:

- Fuels used both for home heating and for auxiliary purposes;
- Energy consumption levels, which are related to lifestyles, housing conditions, and locational factors;
- Climatic conditions at the location of the home; and
- Energy prices in the local area for each of the fuels.

Source of data used in the model for this report include:

Fuels Used--Since 1980 Census data on fuels used by low-income households for space heating are not yet available, unpublished statistics from the 1970 Census were updated and adjusted using 1980 Census data on all households by state and trend data on fuel switching from the U.S. Department of Energy. Auxiliary fuel use associated with each space heating fuel was based on DOE survey data.

Energy Consumption--Data on average fuel consumption were extracted from the data tapes of the U.S. Department of Energy's continuing national surveys of residential energy consumption. The

consumption figures for major fuels are those shown by the survey data for households with incomes under 125 percent of the Federal poverty guidelines. Consumption levels of minor fuels were then estimated, based on their BTU equivalency to the fuels for which actual consumption data were available.

Two sets of expenditure estimates were developed, then combined into a total. One is for the primary home heating fuel, which is most commonly natural gas or fuel oil. The second estimate is for auxiliary fuels serving such functions as lighting, cooking, heating water, and running appliances. The most common of these is electricity, which is now virtually universal in American homes. Natural gas is sometimes used as an auxiliary energy source as well.

Climatic Conditions--State-level climatic figures are based upon the population-weighted heating degree day data developed for each state by the National Climatic Center, a unit of the U.S. National Oceanographic and Atmospheric Administration. (One heating degree day is registered for every day and every degree which the average temperature falls below 65°F.) In some warm states like Louisiana, the average annual figure mounts up to less than 2,000. In cold states like Maine and Minnesota, it exceeds 8,000.

In addition to calculating annual consumption and expenditure levels, the computer model also applied the actual winter month proportions for December, January, and February on a state-by-state basis and averaged the resulting expenditures over the three-month period to develop the heating fuel component of the winter-month expenditure totals shown in this report. The auxiliary fuel component, however, was averaged over the full 12 months.

Two different sets of heating degree day figures were used. The first or "average winter" set is the National Climatic Center's long-term averages covering a 45-year period. The second or "cold winter" set is for 1981-1982, which was an unusually cold year especially in

some northern sections of the country but was by no means the coldest the nation has experienced in recent years. Several recent winters, as well as some in previous decades, have been considerably colder; and last winter was actually warmer than the long-term average for a few states, especially in the Southwest.

Energy Prices--August 1982 prices for each of the seven most common home energy sources (natural gas, fuel oil, electricity, kerosene, propane, coal, and wood) were collected by the NCLC-NCAF Energy Price Survey, to which over 400 community action agencies across the nation responded. These agencies obtained price quotations from local utility companies and other energy suppliers, forwarding the actual rate sheets of the gas and electric utilities. Prices for each utility were calculated based upon the average amount of energy used by low-income consumers.

Average prices were then developed on a population-weighted basis for each fuel in each of the ten Federal regions of the nation. The computer model applied these regional prices in calculating the energy expenditures for each state within a region.

Fuel price data are also collected by the Bureau of Labor Statistics on a monthly basis; on a national basis the BLS urban averages agree fairly closely with the equivalent figures from the NCLC-NCAF Survey. However, the NCLC-NCAF prices cover more types of fuel; were developed from data for rural as well as urban areas; are available for smaller geographic regions than the BLS data; and, as indicated above, are calculated specifically for the average amounts of fuel used by low-income households.

The fuel price inputs include also a projected series under which natural gas prices rise by 20 percent by mid-winter. The projected prices do not allow for increases in the price of any other fuels except natural gas.

Benefit Levels--The state-level average monthly unemployment benefits used in this study were obtained from the U.S. Bureau of Labor Statistics with the assistance of the Center for Budget and Policy Priorities. The maximum monthly SSI benefits were provided by the Social Security Administration. The average LIHEAP benefits came from the Office of Energy Assistance of the Social Security Administration.

Validation

The expenditure estimates developed by the "Energybill" model have repeatedly been validated and refined by comparing them with equivalent figures developed through direct surveys by DOE and others. The most recent DOE survey, for the winter of 1980-1981, yields an overall average home energy expenditure of $807 for low-income households nationally. The equivalent national figure produced for 1982-83 by the "Energybill" model through weighted averaging of the individual state-level estimates is $815.

ACKNOWLEDGEMENTS

This report was based on a study sponsored by the National Consumer Law Center, and owes its existence to the inspiration and continuing guidance of Michael Sandifer and Richard Saul, who contributed to its development at every stage. Helpful advice and guidance were provided along the way by Carol Werner and Charles Hill of the Center's Washington Office. Important contributions were also made by the Center on Budget and Policy Priorities, the Citizen/Labor Energy Coalition, and the National Council of Senior Citizens. Data used in the study were provided by the U.S. Bureau of the Census, the U.S. Bureau of Labor Statistics, the Office of Energy Assistance of the Social Security Administration, the National Oceanographic and Atmospheric Administration, and the Energy Information Administration of the U.S. Department of Energy.

Hundreds of Community Action Agencies contributed by responding to the NCLC-NCAF Energy Price Survey, and thus made available price data of the detail and precision required for this analysis.

Richard Saul prepared the text of the report, with suggestions and contributions from Michael Sandifer and The Grier Partnership. The Grier Partnership performed the data analysis used throughout the report, including the analysis and tabulation of the consumption and energy survey data and the design, development, and testing of the "Energybill" computer model used in performing the expenditure estimates.

Associates of The Grier Partnership, John DeVoe, Rob Engberg, and David Schnabel, tabulated and analyzed the price survey responses and prepared the data for computer input. Steven Greene programmed the computer and oversaw production of the output. Sandra J. Henkin coordinated the mailing out of the price survey and prepared the text for publication.

SUPPLEMENTARY INFORMATION

Since the report "Out in the Cold" was prepared, the National Weather Service has released data indicating that the current winter through the end of January has been 9 percent warmer than normal nationally. (The difference has varied from State to State, with a few States actually being colder than normal.)

The attached tables show data for the current winter, through January 31st.

Supplemental Tables

Summary Data for Winter 1982-83 Through January 31, 1983

						Unemployed			Elderly			
State	Estimated Number of Households Below 125% of Poverty in 1981	Number of Households That Received LIHEAP Payments in Fiscal Year 1982	Average Annual Low-Income Home Energy Expenditure	Average Annual LIHEAP Payment in FY 1982	Average Monthly Low-Income Energy Expenditure in Winter	Number of Persons Unemployed in October 1982	Average Monthly Unemployment Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures	Maximum SSI Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Alabama	352,800	172,100	$ 491	$ 50	$ 78	241,000	$340	23%	$ 61	$284	27%	$ 48
Arizona	178,000	20,000	504	160	77	143,000	447	17	86	519	15	103
Arkansas	223,300	63,900	649	75	90	98,000	403	22	73	284	32	45
California	1,299,500	474,000	486	68	64	1,178,000	429	15	85	451	14	90
Colorado	151,800	82,000	785	268	108	121,000	599	18	114	341	32	54
Connecticut	125,200	62,000	1,492	512	234	103,000	452	52	51	386	61	35
Delaware	28,400	14,500	1,105	256	187	23,000	356	52	39	284	66	23

1. Columns (2) and (4) based on data from Memorandum of Office of Energy Assistance, Social Security Administration, dated August 20, 1982, "Results of the July telephone survey on the low income home energy assistance program."

2. See pages 16-19 "Out in the Cold" for sources of other data.

3. Note: Michigan has a unique program design involving, among other things, an emergency program with almost as high a funding level as the basic benefits program. (Most states have only modest emergency components in terms of dollars spent and households served.) Emergency program benefits are not reflected in this analysis.

Summary Data for Winter 1982-83 Through January 31, 1983

					Unemployed				Elderly			
State	Estimated Number of Households Below 125% of Poverty in 1981	Number of Households That Received LIHEAP Payments in Fiscal Year 1982	Average Annual Low-Income Home Energy Expenditure	Average Annual LIHEAP Payment in FY 1982	Average Monthly Low-Income Energy Expenditure in Winter	Number of Persons Unemployed in October 1982	Average Monthly Unemployment Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditure	Maximum SSI Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditure
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
District of Columbia	44,500	10,000	709	311	103	34,000	609	17	118	299	34	46
Florida	747,700	104,000	442	152	98	406,000	411	24	73	284	35	43
Georgia	447,300	96,300	512	146	81	201,000	411	20	77	284	28	47
Idaho	54,000	25,800	1,194	265	183	34,000	466	39	66	358	51	41
Illinois	589,700	475,000	905	184	142	683,000	629	23	113	N/A	N/A	N/A
Indiana	264,800	115,200	831	235	125	296,000	398	32	64	284	44	37
Iowa	155,600	77,000	945	273	149	105,000	573	26	99	284	53	31
Kansas	122,500	61,100	797	167	126	83,000	545	23	98	284	44	37
Kentucky	312,800	31,700	685	159	108	182,000	492	22	89	284	38	41
Louisiana	374,400	113,300	651	46	103	202,000	609	17	118	284	36	42

Summary Data for Winter 1982-83 Through January 31, 1983

						Unemployed			Elderly			
State	Estimated Number of Households Below 125% of Poverty in 1981	Number of Households That Received LIHEAP Payments in Fiscal Year 1982	Average Annual Low-Income Home Energy Expenditure	Average Annual LIHEAP Payment in FY 1982	Average Monthly Low-Income Energy Expenditures in Winter	Number of Persons Unemployed in October 1982	Average Monthly Unemployment Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures	Maximum SSI Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Maine	73,900	44,700	1,534	429	227	40,000	410	55	43	294	77	16
Maryland	167,000	69,300	1,011	227	171	177,000	489	35	74	284	60	26
Massachusetts	273,700	170,000	1,471	375	230	226,000	479	48	58	421	55	45
Michigan	477,600	565,000	940	115	139	624,000	644	22	118	308	45	39
Minnesota	216,300	104,000	1,094	462	165	156,000	570	29	94	319	52	36
Mississippi	274,900	56,700	517	155	83	130,000	333	25	58	284	29	47
Missouri	357,700	157,900	770	197	122	206,000	387	31	62	284	43	38
Montana	48,200	14,900	812	335	110	29,000	477	23	86	284	39	41
Nebraska	94,800	35,200	978	321	152	43,000	401	38	58	369	41	51
Nevada	39,400	10,700	933	162	135	50,000	493	27	83	331	41	46

Summary Data for Winter 1982-83 Through January 31, 1983

					Unemployed				Elderly			
State	Estimated Number of Households Below 125% of Poverty in 1981	Number of Households That Received LIHEAP Payments in Fiscal Year 1982	Average Annual Low-Income Home Energy Expenditure	Average Annual LIHEAP Payment in FY 1982	Average Monthly Low-Income Energy Expenditure in Winter	Number of Persons Unemployed in October 1982	Average Monthly Unemployment Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures	Maximum SSI Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
New Hampshire	43,200	23,900	1,550	444	234	31,000	393	60	37	330	71	22
New Jersey	311,400	200,000	1,358	240	202	308,000	475	43	64	309	65	25
New Mexico	103,400	35,600	906	235	129	60,000	466	28	79	284	45	36
New York	1,050,000	1,000,000	1,481	168	227	667,000	408	56	42	347	65	28
North Carolina	463,400	143,700	717	146	102	258,000	437	23	78	284	36	42
North Dakota	40,000	13,200	1,001	614	159	15,000	536	30	88	284	56	29
Ohio	575,800	320,000	786	189	117	629,000	606	19	114	284	41	39
Oklahoma	252,300	65,700	658	123	91	86,000	565	16	110	363	25	63
Oregon	150,600	76,000	951	174	130	131,000	494	26	85	284	46	36
Pennsylvania	690,500	300,000	898	275	138	601,000	607	23	109	316	44	41

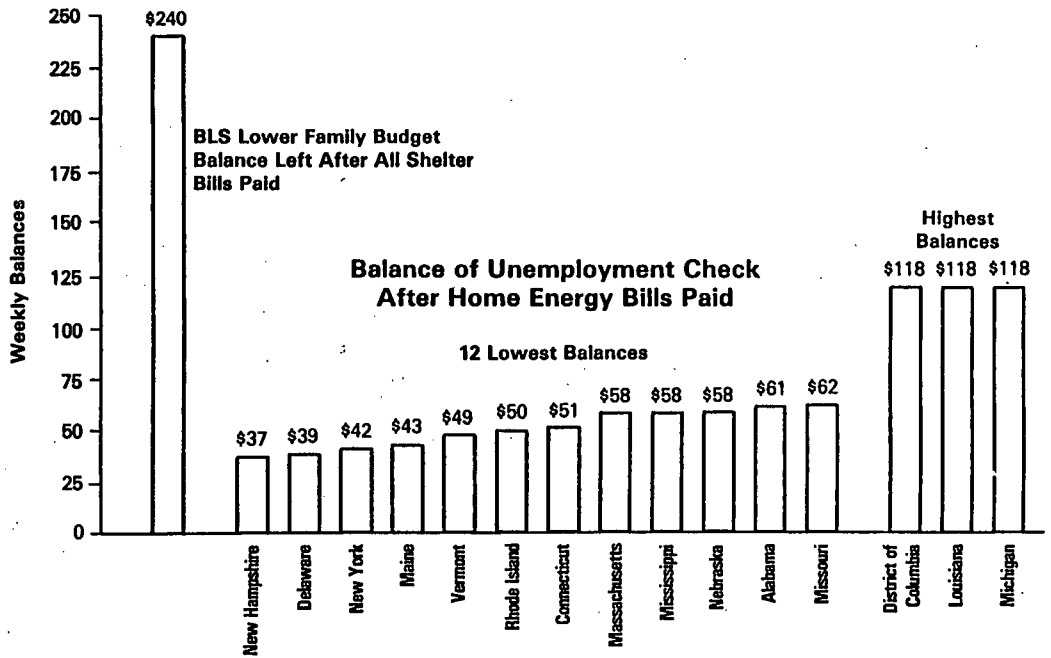
Summary Data for Winter 1982-83 Through January 31, 1983

					Unemployed				Elderly			
State	Estimated Number of Households Below 125% of Poverty in 1981	Number of Households That Received LIHEAP Payments in Fiscal Year 1982	Average Annual Low-Income Home Energy Expenditure	Average Annual LIHEAP Payment in FY 1982	Average Monthly Low-Income Energy Expenditure in Winter	Number of Persons Unemployed in October 1982	Average Monthly Unemployment Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures	Maximum SSI Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rhode Island	55,700	30,500	1,446	230	224	42,000	439	51	50	334	67	26
South Carolina	225,100	60,600	500	149	79	157,000	407	19	76	284	28	48
South Dakota	48,900	16,000	991	350	163	15,000	503	32	79	299	54	32
Tennessee	382,200	84,400	586	195	83	247,000	375	22	68	284	29	47
Texas	990,600	265,000	682	82	106	587,000	540	20	101	284	37	41
Utah	67,000	35,500	788	296	113	53,000	553	21	102	294	39	42
Vermont	37,100	19,000	1,422	395	216	16,000	426	51	49	331	65	27
Virginia	272,600	100,000	701	323	107	195,000	459	23	82	284	38	41
Washington	211,300	101,000	953	162	131	219,000	538	24	95	322	41	45
West Virginia	155,800	54,000	804	173	125	110,000	543	23	97	284	44	37

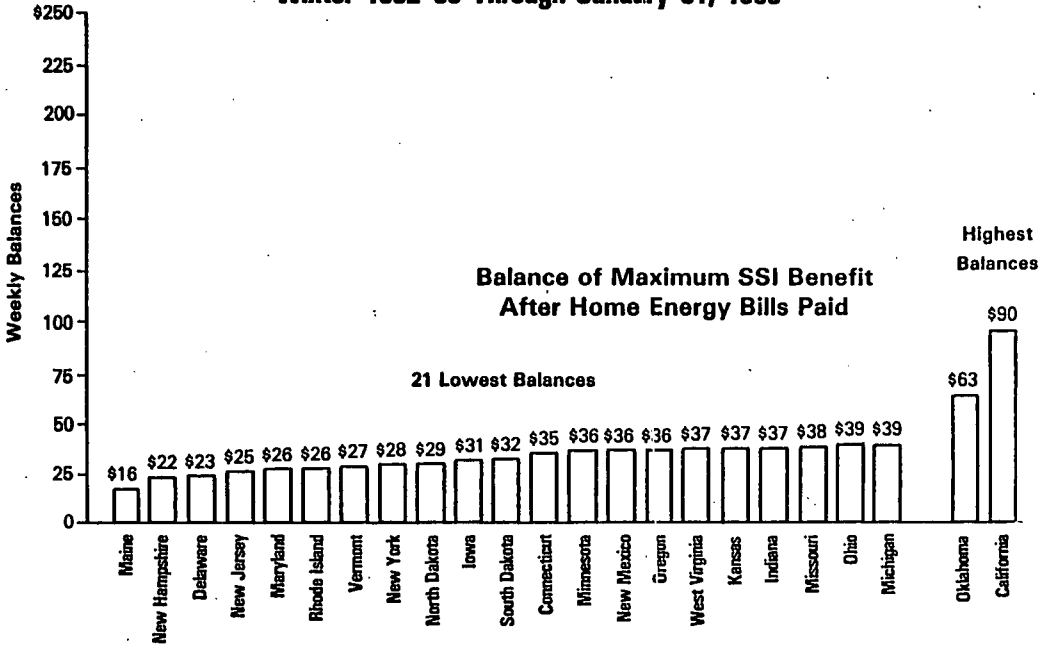
Summary Data for Winter 1982-83 Through January 31, 1983

						Unemployed				Elderly			
State	Estimated Number of Households Below 125% of Poverty in 1981	Number of Households That Received LIHEAP Payments in Fiscal Year 1982	Average Annual Low-Income Home Energy Expenditure	Average Annual LIHEAP Payment in FY 1982	Average Monthly Low-Income Energy Expenditure in Winter	Number of Persons Unemployed in October 1982	Average Monthly Unemployment Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures	Maximum SSI Benefit	Percent of Benefit Spent on Energy in Winter Months	Weekly Balance Remaining After Winter Home Energy Expenditures	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Wisconsin	215,200	161,000	1,079	239	163	252,000	575	28	96	384	42	52	
Wyoming	24,500	8,800	772	411	105	14,000	581	18	111	304	35	46	

Weekly Balances Left From Average Unemployment Check After Meeting Home Energy Expenditures Winter 1982-83 Through January 31



Weekly Balance Remaining From Maximum SSI Benefit Paid to Single Elderly Person Living Independently After Winter Home Energy Expenditures During Winter 1982-83 Through January 31, 1983



WEEKLY BALANCE REMAINING OUT OF
AVERAGE UNEMPLOYMENT BENEFIT
AFTER WINTER HOME ENERGY EXPENDITURES

Balance	Number of States	
	Normal Winter	Warm Winter*
Less than $50	7	5
$50 - $74	12	14
$75 - $99	19	19
$100 or More	11	11
Total	49**	49**

* Winter like 1982-1983 through end of January

** 48 States of Continental U. S. plus District of Columbia

BALANCE REMAINING OUT OF AVERAGE ANNUAL
HOME ENERGY EXPENDITURES BY LOW-INCOME HOUSEHOLDS
AFTER ENERGY ASSISTANCE PAYMENT

Balance	Number of States	
	Normal Winter	Warm Winter*
$1,000 or More	8	7
$750 - $999	8	9
$500 - $749	20	19
Less than $500	13	14
Total	49**	49**

* Winter like 1982-1983 through end of January

** 48 States of Continental U. S. plus District of Columbia

WEEKLY BALANCE REMAINING OUT OF
MAXIMUM SSI BENEFIT PAID TO
SINGLE ELDERLY PERSON LIVING INDEPENDENTLY
AFTER WINTER HOME ENERGY EXPENDITURES

Balance	Number of States	
	Normal Winter	Warm Winter*
Less than $25	7	3
$25 - $39	17	18
$40 - $49	19	22
$50 - $74	4	4
$75 or more	1	1
Total	48**	48**

* Winter like 1982-83 through end of January

** Continental U.S. only