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NATURAL GAS CURTAILMENT OUTLOOK FOR THIS WINTER OF 1976–77

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER

OF THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

HOUSE OF REPRESENTATIVES

NINETY-FOURTH CONGRESS

SECOND SESSION

TO ASSESS THE OUTLOOK WITH REGARD TO NATURAL GAS CURTAILMENTS THIS WINTER

NOVEMBER 9, 1976

Serial No. 94–156

Printed for the use of the
Committee on Interstate and Foreign Commerce

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NATURAL GAS CURTAILMENT OUTLOOK FOR THIS WINTER OF 1976–77

TUESDAY, NOVEMBER 9, 1976

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND POWER,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 2123, Rayburn House Office Building, Hon. John D. Dingell, chairman, presiding.

Mr. DINGELL. The subcommittee will come to order.

The subcommittee meets today to assess the outlook with regard to natural gas curtailments this winter. Our first witness, Commissioner John Holloman of the Federal Power Commission, will review the Commission's recent survey of 19 interstate pipelines projected to curtail 22 percent of their firm requirements, or a total of 1.6 trillion cubic feet (tcf). This represents roughly 25 percent increase in pipeline curtailments over last winter. Whether such an increase in curtailment will result in any serious economic disruption to end users is the focus of our hearing this morning.

We know that curtailments of 1.3 tcf last winter were accomodated fairly well by natural gas customers. Alternate fuels were sufficient to offset reduced natural gas deliveries to industrial and utility customers. No curtailments of high priority residential customers took place. But the prospects for this winter should not be judged solely on the basis of last winter, which was warmer than usual, and which saw the economy operating well below capacity. A colder than normal winter last year could have made things far more disruptive.

As background for today's hearing, I requested the National Oceanic and Atmospheric Administration to prepare a preliminary long-range weather forecast for the current heating season. Their response indicates that: "By the end of October, many cities' heating degree-day totals were running 50 or 60 ahead of both the long-term normals and last year at the same date." NOAA's letter goes on to say that there is a statistically fairly good chance that:

> The winter will be colder than normal all across the South and the Southern Great Plains, and in the Ohio Valley. It should be milder than normal in the Northern Great Plains, the Northwest and along the California Coast. Such other areas as the Northeast Atlantic Coast, the upper Midwest, and the intermountain basins of the West must be considered indeterminate—equally likely to go either way."

In light of the potential that major natural gas consuming areas will be colder than normal, today's hearings take on added importance. Witnesses from the Federal Energy Administration will look beyond

the FPC pipeline survey and will describe their efforts to assess the end-use impacts that gas curtailments can be expected to have this winter. An important question is whether those customers who will be curtailed have the capability to burn alternate fuels, such as propane and oil. I hope that the FPC and FEA have interacted to achieve a meaningful answer to this question.

This afternoon's hearing will consist of two panels. One panel will be comprised of interstate natural gas pipelines, including those pipelines which the Federal Power Commission had identified as having the most serious curtailment potential. A final panel will address existing and alternative measures that the FPC and the States might use to better manage serious natural gas shortages.

The Chair is pleased to recognize for our first witness Commissioner Holloman III and his associates.

Commissioner, we are pleased you are with us today. If you will identify yourself fully for the record, and your associates, we will be most pleased to hear your testimony.

STATEMENT OF JOHN H. HOLLOMAN III, VICE CHAIRMAN, FEDERAL POWER COMMISSION, ACCOMPANIED BY DREXEL D. JOURNEY, GENERAL COUNSEL; ROBERT PERDUE, DEPUTY GENERAL COUNSEL; JOSEPH SOLTERS AND WILLIAM MARMURA, BUREAU OF NATURAL GAS; DR. JEROME HAAS AND JOHN MORIARTY, OFFICE OF ECONOMIC STUDIES; MICHAEL KELLY AND MARK MAGNUSON, ASSISTANTS TO THE VICE CHAIRMAN

Mr. HOLLOMAN. Mr. Chairman, I am John Holloman, Vice Chairman of the Federal Power Commission. Accompanying me are Drexel D. Journey, General Counsel of the Commission; Robert Perdue, Deputy General Counsel; Joseph Solters and William Marmura of the Bureau of Natural Gas; Dr. Jerome Hass and John Moriarty of the Office of Economic Studies; and my assistants, Michael Kelly and Mark Magnuson.

Mr. DINGELL. The Chair is very pleased to welcome you all.

Commissioner, you are recognized for your statement.

Mr. HOLLOMAN. Mr. Chairman, members of the subcommittee: I am pleased to appear before you today on behalf of Commissioner Dunham, who cannot be present. My remarks highlight current information concerning curtailment of natural gas supplies for the coming winter, the administrative actions which the Federal Power Commission has taken and will take in response to this severe shortage, and the limitations on our authority in this area.

OUTLOOK FOR THE 1976–77 WINTER

The most recent national data are contained in staff reports prepared by our Bureau of Natural Gas in June and August 1976. These are based on formal curtailment projections—FPC form No. 16—filed by 50 interstate pipelines through April 30, 1976. It is projected that deliveries this winter will total 5.515 trillion cubic feet, a decrease of 156.82 billion cubic feet, or 3 percent from actual deliveries of 5.672

trillion cubic feet for the 1975–76 winter. For the 12-month period ending March 1977, the major interstate pipelines project that net curtailment of firm contractual requirements will be 3.625 trillion cubic feet, or 25 percent of total firm requirements. This compares to a 2.8 trillion cubic feet or approximately 20 percent curtailment of total firm requirements for the year ending March 1976. Last year's actual curtailment of 2.8 trillion cubic feet was slightly lower than our projection of 2.9 trillion cubic feet curtailment made in June 1975.

These data concern only curtailment of deliveries to the pipelines' customers. Also 90 percent of these sales are made to local distributors who in turn provide natural gas to most ultimate consumers. These data do not reflect the particular situation of each distributor which may be able to use natural gas from intrastate sources or its own storage fields as well as liquefied or synthetic natural gas.

Further, I wish to emphasize that there are a number of factors which can compound or mitigate the potential problems reflected in the information which I have provided. These include weather conditions, a warmer or colder than normal winter; continued conversion to alternate fuels or increased conservation by ultimate customers; reduced consumption by industrial users affected by general economic conditions; short-term emergency purchases or transportation of natural gas by pipeline companies; and last, increased use by industrial customers of the provisions, under the Commission's order No. 533, for direct transportation of intrastate gas purchased by industry for use in their own plants.

The Commission recognizes the limitations of its jurisdiction over distributors and service to ultimate customers. Recognizing the uncertainty about the impact of pipeline curtailment upon distributor service, in July of this year, we instituted an omnibus proceeding to evaluate the impact of natural gas shortages during the coming winter. Separate but similar hearings were ordered for 10 out of the 19 major pipelines which project curtailments of 20 percent this winter. These pipelines were required, and their customers were urged, to provide detailed information on (1) the impact of these projected shortages on their systems; (2) how they plan to deal with such shortages; and (3) the extent of supply or delivery flexibility and alternatives available to the pipelines and their customers to cope with anticipated curtailments.

Special emphasis was placed upon determining the possible extent and duration of interruptions in priority 1 and 2 services that includes residential and commercial deliveries as well as the highest priority industrial service for feedstock, plant protection, and process gas uses. We also required the introduction into evidence in each proceeding of a detailed computer analysis, on a State-by-State basis, of customer impact data filed with the FPC and FEA under our form No. 69 and FEA forms Nos. G–101–Q–O and G–101–P–O.

Hearings were held during August and September. By October 22, 1976, detailed staff reports were filed for each of the 19 pipelines. Our staff is now completing a summary and general analysis of this information. It will be furnished to the committee shortly. Assuming normal weather conditions this winter, these reports, with one possible exception, have not uncovered any unforeseen or unmanageable problems.

The exception is Transcontinental Gas Pipe Line Co., or Transco, for which the assembled data were found to be inconclusive as to curtailment impact upon ultimate end users. We intend to carefully monitor Transco's situation and will seek reopening of its impact proceeding if necessary.

Based upon staff analyses, the previously mentioned FEA–FPC study of distributor curtailment, and FEA projections of alternate fuel availability, these general conclusions can be drawn:

First, service to residential and small commercial customers should not be affected by curtailment this winter, even in the event of abnormally severe weather conditions.

Second, the burden of curtailment will again fall upon industrial customers, and to lesser extent upon large commercial customers whose consumption is less significant and whose service is generally given a higher priority under State allocation plans. During the last winter, we did not measure any significant or general dislocations in the industrial and commercial sectors that were attributable directly to natural gas curtailment. Under normal weather conditions, the additional increment of curtailment by interstate pipelines should not cause unmanageable problems for the industrial sector overall. We believe that distribution companies should be able to minimize somewhat the impact of pipeline curtailment on their customers.

Third, it appears that emergency purchases by interstate pipelines and by distribution companies, under our 60-day sale regulations, may offset about three-quarters of the incremental deficiency in deliveries for the oncoming winter season. During the previous winter heating season, emergency transactions provided approximately 115 billion cubic feet of natural gas. If those volumes are increased this year, the additional incremental deficiency of 156 billion cubic feet could be offset substantially. Also, we are hopeful that our recent actions in establishing new national rates for new gas supplies will have a substantial and beneficial effect in the immediate future.

Fourth, the impact of weather and temperature variations is crucially significant. Sustained and abnormally cold weather or the occurrence of a colder than normal winter—the coldest winter in a 10-year cycle—will force substantial additional curtailment to large commercial and industrial consumers because of the concomitant increases in temperature-sensitive requirements of residential and small commercial customers whose service must be afforded the highest priority due to safety considerations.

Because of variations in weather patterns, it is very difficult to quantify the impact of colder than normal weather on natural gas curtailment and alternate fuel availability. The Commission staff has identified the following 15 States which appear to be most susceptible to significant economic dislocation in the event of sustained abnormally cold weather. They are:

Alabama, Arizona, California, Delaware, Maryland, Indiana, Kentucky, Louisiana, Mississippi, Nevada, North Carolina, Ohio, Pennsylvania, South Carolina, and West Virginia.

Lastly, the committee has expressed interest in the status of underground storage facilities. Storage projects operated by individual distribution companies are beyond our jurisdiction. In our general statement of policy on curtailment service priorities, we stated that

gas required by distributors for injection into their storage facilities should be given the second highest priority along with the requirements of large commercial customers and the highest priority industrial requirements.

Thirty-three pipeline companies and five independent producers operate jurisdictional, underground, natural gas storage fields. These thirty-eight respondents report that the total volume available for withdrawel, working gas in storage, is 1,759 billion cubic feet as of October 1, 1976. This represents an increase of 115 billion cubic feet, or 9.4 percent of the comparable total reported for October 1, 1975. This is 1,759 billion cubic feet total as of the 1st of October is 99.3 percent of the total volume that was available for withdrawal on November 1, 1975, the beginning of the last winter heating season. Under normal weather conditions substantial quantities of gas are added to the underground storage inventory during the months of October and November. Therefore, Commission staff studies project a substantial increase over last year in the voume of gas that will be available for withdrawal from underground storage during the coming winter.

OVERVIEW OF RECENT FPC ACTIVITIES

I would now like to review briefly the Commission's actions to structure service under curtailment conditions and to alleviate our current natural gas shortage.

Curtailment plans

Each pipeline company experiencing curtailment files a formal tariff setting out the manner and priorities under which their customers' deliveries wil be interrupted. We have provided general guidance in our several statements of policy which express a preference for nine priorities of service based primarily on end-use of natural gas by the affected consumers and on the volume of daily delivery. The first priority is given to residential and small volume commercial service due to safety considerations. The second highest priority encompasses large commercial requirements and the most important industrial needs, which are feedstock—gas that is used because of its unique chemical properties, such as in the production of anhydrous ammonia fertilizer; plant protection gas to safeguard employees, equipment, and materials in an industrial facility that is shut down, and process uses that are defined as the industrial applications of gas for which the substitution of other fuels is not technicly feasible. The lowest priorities are assigned to boiler fuel requirements provided under firm contracts, and then to noncritical industrial requirements under interruptible service contracts.

The curtailment plan proposed by a particular pipeline, which may or may not conform to our generally stated policies, is then examined through an appropriate administrative procedure. Formal hearings have usually been required. These proceedings have been extraordinarily lengthy and have generated voluminous records because of the requirements of due process and the desires of affected distributors to present alternate plans and to carefully scrutinize the pipelines' proposals. Over the past year, on the basis of record evidence, we have prescribed curtailment plans for several major pipelines including

Southern Natural Gas Co., Panhandle Eastern Pipe Line Co., Arkansas-Louisiana Gas Co., and Transcontinental Gas Pipe Line Corp. Additionally, we have approved where appropriate settlement agreements between the parties which set out curtailment plans for Texas Gas Transmission Co. and North Penn Gas Co., among others. Now pending before the Commission are initial decisions or proposed settlements for Texas Eastern Transmission Corp., Columbia Gas Transmission Corp., and Mississippi River Transmission Co. We expect to act on these cases in the immediate future.

Our most recent curtailment order, opinion No. 778 issued October 8, 1976, establishes a permanent curtailment plan for Transcontinental Gas Pipe Line Corp. This opinion is notable in two respects. First, it is the first case where the Commission has completed the full evaluation of environmental consequences mandated by the National Environmental Policy Act. Previously, curtailment plans have been approved on an interim basis pending the preparation and consideration of an environmental impact statement.

Second, in recognition of Transco's particularly acute supply situation, the Commission has developed a unique exemption provision designed to protect residential and small commercial service by those distributors on the Transco system which lack the normal flexibility provided b yintrastate supplies, storage facilities, or liquefied and synthetic natural gas plants.

Extraordinary relief

Recognizing that inequities can result from the implementation of a general plan affecting thousands of individual customers, the Commission has established detailed procedures under which a special exemption or extraordinary relief can be sought. The jurisdictional customer, either a distributor or a consumer directly served by the pipeline may file a petition for extraordinary relief, which explains why a particular problem is so unusually severe as to require either an exemption from curtailment, or additional supplies that would not normally be available under the application of the pipeline's curtailment plan.

The Commission then reviews the petition and supporting documents to determine if interim relief should be provided on a temporary basis. The full request is then set for an evidentiary hearing before an administrative law judge. Of course, any grant of extraordinary relief reduces the volumes available to serve other customers. Therefore, relief petitioners are under a heavy burden to show why an equitable exemption is justified. Relief has generally been provided only in those cases where shutdown of a plant would cause substantial harm to a local community and there are no other options available to the customer.

For the coming winter, only one extraordinary relief petition has been filed so far, although many more are expected in the near future. Southland Gas Co. filed a petition for relief from curtailment by United Gas Pipe Line Co. to continue refining operations.

Emergency relief tariff provisions

Additionally, the Commission has stated a general policy that curtailment tariffs should contain specific emergency relief provisions that will provide for sufficient flexible responses by the pipeline

companies to emergency situations during periods of curtailment where short-term supplemental deliveries are required to forestall irreparable injury to life or property.

For example, failure of alternate fuel equipment or a drastic increase in the level of curtailment might force an industrial consumer to immediately shut down operations in such a precipitous manner that production facilities could be permanently damaged. In that case, the customer through its distributor can request an immediate short-term supply from the pipeline to support a safe and orderly phase-down of operations or to allow time for the filing of a long-term extraordinary relief request with the Commission.

ACTIONS INTENDED TO REVERSE THE CONTINUING DECLINE IN DELIVERIES TO THE INTERSTATE MARKET

Of course, this committee and the Commission are acutely aware of our worsening natural gas shortage and the decline in deliveries and dedications to the interstate market. The current figures are stark and extremely unsettling. In 1973 the total volume of jurisdictional natural gas sold by domestic producers to interstate pipelines was 12.9 Tcf. This amount declined to 12.2 Tcf in 1974, and further declined to 11.4 Tcf in 1975.

While interstate sales beyond our jurisdiction have also fallen, the intrastate market has obtained an increasing majority of gas reserve additions during the past few years. In 1966, reserve additions from the lower 48 States totaled 14.8 Tcf. Of this volume, 10.0 Tcf or 68 percent was committed to the interstate market. By 1971, total reserve additions were 11.1 Tcf; and only 2.2 Tcf or 20 percent was committed to the interstate market. Preliminary estimates for 1975 indicate that 10.0 Tcf of gas reserves were added. Only 1.3 Tcf or 13 percent of these reserves were committed to the interstate market. It can be inferred that the remaining 8.7 Tcf or 87 percent of the total was lost to the intrastate market.

I believe that the critical state of affairs outlined in these data mandates further administrative actions by the Federal Power Commission and a legislative response by the Congress. In recent months, the Commission has acted forthrightly to fulfill our statutory responsibility to provide natural gas at the lowest possible rates consistent with the maintenance of adequate and reliable service. The balancing of these twin considerations is not easy; but I am confident that our recent initiatives have been undertaken in a responsible and prudent manner and meet the just and reasonable test of the Natural Gas Act.

I would like to highlight some of these actions including the establishment of a cost-based national rate structure, increased enforcement of producer deliverability obligations, and our statement of a general policy permitting curtailed industrial customers to compete in the intrastate market for gas supplies urgently needed to fuel their highest priority requirements. The effect of our 60-day emergency sales regulations should be noted also.

National rate structure

On last Friday, the Commission issued opinion No. 770–A concluding the rehearing of our national rate determination for the current

biennium. With some revisions, this order largely affirms our original opinion No. 770 issued on July 27, 1976. We have adopted a total rate structure to motivate private producers to fully develop the Nation's natural gas resources while assuring that the consumer will receive an adequate supply of gas at a reasonable rate. This total rate structure represents a solution capable of equitably reconciling the diverse and conflicting interests which were presented by the record in that proceeding.

Producer delivery obligation

On several prior occasions, substantial testimony on producer delivery obligations has been presented to this committee. I would like to note two recent orders of the Commission. Beginning with order No. 539, issued on October 14, 1975, we reiterated our intent and policy to strictly enforce producer delivery obligations under production certificates.

In order No. 539–B, issued on July 30, 1976, we amended our regulations to require that all future certificates of public convenience and necessity covering the sale of natural gas in interstate commerce must contain an explicit condition incorporating into the certificate all contractual delivery obligations between buyer and seller, and further requiring that the seller "shall observe the standard of a prudent operator to develop and maintain deliverability from reserves dedicated to interstate commerce under the certificate. It is our intent to vigorously enforce this prudent operator standard through staff field investigations and formal evidentiary proceedings where necessary.

Our recent decision in the *Gulf Oil* case is also quite significant. In November of 1975 we ordered Gulf Oil Corp. to show cause why it should not be found in violation of its certificate obligations for failure to fully perform a warranty sales contract requiring the daily delivery of 500,000 Mcf or more to Texas Eastern Transmission Corp. Opinion No. 780, issued on October 15, 1976, followed the completion of hearings and the issuance of an initial decision by an administrative law judge. We found that Gulf has indeed failed to fulfill its obligations for several years and ordered strict compliance with the contract delivery terms by December 15, 1976. Further, we required Gulf to make refunds to Texas Eastern, for flow-through to its customers, for each Mcf of gas that has not been delivered, based on the difference between the contract price and the applicable national ceiling rate.

Direct transportation and emergency sales regulations

Also, I would like to call to the committee's attention the Commission's general policy statements concerning 60-day emergency sales and deliveries (sections 2.68, 157.22 and 157.29 of our Regulations). These policy statements had a significant impact in reducing the effect of curtailment during last winter, and they are expected to be even more important this year.

In Order No. 533, issued on August 28, 1975, the Commission encouraged the direct purchase of natural gas from independent producers by high priority customers of jurisdictional pipelines and distribution companies in curtailment. The direct sale transaction is not subject to our rate jurisdiction, but the transportation of the gas by jurisdictional pipelines must be approved by the Commission. This

policy statement applies only when the industrial or commercial customer can reasonably anticipate curtailment of its large commercial requirements or its industrial requirements for feedstock, plant protection and process uses. The transporting pipelines must be curtailing deliveries of gas and have available unused capacity to transport the directly purchased supplies. Since the issuance of Order No. 533 we have reviewed and approved 31 transportation applications. Involved are daily deliveries to specific customers ranging from 74 Mcf per day to 6,228 Mcf per day, and averaging 1,617 Mcf per day. In the past 2 months, 11 additional transportation applications have been filed and are under review. The average volume is 1,489 Mcf per day, and the requested amounts vary from 300 Mcf to 3,317 Mcf per day.

Under sections 2.68 and 157.29 of our regulations nonjurisdictional distribution companies, intrastate pipelines, and independent producers are encouraged to aid jurisdictional distributors and pipelines in need of temporary emergency supplies by making short-term sales or deliveries of natural gas into interstate commerce for periods of up to 60 days. These sales or deliveries are exempted from our rate and certificate jurisdiction. From September 1974 through June 1976, approximately 176 Bcf of natural gas was sold by producers and intrastate pipelines to interstate pipelines under the 60-day emergency provisions. As noted earlier, it appears to our staff that emergency purchases by distributors and interstate pipelines may offset about three-quarters of the incremental delivery deficiency projected for this winter heating season. During last winter, emergency transactions totaled roughly 115 Bcf. This can be compared to the estimated deficiency in net deliveries from the 1976–77 winter of approximately 156 Bcf.

Also, testimony in the previously mentioned Transco impact proceeding indicated that 30 to 40 Bcf of emergency gas may be purchased by Transco for its distributors for delivery during this winter heating season.

LIMITATIONS ON JURISDICTION

Last, I would like to explain briefly the relevant limitations on our authority under the Natural Gas Act. First, our jurisdiction is limited to sales and transportation of natural gas in interstate commerce, where gas in produced in whole or in part in one State and consumed in another.

Second, our direct curtailment authority extends only to sales by the pipeline companies. We have not, and almost certainly cannot, assert complete "burner tip" jurisdiction. The end use requirements of ultimate consumers are examined to determine each distributor's entitlement under the pipeline curtailment plan; but the reallocation of that volume among consumers can proceed in a very different fashion according to local regulatory requirements. While many State regulatory commissions have adopted end use plans similar to ours, they are not required to do so.

Finally, there is the question of allocations and interconnections between interstate pipelines. In our order of July 20, 1976, instituting 19 curtailment impact proceedings, we encouraged the respondent pipelines to discuss the possibility of voluntary transfers to meet emergency conditions and provided for the attendance of Justice

Department observers at these hearings in order to minimize potential antitrust problems. Unfortunately, there is no evidence that any voluntary transfer agreements have been negotiated. There has been considerable debate over the legality and enforceability of any order which would require emergency allocations or interconnections, even where a threat to life or property is involved. The extent of our authority is unclear and has never been tested.

Mr. Chairman, I would like to request leave to file within 2 weeks corrected and supplemented testimony to which I will append the various orders and reports that have been discussed. Three additional reports will also be available at that time: analysis of form 16 curtailment data filed by the major pipelines on September 30, 1976; a general analysis plus summaries of the 19 staff reports on curtailments by particular pipelines projecting curtailment of 20 percent or more; and an updated report on 60-day emergency purchases. I hope that this information will be particularly helpful to the committee.

[The material referred was received for the record:]

FEDERAL POWER COMMISSION

NEWS RELEASE WASHINGTON, D.C. 20426

IMMEDIATE RELEASE
DECEMBER 6, 1976 No. 22761
Projected Gas Curtailment Report

FPC RELEASES REPORT ON 1976-77 PROJECTED

NATURAL GAS PIPELINE CURTAILMENTS

The Federal Power Commission today released a staff report estimating that natural gas curtailments for major interstate pipelines will be almost 3.8 trillion cubic feet for the 12-month period September 1976 through August 1977, compared to actual curtailments of about 3 trillion cubic feet for the previous 12-month period.

Estimated curtailments for the year ending August 1977 are thus expected to exceed the preceding year's curtailments by 794.8 billion cubic feet, or 26.71 percent. Last year's actual curtailment of 3 trillion cubic feet was slightly less than the 3.2 trillion cubic feet projected in November 1975.

The term "curtailment" as used in this report means the difference between the amounts of gas a pipeline is required to deliver, by contract or otherwise, and the amounts it is actually able to deliver.

The report shows the estimated curtailments to be almost 26 percent of total firm requirements. Thus, pipelines project they will be able to deliver only 74 percent of the gas they are committed to deliver, as opposed to the approximately 75 percent they were able to deliver last year. It must be noted, however, that this is a national average and there will be significant variances in various regions reflecting the actual supply situation of the particular pipeline serving the particular region or state.

(over)

Actual net curtailments from November 1975 through March 1976 were 1.27 trillion cubic feet, and projected curtailments for the November 1976-77 period are 1.53 trillion cubic feet, a 20.81 percent increase over last year's heating season.

The current staff report shows for the first time a comparison of actual and projected heating season firm deliveries. This comparison shows that in September the pipelines projected an incremental (over last winter) deficiency of firm gas deliveries for this winter of 127 billion cubic feet, a revision downward from the 154 billion projected in the April filing.

The report points out that several major factors have served to ameliorate the impact of pipeline curtailments on the ultimate consumer. These factors include warmer-than-normal winter weather, continued conversion to alternate fuels, conservation by fuel consumers, reduced gas demands by industrial users affected by economic recession, increase in privately-owned natural and synthetic gas supplies by distribution companies, emergency purchases or transportation of natural gas by or through interstate pipeline companies, and continued expansion of underground storage capability.

The impact of interstate pipeline curtailments upon ultimate consumers cannot be determined from this report. However, the Commission currently participates jointly with the Federal Energy Administration in developing information to determine impact on ultimate consumers. The results of the most recent study were released by FEA last November 12.

Today's report was prepared by the FPC's Bureau of Natural Gas and is based on data collected on the Commission's Form 16, filed by the pipelines in April and September of each year. Actual or projected curtailments were reported by 29 of 52 interstate pipeline companies in their September 1976 reports.

(over)

Today's report notes that the estimated curtailments represent those by interstate natural gas pipeline companies to their customers. About 90 percent of gas sold by interstate pipeline companies is delivered to distributors who in turn sell gas to ultimate consumers. These distributor sales are under state regulation.

The complete text of the staff report accompanies the news release.

-FPC-

For further information
call 275-4006 (Area Code 202) 114-DC

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FEDERAL POWER COMMISSION

REQUIREMENTS AND CURTAILMENTS OF INTERSTATE PIPELINE COMPANIES BASED ON FORM 16 REPORTS REQUIRED TO BE FILED ON SEPTEMBER 30, 1976

BUREAU OF NATURAL GAS
STAFF REPORT

Washington, D. C.
November 1976

Form 16 Reports Required To Be Filed On September 30, 1976

On August 24, 1973, as amended on February 6, 1975, the Commission Issued Order Nos. 489 and 523, respectively, in Docket No. R-472 establishing Form No. 16, Report of Gas Supply, Requirements, and Curtailments. The report is to be filed twice each year on April 30 and September 30 by pipeline companies making sales of natural gas for resale in interstate commerce. The April 30 filings present supply, requirements, and curtailment data on a monthly basis for the past year, April through March, and projected data for the following one-year period, April through March. The September 30 filings present actual data for the past year, September through August, and projected data for the following year, September through August.

This report summarizes the data in the Form 16 filings which were due on September 30, 1976, as filed by 52 pipeline companies. 1/ Based on the filings made by the 52 pipelines, this report provides actual requirements and curtailment data for the period September 1, 1975, through August 31, 1976, and projected requirements and supply deficiency data for the period September 1, 1976, through August 31, 1977. Requirements less curtailments reflect the deliveries of available gas supplies.

Curtailment of Firm Service

The following is a summary indicating the progressive increase in curtailments of firm service reported by the interstate pipeline companies since the Form 16's have been filed.

1/ A number of other companies were exempted from filing Form 16 by several Commission orders.

Net Firm Curtailments
(Excludes Curtailments by Pipelines of Other Reporting Pipelines)

	Actual
Sept. 1972 - August 1973 2/	1,031,254,000 Mcf
April 1973 - March 1974	1,191,132,000
Sept. 1973 - August 1974	1,361,871,000
April 1974 - March 1975	2,013,132,000
Sept. 1974 - August 1975	2,418,175,000
April 1975 - March 1976	2,800,700,000
Sept. 1975 - August 1976	2,975,695,000
	Projected
Sept. 1976 - August 1977	3,770,538,000 Mcf

Schedule I, attached, shows the actual firm requirements and percent of such requirements curtailed for the year September 1, 1975, through August 31, 1976, for each of the 52 companies listed in the schedule. For comparison, their projected firm requirements, projected supply deficiency and percent deficiency for the following year (September 1, 1976 - August 31, 1977) are also shown. After elimination of the curtailments of reporting pipelines to other reporting pipelines, a net actual curtailment of 2,975,695,000 Mcf of firm requirements is shown for the year September 1975 through August 1976. For the following year, net supply deficiencies of 3,770,538,000 were projected. Thus, the anticipated supply deficiencies for September 1976 through August 1977 exceed the curtailments in the previous year by 794,843,000 Mcf or 26.71%. Of the 52 listed companies 29 reported actual firm curtailments in the year just ended and 29 reported firm curtailments in the September 1976 - August 1977 period.

Schedule II compares the actual requirements and curtailments during the November 1975 - March 1976 heating season as reported on April 30, 1976, with the September 30, 1976, filing of projected heating season data for the period November 1976 - March 1977. Actual net curtailments from November 1975

2/ Compiled prior to promulgation of Form 16 (a special ad hoc report).

through March 1976, were reported as 1,265,534,000 Mcf. The net curtailments projected in the September 30, 1976, report for the November 1975 - March 1977, period are 1,528,941,000 Mcf. The anticipated change in curtailment amounts to 263,407,000 Mcf or 20.81%.

Schedule III compares the projections of the April 30, 1976, report with those of the September 30, 1976, report for firm requirements and deficiencies during the heating season of November 1, 1976, through March 31, 1977. The April 30 report projected net curtailments as 1,595,237,000 Mcf compared to 1,528,941,000 Mcf projected in the September 30 report. This is a projected decrease of 66,296,000 Mcf or 4.16%.

Curtailment of Interruptible Sales

Schedules IV, V and VI give data on interruptible requirements and curtailments on a basis comparable to Schedules I, II and III, which deal with firm gas. Schedule IV compares the actual interruptible requirements and curtailments for the year September 1975 - August 1976, with those projected for the year September 1976 - August 1977. The net curtailments are 444,341,000 Mcf and 454,812,000 Mcf, respectively, an increase in curtailments of 10,471,000 Mcf or 2.36%.

Curtailments of interruptible customers are based on reductions in normal deliveries to such customers (i.e. curtailments over and above normal curtailments of interruptible load).

Schedule V compares the actual requirements and curtailments reported in the April 30, 1976, filings for the November 1975 - March 1976, heating season with the projections for the November 1976 - March 1977 period as reported in the September 30, 1976, filing. The actual net curtailed volume was 143,607,000 Mcf as compared to the 227,353,000 Mcf projected for the current heating season. The change amounts to 83,746,000 Mcf more curtailment of interruptible sales or 58.32%.

Schedule VI compares the projections for the heating season of November 1976 - March 1977 which were made in the April 30, 1976 filings with those made as of September 30, 1976. The

earlier filings project the net curtailments to be 137,751,000 Mcf while the September 30, 1976, filing projects 227,353,000 Mcf of net curtailments. The difference amounts to 89,602,000 Mcf or 65.05% more curtailment.

Service Areas Affected By Curtailments

Appendix A lists the service area regions in which the various interstate pipelines operate. Appendix B lists the states composing the service area regions.

Firm Natural Gas Deliveries

Firm natural gas deliveries are the difference between firm requirements and curtailments of firm service as reported by the 52 respondent pipeline companies. As such, natural gas deliveries are an estimate of the amount of gas these pipeline companies will have available to serve their customers. In view of the continuing decline in natural gas availability and the attendant uncertainity as to the significance of the terms "requirements" and "curtailments", Schedule VII showing a comparison of actual 1975-1976 heating season firm deliveries and projected firm deliveries for the 1976-1977 heating season as indicated in the April 30, 1976, and September 30, 1976, filings of the Form 16's has been added to this report. This schedule shows that in April the pipeline companies projected an incremental deficiency of firm natural gas deliveries for this winter of 154 billion cubic feet. This incremental deficiency in deliveries has been revised downward to 127 billion cubic feet in the September filing. 3/

End-Use Impact of Interstate Pipeline Curtailments

It should be carefully noted that the curtailments shown in this report represent curtailments by interstate natural gas pipeline companies to their customers. Since about 90 percent of gas sold by interstate pipeline companies is delivered to distributors who in turn provide natural gas to ultimate consumers, the curtailments shown in this report are largely curtailments at the wholesale level.

3/ Certain other revisions in reported projected heating season data are evident and are currently being investigated by staff.

Several major factors have served to ameliorate the impact of pipeline curtailments upon the ultimate consumer. These factors include warmer-than-normal winter weather, continued conversion to alternate fuels, conservation by fuel consumers, reduced gas demands due to industrial activity impacted by economic recession, increase in privately owned natural and synthetic gas supplies by distribution companies, emergency purchases or transportations of natural gas by or through interstate pipeline companies, and continued expansion of underground storage capability by interstate pipelines and distribution companies.

The impact of interstate pipeline curtailments upon ultimate consumers cannot be determined from this report. However, the Commission currently participates on a joint basis with the Federal Energy Administration in developing information directed at the end-user level to determine the impact of the curtailments to ultimate consumers. The results of the most recent survey, based on FPC Form No. 69, and FEA Form No. G-101-P-1 were released November 12, 1976, by the Federal Energy Administration in a report entitled, "Projected Natural Gas Curtailments and Potential Needs for Additional Alternate Fuels, 1976-1977 Heating Season".

In addition to this joint survey, the Federal Power Commission published on October 6, 1976, Commission staff reports in Docket No. RP76-16, et al., (the so called omnibus hearings) which examined among other things the end-use impact of curtailments on the customers of 19 pipeline companies whose FPC Form No. 16's had projected the most significant levels of curtailments this winter. A summary of these reports is being prepared for issue as an FPC News Release in the near future.

Schedule No. 1A of FPC Form 16

Schedule No. 1A of Form 16 was promulgated by Commission Order No. 523 issued February 6, 1975, in Docket No. R-472. It gives customer-by-customer details of requirements, deliveries and curtailments, by states, for those customers normally receiving 100,000 Mcf or more per year and combined data for the remainder.

Detailed state summaries of the Schedule 1A data are being computerized and printouts will be available at a later date.

APPENDIX A

Pipeline Companies Servicing Gas Requirements Committee Regions

Pipeline	1	2	3	4	5	6	7	8	9	10
Alabama-Tennessee Natural Gas Company			X				X			
Algonquin Gas Transmission Company	X	X								
Arkansas Louisiana Gas Company						X	X			
Bluefield Gas Company		X								
Caprock Pipeline Company							X			
Cities Service Gas Company					X	X	X			
Colorado Interstate Gas Company						X	X	X		
Columbia Gas Transmission Corp.		X								
Commercial Pipeline Company, Inc.						X				
Consolidated Gas Supply Corp.		X					X			
East Tennessee Natural Gas Company		X	X							
Eastern Shore Natural Gas Company		X								
El Paso Natural Gas Company						X	X	X	X	X
Florida Gas Transmission Company			X				X			
Grand Gas Corporation								X		
Granite State Gas Transmission, Inc.	X									
Great Lakes Gas Transmission Company				X	X					
Inter-City Minnesota Pipeline Ltd.					X					
Kansas-Nebraska Natural Gas Company					X	X	X	X		
Kentucky-West Virginia Gas Company		X								
Lawrenceburg Gas Tranmsission Corp.		X		X						
Louisiana-Nevada Transit Company							X			
McCulloch Interstate Gas Corp.								X		
Michigan Wisconsin Pipe Line Company		X	X	X	X	X	X			
Mid Louisiana Gas Company							X			
Midwestern Gas Transmission Company				X	X	X				
Mississippi River Transmission Corp.				X		X	X			
Montana-Dakota Utilities Company					X			X		
National Fuel Gas Supply Corp.		X								
Natural Gas Pipeline Co. of America				X	X	X	X		X	
North Penn Gas Company		X								
Northern Natural Gas Company				X	X	X	X	X	X	
Northwest Pipeline Corp.								X		X
Pacific Gas Transmission Company									X	X
Panhandle Eastern Pipeline Company		X		X		X	X			
South Georgia Natural Gas Company			X				X			
South Texas Natural Gas Gathering Co.							X			
Southern Natural Gas Company			X				X			
Tennessee Gas Pipeline Company, A Division of Tenneco, Inc.		X	X	X			X			

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Pipeline Companies Servicing Gas Requirements Committee Regions

Pipeline	1	2	3	4	5	6	7	8	9	10
Tennessee Natural Gas Lines, Inc.			X							
Texas Eastern Transmission Corp.		X	X	X		X	X			
Texas Gas Pipe Line Corp.							X			
Texas Gas Transmission Corp.		X	X	X			X			
Transcontinental Gas Pipe Line Corp.		X	X				X			
Transwestern Pipeline Company						X	X		X	
Trunkline Gas Company		X	X	X			X			
United Gas Pipe Line Company			X				X			
Valley Gas Transmission Inc.							X			
West Texas Gathering Company							X			
Western Gas Interstate Company						X	X		X	
Western Transmission Corp.								X		

Note: Some companies may have minor service in some areas not designated in this schedule.

Gas Requirements Committee Regions are those defined by the Gas Requirements Committee of the gas industry as shown on Appendix B.

APPENDIX B

Gas Requirements Committee Regions

1. NEW ENGLAND
   Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

2. APPALACHIAN
   Delaware, District of Columbia, Kentucky, Maryland, New Jersey, New York, Ohio, Pennsylvania, Virginia, West Virginia

3. SOUTHEAST
   Alabama, Florida, Georgia, North Carolina, South Carolina, Tennessee

4. GREAT LAKES
   Illinois, Indiana, Michigan, Wisconsin

5. NORTHERN PLAINS
   Iowa, Minnesota, Nebraska, North Dakota, South Dakota

6. MID-CONTINENT
   Kansas, Missouri, Oklahoma

7. GULF COAST
   Arkansas, Louisiana, Mississippi, Texas

8. ROCKY MOUNTAIN
   Colorado, Montana, Utah, Wyoming

9. PACIFIC SOUTHWEST
   Arizona, California, Nevada, New Mexico

10. PACIFIC NORTHWEST
    Idaho, Oregon, Washington

Schedule 1

Comparison of Actual Firm Requirements and Firm Curtailments
For Year September 1975, through August 1976, with Projections
For Year September 1976, through August 1977

	Total for Year September 1975-August 1976 Actual			Total for Year September 1976-August 1977 Projected		
	Firm Requirements (Mcf)	Firm Curtailments (Mcf)	Percent Curtailed	Firm Requirements (Mcf)	Firm Deficiency (Mcf)	Percent Curtailed
Alabama-Tennessee Natural Gas Company	30,063,000	2,879,000	9.58	31,998,000	6,396,000	19.99
Algonquin Gas Transmission Company	143,932,000	14,868,000	10.32	147,995,000	16,813,000	11.36
Arkansas Louisiana Gas Company	476,647,000	167,106,000	34.01	514,278,000	201,771,000	39.08
Bluefield Gas Company	1,044,000	-0-	-0-	1,104,000	-0-	-0-
Cayrock Pipeline Company	1,458,000	-0-	-0-	1,836,000	-0-	-0-
Cities Service Gas Company	446,516,000	127,044,000	23.24	586,733,000	168,322,000	28.69
Colorado Interstate Gas Company	351,000,000	111,000	0.03	360,398,000	-0-	-0-
Columbia Gas Transmission Corporation	1,391,364,000	344,658,000	24.77	1,447,830,000	404,901,000	28.06
Commercial Pipeline Company, The	366,000	-0-	-0-	366,000	-0-	-0-
Consolidated Gas Supply Corporation	665,777,000	73,457,000	11.03	691,141,000	67,506,000	9.77
East Tennessee Natural Gas Company	80,329,000	24,734,000	30.80	80,263,000	23,577,000	29.37
Eastern Shore Natural Gas Company	5,820,000	985,000	17.10	6,825,000	3,102,000	45.46
El Paso Natural Gas Company	1,386,649,000	231,377,000	16.69	1,421,334,000	430,471,000	30.22
Florida Gas Transmission Company	35,853,000	-0-	-0-	36,538,000	-0-	-0-
Gas Gathering Corporation	2,312,000	-0-	-0-	2,140,000	-0-	-0-
Granite State Gas Transmission, Inc.	3,599,000	-0-	-0-	3,738,000	-0-	-0-
Great Lakes Gas Transmission Company	89,545,000	-0-	-0-	88,741,000	-0-	-0-
Industrial Gas Corporation	5,368,000	-0-	-0-	4,983,000	-0-	-0-
Inter-City Minnesota Pipelines, Ltd.	7,832,000	-0-	-0-	7,342,000	-0-	-0-
Kansas-Nebraska Natural Gas Company	88,359,000	-0-	-0-	86,354,000	-0-	-0-
Kentucky-West Virginia Gas Company	26,810,000	-0-	-0-	27,127,000	-0-	-0-
Lawrenceburg Gas Transmission Corporation	5,523,000	1,428,000	25.86	5,523,000	1,980,000	35.85
Louisiana-Nevada Transit Company	4,166,000	365,000	8.76	4,630,000	682,000	14.73
McCulloch Interstate Gas Corporation	5,827,000	-0-	-0-	3,740,000	-0-	-0-
Michigan Wisconsin Pipe Line Company	836,092,000	61,813,000	7.39	836,510,000	101,925,000	12.19
Mid Louisiana Gas Company	29,050,000	4,330,000	14.91	31,270,000	8,611,000	27.54
Midwestern Gas Transmission Company	328,050,000	37,807,000	11.57	326,700,000	45,807,000	14.02
Mississippi River Transmission Corporation	205,821,000	-0-	-0-	224,394,000	778,000	0.35
Montana-Dakota Utilities Company	35,932,000	-0-	-0-	39,358,000	-0-	-0-
National Fuel Gas Supply Corporation	196,175,000	-0-	-0-	228,069,000	25,044,000	10.98
Natural Gas Pipeline Company of America	1,219,388,000	230,149,000	18.87	1,222,061,000	264,977,000	21.68
North Penn Gas Company	24,370,000	-0-	-0-	26,860,000	-0-	-0-
Northern Natural Gas Company	816,543,000	62,210,000	7.62	861,457,000	169,101,000	19.63
Northwest Pipe Line Corporation	436,672,000	47,787,000	10.94	440,146,000	38,100,000	8.66
Pacific Gas Transmission Company	366,341,000	-0-	-0-	360,365,000	-0-	-0-
Panhandle Eastern Pipe Line Company	721,261,000	176,204,000	24.29	732,200,000	187,141,000	75.56
South Georgia Natural Gas Company	11,767,000	15,000	0.12	14,848,000	251,000	1.69
South Texas Natural Gas Gathering Company	38,007,000	-0-	-0-	31,376,000	-0-	-0-
Southern Natural Gas Company	639,817,000	83,629,000	13.38	667,279,000	126,487,000	18.94
Tennessee Gas Pipeline Company	1,313,272,000	211,740,000	16.12	1,317,104,000	239,857,000	18.21
Tennessee Natural Gas Lines, Inc.	27,214,000	1,325,000	4.87	33,547,000	7,101,000	21.28
Texas Eastern Transmission Corporation	1,009,526,000	275,178,000	27.26	1,016,044,000	281,482,000	27.70
Texas Gas Pipe Line Corporation	2,001,000	-0-	-0-	2,286,000	-0-	-0-
Texas Gas Transmission Corporation	758,036,000	158,951,000	20.97	771,162,000	219,584,000	28.47
Transcontinental Gas Pipe Line Corporation	1,039,029,000	395,224,000	38.04	1,065,320,000	489,637,000	46.84
Transwestern Pipeline Company	367,798,000	105,781,000	28.76	368,796,000	145,701,000	39.72
Trunkline Gas Company	595,542,000	252,424,000	42.39	594,972,000	220,456,000	37.05
United Gas Pipe Line Company	1,582,645,000	747,476,000	47.23	1,605,927,000	871,261,000	54.25
Valley Gas Transmission, Inc.	7,940,000	-0-	-0-	6,369,000	-0-	-0-
West Texas Gathering Company	86,650,000	-0-	-0-	80,270,000	-0-	-0-
Western Gas Interstate Company	7,928,000	103,000	1.30	9,517,000	-0-	-0-
Western Transmission Corporation	1,676,000	-0-	-0-	2,227,000	-0-	-0-
Totals	18,063,124,000	3,838,168,000	21.25	18,456,418,000	4,768,744,000	25.84
Less transactions between respondent pipelines	3,912,361,000	862,473,000		3,922,061,000	998,206,000	
Net Totals	14,150,763,000	2,975,695,000	21.03	14,534,357,000	3,770,538,000	25.94

SCHEDULE II

Comparison of April 30, 1976, Report and September 30, 1976, Report of
Actual and Projected Firm Requirements and Curtailments
For Heating Season

	April 30, 1976 Report Heating Season - November 1975-March 1976 Actual			September 30, 1976 Report Heating Season - November 1976-March 1977 Projected		
	Firm Requirements (Mcf)	Firm Curtailments (Mcf)	Percent Deficient	Firm Requirements (Mcf)	Deficiency	Percent Deficient
Alabama-Tennessee Natural Gas Company	15,540,000	3,351,000	21.56	16,122,000	4,589,000	28.46
Algonquin Gas Transmission Company	86,914,000	12,407,000	14.19	88,211,000	11,973,000	13.57
Arkansas Louisiana Gas Company	218,743,000	66,671,000	30.46	242,774,000	81,985,000	33.77
Bluefield Gas Company	775,000	-0-	-0-	759,000	-0-	-0-
Caprock Pipeline Company	721,000	-0-	-0-	412,000	-0-	-0-
Cities Service Gas Company	280,467,000	72,626,000	25.89	301,745,000	91,674,000	30.31
Colorado Interstate Gas Company	181,430,000	98,000	0.01	190,937,000	-0-	-0-
Columbia Gas Transmission Corporation	847,997,000	244,875,000	28.88	845,260,000	210,275,000	24.88
Commerical Pipeline Company, The	301,000	-0-	-0-	254,000	-0-	-0-
Consolidated Gas Supply Corporation	333,683,000	17,718,000	5.31	359,074,000	24,297,000	6.76
East Tennessee Natural Gas Company	40,282,000	10,172,000	25.25	40,480,000	8,935,000	22.07
Eastern Shore Natural Gas Company	3,442,000	726,000	21.09	3,262,000	1,860,000	57.02
El Paso Natural Gas Company	596,219,000	-0-	18.73	607,477,000	177,466,000	29.21
Florida Gas Transmission Company	19,193,000	-0-	-0-	19,446,000	-0-	-0-
Gas Gathering Corporation	959,000	-0-	-0-	890,000	-0-	-0-
Granite State Gas Transmission, Inc.	2,065,000	-0-	-0-	2,117,000	-0-	-0-
Great Lakes Gas Transmission Company	36,966,000	-0-	-0-	36,895,000	-0-	-0-
Industrial Gas Corporation	2,395,000	-0-	-0-	2,086,000	-0-	-0-
Inter-City Minnesota Pipelines, Ltd.	3,932,000	-0-	-0-	3,474,000	-0-	-0-
Kansas-Nebraska Natural Gas Company	39,273,000	-0-	-0-	41,509,000	-0-	-0-
Kentucky-West Virginia Gas Company	11,458,000	-0-	-0-	11,662,000	-0-	-0-
Lawrenceburg Gas Transmission Corporation	2,299,000	535,000	23.27	2,299,000	810,000	35.23
Louisiana-Nevada Transit Company	1,915,000	341,000	17.81	2,150,000	496,000	23.07
McCulloch Interstate Gas Corporation	2,333,000	-0-	-0-	1,602,000	-0-	-0-
Michigan Wisconsin Pipe Line Company	439,179,000	17,707,000	4.03	454,311,000	42,355,000	9.32
Mid Louisiana Gas Company	12,404,000	1,480,000	11.93	16,246,000	3,604,000	22.18
Midwestern Gas Transmission Company	140,130,000	21,048,000	15.02	138,858,000	20,601,000	14.84
Mississippi River Transmission Corporation	138,187,000	-0-	-0-	132,606,000	-0-	-0-
Montana-Dakota Utilities Company	26,220,000	-0-	-0-	25,065,000	-0-	-0-
National Fuel Gas Supply Corporation	121,137,000	-0-	-0-	135,691,000	15,168,000	11.18
Natural Gas Pipeline Company of America	523,381,000	11,968,000	2.29	525,535,000	31,851,000	6.06
North Penn Gas Company	15,387,000	-0-	-0-	15,424,000	-0-	-0-
Northern Natural Gas Company	410,919,000	40,142,000	9.77	413,425,000	57,381,000	13.88
Northwest Pipe Line Corporation	222,600,000	44,262,000	19.88	219,927,000	38,100,000	17.32
Pacific Gas Transmission Company	161,312,000	-0-	-0-	153,839,000	-0-	-0-
Panhandle Eastern Pipe Line Company	350,783,000	79,475,000	22.66	356,962,000	79,812,000	22.36
South Georgia Natural Gas Company	6,550,000	4,000	0.06	8,206,000	48,000	0.56
South Texas Natural Gas Gathering Company	15,283,000	-0-	-0-	13,559,000	-0-	-0-
Southern Natural Gas Company	273,256,000	1,085,000	0.40	303,213,000	30,822,000	10.17
Tennessee Gas Pipeline Company	622,873,000	96,347,000	15.50	559,654,000	91,148,000	16.29
Tennessee Natural Gas Lines, Inc.	18,682,000	3,690,000	19.75	19,509,000	4,211,000	21.59
Texas Eastern Transmission Corporation	443,660,000	104,012,000	23.44	450,726,000	111,435,000	24.73
Texas Gas Pipe Line Corporation	668,000	-0-	-0-	967,000	-0-	-0-
Texas Gas Transmission Corporation	341,711,000	34,176,000	10.02	353,418,000	83,339,000	23.58
Transcontinental Gas Pipe Line Corporation	483,167,000	145,985,000	30.21	509,279,000	189,019,000	37.12
Transwestern Pipeline Company	157,515,000	45,885,000	28.77	151,512,000	57,704,000	38.09
Trunkline Gas Company	249,107,000	111,053,000	44.58	247,951,000	90,285,000	36.41
United Gas Pipe Line Company	691,618,000	300,773,000	43.49	705,176,000	354,179,000	50.23
Valley Gas Transmission, Inc.	3,083,000	-0-	-0-	2,700,000	-0-	-0-
West Texas Gathering Company	39,700,000	-0-	-0-	35,030,000	-0-	-0-
Western Gas Interstate Company	3,145,000	103,000	3.28	3,599,000	-0-	-0-
Western Transmission Corporation	541,000	-0-	1/	922,000	-0-	-0-
Totals	8,612,562,000	1,598,199,000	18.56	8,772,177,000	1,915,130,000	21.83
Less transactions between respondent pipelines	1,627,184,000	332,665,000		1,650,213,000	386,189,000	
Net Totals	6,985,378,000	1,265,534,000	18.12	7,121,964,000	1,528,941,000	21.47

1/ Western Transmission Corporation data not included in April 30, 1976, report totals. Data not received in time.

SCHEDULE III

Comparison of April 30, 1976, Report and September 30, 1976, Report of Projected Firm Requirements and Curtailments for Heating Season November 1976 - March 1977

	April 30, 1976 Projected			September 30, 1976 Projected		
	Firm Requirements (Mcf)	Deficiency (Mcf)	Percent Deficient	Firm Requirements (Mcf)	Deficiency (Mcf)	Percent Deficient
Alabama-Tennessee Natural Gas Company	16,122,000	4,589,000	28.46	16,122,000	4,589,000	28.46
Algonquin Gas Transmission Company	89,691,000	13,773,000	15.36	88,711,000	11,979,000	13.57
Arkansas Louisiana Gas Company	228,473,000	73,472,000	32.16	242,774,000	81,985,000	33.77
Bluefield Gas Company	766,000	-0-	-0-	759,000	-0-	-0-
Caprock Pipeline Company	798,000	-0-	-0-	412,000	-0-	-0-
Cities Service Gas Company	297,292,000	89,420,000	30.08	301,765,000	91,474,000	30.31
Colorado Interstate Gas Company	194,272,000	9,693,000	4.99	190,937,000	-0-	-0-
Columbia Gas Transmission Corporation	847,878,000	235,397,000	27.79	845,260,000	210,275,000	24.88
Commercial Pipeline Company, The	301,000	-0-	-0-	301,000	-0-	-0-
Consolidated Gas Supply Corporation	359,018,000	30,341,000	8.45	359,024,000	24,207,000	6.74
East Tennessee Natural Gas Company	40,472,000	10,023,000	24.77	40,480,000	8,935,000	22.07
Eastern Shore Natural Gas Company	1,914,000	785,000	41.01	3,262,000	1,860,000	57.02
El Paso Natural Gas Company	613,801,000	200,816,000	32.72	607,477,000	177,468,000	29.21
Florida Gas Transmission Company	18,857,000	-0-	-0-	19,446,000	-0-	-0-
Gas Gathering Corporation	890,000	-0-	-0-	890,000	-0-	-0-
Granite State Gas Transmission, Inc.	2,117,000	-0-	-0-	2,117,000	-0-	-0-
Great Lakes Gas Transmission Company	36,777,000	-0-	-0-	36,895,000	-0-	-0-
Industrial Gas Corporation	2,255,000	-0-	-0-	2,086,000	-0-	-0-
Inter-City Minnesota Pipelines, Ltd.	3,614,000	-0-	-0-	3,474,000	-0-	-0-
Kansas-Nebraska Natural Gas Company	41,366,000	-0-	-0-	41,509,000	-0-	-0-
Kentucky-West Virginia Gas Company	11,672,000	-0-	-0-	11,662,000	-0-	-0-
Lawrenceburg Gas Transmission Corporation	2,299,000	810,000	35.23	2,299,000	810,000	35.23
Louisiana-Nevada Transit Company	2,153,000	549,000	25.49	2,130,000	496,000	23.07
McCulloch Interstate Gas Corporation	1,719,000	-0-	-0-	1,603,000	-0-	-0-
Michigan Wisconsin Pipe Line Company	426,512,000	16,665,000	3.91	454,311,000	42,355,000	9.32
Mid Louisiana Gas Company	16,210,000	3,078,000	18.99	16,246,000	3,004,000	18.48
Midwestern Gas Transmission Company	139,284,000	23,300,000	16.73	138,858,000	20,601,000	14.84
Mississippi River Transmission Corporation	133,444,000	-0-	-0-	132,606,000	-0-	-0-
Montana-Dakota Utilities Company	27,880,000	-0-	-0-	25,065,000	-0-	-0-
National Fuel Gas Supply Corporation	135,691,000	13,349,000	9.84	135,691,000	15,168,000	11.18
Natural Gas Pipeline Company of America	514,201,000	22,515,000	4.38	523,535,000	31,851,000	6.08
North Penn Gas Company	15,424,000	-0-	-0-	15,424,000	-0-	-0-
Northern Natural Gas Company	415,680,000	58,221,000	14.01	413,425,000	57,381,000	13.88
Pacific Gas Transmission Company	223,640,000	43,462,000	19.43	219,927,000	38,100,000	17.32
Panhandle Eastern Pipeline Company	153,839,000	-0-	-0-	153,839,000	-0-	-0-
South Georgia Natural Gas Company	379,363,000	108,695,000	28.64	356,962,000	79,812,000	22.36
South Texas Natural Gas Gathering Company	8,157,000	106,000	1.30	8,206,000	46,000	0.56
Southern Natural Gas Company	13,599,000	-0-	-0-	13,559,000	-0-	-0-
Tennessee Gas Pipeline Company	273,256,000	2,828,000	1.03	303,213,000	30,822,000	10.17
Tennessee Natural Gas Lines, Inc.	617,918,000	104,416,000	16.90	559,654,000	91,148,000	16.29
Texas Eastern Transmission Corporation	19,509,000	3,997,000	20.49	19,509,000	4,211,000	21.59
Texas Gas Pipe Line Corporation	452,895,000	116,208,000	25.66	450,726,000	111,435,000	24.72
Texas Gas Transmission Corporation	1,118,000	-0-	-0-	967,000	-0-	-0-
Transcontinental Gas Pipe Line Corporation	353,419,000	83,339,000	23.58	353,418,000	83,339,000	23.58
Transwestern Pipeline Company	501,183,000	194,471,000	38.80	509,379,000	189,018,000	37.12
Trunkline Gas Company	151,511,000	58,765,000	38.46	151,512,000	57,706,000	38.09
United Gas Pipe Line Company	247,636,000	122,852,000	49.61	247,951,000	90,285,000	36.41
Valley Gas Transmission, Inc.	705,188,000	359,327,000	50.98	705,176,000	354,179,000	50.23
West Texas Gathering Company	2,700,000	-0-	-0-	2,700,000	-0-	-0-
Western Gas Interstate Company	35,030,000	-0-	-0-	35,030,000	-0-	-0-
Western Transmission Corporation	5,664,000	63,000	1.77	5,599,000	-0-	-0-
	725,000	-0-	1/	922,000	-0-	-0-
Totals	8,754,246,000	1,987,418,000	22.70	8,772,177,000	1,915,130,000	21.83
Less transactions between respondent pipelines	1,592,765,000	392,181,000		1,650,713,000	386,189,000	
Net Totals	7,161,481,000	1,595,237,000	22.28	7,121,964,000	1,528,941,000	21.47

1/ Western Transmission Corporation data not included in April 30, 1976, report totals. Data not received in time.

SCHEDULE IV

Comparisons of Actual Interruptible Requirements and Interruptible Curtailments
For Year September 1975 through August 1976 With Projections
For Year September 1976 Through August 1977

Pipeline	Total For Year September 1975-August 1976 Actual Interruptible Requirements (Mcf)	Actual Interruptible Curtailments (Mcf)	Actual Percent Curtailed	Total For Year September 1976-August 1977 Projected Interruptible Requirements (Mcf)	Projected Interruptible Deficiencies	Projected Percent Deficient
Alabama-Tennessee Natural Gas Company	11,011,000	10,406,000	94.51	10,619,000	10,493,000	98.81
Algonquin Gas Transmission Company	15,100,000	15,100,000	100.00	13,760,000	13,760,000	100.00
Arkansas Louisiana Gas Company	23,532,000	23,532,000	100.00	-0-	-0-	-0-
Bluefield Gas Company	161,000	-0-	-0-	199,000	-0-	-0-
Colorado Interstate Gas Co., A Division of Colorado Interstate Corporation	35,258,000	3,898,000	11.06	23,348,000	3,275,000	14.03
East Tennessee Natural Gas Company	21,977,000	18,758,000	85.35	21,984,000	20,643,000	93.90
Eastern Shore Natural Gas Company	2,603,000	2,405,000	92.39	686,000	593,000	86.44
Florida Gas Transmission Company	120,998,000	72,088,000	59.58	122,076,000	67,516,000	55.31
Granite State Gas Transmission, Inc.	566,000	162,000	28.62	427,000	224,000	54.46
Kansas-Nebraska Natural Gas Company	44,804,000	5,825,000	13.01	32,573,000	9,802,000	30.09
Louisiana-Nevada Transit Company	374,000	-0-	-0-	84,000	35,000	41.67
Mid Louisiana Gas Company	1,223,000	1,223,000	100.00	1,269,000	1,269,000	100.00
Mississippi River Transmission Corporation	49,987,000	43,236,000	86.49	51,142,000	49,795,000	97.37
Montana-Dakota Utilities Company	21,192,000	-0-	-0-	23,074,000	3,934,000	17.05
Natural Gas Pipeline Company of America	22,000	-0-	-0-	15,000	-0-	-0-
Northern Natural Gas Company	1,040,000	-0-	-0-	-0-	-0-	-0-
Northwest Pipeline Corporation	9,269,000	8,967,000	96.74	4,036,000	3,947,000	97.79
Panhandle Eastern Pipe Line Company	70,432,000	39,196,000	55.65	57,137,000	29,237,000	51.17
South Georgia Natural Gas Company	21,183,000	9,180,000	43.34	19,703,000	10,350,000	52.53
Southern Natural Gas Company	247,407,000	219,752,000	88.82	261,647,000	236,350,000	90.33
Tennessee Natural Gas Lines, Inc.	4,144,000	2,395,000	57.79	3,740,000	3,240,000	86.63
Texas Gas Transmission Corporation	4,072,000	4,072,000	100.00	4,080,000	4,076,000	99.90
Transwestern Pipeline Company	867,000	-0-	-0-	805,000	-0-	-0-
Total	697,222,000	480,195,000	68.87	652,404,000	468,539,000	71.82
Less Transactions With Other Respondent Pipelines	42,809,000	35,854,000		20,384,000	13,727,000	
Net Totals	654,413,000	444,341,000	67.90	632,020,000	454,812,000	71.96

Schedule V

Comparison of Actual Interruptible Sales and Curtailments For
November 1975-March 1976 Heating Season With Projected Requirements
and Deficiencies For November 1976-March 1977 Heating Season

	April 30, 1976 Report Total For Heating Season November 1975-March 1976 Actual			September 30, 1976 Report Total For Heating Season November 1976-March 1977 Projected		
	Interruptible Requirements (Mcf)	Interruptible Curtailments (Mcf)	Percent Curtailed	Interruptible Requirements (Mcf)	Interruptible Deficiency (Mcf)	Percent Curtailed
Alabama-Tennessee Natural Gas Company	2,737,000	2,200,000	80.37	2,351,000	2,351,000	100.00
Algonquin Gas Transmission Company	-0-	-0-	-0-	-0-	-0-	-0-
Arkansas Louisiana Gas Company	11,604,000	11,604,000	100.00	-0-	-0-	-0-
Bluefield Gas Company	55,000	-0-	-0-	89,000	-0-	-0-
Colorado Interstate Gas Co., A Division of Colorado Interstate Corporation	15,269,000	11,210,000	73.41	4,481,000	3,266,000	72.89
East Tennessee Natural Gas Company	8,247,000	7,101,000	86.10	8,169,000	7,660,000	93.77
Eastern Shore Natural Gas Company	531,000	488,000	91.50	107,000	107,000	100.00
Florida Gas Transmission Company	48,073,000	33,229,000	69.12	47,903,000	29,211,000	60.98
Granite State Gas Transmission, Inc.	252,000	110,000	43.65	153,000	116,000	75.81
Kansas-Nebraska Natural Gas Company	14,593,000	3,155,000	21.61	14,168,000	5,785,000	40.83
Louisiana-Nevada Transit Company	120,000	-0-	-0-	35,000	35,000	100.00
Mid Louisiana Gas Company	-0-	-0-	-0-	525,000	525,000	100.00
Mississippi River Transmission Corporation	870,000	-0-	-0-	20,261,000	20,261,000	100.00
Montana-Dakota Utilities Company	9,063,000	-0-	-0-	11,687,000	2,267,000	19.40
Natural Gas Pipeline Company of America	8,000	-0-	-0-	7,000	-0-	-0-
Northern Natural Gas Company	610,000	-0-	-0-	-0-	-0-	-0-
Northwest Pipeline Corporation	7,793,000	7,745,000	99.38	3,898,000	3,898,000	100.00
Panhandle Eastern Pipe Line Company	29,739,000	21,604,000	72.51	23,622,000	14,470,000	61.26
South Georgia Natural Gas Company	7,837,000	3,622,000	46.21	6,085,000	2,771,000	45.54
Southern Natural Gas Company	55,767,000	46,727,000	83.78	148,230,000	139,813,000	94.32
Tennessee Natural Gas Lines, Inc.	1,540,000	825,000	53.57	1,349,000	1,349,000	100.00
Texas Gas Transmission Corporation	1,217,000	1,217,000	100.00	1,226,000	1,224,000	99.84
Transwestern Pipeline Company	298,000	-0-	-0-	266,00	-0-	-0-
Totals	233,984,000	150,837,000	64.46	294,612,000	235,109,000	79.80
Less transactions with other respondent pipelines	7,863,000	7,230,000		8,842,000	7,756,000	
Net Totals	226,121,000	143,607,000	63.51	285,770,000	227,353,000	79.56

SCHEDULE VI

Comparison of April 30, 1976, Report and September 30, 1976, Report
of Projected Interruptible Requirements and Curtailments
For Heating Season November 1976-March 1977

	Report of April 30, 1976 Total For Heating Season November 1976-March 1977 Projected			Report of September 30, 1976 Total For Heating Season November 1976-March 1977 Projected		
	Interruptible Requirements (Mcf)	Interruptible Deficiency (Mcf)	Percent Deficient	Interruptible Requirements (Mcf)	Interruptible Deficiency (Mcf)	Percent Deficient
Alabama-Tennessee Natural Gas Company	2,351,000	2,351,000	100.00	2,351,000	2,351,000	100.00
Algonquin Gas Transmission Company	-0-	-0-	-0-	-0-	-0-	-0-
Arkansas Louisiana Gas Company	13,344,000	13,344,000	100.00	-0-	-0-	-0-
Bluefield Gas Company	86,000	-0-	-0-	89,000	-0-	-0-
Colorado Interstate Gas Co., A Division of Colorado Interstate Corporation	15,349,000	15,093,000	98.33	4,481,000	3,266,000	72.89
East Tennessee Natural Gas Company	8,137,000	7,970,000	97.94	8,169,000	7,660,000	93.77
Eastern Shore Natural Gas Company	1,628,000	1,628,000	100.00	107,000	107,000	100.00
Florida Gas Transmission Company	43,142,000	22,654,000	52.51	47,903,000	29,211,000	60.98
Granite State Gas Transmission, Inc.	153,000	116,000	75.81	153,000	116,000	75.81
Kansas-Nebraska Natural Gas Company	14,472,000	5,742,000	39.67	14,168,000	5,785,000	40.83
Louisiana-Nevada Transit Company	41,000	21,000	51.21	35,000	35,000	100.00
Mid Louisiana Gas Company	542,000	542,000	100.00	525,000	525,000	100.00
Mississippi River Transmission Corporation	-0-	-0-	-0-	20,261,000	20,261,000	100.00
Montana-Dakota Utilities Company	9,317,000	-0-	-0-	11,687,000	2,267,000	19.40
Natural Gas Pipeline Company of America	7,000	-0-	-0-	7,000	-0-	-0-
Northern Natural Gas Company	-0-	-0-	-0-	-0-	-0-	-0-
Northwest Pipeline Corporation	5,296,000	5,296,000	100.00	3,898,000	3,898,000	100.00
Panhandle Eastern Pipe Line Company	25,237,000	17,809,000	70.56	23,622,000	14,470,000	61.26
South Georgia Natural Gas Company	6,134,000	3,994,000	65.11	6,085,000	2,771,000	45.54
Southern Natural Gas Company	55,767,000	45,757,000	82.05	148,230,000	139,813,000	94.32
Tennessee Natural Gas Lines, Inc.	1,349,000	1,349,000	100.00	1,349,000	1,349,000	100.00
Texas Gas Transmission Corporation	1,226,000	1,224,000	99.83	1,226,000	1,224,000	99.84
Transwestern Pipeline Company	226,000	-0-	-0-	266,000	-0-	-0-
Totals	203,844,000	144,890,000	71.08	294,612,000	235,109,000	79.80
Less transactions with other respondent pipelines	7,764,000	7,139,000		8,842,000	7,756,000	
Net Totals	196,080,000	137,751,000	70.25	285,770,000	227,353,000	79.56

SCHEDULE VII

Comparison of Actual (1975-1976) and Projected (1976-1977)
Firm Deliveries for Heating Season

	Report of April 30, 1976		Report of September 30, 1976
	Actual Nov. 75-Mar. 76	Projected Nov. 76 - Mar. 77	Projected Nov. 76 - Mar. 77
Alabama-Tennessee Natural Gas Company	12,189,000	11,533,000	11,533,000
Algonquin Gas Transmission Company	72,867,000	75,918,000	76,238,000
Arkansas Louisiana Gas Company	152,116,000	155,001,000	160,789,000
Bluefield Gas Company	775,000	766,000	759,000
Caprock Pipeline Company	721,000	798,000	412,000
Cities Service Gas Company	207,841,000	207,872,000	210,291,000
Colorado Interstate Gas Company	181,332,000	184,579,000	190,937,000
Columbia Gas Transmission Corporation	603,122,000	612,281,000	634,985,000
Commercial Pipeline Company, The	301,000	301,000	254,000
Consolidated Gas Supply Corporation	315,965,000	328,677,000	334,817,000
East Tennessee Natural Gas Company	30,110,000	30,449,000	31,545,000
Eastern Shore Natural Gas Company	2,716,000	1,129,000	1,402,000
El Paso Natural Gas Company	484,529,000	412,985,000	430,011,000
Florida Gas Transmission Company	19,193,000	18,857,000	19,446,000
Gas Gathering Corporation	959,000	1/	890,000
Granite State Gas Transmission, Inc.	2,065,000	2,117,000	2,117,000
Great Lakes Gas Transmission Company	36,964,000	36,777,000	36,895,000
Industrial Gas Corporation	2,395,000 2/	2,255,000 2/	2,086,000
Inter-City Minnesota Pipelines, Ltd.	3,932,000	3,614,000	3,474,000
Kansas-Nebraska Natural Gas Company	39,773,000	41,366,000	41,509,000
Kentucky-West Virginia Gas Company	11,458,000	11,672,000	11,662,000
Lawrenceburg Gas Transmission Corporation	1,764,000	1,489,000	1,489,000
Louisiana-Nevada Transit Company	1,574,000	1,604,000	1,654,000
McCulloch Interstate Gas Corporation	2,333,000	1,719,000	1,602,000
Michigan Wisconsin Pipe Line Company	421,472,000	409,847,000	411,956,000
Mid Louisiana Gas Company	10,924,000	13,132,000	12,642,000
Midwestern Gas Transmission Company	119,082,000	115,984,000	118,257,000
Mississippi River Transmission Corporation	118,187,000	133,444,000	132,606,000
Montana-Dakota Utilities Company	26,220,000	27,880,000	25,065,000
National Fuel Gas Supply Corporation	121,137,000	122,342,000	120,523,000
Natural Gas Pipeline Co. of America	511,413,000	491,686,000	491,684,000
North Penn Gas Company	15,387,000	15,424,000	15,424,000
Northern Natural Gas Company	370,777,000	357,459,000	356,044,000
Northwest Pipe Line Corporation	178,338,000	180,178,000	181,827,000
Pacific Gas Transmission Company	162,312,000	153,839,000	153,839,000
Panhandle Eastern Pipeline Company	271,308,000	263,440,000	277,150,000
South Georgia Natural Gas Company	6,546,000	8,051,000	8,160,000
South Texas Natural Gas Gathering Company	15,283,000	13,559,000	13,559,000
Southern Natural Gas Company	272,171,000	270,428,000	272,391,000
Tennessee Gas Pipeline Company	526,326,000	513,502,000	468,506,000
Tennessee Natural Gas Lines, Inc.	14,992,000	15,512,000	15,298,000
Texas Eastern Transmission Corporation	339,648,000	336,687,000	339,291,000
Texas Gas Pipe Line Corporation	668,000	1,118,000	967,000
Texas Gas Transmission Corporation	307,035,000	270,080,000	270,079,000
Transcontinental Gas Pipe Line Corporation	337,182,000	306,712,000	320,260,000
Transwestern Pipeline Company	108,632,000	93,246,000	93,808,000
Trunkline Gas Company	138,054,000	124,784,000	157,666,000
United Gas Pipe Line Company	390,845,000	345,661,000	350,997,000
Valley Gas Transmission, Inc.	3,083,000	2,700,000	2,700,000
West Texas Gathering Company	39,700,000	35,030,000	35,030,000
Western Gas Interstate Company	3,042,000	3,599,000	3,599,000
Western Transmission Corporation	2/ 541,000	2/ 725,000	922,000
Totals	7,014,363,000	6,766,828,000	6,857,047,000
Less transactions between respondent pipelines	1,294,519,000	1,200,584,000	1,264,024,000
Net Totals	5,719,844,000	5,566,244,000	5,593,023,000

1/ Did not submit data for period.
2/ Not included in total; received too late.

FEDERAL POWER COMMISSION

NEWS RELEASE WASHINGTON, D.C. 20426

IMMEDIATE RELEASE
JANUARY 11, 1977 No. 22822
Gas Curtailments

FPC RELEASES STATE-BY-STATE SUMMARY OF GAS CURTAILMENTS

The Federal Power Commission today released a report prepared by its staff summarizing on a state-by-state basis the net natural gas requirements, curtailments, and deliveries projected as of September 30, 1976, for the 1976-77 winter.

The report was prepared by FPC's Bureau of Natural Gas based on data filed with the FPC (Form No. 16) by interstate pipeline companies.

The summary also includes the difference between 1976-77 winter requirements, curtailments, and deliveries, as projected April 30, 1976, and September 30, 1976. The FPC on December 6 (Release No. 22761) published statistical information on curtailments by major companies. That release did not contain a state-by-state breakdown.

Printouts of additional FPC Form 16 detailed information are available for public inspection in the Commission's Office of Public Information. Arrangements can be made through that office to purchase copies of the printouts or of the computer tape.

The staff summary accompanies this new release.

-FPC-

For further information
call 275-4006 (Area Code 202) DC-E

FEDERAL POWER COMMISSION

FIRM DELIVERIES, FIRM CURTAILMENTS AND FIRM REQUIREMENTS OF INTERSTATE PIPELINE COMPANIES BASED ON FORM 16 SCHEDULE 1A REPORTS

SUMMARY BY STATE OF ACTUAL FIRM DELIVERIES, FIRM CURTAILMENTS AND FIRM REQUIREMENTS FOR 1975-1976 WINTER COMPARED TO PROJECTED FOR 1976-1977 WINTER

BUREAU OF NATURAL GAS
STAFF REPORT

Washington, D.C.
December 1976

Summary by State of Actual Firm Deliveries, Firm Curtailments, and Firm Requirements for 1975-1976 Winter Compared to Projected for 1976-1977 Winter

On December 6, 1976, in News Release No. 22761, the Federal Power Commission released statistical information on requirements and curtailments as reported by interstate natural gas pipeline companies in their Form 16 reports.

At page 5 of the staff report accompanying the news release was a statement indicating that additional reports based on the Form 16 data but showing substantially more detail were in preparation. This report provides a detailed breakout of net deliveries, curtailments and requirements for each state comparing actual for the heating season 1975-1976 and projected for the heating season 1976-1977. Additional detail of deliveries, curtailments and requirements by each pipeline company for each state on an annual as well as heating season basis is available in the Commission's Office of Public Information as a computer printout.

There are some differences in calculated net total volumes between the December 6, 1976 report and the total volumes related to this more detailed report. These differences are attributable to rounding error and certain reporting inconsistencies between the Form 16 Summary Schedule No. 1 and Customer Schedule No. 1A. Staff is currently revising the format of both these schedules in an attempt to eliminate these inconsistencies in the future.

It should be noted that the projected data are based on occurrence of normal weather, and supply-demand factors projected as of September 1976. Weather experienced to date for the current heating season has been considerably below normal. Further, in evaluating the increased requirements shown by the report for the 1976-1977 heating season, in comparison with the 1975-1976 heating season, it should be noted that a warmer than normal heating season was experienced and may be an important factor in the increased requirements shown for the 1976-1977 heating season.

It should be carefully noted that the curtailments shown in this report represent curtailments by interstate natural gas pipeline companies to their customers. Since about 90 percent of gas sold by interstate pipeline companies is delivered to distributors who in turn provide natural gas to ultimate consumers, the curtailments shown in this report are largely curtailments at the wholesale level.

Several major factors served to ameliorate the impact of pipeline curtailments upon the ultimate consumer in the past winter. These factors include warmer-than-normal winter weather, continued conversion to alternate fuels, conservation by fuel consumers, reduced gas demands due to industrial activity impacted by economic recession, increase in privately owned natural and synthetic gas supplies by distribution companies, emergency purchases or transportations of natural gas by or through interstate pipeline companies, and continued expansion of underground storage capability by interstate pipelines and distribution companies.

The impact of interstate pipeline curtailments upon ultimate consumers cannot be determined from this report. However, the Commission currently participates on a joint basis with the Federal Energy Administration in developing information directed at the end-user level to determine the impact of the curtailments to ultimate consumers. The results of the most recent survey, based on FPC Form No. 69, and FEA Form No. G-101-P-1 were released November 12, 1976, by the Federal Energy Administration in a report entitled, "Projected Natural Gas Curtailments and Potential Needs for Additional Alternate Fuels, 1976-1977 Heating Season".

In addition to this joint survey, the Federal Power Commission published on October 6, 1976, Commission staff reports in Docket No. RP76-16, et al., (the so called omnibus hearings) which examined among other things the end-use impact of curtailments on the customers of 19 pipeline companies whose FPC Form No. 16's had projected the most significant levels of curtailments this winter. A summary of these reports was issued December 9, 1976, FPC News Release No. 22765.

The omnibus report concluded that if winter weather is normal, the impacts of natural gas curtailment would generally be manageable but that colder than normal winter weather could result in industrial production losses and possibly unemployment. Recognizing the need for an information-gathering technique to understand the general nature of curtailment impacts as a result

of colder than normal weather as the current winter progresses, the Commission on December 17, 1976, issued a letter order which was sent to 28 major interstate pipeline companies. The letter order indicated that information concerning certain curtailment impact areas would be requested every two weeks (or more frequent if necessary) to assist the Commission in monitoring the ongoing operation of curtailment programs, and to determine the existence or imminence of significant dislocation such as production losses or unemployemnt due to natural gas curtailment by interstate pipelines.

COMPARISON OF ACTUAL (1975-1976) AND PROJECTED (1976-1977)
INTERSTATE PIPELINE NATURAL GAS FIRM DELIVERIES, FIRM CURTAILMENTS,
AND FIRM REQUIREMENTS BY STATES

For Winter Period November Through March
(Volumes in MMcf)

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
			ALABAMA	
Deliveries	109,750	108,270	107,118	(1,152)
Curtailments	24,568	30,303	39,340	9,037
Requirements	134,318	138,573	146,458	7,885
			ARKANSAS	
Deliveries	91,734	88,693	90,587	1,894
Curtailments	56,893	64,719	66,776	2,057
Requirements	148,627	153,412	157,363	3,951
			COLORADO	
Deliveries	127,082	128,947	135,141	6,194
Curtailments	15	11,036	33	(11,003)
Requirements	127,097	139,983	135,174	(4,809)
			DELAWARE	
Deliveries	1,573	832	790	(42)
Curtailments	708	770	1,625	855
Requirements	2,281	1,602	2,415	813
			FLORIDA	
Deliveries	32,055	32,397	33,342	745
Curtailments	13,438	15,030	14,898	(132)
Requirements	45,493	47,627	48,240	613

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
			ARIZONA	
Deliveries	61,407	58,391	60,780	2,389
Curtailments	28,920	47,884	45,495	(2,389)
Requirements	90,327	106,275	106,275	-0-
			CALIFORNIA	
Deliveries	620,836	535,185	552,915	17,730
Curtailments	94,315	168,294	150,564	(17,730)
Requirements	715,151	703,479	703,479	-0-
			CONNECTICUT	
Deliveries	36,639	37,445	37,293	(152)
Curtailments	4,473	5,295	4,603	(692)
Requirements	41,112	42,740	41,896	(844)
			DISTRICT OF COLUMBIA-MARYLAND-VIRGINIA 1/	
Deliveries	62,940	65,610	66,870	1,260
Curtailments	10,523	7,339	6,583	(756)
Requirements	73,463	72,949	73,453	504
			GEORGIA	
Deliveries	139,779	142,937	146,432	3,495
Curtailments	7,432	8,502	26,319	17,817
Requirements	151,439	151,439	172,751	21,312

1/ Columbia Gas Transmission Corporation did not provide a breakout between D.C., Maryland, and Virginia for Washington Gas Light Company

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
		IDAHO 2/		
Deliveries	32,589	32,613	33,013	400
Curtailments	7,777	9,140	-0-	(9,140)
Requirements	40,366	41,753	33,013	(8,740)
		ILLINOIS		
Deliveries	580,559	551,052	554,552	3,500
Curtailments	61,887	82,979	70,666	(12,313)
Requirements	642,446	634,031	625,218	(8,813)
		IOWA		
Deliveries	152,317	151,480	152,300	820
Curtailments	16,712 3/	25,824	23,932	(1,892)
Requirements	169,029	177,304	176,232	(1,072)
		KENTUCKY		
Deliveries	110,571	106,325	107,795	1,470
Curtailments	23,002	29,590	28,313	(1,277)
Requirements	133,573	135,915	136,108	193
		MAINE		
Deliveries	1,006	1,020	1,020	-0-
Curtailments	-0-	-0-	-0-	-0-
Requirements	1,006	1,020	1,020	-0-

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
		IDAHO & WASHINGTON 2/		
Deliveries	16,910	17,829	17,764	(65)
Curtailments	3,566	2,780	2,903	123
Requirements	20,476	20,609	20,667	58
		INDIANA		
Deliveries	267,323	250,529	269,812	19,283
Curtailments	83,622	107,119	84,134	(22,985)
Requirements	350,945	357,648	353,946	(3,702)
		KANSAS		
Deliveries	149,517	149,932	148,586	(1,346)
Curtailments	50,688	61,223	60,776	(447)
Requirements	200,205	211,155	209,362	(1,793)
		LOUISIANA		
Deliveries	111,869	103,201	102,794	(407)
Curtailments	123,315	140,981	141,030	49
Requirements	235,184	244,182	243,824	(358)
		MARYLAND 1/		
Deliveries	52,279	50,453	52,841	2,388
Curtailments	16,750	17,813	16,432	(1,381)
Requirements	69,029	68,266	69,273	1,007

1/ Columbia Gas Transmission Corporation did not provide a breakout between D.C., Maryland, and Virginia for Washington Gas Light Company.
2/ Northwest Pipeline Corporation did not provide a breakout between Idaho & Washington for Washington Water Power Company.
3/ Corrected value.

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
		MASSACHUSETTS		
Deliveries	82,266	86,753	87,906	1,153
Curtailments	7,165	8,249	7,009	(1,240)
Requirements	89,431	95,002	94,915	(87)
		MINNESOTA		
Deliveries	155,575	151,427	148,911	(2,516)
Curtailments	14,4 3	21,091	19,551	(1,540)
Requirements	170,058	172,518	168,462	(4,056)
		MISSOURI		
Deliveries	190,351	203,573	203,152	(421)
Curtailments	35,672	39,791	35,903	(3,888)
Requirements	226,023	243,364	239,055	(4,309)
		NEBRASKA		
Deliveries	74,386	74,351	76,622	2,271
Curtailments	7,820	10,690	11,455	765
Requirements	82,206	85,041	88,077	3,036
		NEW HAMPSHIRE		
Deliveries	4,524	4,664	4,691	27
Curtailments	121	143	116	(27)
Requirements	4,645	4,807	4,807	-0-
		NEW MEXICO		
Deliveries	17,169	14,739	14,763	24
Curtailments	8,415	9,187	8,851	(336)
Requirements	25,584	23,926	23,614	(312)

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
		MICHIGAN		
Deliveries	270,467	255,247	254,916	(331)
Curtailments	22,812	23,660	36,212	12,552
Requirements	293,279	278,907	291,128	12,221
		MISSISSIPPI		
Deliveries	66,750	61,986	61,707	(279)
Curtailments	57,839	67,965	69,297	1,332
Requirements	124,589	129,951	131,004	1,053
		MONTANA		
Deliveries	7,760	8,239	8,453	214
Curtailments	-0-	-0-	-0-	-0-
Requirements	7,760	8,239	8,453	214
		NEVADA		
Deliveries	10,134	6,989	7,172	183
Curtailments	8,499	13,030	12,846	(184)
Requirements	18,633	20,019	20,018	(1)
		NEW JERSEY		
Deliveries	134,834	127,106	126,831	(275)
Curtailments	40,321	49,130	47,515	(1,615)
Requirements	175,155	176,236	174,346	(1,890)
		NEW YORK		
Deliveries	360,467	367,528	369,487	1,959
Curtailments	45,589	64,688	62,510	(2,178)
Requirements	406,056	432,216	431,997	(219)

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
NORTH CAROLINA				
Deliveries	51,096	36,434	38,940	2,506
Curtailments	33,451	48,891	48,321	(570)
Requirements	84,547	85,325	87,261	1,936
OHIO				
Deliveries	440,510	460,630	478,876	18,246
Curtailments	156,846	153,371	132,476	(20,895)
Requirements	597,356	614,001	611,352	(2,649)
OREGON 4/				
Deliveries	3,861	3,818	3,908	90
Curtailments	976	1,081	1,026	(55)
Requirements	4,837	4,899	4,934	35
PENNSYLVANIA				
Deliveries	326,689	320,827	325,451	4,624
Curtailments	84,228	109,454	100,335	(9,119)
Requirements	410,917	430,281	425,786	(4,495)
SOUTH CAROLINA				
Deliveries	40,179	37,436	38,219	783
Curtailments	7,922	8,940	9,843	903
Requirements	48,101	46,376	48,062	1,686

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
NORTH DAKOTA				
Deliveries	13,696	14,179	13,201	(978)
Curtailments	-0-	-0-	-0-	-0-
Requirements	13,696	14,179	13,201	(978)
OKLAHOMA				
Deliveries	26,742	26,815	26,484	(331)
Curtailments	2,799	3,706	4,001	295
Requirements	29,541	30,521	30,485	(36)
OREGON AND WASHINGTON 4/				
Deliveries	58,720	58,483	59,994	1,511
Curtailments	15,176	16,481	15,512	(969)
Requirements	73,896	74,964	75,506	542
RHODE ISLAND				
Deliveries	11,910	13,492	13,650	158
Curtailments	1,665	1,928	1,704	(224)
Requirements	13,575	15,420	15,354	(66)
SOUTH DAKOTA				
Deliveries	14,668	15,277	15,025	(252)
Curtailments	785	1,117	998	(119)
Requirements	15,453	16,394	16,023	(371)

4/ Northwest Pipeline Corporation did not provide a breakout between Oregon & Washington for Cascade Natural Gas Company and Northwest Natural Gas Company.

	Actual Winter 1975-76	April Projection Winter 1976-1977	September September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
		TENNESSEE		
Deliveries	107,493	103,619	103,683	64
Curtailments	22,978	33,468	33,421	(47)
Requirements	130,471	137,087	137,104	17
		UTAH		
Deliveries	416	791	923	132
Curtailments	-0-	-0-	-0-	-0-
Requirements	416	791	923	132
		VIRGINIA 1/		
Deliveries	51,021	48,453	51,082	2,629
Curtailments	20,017	23,888	22,166	(1,722)
Requirements	71,038	72,341	73,248	907
		WEST VIRGINIA		
Deliveries	64,934	65,321	68,281	2,960
Curtailments	18,716	19,768	16,832	(2,936)
Requirements	83,650	85,089	85,113	24
		WYOMING		
Deliveries	22,046	22,713	21,677	(1,036)
Curtailments	2,748	3,132	2,683	(449)
Requirements	24,794	25,845	24,360	(1,485)
		TOTAL		
Deliveries	5,671,926	5,515,108	5,602,695	87,587
Curtailments	1,269,669	1,595,210	1,521,897	(73,313)
Requirements	6,941,595	7,110,318	7,124,592	14,274

	Actual Winter 1975-76	April Projection Winter 1976-1977	September Projection Winter 1976-1977	Increase or (Decrease) from April Projection
		TEXAS		
Deliveries	50,539	54,206	54,511	305
Curtailments	6,593	10,607	12,268	1,661
Requirements	57,132	64,813	66,779	1,966
		VERMONT 5/		
		WASHINGTON 2/ 4/		
Deliveries	39,866	39,614	38,933	(681)
Curtailments	8,764	5,692	3,514	(2,178)
Requirements	48,630	45,306	42,447	(2,859)
		WISCONSIN		
Deliveries	203,506	206,401	205,189	(1,212)
Curtailments	8,665	9,444	21,109	11,665
Requirements	212,171	215,845	226,298	10,453
		COMBINATION 6/		
Deliveries	10,614	10,657	8,313	(2,344)
Curtailments	-0-	-0-	-0-	-0-
Requirements	10,614	10,657	8,313	(2,344)

1/ Columbia Gas Transmission Corporation did not provide a breakout between D.C., Maryland, and Virginia for Washington Gas Light Company.
2/ Northwest Pipeline Corporation did not provide a breakout between Idaho & Washington for Washington Water Power Company.
4/ Northwest Pipeline Corporation did not provide a breakout between Oregon & Washington for Cascade Natural Gas Company and Northwest Natural Gas Company.
5/ Vermont is served by locally manufactured gas and imported Canadian gas.
6/ Columbia Gas Transmission and Trunkline have reported a small volume of gas not attributed to any state.

Abstract and Summary of
Commission Staff Reports In
Alabama-Tennessee Natural Gas Company, et al.,
Docket Nos. RP76-116, et al.

Pursuant to the directives of the Commission as set forth in its order in Alabama-Tennessee Natural Gas Company, et al., in Docket Nos. RP76-116, et al., issued July 20, 1976, the Commission staff has prepared and submitted to the Commission individual reports evaluating the impact of curtailment upon the nineteen pipeline companies designated in the aforementioned order. In each of the proceedings the Commission staff has attempted to make an assessment of each pipeline's supply situation on a generalized basis and to obtain assurance that the supplies projected by these companies would be forthcoming during the critical period of time during the impending winter heating season. Similarly, the evaluation of the requirements of each pipeline, by priority category, was also made in order to assess the types of high priority usages that might be affected during this period. The proceedings also provided opportunity to determine whether or not any potential sources of natural gas could be made available to ameliorate the curtailments projected by the nineteen pipelines designated in the Commission's July 20, 1976, order.

In addition, the proceedings were also directed toward the development of techniques that should be useful both during the course of the 1976-77 winter heating season and in subsequent years for providing for each of the fifty states the specific alternate fuels, both the type and quantity, that would be required to offset projected curtailments. It is hoped that the techniques introduced by the Commission staff can be refined to provide a useful tool in subsequent years when curtailments by interstate pipelines may be more critical.

The Commission staff believes that this process will enable the Commission to pinpoint areas of potential danger and to take steps in advance to determine whether adequate supplies of natural gas or alternate fuels are available to offset curtailment.

For the most part, customer response to the pipeline requests for data was generally cooperative and the proceedings were well attended; but formal participation was generally limited to observer status. Although affected State Commissions

and other Federal Agencies recorded appearances in almost all of the proceedings, no testimony regarding the situation, procedures or available alternatives being considered at state or local levels was presented. Attempts by staff to develop and introduce data at the ultimate end-user level, indicating curtailments, type and amount of alternate fuels available and gas supplies from other sources was generally opposed as being unverified. In addition, the section of each individual pipeline report summarizing and comparing FPC Form 16 with FEA compiled data cannot be relied upon to determine specific impact because of incomplete filings and non-response to FEA data requests. Furthermore, state-wide aggregate comparisons regarding curtailments, requirements and deliveries included in the reports can be used only for very general impact trends. However, it is believed that experience gained in dealing with this data can be helpful in future impact analyses.

In general, the reports, which are based on data projections provided by interstate pipelines and their customers, indicate that under normal weather conditions, markets served by eighteen of the pipelines will experience relatively minor difficulties in absorbing projected curtailments with minimal adverse effects such as production losses or unemployment during the coming winter season. With regard to one company, Transcontinental Gas Pipe Line Corporation, the report indicates that impact of curtailment during the coming winter season is inconclusive although substantial emergency purchases are anticipated by Transco's customers.

Estimates of natural gas supplies available to all nineteen companies were found to be fairly consistent with those reported in the April, 1976, Form 16 as filed with the Commission. Although the general trend indicates slightly decreasing deliverability from connected supplies this winter, it is generally expected that previously reported supply estimates of most pipelines will not vary greatly during the coming winter season. Where applicable, all of the supply projections include anticipated production losses, freezeups, allowables and allowances for producer workovers and downtime for compressor stations, all of which are normal winter occurrences. Companies which rely on storage operations to meet winter deliveries indicate that storage fields will be filled to capacity prior to the commencement of the winter season. In addition, most of

the pipelines indicate intended cooperation with industrial customers regarding transportation of natural gas pursuant to Order No. 533. Furthermore, although the majority have not included emergency purchases in their supply projections, pipelines plan to purchase such supplies to supplement current supplies during colder than normal periods, supply failures or other emergency situations. A few of the nineteen pipelines indicate the availability of SNG and LNG to their customers to offset curtailments.

Since most of the nineteen pipelines operate under curtailment plans which employ either seasonal or annual volumetric limitations as set forth in their respective tariffs, requirements generally do not include any weather adjustment or other significant changes because they are in most instances based upon some past base period of actual or estimated usage.

Although curtailment on almost every pipeline system under study here is projected to extend into Priority 2 at the wholesale level, most customers who indicate potential problems as a result of such curtailments at the end-user level are concerned mainly in the event that an alternate fuel might not be available when needed, in which case plant shutdowns could be necessary. In this regard the FEA has submitted a report of alternate fuel availability (attached to each individual report) which indicates that adequate alternate fuel supplies will be available on a nationwide basis for the 1976-77 winter season. 1/

No specific information was presented by any of the nineteen companies regarding impact of a colder than normal winter. Specific impacts would depend upon the severity and duration of any cold spell. It can be generally concluded, however, that a widespread colder than normal winter would force deeper curtailments, reduce the effect of available alternatives and most probably result in a greater exposure to industrial plant shutdown. No curtailment of residential or small commercial consumers is anticipated even in colder than normal weather. Staff will continue to follow the situation of each of the pipelines which shows potential for serious adverse impacts.

1/ FEA has issued a report titled "Projected Natural Gas Curtailments and Potential Needs for Additional Alternate Fuels - 1976-1977 Heating Season dated November, 1976", which sets forth certain data relating to state by state analysis of alternate fuel supplies which was not available to FPC staff during the omnibus proceedings.

More specifically, each of the nineteen pipeline companies situation for the coming winter season is summarized as follows:

Alabama-Tennessee Natural Gas Company (Alabama-Tennessee) is supplied entirely by Tennessee Gas Pipeline Company. It projects a 26 percent curtailment of Priority 2 requirements with only minimal impact as long as adequate alternate fuel supplies are available (there will be no curtailment in Priority 1). In the event of possible plant shutdowns or any other emergency situation, Alabama-Tennessee states that it will utilize available system diversity, emergency proceedings under 2.68 of the Commission's rules and intra-company transfers of sufficient volumes of gas to relieve the immediate problem.

Arkansas Louisiana Gas Company (Arkla) does not anticipate any curtailment of Priorities 1 and 2. However, Priority 3 which includes a number of customers lacking alternate fuel facilities is expected to be curtailed 2 percent and 1 percent during November and March, respectively, and 44 percent during the months of December through February. Arkla states that it is not its normal policy to purchase gas under Section 2.68 of the Commission's Regulations or to transport gas for its industrial customers pursuant to Order No. 533. However, staff strongly recommended in its report that Arkla consider these alternatives especially during the months of December through February when 44 percent curtailment of Priority 3 is expected. Arkla anticipates that its storage fields will be full by November 1, 1976.

Cities Service Gas Company (Cities) projects no curtailment of Priority 1 and 2 and only minimal or peak day curtailment of Priority 3 during the months of December through March.

Columbia Gas Transmission Corporation (Columbia) expects to curtail its Priority 2 requirements by 64.7 percent. However, this impact is adjusted downward to 45.2 percent based upon the expected purchase of SNG from Columbia LNG Corporation. The minimum number of customers anticipating shutdown this winter due to a lack of alternate fuel capability or the lack of alternate fuel is 180.

Alternate fuels appear to be sufficient in the areas served by Columbia, and Columbia will also be trying to purchase emergency volumes of gas from intrastate pipelines totaling 8 to 15 million Mcf. In addition, high priority industrial customers of Columbia's distributors customers intend to purchase gas in the field under Order No. 533. All factors considered, no major economic dislocations are indicated.

East Tennessee Natural Gas Company (East Tennessee) is supplied solely by Tennessee Gas Pipeline Company. It anticipates a 2 percent curtailment of Priority 2 during the coming winter season. Since the projected curtailment is only slightly higher than last year and the absence of any previous problems plus the availability of adequate alternate fuels, East Tennessee's projected curtailment appears to be manageable.

Eastern Shore Natural Gas Company (Eastern Shore) receives its entire supply of natural gas from Transcontinental Gas Pipe Line Corporation (Transco). Eastern Shore does not anticipate any major problems. It believes that its natural gas supply combined with alternate sources of fuel will be adequate during the coming winter. One customer, Stauffer Chemical Company, which requires natural gas for feedstock is seeking an emergency supply of gas.

El Paso Natural Gas Company (El Paso) states that it expects to meet all of the Priority 1 and 2 requirements of its East of California customers, assuming continuation of the "load equation" arrangements presently pending before the Commission in Docket No. CP73-334, et al. Although curtailments to Southern California Gas Company and Pacific Gas and Electric Company are substantial, both have access to other sources of supply as well as their own storage facilities. More detailed information involving actual customer shutdowns is sketchy and cannot be predicted; however, no specific adverse impacts are projected.

Lawrenceburg Gas Transmission Corporation (Lawrenceburg) receives its entire supply of natural gas from Texas Gas Transmission Corporation (Texas Gas). All of its winter curtailment will be offset by alternate fuels and other options except for a total of 27,000 Mcf required by three

industrial customers lacking an alternate fuel capability. Considering the small amount of additional supply required and Texas Gas' past cooperation with its customers, it is reasonable to assume that serious problems may be avoided on Lawrenceburg's system.

Louisiana-Nevada Transit Company (Louisiana Nevada) does not expect to curtail any of its direct residential, commercial, or public authority customers served through its own distribution facilities nor its only sale for resale customer, the City of DeQueen, Arkansas. Two firm industrial customers to be curtailed have been curtailed in the past and anticipate no problems.

Mid-Louisiana Gas Company (Mid-Louisiana) expects to curtail only three industrial customers all of which have sufficient alternate fuel capability to offset the loss of natural gas.

Northwest Pipeline Corporation (Northwest) projects no curtailment of Priorities 1 and 2, except on an extremely cold day. In such an event, distributor peaking service and Northwest's LNG service should be able to cover the Priority 1 and 2 deficiencies. Some Priority 3 customers may be required to shutdown because of a lack of alternate fuel capability.

Panhandle Eastern Pipe Line Company (Panhandle) projects a decrease in curtailment of 100,000 Mcf per day from that reported in its April, 1976, Form 16 which results in a projected curtailment ranging from 32 to 45 percent of Priority 2. Although some customers indicate potential problems, various procedures such as aid from state or local authorities, unilateral relief from the pipeline, 467-C relief, supplemental volumes pursuant to Order No. 533 procedures and Section 2.68 emergency supplies are all available to alleviate any problems.

Tennessee Natural Gas Lines, Inc. (Gas Lines) is supplied solely by Tennessee Gas Pipeline Company. Gas Lines states that it does not foresee any plant closings by any of its customers as a result of natural gas curtailments.

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Texas Eastern Transmission Corporation (Texas Eastern) indicates that curtailment may extend into Priority 1 during the months of December through February. In addition, Priority 2 is expected to be curtailed 92.11 percent in November and 71.02 percent in March. Most of the large distributors report that they will serve all firm requirements due to the development of self-help measures. However, 47 industrial firms served by distributors indicate complete or partial shutdowns due to a lack of alternate fuel capabilities or supplies. Some of the smaller distributors indicate Priority 1 or 2 curtailment, however, Texas Eastern's tariff contains a provision whereby it can unilaterally provide deliveries to meet emergency conditions.

Texas Gas Transmission Corporation (Texas Gas) reports a 51 percent curtailment of Priority 2 requirements for the coming winter. Although a number of distributor customers report a lack of alternate fuel capabilities or supply, Texas Gas has in the past cooperated in obtaining supplemental deliveries through an arrangement between customers, emergency arrangements pursuant to Section 2.68 and Order No. 533. In addition, its storage is expected to be filled by November 1, 1976, and in the event of a colder than normal winter even cushion gas will be committed to protection of Priority 1 service, if necessary.

Transcontinental Gas Pipe Line Corporation's (Transco) projected gas supply deficiency indicates a theoretically computed curtailment of Priority 1. However, the data does not reflect significant changes such as the number and type of customers behind each distributor, effects of conservation, additions of supplemental supplies by distributor customers and changes in supplies of partial requirements customers. Furthermore, impact information provided by consumers that may be forced to shut down is also limited. For these reasons staff intends to monitor Transco's situation and to seek reopening of the proceedings, if necessary.

Transwestern Pipeline Company (Transwestern) indicates that approximately 38 percent of its firm requirements will be curtailed; however, no adverse impacts such as plant shutdowns or unemployment are anticipated.

Trunkline Gas Company (Trunkline) indicates an improvement in gas supply which will reduce its previously predicted curtailment by 200,000 Mcf per day. In view of this improvement in supply, no adverse impact is expected.

United Gas Pipe Line Company (United) shows a 7 percent curtailment of direct industrial customers in Priority 2 and 7 percent curtailment of its pipeline customers in Priority 1. None of the direct industrials are expected to be totally curtailed and United is taking all efforts to assist customers with potential problems through emergency purchases, Order No. 533 transportation arrangements, locating alternate fuel suppliers and emergency arrangements with producers and other interstate pipelines.

The states served by each of these nineteen pipeline companies can be found on the attached Appendix A.

APPENDIX A

States Served by Pipeline Companies
Involved in Docket No. RP76-116, et al.

Company	State
Alabama-Tennessee Natural Gas Company	Alabama Mississippi Tennessee
Arkansas-Louisiana Gas Company	Arkansas Kansas Louisiana Oklahoma Texas
Cities Service Gas Company	Kansas Missouri Nebraska Oklahoma Texas
Columbia Gas Transmission Corporation	District of Columbia Kentucky Maryland New Jersey New York Ohio Pennsylvania Virginia West Virginia
East Tennessee Natural Gas Company	Tennessee Virginia
Eastern Shore Natural Gas Company	Delaware Maryland
El Paso Natural Gas Company	Arizona California Colorado Nevada New Mexico Oklahoma Texas Utah

Lawrenceburg Gas Transmission Corporation
Indiana
Ohio

Louisiana-Nevada Transit Company
Arkansas
Louisiana

Mid-Louisiana Gas Company
Louisiana
Mississippi

Northwest Pipeline Corporation
Colorado
Idaho
New Mexico
Oregon
Utah
Washington
Wyoming

Panhandle Eastern Pipe Line Company
Illinois
Indiana
Kansas
Michigan
Missouri
Ohio
Oklahoma
Texas

Tennessee Natural Gas Lines, Inc.
Tennessee

Texas Eastern Transmission Corporation
Alabama
Arkansas
Illinois
Indiana
Kentucky
Louisiana
Mississippi
Missouri
New Jersey
New York
Ohio
Pennsylvania
Tennessee

Texas Gas Transmission Corporation
Arkansas
Illinois
Indiana
Kentucky
Louisiana
Mississippi
Ohio
Tennessee

Transcontinental Gas Pipe Line Corporation
- Alabama
- Delaware
- Georgia
- Maryland
- New Jersey
- New York
- North Carolina
- Pennsylvania
- South Carolina
- Virginia

Transwestern Pipeline Company
- Arizona
- California
- New Mexico
- Oklahoma
- Texas

Trunkline Gas Company
- Illinois
- Indiana
- Michigan
- Tennessee

United Gas Pipe Line Company
- Alabama
- Florida
- Louisiana
- Mississippi
- Texas

FEDERAL POWER COMMISSION

NEWS RELEASE WASHINGTON, D.C. 20426

IMMEDIATE RELEASE
DECEMBER 9, 1976 No. 22765

FPC RELEASES STAFF SUMMARY ON IMPACT OF WINTER GAS CURTAILMENTS

The Federal Power Commission today released a staff summary of the information filed by 19 major natural gas pipelines on the impact of this winter's natural gas curtailments on their wholesale and direct industrial customers.

The proceedings in which the information was filed were initiated last July 20, and hearings have been completed. The summary of the data filed by the companies indicates that under normal weather conditions, markets served by 18 of the pipelines will experience relatively minor difficulties in absorbing projected curtailments with minimal adverse effects such as production losses or unemployment. The impact on the 19th company system, Transcontinental Gas Pipe Line Corp., was inconclusive.

Estimates of natural gas supplies available to all 19 companies were found to be reasonably consistent with those reported in the April 1976 pipeline company projections of curtailments (Form 16). Although the general trend indicated slightly decreasing deliverability from connected supplies this winter the report indicates estimates of most pipelines are not expected to vary greatly during the winter.

Although calculated curtailment on almost every pipeline system studied is projected at the wholesale level to extend into priority 2, which includes large commercial, small industrial, process and plant protection needs. Most pipeline customers at the end-user level are concerned mainly about adequate alternate fuel supplies. The Federal Energy Administration has submitted a report showing that adequate alternate fuel supplies will be

(over)

available on a nationwide basis for this winter season, the FPC summary said.

The pipelines did not submit information on the impact of a colder-than-normal winter. However, the report said, a widespread extremely cold winter would force deeper curtailments, reduce the effect of available alternatives, and probably result in greater exposure to industrial plant shutdown. No curtailment of residential or small commercial customers is anticipated even in colder- than-normal weather, however, the report concluded. The FPC staff indicated in the report, that it will continue to monitor the situation regarding colder-than-normal weather.

The attached report summarizes the situation for the coming winter for each of the 19 pipeline companies and lists the states served by each. The entire report accompanies this news release. For additional information refer to FPC staff reports filed in each of the cases in Docket Nos. RP76-116, et al.

-FPC-

For further information
call 275-4006 (Area Code 202) DC-E

Sales Made Pursuant to Sections 157.29 and 2.68
For Period January 1, 1976 through January, 1977
(January, 1977 Data Revised to Include Data Received as of 1-28-77)

	Section 157.29		Section 2.68					
	Sales by Producers		Sales by Intrastate Pipelines to Interstate Pipelines		Sales by Intrastate Pipeline to Distribution Companies		Combined	
1976 Month	Volume (Mcf)	Average Price (¢/Mcf)	Volume (Mcf)	Average Price (¢/Mcf)	Volume (Mcf)	Average Price (¢/Mcf)	Volume (Mcf)	Average Price (¢/Mcf)
January	1,131,011	66.03	11,373,208	143.55	11,637,919	164.13	24,142,138	149.84
February	3,254,646	132.17	1,385,713	165.83	1,654,916	175.0	6,295,275	150.84
March	1,758,096	103.62	11,212,250	147.13	237,332	175.12	13,207,678	141.84
April	6,385,435	70.99	--	--	3,683,449	161.86	10,068,884	101.55
May	3,776,135	125.66	11,063,778	167.46	3,920,527	167.75	18,760,440	159.10
June	418,337	83.96	8,470,919	180.26	2,282,748	139.40	11,172,004	168.30
July	544,418	79.95	155,035	100.0	3,116,206	155.62	3,815,659	142.56
August	2,159,984	149.86	14,983,913	165.0	282,500	157.39	17,426,397	163.0
September	2,505,109	140.68	3,404,772	162.97	3,291,081	148.75	9,200,962	150.04
October	2,734,436	150.84	12,470,371	192.10	9,874,691	175.67	25,079,498	181.13
November	9,338,473	154.51	24,660,000	200.81	13,152,710	209.94	47,151,183	194.18
December	5,367,600	153.72	11,933,000	194.30	300,000	180.0	17,600,600	181.68
Sub-Total	39,373,680	128.26	111,112,959	176.25	53,434,079	175.08	203,920,718	166.68
1977								
January	2,542,500	134.78	3,100,000	215.0	9,900,000	230.91	15,542,500	212.01
Total	41,916,180	128.66	114,212,959	177.30	63,334,079	183.81	219,463,218	169.89

Mr. DINGELL. Thank you, Commissioner.

Mr. HOLLOMAN. Mr. Chairman, I would be pleased to answer any questions which you or the members of the subcommittee may have.

Mr. DINGELL. The committee thanks you for a very helpful statement.

As you recall, last year and the year previous to that we went into these matters in some haste, conscious of the feeling of great national concern and trouble. As I gather from your statements today, we can anticipate several circumstances with regard to gas supply during the forthcoming year. Perhaps I might try to enumerate them in rather brief summary form.

First there will be something of an increase in terms of shortage or, rather, something of an increase in terms of curtailments.

Am I correct?

Mr. HOLLOMAN. Yes, sir.

Mr. DINGELL. It is fair to say there is a difference between curtailment and shortage?

Commissioner, I know you know this. I guess you better say "yes" or "no," because if you don't it does not show up on the record.

Mr. HOLLOMAN. Yes, sir.

Mr. DINGELL. It is fair to say it is difficult to define the precise level of curtailment or the precise impact of that on either residential, industrial, or commercial consumers. Am I correct?

Mr. HOLLOMAN. That is correct.

Mr. DINGELL. It is your general appreciation that the levels of alternative fuels, as I gather from your statement, are good. Is that correct?

Mr. HOLLOMAN. That is correct.

Mr. DINGELL. And I would gather in view of the supply available from the production, from storage and from alternative sources, that we could anticipate that we would probably get through the year, given recent weather conditions, without great economic dislocation, am I correct?

Mr. HOLLOMAN. That is correct.

Mr. DINGELL. I think we ought to address ourselves to the question of curtailment now. Curtailments mean that there will not be deliveries according to contract terms, as opposed to a shortage in terms of need or use, is that correct?

Mr. HOLLOMAN. Yes, sir.

Mr. DINGELL. Could you give the committee any further comment on this which might be of help to us in appreciating what this means in terms of the different kinds of users, residential, commercial, and industrial?

Mr. HOLLOMAN. I think the summary we will prepare and submit to the subcommittee in very short order will do that, Mr. Chairman. I think what we are trying to do here, and what we have tried to do in the proceedings to which I referred, is to assess the actual impact of the natural gas curtailments.

As you know, in the past, dire predictions of economic dislocation have not proven true to the extent that some people had predicted. One of the reasons that has been true is that the FPC and FEA, as well as others involved with the problem have not assessed accurately the actual impact of these curtailments on end use customers. I think what we are doing here is of great significance and of great importance insofar as the public is concerned.

In past years, a number of Federal agencies have been justly criticized for making predictions that did not come true. And I think it has caused a certain amount of skepticism and has created a credibility problem with the public. It is not that any misrepresentations were made by these agencies; it is simply, I think, due to the very fact we have had so little experience in dealing with curtailments, until recent years, an accurate assessment of the impact was not made. That is what we are trying to do now, to assess not only the level of curtailments, but the actual impact it might have on their businesses and their lives.

Mr. DINGELL. Commissioner, I think at this point it is quite appropriate that I should commend you personally, also the Federal Power Commission, for the strikingly better presentation and appreciation and preparation that you have engaged in. I mean that as a sincere compliment, as opposed to a backhanded compliment, or criticism. I want you to understand that is given as a compliment because it has been the unfortunate experience, at least of one particular member of the committee who now sits in the Chair here, we have too often seen ourselves dissolve into shrill, table-thumping discussions of shortages of natural gas and curtailments in a climate of panic and outrage, as opposed to sitting down calmly to discuss what the situation might be and what should be the remedies.

So I think what we are discussing here is most helpful.

I think, quite frankly, the comments you have made this morning have given us a great deal of assistance in terms of apprising what your national situation might be during the fall and winter months in light of circumstances which surround us. I want to thank you and to commend you.

The Chair will recognize my colleagues for questions. The Chair recognizes first the gentleman from Texas, Mr. Eckhardt, for 5 minutes.

Mr. ECKHARDT. Do I understand correctly, Commissioner, that at least two of your salient points are, No. 1, that there is not an immediate emergency with respect to residential availability?

Mr. HOLLOMAN. That is correct, assuming that the underlying assumptions of this study are correct.

Mr. ECKHARDT. But the second thing is, in the long term you indicate a very alarming situation with respect to a greater quantity of gas going into the intrastate market.

Mr. HOLLOMAN. That is true.

Mr. ECKHARDT. And of course if that continues we may not be complacent in future years with respect to the availability of even residential gas.

Mr. HOLLOMAN. That is correct. Of course you point out here that the Commission is not authorized to deal with the question of rates for intrastate gas.

Mr. ECKHARDT. I note that you do state on page 15 that a legislative response by the Congress would be in order. Of course, I understand you are dealing here with a number of more or less specific authority responses that might aid you in carrying out an immediate program, I assume similar to those we embodied in the first bill that came out of this subcommittee last year. Would that be correct?

Mr. HOLLOMAN. That is correct.

Mr. ECKHARDT. But I would assume that you also may infer by that statement that something ought to be done legislatively that would change this long term trend that you refer to on the previous page.

Mr. HOLLOMAN. If I may speak for myself, Congressman, and I make no pretense to speak for the Commission as a body, I have always felt that in the long term, and I have so stated on many occasions, that natural gas deregulation or regulation of the intrastate market is inevitable.

Mr. ECKHARDT. If that is not done, there is no reason to believe that the premium on intrastate gas will not continue to skew production in the direction of the intrastate market. Is that not correct?

Mr. HOLLOMAN. That is the way I see it.

Mr. ECKHARDT. That is the way I see it, too. It would seem to me there are two possibilities that seem to me to be within reason. No. 1, to remove from control a very narrowly and strictly defined category of new natural gas. I am not talking about the gas coming out from under contracts. I am not talking about gas produced from wells on the margins of existing fields. I am not talking about new wells in existing producing territory. But it would seem to me that would be one way to face the question.

I do not mean to argue for it or against it. Perhaps you don't, either. Would you agree on that proposition?

Mr. HOLLOMAN. Yes, sir.

Mr. ECKHARDT. Or, on the other hand, we could do what we did in the Smith amendment last time. After all, as you recall, this committee came out with its recommendation for a bill taking care of that winter's situation, but the Rules Committee in its wisdom—incidently, I have always felt to be in the Rules Committee is like being inside the Delphic Oracle gone mad—but at least in what we call its wisdom it decided we would deal with the whole problem at that time, and those of us in the majority on this committee first opposed the rule because we thought we ought to deal with the immediate problem and we were not likely to deal with the whole problem that term, but when that was unsuccessful, Mr. Dingell and I and other members of this committee tried to do the best we could along the lines I am here discussing concerning control.

Mr. Niel Smith offered on the floor with our support an amendment which roughly provided that intrastate gas produced by a large producer, approximately two-thirds of the whole, be controlled and that the other third produced by independents, as they were defined in the act amendment, would not be controlled. That might not have been the right thing, but we had between the House provisions and the Senate provisions room for dealing with the question.

It would seem to me the real reason that was not dealt with last time is because the oil and gas industry simply wanted to wait for the solution to be made this winter, and we never got the Senate to appoint conferees. Now it would seem to me we are in the situation this winter of again being under the pressure of perhaps a colder winter, and being called upon to take action.

However, I would gather from your testimony that you do not think we really are under such an emergency situation, though in the long term we should try to solve these questions.

Now, that is a kind of long and rambling discussion rather than a statement. I shall simply permit you to respond in any way you please.

Mr. HOLLOMAN. Your characterization of our assessment of the situation is correct. We do not anticipate curtailments of priority one residential users or small commercial establishments this winter. But I think you are correct that all you have to do is look at the trend lines to realize that in time this will come eventually unless something is done to alter the situation.

One issue that I have brought up before and have spoken to is a possible need for some very limited legislation to give the Federal Power Commission the authority to interconnect pipelines to the extent of protecting residential users and small commercial establishments in such a case.

Mr. ERKHARDT. You see what our problem is from our past experience: if we get into any part of this subject, no matter how carefully we draw the bill, we still run the risk of being vaulted into the area of general control.

This is the problem this committee has got. I would like to see us pass a bill quickly that is relatively noncontroversial in the direction you have indicated. But if we do that, we have no assurance whatsoever that we will not then be forced to go into the question of general control without sufficiently considering it before the committee.

Mr. Chairman, I think I have well exhausted all my time.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes the gentleman from North Carolina, Mr. Broyhill.

Mr. BROYHILL. Thank you very much, Mr. Chairman.

I most respectfully disagree with the gentleman from Texas. I believe we do have a serious situation, particularly when you look at the trend that is developing, you can see we are going to be developing serious shortage situations, if not this winter, at least in a winter or two down the pike.

In fact, I predict there will be serious situations developing around the country this heating season. North Carolina has already predicted that thousands of jobs could be involved if this winter is colder than last year, if shortages develop in natural gas, and particularly where, if shortages develop in the access of other service fuels, alternative fuels, that is, if they are not available.

Long-range solutions are not available, of course, for this heating season. You have already shown very clearly that consumers in North Carolina cannot compete for the 87 percent of the gas you say that is coming into the intrastate market because of the law, because of the regulations that you are administering under the law.

Legislation that permitted this has not been enacted. There is little to believe, of course, that legislation would be passed to help in this heating season. I personally believe we have gone into this, there is no need for the committee to hold many more hearings on it. It is time for us to act.

As soon as this next Congress reconvenes we should be taking some action for long-range solution. That is not going to help for the present heating season.

Let me ask you a question or two about some of the emergency procedures that are available. You do have an emergency 60-day purchase period in which high priority customers may purchase supplies. It is my understanding those supplies may be purchased for a 60-day period only. They cannot be delivered for a longer period than 60 days.

Mr. HOLLOMAN. Congressman, the 60-days sales are made to the pipelines, but I think the emergency sales to which you refer are the order 533 sales where an individual customer, such as Dan River, can go into the intrastate market and buy gas and have it transported directly to its place of business for high priority uses. Under those circumstances, there is a 2-year limitation.

Mr. BROYHILL. The pipeline may purchase for only 60 days?

Mr. HOLLOMAN. Yes.

Mr. BROYHILL. It was my understanding that these 2-year emergency purchases permission is permitted only to high priority customers. How do you define those?

Mr. HOLLOMAN. I believe the regulations provide for transportation priority 1 and priority 2 uses only.

Mr. BROYHILL. Who are those?

Mr. HOLLOMAN. That would be your residential and small commercial. It would be your process, feedstock and plant protection gas, and large commercial requirements.

Mr. BROYHILL. Smaller users?

Mr. HOLLOMAN. No, sir. Not necessarily. High priority users.

Mr. BROYHILL. Those customers must apply to the FPC for approval to transport this gas, and the individual customer, of course, has to show they are anticipating curtailment and the transportation company must be curtailing gas to them, and they must have unused capacity to transport the gas?

Mr. HOLLOMAN. That is correct.

Mr. BROYHILL. Once that is shown, my question is, what I am getting to, why does it take so long to get the FPC to approve these applications? It is my understanding you have several applications that have been pending down there for 60 days or longer.

Mr. HOLLOMAN. I would like to refer that question to Mr. Solters, if I may, Congressman.

Mr. SOLTERS. Congressman, first, the staff of the Federal Power Commission is trying to work out some of the delays that have been inherent in that system and is trying to expedite these applications and get them to the Commission in less time than it has taken in the past. One area of significant consumption of time is to go back to the applicant and ask the applicant to demonstrate that the gas would not be sold to the interstate pipeline company under the opinion No. 770 rates. That process of going back and determining that the gas would not be sold even under the higher prices permitted under that opinion has taken a substantial amount of time.

Mr. BROYHILL. Why should that take so much time, when all you need is an affidavit from the seller?

Mr. SOLTERS. Our experience has been that it has simply taken time to receive the material back again and to process it back to the Commission. As I indicated, there are some obvious improvements to be made in there, and the staff is trying to get these completed reports

to the Commission on these applications sooner than they have in the past.

Mr. BROYHILL. Are you requiring a hearing on each one of these applications?

Mr. SOLTERS. No hearing on any of them.

Mr. BROYHILL. I think in this period of an emergency, if a customer has found some gas and can very easily show they are experiencing a curtailment and the pipeline is operating under curtailment order, has unused capacity, I really think the FPC should be going an extra mile to help these customers. And it is just wrong for the Federal Power Commission through their procedures that they have down there to have these applications sitting around for 60 days or more.

It is my understanding you have several applications that you had for 60 days right now and over 60 days. It would seem to me you would want to get down there and clean these things up in a week or so, particularly when last night and yesterday we had the coldest day on record, or the second coldest day on record.

Mr. SOLTERS. Your point is well taken. We expect to have them before the Commission very shortly for their approval or disapproval, as the case may be.

Mr. BROYHILL. I would like to have a report on that, Mr. Chairman. I think the committee ought to follow the progress that the Commission makes in approving these emergency purchase applications from high priority customers who have been able to find gas, are willing to pay the interstate, and have been able to make arrangements for the transportation of that gas. It seems to me wrong for the FPC to be holding up these applications. I would hope the committee staff would be monitoring this.

Mr. DINGELL. If the gentleman would yield, the chair certainly is fully prepared to cooperate with the gentleman. I will see to it the staff does pursue that matter. I am sure the Commission, particularly Commissioner Holloman, will be helpful to us. I observed the Commissioner who is before us this morning is quite helpful in cooperating with the committee.

Mr. BROYHILL. What dangers, Mr. Commissioner, would there be in having a self-certification system and then have the Commission to monitor it after the fact? What dangers would there be in that? Would that not release a lot of staff in the Commission that would be available for other things?

Mr. HOLLOMAN. I am sure it would. You must appreciate this is an extraordinary device that the Commission has devised to meet the current emergency.

Mr. BROYHILL. It looks like what you have done is devise a system that is very difficult to use. It makes it appear to those who want to use it that you have said, here is a system that can be used, but then you set up so many roadblocks it is very difficult to use them. You have only approved 30 applications.

Mr. HOLLOMAN. I do not think, Congresman, you could have a self-certification procedure on these deliverability arrangements without violating the National Gas Act. I must emphasize that the very arrangements provided for by 533 hangs by a rather tenuous thread or stands on very shaky legal ground to begin with. We have to be very careful in constructing a method to allow customers to go into the

intrastate market and pay intrastate prices and transport that gas in an interstate pipeline so that we do not exceed the bounds of the law. And that is the reason why we are very careful with these and why very stringent provisions are put on them. For one thing, they have to be noticed and notice has to be given to other customers that may want to oppose them. We have to show that that gas would not otherwise go to the interstate market even if we did not grant one of these. We have to show that it is, in fact, a high pririty usage, and we have to show the other requirements. So the Commission is trying to expedite consideration of these 533 orders.

However, we are doing so carefully and considering our obligations under the National Gas Act.

Mr. DINGELL. The time of the gentleman has expired. The Chair recognizes the gentleman from Connecticut, Mr. Moffett.

Mr. MOFFETT. Thank you, Mr. Chairman.

I might point out with regard to the comment by the gentleman from North Carolina, it is my understanding the gentleman from Texas did say the situation is serious, although perhaps not an emergency. Is that not correct?

Mr. ECKHARDT. That is correct.

Mr. MOFFETT. Commissioner, I have just a few questions.

The States that are mentioned in your testimony, perhaps could you tell us, how they were selected to be on your list on page 7?

Commissioner HOLLOMAN. Congressman, those States were selected because of the pipeline serving them. The staff may wish to correct me on it. I assume those States were picked out as a result of our omnibus hearings on the pipeline curtailment situation because those States are served by pipelines thought to be in a very serious situation concerning their gas supply.

Mr. MOFFETT. Could you be a little more specific with regard to the methodology?

Mr. HOLLOMAN. In other words, North Carolina and other States on the eastern seaboard would obviously be on the list of States where you can expect trouble because they are served by Transco and the facts are very clear that Transco is in a very serious curtailment situation. My home State of Mississippi is on that list, and I am sure the reason is that United Gas Pipeline supplies most of the gas in southern Mississippi and they are in a very serious situation.

Mr. MOFFETT. A year ago, for example, would not New Jersey likely be on the list?

Mr. HOLLOMAN. I would think so.

Mr. MOFFETT. Why is it not on the list this year? Is the situation that much improved?

Mr. HOLLOMAN. Let me ask Mr. Solters to respond to that, if I may.

Mr. SOLTERS. Congressman Moffet, in addition to the remarks of Commissioner Holloman, upon informal request by the Federal Power Commission staff for their general status in colder than normal weather these States indicated problems if weather was substantially colder than normal. That is part of the reason they were on there. New Jersey, for example, showed some improvement in its natural gas deliveries for this winter. The FPC staff and FEA have generated at the end-user level, data on deliveries of natural gas rather

than on curtailments or requirements. You will see when you strictly stick with deliveries themselves, that most of the States in the Nation at the end-user level show more natural gas deliveries for the forthcoming winter than they did in the past winter. If you will refer to the report that has been provided behind FEA's testimony, I am not sure which of the witnesses, you will see that is true.

Mr. MOFFETT. Thank you. I think that is sufficient.

Mr. DINGELL. Would the gentleman yield for a brief request by the Chair?

Mr. MOFFETT. Yes.

Mr. DINGELL. Commissioner, as a kindness to the committee, could you, at your convenience, give us a statement on the reasons why the States listed on page 7 of your statement are most susceptible to significant economic dislocation in the event of a sustained abnormal cold weather?

Mr. HOLLOMAN. We will be glad to, Mr. Chairman.

Mr. DINGELL. Obviously I am not requesting you to do that this morning, but at your convenience. Without objection, it will be inserted in the record [see p. 66].

Mr. MOFFETT. Commissioner, in view of your action last Friday amending your previous decision on the rate case, I have three questions. One, what is the estimate by the Commission of the consumer impact of that rate decision? Two, what is your estimate of the additional supply? And three, what is the likely effect of that decision on the curtailment situation this winter and next winter?

It seems to me, Commissioner, there are a lot of negatives associated with such a decision. In other words, we see the inflationary impact in a macroeconomic sense. We see the impact on individual residential consumers. We hear about dramatically increased natural gas bills for residential consumers. But for any price increase, even assuming that the majority of the Commission is correct and there will be additional supplies, there is a lag in producing that beneficial consumer supply response. So I wonder what kind of time frame we are talking about here.

Mr. HOLLOMAN. I think your first question was, what is the estimated impact of that decision now, and I believe the estimated impact would be from $111.5 billion to $111.8 billion, Congressman.

Mr. MOFFETT. What does that indicate about the average residential gas bill?

Mr. HOLLOMAN. The average bill, I am informed, will go up $15 to $19, but I should hasten to point that this will not be uniform throughout the country.

Mr. MOFFETT. I understand.

Mr. HOLLOMAN. And one of the things we found out and continue to find out is that each pipeline is not only in a separate curtailment situation, but each pipeline has a different price mix in its gas A pipeline that has substantial quantities of old gas is going to experience a very small rate increase. Other pipelines that have relied very heavily on new gas dedications within the last several years will experience greater increases. So the rate increase will not be uniform even within the same States and areas.

What was the second question?

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Mr. MOFFETT. The second question was: What is your estimate of the impact of your decision on additional supply?

Mr. HOLLOMAN. We have to be optimistic about that estimate. There may be, we hope there would be, some gas that has not been dedicated to the interstate market that would be dedicated under that decision.

Mr. MOFFETT. Let me interrupt you there, if I might. Are we then having the rather significant consumer price impact in exchange for hope? Is that what you are saying?

Mr. HOLLOMAN. That is one thing; yes. We have to hope that as a result of this significant price increase, we are going to get additional dedications to the interstate market. That is correct.

Mr. MOFFETT. Are we basically, then, just hoping or do we have a little more assurance than that?

Mr. HOLLOMAN. It is based on cost-based rates, and our analysis, our best estimate of what we can expect from it. There will be a delay in some instances. There will be a delay in drilling activities and a delay in some instances of producers responding to it. It is subject to appeal. It may be subject to refund. I cannot give you an accurate estimate as to how the producer community will respond to it.

Mr. MOFFETT. We do know the consumer impact will be rather immediate; is that correct?

Mr. HOLLOMAN. That is correct.

Mr. MOFFETT. The third question was: What is the likely effect of that decision on curtailments this winter and next winter?

Mr. HOLLOMAN. The only impact that I can see in the immediate future, Congressman, would be in those instances onshore where there exists gas supplies today that have not been committed to the interstate market for one reason or the other. Hopefully, there is a certain amount of that gas available and hopefully, in response to 770–A, some of that gas will now be committed to the interstate market. For example, some States do not have an extensive intrastate pipeline system. Some of the small-producing States do not. In some of those States, there have been fairly substantial onshore gas supplies discovered, and in some instances, those producers have been waiting to see what 770 said. We hope that they are trying to assess the cost of building a line to connect with an intrastate pipeline as compared to dedicating that gas to interstate commerce. Hopefully, some of that gas will come on stream as a result of 770.

Mr. MOFFETT. The answer to my third question is apparently that your decision will not have a significant effect with regard to curtailments this winter or next.

Mr. HOLLOMAN. In the immediate future, probably not.

Mr. MOFFETT. One more question, Commissioner. With regard to the 60-day rule and order 533 as it relates to direct customers, what is your best estimate as to the intrastate volume available and its price? Would you give us a picture of the general status of the intrastate market as you see it and whether it can accommodate purchases under the 60-day rule and order 533?

Mr. HOLLOMAN. I will refer that question to Mr. Solters, but I think you could take public notice of the fact that for the State of Texas, for example, which has been a source of emergency purchases, of 533 and 60-day sales, that there are predictions, in the public domain, that the intrastate market there may soon absorb more gas than is

now excess to it. When that time comes, you are naturally going to have to face the situation where there may not be any gas that is excess to the intrastate market and available for 60-day or 533 sales. So I think the concern that you voice is a very real one and one many people tend to overlook. That is, the intrastate market, which has until now been a very healthy one as far as supplies are concerned, may very well become curtailed itself, as in the State of Texas, and they may very soon be curtailing in the intrastate market in other States.

Mr. MOFFETT. I appreciate that, but I would like to know what the situation is presently with regard to the intrastate market?

Mr. HOLLOMAN. I would like Mr. Solters to respond to that.

Mr. SOLTERS. Congressman, I do not know of any source of data that provides a hard analysis for the estimation of emergency purchases available this winter. Our figures show approximately 115 billion cubic feet of emergency purchases that were made by pipelines directly and that were made by distribution companies from intrastate pipeline companies other distribution companies under section 12.68 of the Commission's regulations, a total of about 115 billion cubic feet for the period November through March last winter. There is some information that came out of our 19 pipeline investigation as to anticipated emergency purchases this winter. The pipelines did not provide information in their form 16 reports as to the amount of their intended emergency purchases. So in the proceedings, information became available that certain pipelines that had curtailments intended to buy substantial quantities of emergency gas. For example, in the Transco proceeding, the record showed that Transco intended to buy or arrange for purchase by its distribution customers approximately 30 to 40 billion cubic feet for the forthcoming winter heating season.

Mr. MOFFETT. Thank you. However, I am rather puzzled as to why there is no source of data on the emergency gas situation.

Mr. SOLTERS. It is sort of a catch-as-catch-can situation, if you can appreciate that. Information we received in these proceedings indicate that there are some factors involving risk on the part of the pipeline to arrange the purchase. Some of the parties that are selling the gas are not absolutely secure in making the sale for many different reasons, in part involving jurisdictional problems, part refund contingency problems. The general information gained by me through experience and these proceedings is that this gas would not be sold on what we consider a firm basis, that the gas would be available at times that there would not be extremely cold weather conditions from some of the intrastate parties that are marketing this gas. A general description of this gas is that it is under contract to the intrastate market but is surplusage right at the moment. And part of the reason it is surplus is that it constitutes gas that would be subject to take or pay provisions in the intrastate market—where the intrastate buyer would have to pay money for not taking the gas and may not be able to recover the gas later.

Mr. MOFFETT. Thank you.

Mr. DINGELL. The time of the gentleman has been expired.

Mr. ECKHARDT. May I have a few moments?

Mr. DINGELL. The Chair will recognize the gentleman from Texas. The Chair does observe we are behind time. The Chair does have some questions.

Mr. ECKHARDT. I shall be very brief. There is one thing I cannot understand, Mr. Commissioner, and that is, this 60-day contract gas, 60-day emergency gas would not be subject to your price control regulation so it would sell at the free market price, say, around $1.65 and up, would it not?

Mr. HOLLOMAN. That is correct.

Mr. ECKHARDT. You say there is even a shortage of that because of the demand of the intrastate market?

Mr. HOLLOMAN. Congressman, I said I think you can reasonably assume there may be a shortage of intrastate gas in the future as the supply situation on the intrastate system deteriorates.

Mr. ECKHARDT. If you could get just as much in the intrastate market as you could under the contract, you might have a long-term customer in the intrastate market, you would tend to prefer to continue your predistribution system and your present lines of supply. But if that be true, then how can the 93 cents for gas wells coming in between in 1973 and 1974 entice any gas into the interstate market if $1.65 and up will not entice gas into the interstate market? Why does that 93 cents adjustments help at all?

Mr. HOLLOMAN. That 93 cents is based on costs plus the change in income taxes, Congressman.

Mr. ECKHARDT. I am not quarreling with 93 cents. It may be equitable, but it does not seem to me that it shifts much gas or has hardly any potential of shifting gas from the intrastate to the interstate market. Instead, I cannot see that would be true of the $1.42 gas after 1954 if you cannot get at $1.65. I cannot imagine how gas would be shifted at $1.42 and the intrastate market, I think, around $1.65, isn't it, or up for the present gas?

Mr. HOLLOMAN. The intrastate price, I believe, is around $1.59, $1.60. for the average weighted price of intrastate gas.

Mr. ECKHARDT. But that is considerably above $1.42. I just do not see how such prices would entice much gas from the intrastate to the interstate market. I can see how you could entice that gas from the interstate market if you put a lid on intrastate gas, which you could not do, at say, $1.50.

Mr. HOLLOMAN. I think that is basically correct, Congressman, but the $1.59 intrastate average price does not reflect the fact there are some areas where the price is selling at less than that. There are some areas where there is gas that does not have access to an intrastate market, at least would not have access to it without the building of expensive pipeline connections. We would hope to get that, but all things being equal, we do not anticipate onshore that $1.42 is going to compete with $1.59. That is correct.

Mr. ECKHARDT. Thank you, sir.

Mr. DINGELL. The chair recognizes Mr. Schroeder, of the subcommittee staff, for purposes of questioning.

Mr. SCHROEDER. Thank you, Mr. Chairman.

I am not sure you had a chance to look at the chairman's opening statement in which he makes reference to a preliminary projection by the National Oceanographic and Atmospheric Administration with regard to this winter's long-range weather forecast. They indicated that the Southern Great Plains, the Ohio Valley and all of the South, if their projections are true, will be colder than normal while the

Northern Great Plains, the Northwest, and the California coast would be milder than the remainder of the country, it being too close to call at this point. If that projection were to hold true, do we stand to have greater than or less than normal consumption of gas? In other words, are the areas that are projected to be colder those areas that tend to use relatively more natural gas? Is it possible to make any kind of an estimate?

Mr. HOLLOMAN. We will provide for the record, if you wish, a breakdown by areas conforming to your weather forecast of what the situation should be or is expected to be on the pipelines serving those areas.

Mr. SCHROEDER. Your 19-pipeline survey and staff report do indicate, do they not, a substantial risk with respect to the Midwest and the South? Those two areas, as I recall, were fairly consistently flagged as potential trouble spots; is that right?

Mr. HOLLOMAN. I am not sure without looking at a State by State breakdown. I think the forecasts were made depending on the particular pipelines serving an individual State. I do not think they were made on a regional basis because of any weather forecast or anything like that.

Mr. SCHROEDER. I did not mean to suggest that.

Mr. HOLLOMAN. As you well know, each pipeline is in a different curtailment situation. You have some States where you may have two communities 10 miles apart where one has got plenty of gas and one is suffering severe curtailment because they are served by different pipelines. I think the assumptions that went into this report were simply based on the particular supply situation on an individual pipeline serving a particular State.

Mr. SCHROEDER. If I understand correctly, your report is more or less independent of weather assumptions. It just looks at contract obligations.

Mr. HOLLOMAN. Based on normal weather assumptions, it basically will.

Mr. SCHROEDER. Does weather enter into it at all is the question?

Mr. DINGELL. Without objection, the chair will insert the letter from NOAA to the chair into the record at the appropriate place. We will see to it, Commissioner, that a copy is delivered to you. Obviously you may want to make initial comments in light of that submission, which will be made available to you. The chair observes the date on the letter is November 8, which just got here, so we are not trying to blindside you with something you did not expect.

[Letter referred to follows:]

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852

November 8, 1976

Honorable John D. Dingell
Chairman, Subcommittee on Energy and Power
Committee on Interstate and Foreign Commerce
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

I am writing in response to your request for information on the weather of this fall and the prospects for the remainder of the heating season.

The early fall has been cold for most of the country east of the Rockies. By the end of October, many cities' heating degree-day totals were running 50 or 60 ahead of both the long-term normals and last year at the same date. (Heating degree-days are a measure of accumulated deficit of daily average temperatures below a base of 65°F.) Although these deviations represent large percentage departures from normal now, they are small in comparison to the accumulations normally reached as winter sets in.

Our outlook for November, published 10 days ago, called for a continuation of the generally cold weather and retained milder than normal conditions only in the Pacific Northwest. Such outlooks carry about a 60 percent chance of distinguishing correctly between conditions colder or warmer than normal. The November outlook is working out well so far.

In preparing outlooks for the winter season (December through February), we usually wait for data to be collected describing the conditions of the latter half of fall, because these data can provide some of the best clues on which to base a necessarily very risky kind of projection. We will issue a final outlook for the winter on November 29. To assist the Subcommittee, we have put together a preliminary outlook, using data received through last week. It should be given less than the usual 60 percent chance of correctly predicting a cold or mild winter at specified locations and it may be revised on November 29.

Because certain key elements of this fall's pattern of winds aloft that produced the cold weather have established themselves

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in places over the North Pacific and North America where they have a statistically fairly good chance of remaining through the winter, we expect the distribution of prevailing warm and cold weather to resemble rather closely that of the fall. We believe the winter will be colder than normal all across the South and the southern Great Plains, and in the Ohio Valley. It should be milder than normal in the northern Great Plains, the Northwest and along the California coast. Such other areas as the Northeast Atlantic Coast, the upper Midwest, and the intermountain basins of the West must be considered indeterminate -- equally like to go either way.

If the winter's weather does follow the pattern we have described, it will have broken away from the general type that has occurred for the last 5 years -- mild in the East or throughout -- and returned to one common in the 1960's.

The heating season continues, of course, through spring in many areas. Temperature projections that far in advance remain beyond the state of the art. Preparation of our spring outlook must, therefore, wait until late February.

Sincerely,

Donald L. Gilman

Donald L. Gilman, Chief
Long Range Prediction Group, NMC
National Weather Service

Mr. DINGELL. Mr. Commissioner, as best you might, try and equate the comments you are going to give with regard to the several States listed on page 7 of your testimony to the weather conditions. That may be beyond your capacity, or it may be beyond your capacity in light of the amount of time you have available. If so, would you just advise us, please.

Mr. SCHROEDER. Thank you. I would like to try to clear up a confusion I have, and perhaps others have, with respect to the distinction between firm and interruptible contracts. First of all, is that a meaningful distinction? Do we talk in terms of customers being either on firm or on interruptible service from their suppliers?

Mr. HOLLOMAN. It is a legally identifiable distinction, yes, between firm and interruptible contracts. As you know, the Commission's initial policy statement on curtailment, setting out the nine priority plan, makes a distinction between firm and interruptible contracts. As the cases have actually evolved up to the Commission and through the courts, there has been a very noted trend away from recognizing that distinction. I think in the last several curtailment proceedings that have come before the Commission, the firm interruptible distinction has, in fact, been abolished as far as that specific case is concerned. So although the Commission started out with that assumption, that the firm interruptible distinction should be maintained, and although it is contained now in our policy statement, in the decisionmaking process on a pipeline by pipeline basis, the firm interruptible distinction has been virtually eliminated in most cases.

Mr. SCHROEDER. To use that old terminology just to help me clear up my problem, consider a contract between a pipeline and one of its distributors. Are volumes of gas to be delivered under that contract treated as firm requirements?

Mr. HOLLOMAN. I think it depends on the contract between the pipeline and the distributor.

Let me ask Mr. Solters. He has been working on this contract situation. Maybe he can respond better than I.

Mr. SCHROEDER. Let me finish the question a little bit further. If a contract between a pipeline and its distributor is treated for purposes of your curtailment projections as a firm contract or firm requirement, but then the distributor is free to make, let us say, 50 percent of its commitments to interruptable customers, that is, customers which must have alternate fuel capability, then somehow or another the concept of interruptible gets masked at the city gate and appears for purposes of FPC analysis as 100-percent curtailment when, indeed, you would see at the distribution points that a good deal of that gas might be going to interruptible type customers. That is the question I have, and I wonder if you could clear that up?

Mr. HOLLOMAN. I am going to let Mr. Solters answer this question. The firm interruptible distinction usually comes into play in determining the end-use priority and not in the context of the contract between the distributor and the pipeline.

Mr. SCHROEDER. I understand.

Mr. HOLLOMAN. I will let Mr. Solters answer that question. What you are asking is whether or not a distinction between the firm interruptible contract between pipeline and distributor would distort the impact analysis that we made?

Mr. SCHROEDER. Precisely.

Mr. HOLLOMAN. I do not believe it will, but I will be glad to let Mr. Solters answer the question.

Mr. DINGELL. While he is preparing, are not there two kinds of interruptible, the first being those which are based upon a contract between the pipeline itself and those which are based upon sales by the distributor who is in turn himself a purchaser of the pipeline? Do those change, again, the concept that you might have in mind or Mr. Schroeder might have in mind in his question?

Mr. HOLLOMAN. That is correct, Congressman. And, of course, one of the basic problems that we always have, and as I pointed out in my testimony, is that our curtailment jurisdiction ceases at the city gate. In that sense, it is masked at the city gate. Once the gas goes past the city gate, the Federal Power Commission has no authority to mandate its use. It comes under State regulation. But I do not think that is the question you are driving at.

Mr. SCHROEDER. I guess simply stated the question is, What percent of distributor deliveries are to customers that we would have in days past termed "interruptible customers"? Because all the deliveries to the city gate by the interstate pipeline appears in your report to be firm requirements. In other words, it overstates what the actual firm requirements under the old terminology might actually be.

Mr. HOLLOMAN. I understand your question, and I would like Mr. Solters to explain how that was factored into the conclusions drawn in this report.

Mr. SOLTERS. Mr. Schroeder, you are correct in your general observation that the gas that is sold by pipelines on a firm basis is in large part sold on an interruptible basis by distribution companies. The FEA report that accompanies the testimony of one of the FEA witnesses today contains in tables 2 and 3 a good analysis of gas sold at the end-user level, the requirements, the curtailments and the deliveries by classes of customer and by type of contract for each State. And I think that will indicate to you the answer that you are looking for and is the relationship between gas sold on a firm basis at the wholesale level and gas sold on an end-user basis, a large percentage of which is sold on an interruptible contract basis to end-users.

We have recently tried to get away from discussing requirements and curtailments in dealing with the natural gas shortage and have chosen to deal with the term "deliveries" and try to show changes in deliveries to avoid the type of confusion that we seem to have in dealing with some of the press releases that we have issued recently on curtailments.

Mr. SCHROEDER. I would like to explore as briefly as I can a concern I think a number of people have expressed over the last couple of years that curtailments have become an important issue. It strikes me there is an incentive for a pipeline to want to curtail direct purchasers, and instead deliver gas to city gates farther down the pipeline. If nothing else, even if you are selling at the same profit, you are amortizing a greater part of the pipeline by virtue of running the gas that much farther in it. Let us just say, for example, a pipeline might be selling to an industrial direct customer at 60 cents an Mcf and also selling to a distributor for 75 cents an Mcf. Isn't there an obvious incentive to try to curtail to the maximum extent possible that lower priced

industrial customer and to favor the higher priced distributor type customer farther down the pipeline? I am wondering if there has been any attempt by the FPC to check this. One of the things you might have done or have considered doing is to look at how deeply curtailments have cut into direct purchases in a given priority category versus distributor curtailments. How deeply do curtailments cut into end-users of distributors in those same priority categories? Has there consistently been a greater degree of curtailments of direct purchasers than curtailment of indirect purchasers in equivalent priority categories? Have the pipelines in effect been favoring the indirect purchaser?

Mr. HOLLOMAN. I would assume the opposite is true. There would be an incentive to sell to direct customers at the expense of distributors because the direct customer's sales price is not regulated by the Federal Power Commission but comes within the States' jurisdiction, if at all. I might stand corrected by Mr. Solters, if that is not true. I have always gone on the assumption that for the sales to direct customers, the price is higher than for sales to distributor customers because it is, in fact, not regulated by the FPC.

Mr. SCHROEDER. Is there only one class of category of direct purchaser, that being the unregulated price customer? I was under the impression there were regulated direct customers as well.

Mr. HOLLOMAN. A sale to a direct customer is not a sale for resale. A sale to a distributor is a sale for resale.

As to your second question as to who has suffered the greater curtailment, I have operated on the assumption the direct customers have suffered the greater curtailment. For one thing, in most instances, the direct customer has a lower priority than your distributor customers who serve residential and small commercial establishments. The second thing is that our capability or our ability to get accurate data on end-use from the direct sales customers is better.

Third, the direct sales customer that buys its gas directly from the pipeline may not have the flexibility and alternate fuel capability that a distributor might have. For example, a distributor may have storage, a distributor may get gas from another interstate pipeline, a distributor may have intrastate supplies, a distributor may be able to group or take advantage of other methods that give him flexibility that a direct customer does not have. And then again, we have the authority to impose our priorities on a direct customer. If he falls at the bottom of our priorities, we have the authority to enforce that priority, to cut him off, but once the gas goes to a distributor, then we lose that authority and the distributor can, subject to State jurisdiction, move that gas around anywhere he wants to.

Mr. SCHROEDER. One final question. In the staff report on the Arkansas-Louisiana pipeline system, you indicated that Arkansas-Louisiana does not favor and does not practice 533 deliveries, that they believe it is not a solution to the problem. I believe there was a case before the FPC in which a customer had identified volumes of gas for transportation through Ark-La, which Ark-La refused. Is that the only case in which a purchase had been identified and which a pipeline refused to carry? Have there been other instances? And is there an official FPC position with respect to such practices?

Mr. HOLLOMAN. The first thing is, the FPC does not have the authority to force an interstate pipeline to participate in a 533 program. A customer can go out and find his gas, but if the pipeline refuses to transport it, then we have no authority to force that pipeline to transport it. And second, I will defer to Mr. Solters who is more familiar with the program and works with it every day. I would not be surprised at all if many interstate pipelines are reluctant to participate in the 533 program.

Mr. SCHROEDER. Why is that?

Mr. HOLLOMAN. I think there is just a natural reluctance by pipelines, even distributors, to have their customers go out in the intrastate market and buy their gas under 533 arrangements.

Mr. SCHROEDER. In essence, the pipeline feels it is being competed with by its own customers for potential available supplies of gas?

Mr. HOLLOMAN. I said I would not be surprised if they felt that way.

Mr. SCHROEDER. Thank you.

Mr. DINGELL. Mr. Holloman, we appreciate your frank, open, and very knowledgeable remarks.

Mr. HOLLOMAN. Thank you, Mr. Chairman.

Mr. ECKHARDT [presiding]. Our next witnesses are Mr. John D. Christie and Mr. Gordon C. Smith.

Mr. DINGELL. The Chair is very pleased to welcome you to the committee.

The Chair recognizes Mr. Smith, assistant administrator for regulatory programs, and Mr. Christie, assistant administrator for the office of energy information and analysis.

Gentlemen, we are most pleased to welcome all of you. If you would identify yourself, to assist our reporter, and members of your staff whom you choose to have present at the table with you, we will be most pleased to accept your statement.

STATEMENT OF JOHN D. CHRISTIE, ASSISTANT ADMINISTRATOR, OFFICE OF ENERGY INFORMATION AND ANALYSIS, FEDERAL ENERGY ADMINISTRATION; ACCOMPANIED BY KENNETH KINCEL, DIRECTOR, OFFICE OF CONSERVATION AND RESOURCE DEVELOPMENT, OFFICE OF POLICY AND PROGRAM EVALUATION, AND GORMAN C. SMITH, ASSISTANT ADMINISTRATOR, OFFICE OF REGULATORY PROGRAMS

Mr. CHRISTIE. Mr. Chairman, I am John Christie, assistant administrator, office of energy information and analysis.

On my right, Gorman Smith, assistant administrator, office of regulatory programs, and on my left is Kenneth Kincel from the office of policy and program evaluation.

Mr. Chairman, before I start, yesterday I provided the committee with a number of copies of my testimony. I am quite willing today to either read that 15-page, double spaced testimony, or in the interest of time, if you prefer, I am willing to just cover the highlights of that before we get into questions and answers.

I would also like to indicate at the beginning that I believe each member of the committee has been provided today with a draft copy of

FEA's report on "Protected Natural Gas Curtailments and Potential Needs for Additional Alternate Fuels," which is currently in the process of being prepared for publication and distribution to the public.

If you do not, as a member of the committee, have a copy of that report, I have a few more copies which I brought for the committee, and I can provide them to you now.

Mr. DINGELL. There are several points here.

The first is the statement. Mr. Christie, the committee will leave that to your own wisdom. I think you can probably summarize, if you wish.

Without objection, we appear to be in agreement on this matter, we will insert the full text of your statement in the record [see p. 75] and will recognize you for purposes of summary.

I believe you have made copies of the draft report available. I know the staff has reviewed it, and I think further submissions of that will not be necessary at this time. So, with those comments, we recognize you, sir.

Mr. CHRISTIE. Thank you, Mr. Chairman. I appreciate the opportunity to apprise the Congress and this committee of this winter's natural gas curtailment situation, and especially to provide all the pertinent information available on curtailment alternate fuel capability and potential economic impact, and to describe the actions which have been taken to date to mitigate potential impacts of those curtailments.

Curtailments are symptomatic of the longer term problem of declining production of natural gas. Production peaked in 1973 at 22.6 trillion cubic feet. It dropped about 5 percent in 1974 to 21.6 trillion cubic feet. It declined another 7 percent to 20.1 trillion cubic feet in 1975.

Based on preliminary data from the Bureau of Mines, it could drop to between 19.5 and 19.9 trillion cubic feet this year.

Curtailments have steadily increased in recent years. Interstate pipeline curtailments have increased from 0.1 trillion cubic feet in 1970 to about 2.8 trillion cubic feet of firm requirements during the delivery year ending last March.

Curtailments have the greatest potential for substantial or severe impact in the winter because that is when the space heating is at a peak. It has increased from .1 trillion cubic feet in 1970 to 1.2 trillion cubic feet last winter. During this winter, curtailments are projected to increase substantially.

The FPC reported in September an increase in interstate pipeline curtailments of 340 billion cubic feet, or a total of 1.6 trillion cubic feet of these pipelines reported firm customers requirements.

FEA, in its survey of 1,700 natural gas companies providing gas service to en-use customers, projects an increase in curtailments of 424 billion cubic feet, or about 30 percent above the actual curtailment levels last winter, and a total curtailment level about 1.8 trillion cubic feet, or 18 percent of end-user requirements.

These figures, plus many others, are contained in this report which I have submitted to you in draft form today, in which we summarize not only curtailments but also the need for alternate fuels, our understanding of the availability of alternate fuels, and our understanding of the situations where customers do not have an alternate fuel capability.

Estimates of curtailments, both FPC's and FEA's, are based upon normal weather conditions and, in particular, in the case of FEA, as estimated by companies serving natural gas to end-use customers.

There are differences in the FPC and FEA's estimates. These are due to: One, the FEA survey includes supplies not fully taken into account by the interstate pipelines, for example, intrastate pipeline deliveries distributor storage, and supplemental gas supplies including LNG, SNG, and propane-air.

Whereas the FPC reports a decrease in deliveries of about 154 billion cubic feet this year by the interstate pipelines, our survey shows an increase in the supplies of natural gas delivered to end-users this winter relative to last year of somewhat over 200 billion cubic feet.

However, curtailments based upon the FEA survey are projected to be higher than those of the FPC and the reason for that is evident. Even though the distribution companies project an increase in supplies over 200 billion cubic feet this year, the end-user requirements, particularly in the residential and commercial sectors, are projected to be up about 7 percent. The expected increase in deliveries of 200 billion cubic feet, equalling about 3 percent cannot offset the entire 7-percent increase in projected requirements. Therefore, given a total of about 10 trillion cubic feet of requirements covered in our survey, there is an increased shortfall of about 4 percent or 400 billion cubic feet specifically, 424 billion cubic feet is the the volume of increased curtailments projected for this winter relative to last winter by the respondents to our survey.

A second difference between the FEA and the FPC surveys, which are complementary, is that the FEA survey includes a large percentage of the end-user requirements by including the intrastate market.

A third reason is that the basis for estimating requirements is different in the FPC curtailment numbers than those done with the FEA survey. The pipelines review their contractual requirements which are predominantly with distributors to determine their estimate of requirements. In the case of end user curtailments, the distribution companies estimate the specific requirements of end users, for example, the residential sector, in addition to looking at their contractual requirements.

The impact of curtailments depends upon a number of things. In addition to the severity of the weather, the level of industrial activity, and conservation efforts on the part of the users, the impact also depends on alternate fuel availability and capabilities. Included in this assessment are the ability of end users to use alternate fuels, their increased needs for specific alternate fuels, the availability of those fuels to the users who may be curtailed, and the costs of those alternate fuels.

There were no severe economic impacts observed last winter, for a number of reasons. Last winter's temperature was extremely mild. Second, there was a relatively low level of industrial activity. Third, the FPC's emergency administrative procedures provided additional emergency gas supplies from the intrastate market, reducing interstate curtailments somewhat. As a result, actual end user curtailments were 323 billion cubic feet less than projected for that winter.

For this winter, FEA, through its survey, projects sufficient alternate fuel supplies to offset anticipated increased requirements due of natural gas curtailments under normal weather conditions. The FEA survey

shows residential fuel oil will be sought most to offset curtailments, followed by light middle distillate oil (No. 2), and then propane.

Our analyses indicate that inventories of middle distillate are high with current volumes equaling those for the same period in 1975. At the end of the third quarter of this year primary inventories totaled about 225 million barrels.

Propane inventories this year were at record levels at the end of August, 10 percent higher than during August of last year. For example, propane inventories were about 95 million barrels during August this year versus 86 million barrels a year ago. In looking at alternate fuel requirements, which I will get to in more detail, later, the increased demand for propane is about 7.6 million barrels.

With regard to residual fuel, primary stocks of residual fuel in mid-October were lower than last year by about 9 percent. However, suppliers can rely on reserve capacities to meet winter needs. In addition, utility stocks of residual oil, which are important because utilities are a major user of residual fuel as an alternate fuel, are up somewhat over 5 million barrels relative to a year ago.

Unusually cold weather could cause temporary shortages in local areas due to logistical problems.

I would like to emphasize that, from a national perspective, we do not foresee a shortage of alternate fuels under normal weather conditions. However, the States most susceptible to temporary shortages can be determined based on a rough comparison of alternate fuel inventories with projected requirements. These States are: North Carolina, South Carolina, Georgia, Maryland, Tennessee, Arizona, Virginia, West Virginia, and Kentucky—nine States in all.

In addition, we have also looked at customers who do not have alternate fuel capability, or have so indicated in our survey. There might be problems among customers in four States. However, I think it should be quite clear this is a different kind of a problem than a potential logistics problem across a whole State in the distribution of alternate fuels. Those customers we have identified to date that might have problems in using alternate fuels are in the States of Ohio, Iowa, North Carolina, and Indiana.

Even in the absence of colder than normal weather conditions, economic impacts will be felt due to the higher cost of alternate fuels. Based upon our assessments to date, the additional cost to end users to offset 424 billion cubic feet of increased curtailments relative to last year are estimated to be in the range of $550 million to $650 million. That cost averaged out equates about $2.25 to $2.50 per thousand cubic feet for use of an equivalent amount of energy from alternate fuel rather than the gas that was curtailed. This cost compares to $1.01 per thousand cubic feet for natural gas delivered to the industrial sector in 1975.

Over the long term, natural gas well-head price deregulation will eliminate both the curtailment situation and the distortion between the interstate and the intrastate market. The recent FPC price increase, in our estimate, is not enough to attract new onshore gas into the interstate market.

For example, we project that by 1985 there will be about 2 trillion cubic feet less in the interstate market with the new FPC price than there would be with deregulation of new natural gas.

For the shorter term, the FEA Administrator transmitted a letter to the Speaker of the House in September, again requesting emergency legislation, but we have not seen any action yet. Particularly, we requested two authorities for the next two winters: First, to allow 180-day emergency purchases at free market prices by pipeline companies curtailing high priority customers; second, to provide the ability of pipelines to transport natural gas purchased by curtailed high-priority customers directly from the intrastate market.

For this winter, short-term administrative actions have been undertaken. They include reactivation of the Commerce Department's Natural Gas Action Group to provide assistance to users who have difficulties. FEA has also encouraged customers to place orders for alternate fuels as early as possible. In addition, FEA has the ability and will allocate emergency propane supplies.

The FPC has also undertaken several actions. They have held hearings with 10 pipeline companies and received written statements from another 9 concerning impacts of pipeline curtailments. Conferences will be held with 19 pipeline companies to facilitate voluntary exchanges, and FPC will implement existing procedures allowing for attainment of emergency supplies.

Very quickly, I would like to cover one other point which came up earlier, Mr. Chairman, with regard to FEA's estimates of which classes of customers are being curtailed. Last winter's curtailment of end users was 1.42 trillion cubic feet. We see curtailments increasing to 1.84 trillion cubic feet this winter.

This winter, we see 0.09 trillion cubic feet, or an increase of 0.02 trillion cubic feet to commercial customers. Curtailments to industrial customers last winter were 0.63 trillion cubic feet. This winter we see 0.85 trillion cubic feet projected. Electric utilities are projected to increase from 0.72 to 0.90 trillion cubic feet.

In terms of firm versus interruptible customers, last year we saw firm customers getting curtailments of 0.53 trillion cubic feet, and interruptible customers 0.89 trillion cubic feet. Projections for this winter show firm customer curtailments of 0.7 trillion cubic feet, and interruptible customers curtailments of 1.5 trillion cubic feet.

These are firm and interruptible customers as reported by the companies serving gas to the end users.

With those major points, Mr. Chairman, I think I will use the remaining time for a good dialog.

[Mr. Christie's prepared statement follows:]

STATEMENT OF JOHN D. CHRISTIE, ASSISTANT ADMINISTRATOR, ENERGY INFORMATION AND ANALYSIS, FEDERAL ENERGY ADMINISTRATION

Mr. Chairman and members of the subcommittee, I am pleased to appear here today to discuss with you the natural gas curtailments situation facing the country this winter. In view of the debate that occurred over the validity of the natural gas shortage forecast last winter, I especially appreciate this oppotunity to ensure that Congress is fully apprised of all pertinent information collected and synthesized by this administration, relating to projected natural gas supplies, end-user requirements and alternate fuel availability.

Natural gas curtaiments which represent an inability of both pipelines and distribution companies to satisfy contractual requirements, are symptomatic of the more fundamental problem facing this country of declining domestic natural gas supplies. America's natural gas production peaked in 1973 at 22.6 trillion cubic feet (TCF), and since has declined at an alarming rate. In 1974, natural gas production dropped by approimately 5 percent to 21.6 TCF. In 1975, the

decline accelerated to 7 percent, and production reached a level of only 20.1 TCF. Based on preliminary data from the Bureau of Mines, a further decline in production is expected this year to a level of between 19.5 and 19.9 TCF.

This decline in our domestic natural gas production is particularly critical since natural gas has become an extremely vital fuel in meeting residential, commercial and industrial requirements for energy. In 1975, natural gas was consumed in nearly 41 million residences and by over 3.4 million commercial customers. In that same year, natural gas accounted for over 41 percent of total industrial energy consumption, and almost 43 percent of the energy consumed in the residentiial and commercial sectors.

The increasing decline in natural gas production has resulted in increasingly severe curtailments by interstate natural gas pipeline companies. Interstate pipeline curtailments were first evidenced in 1970 when approximately 0.1 Tcf of firm customer requirements could not be met. Since then, interstate pipeline curtailments have increased significantly, reaching 2.8 Tcf, or almost 20 percent of firm customer requirements during the delivery year ending in March 1976.

Curtailments have the greatest potential for substantial economic impact in the winter, when the residential and commercial space heating requirements peak. Since residential and commercial users are afforded a high priority for natural gas, available gas is shifted away from industrial and utility users during the heating season, necessitating conversion to alternate fuels or reduction of operational requirements. Interstate curtailments during the winter heating season have also increased substantially since 1970, reaching 1.27 Tcf last winter (November 1975 through March 1976), amounting to about 18 percent of firm requirements.

OUTLOOK FOR NATURAL GAS CURTAILMENTS

Natural gas curtailments are projected to be greater during both this current delivery year and this coming winter heating season. On June 18, 1976, the Federal Power Commission (FPC) reported a projected increase in natural gas interstate pipeline curtailments for the delivery year April 1976 through March 1977 of 824 billion cubic feet (Bcf) or 29 percent over the previous year. Total pipeline net firm curtailments were estimated by the FPC at 3.6 Tcf or nearly 25 percent of total interstate firm requirements for natural gas. For this coming winter heating season, November 1976 through March 1977, the FPC reported in September an increase in interstate pipeline curtailments of 340 Bcf or 27 percent over the last winter heating season, yielding a total firm curtailment level of 1.6 Tcf, or about 22 percent of interstate firm requirements for natural gas.

Since interstate pipeline curtailments are only a rough estimate or measure of the natural gas supply problem, the Federal Energy Administration, in conjunction with the Federal Power Commission, conducted a detailed survey of 1700 natural gas companies including interestate pipeline companies, distributors, intrastate pipeline companies and producers which serve end users, accounting for about 95 percent of end user deliveries. This survey was undertaken to obtain a better estimate of the curtailment situation this winter and to assess the ability of curtailed end users to obtain and convert to alernate fuels. I have brought with me, and would like to submit for the record today, a copy of FEA's report describing the results of this survey. This report is currently being prepared for publication. It includes an estimate of the magnitude of curtailments to end users, data indicating the availability of alternate fuels and an assessment of the areas which could be most susceptible to economic impacts resulting from natural gas curtailments. I will review for you now some of the highlights of this report regarding the magnitude of end user curtailments this winter:

> Under normal weather conditions, curtailments to end users during this winter heating season are estimated at 1.84 Tcf, an increase of 424 Bcf or 30 percent above the actual curtailments experienced last winter. This level of curtailmnt equals approximately 18 percent of end user requirements.
>
> The projected curtailments this winter are only 101 Bcf or 5.8 percent above the projected level of curtailment for last winter. However, last winter's actual curtailments were 324 Bcf less than projected due predominantly to unseasonably warm weather conditions, a low level of industrial activity and the ability of some distributors and end users to secure emergency gas supplies from the intrastate market through use of FPC administrative procedures.

No curtailments of residential customers are expected this winter.

Curtailments of commercial customers are expected to increase from 4 percent of actual end-user requirements last winter to about 6 percent of projected requirements this winter. However, under normal weather conditions, virtually all of these commercial customers are expected to be able to obtain and use alternate fuels.

Curtailments of industrial customers are expected to increase from 19 percent of actual requirements last winter to about 25 percent of projected requirements this winter.

Curtailments of electric utility customers are expected to increase from 45 percent of actual requirements last winter to 51 percent of projected requirements this winter.

Before turning to the potential impacts associated with these projected curtailment levels, I would like to discuss the reasons for differences in the FPC and FEA estimates of curtailments for this winter. As mentioned above, the FPC projects an increase of 340 Bcf over last winter to a total firm curtailment level of 1.6 Tcf, while the FEA report shows an increase of 424 Bcf to a total curtailment level of 1.84 Tcf this winter. The primary reasons for the differences are:

The FEA survey includes supplies not fully taken into account within the FPC interstate pipeline reporting system, including intrastate pipeline deliveries and supplemental gas supplies such as synthetic gas produced from petroleum products, propane-air, liquefied natural gas and supplies held in storage at the distributor level. Therefore, while FPC reports yield a decrease in projected interstate pipeline deliveries of about 154 Bcf for this winter, the distribution companies report an increase in total gas deliveries to end-users of about 224 Bcf.

The FEA survey also includes a larger percentage of end-user requirements within its survey since it captures most intrastate market requirements. Thus, while FPC's projected total interstate requirements amount to about 7.4 Tcf this winter, FEA's survey showed end-user requirements of about 10.3 Tcf.

In addition, the basis for estimating requirements is somewhat different. Requirements projected by distribution companies are based on their contracts with end-users and other considerations such as the increased residential demand resulting from normal weather considerations as compared to the mild winter last year. The pipelines' estimates of requirements is based on their own contractual requirements with both distributors and, to a far lesser etxent, direct end-users.

Given these reasons underlying the differences in projections, the FEA survey projection of an increase in curtailments for this winter of 424 Bcf over last winter illustrates that end-use customer requirements are estimated to be greater than the distribution companies' ability to offset reductions in pipeline deliveries with increased supplemental gas supplies. Projected end-use customer requirements are increased over actual requirements last winter predominantly due to expected increased space heating requirements associated with a normal winter, as compared to an extremely mild winter last year, and some small growth in markets, primarily the residential and commercial markets.

The impacts of natural gas curtailments depend upon several factors, including the severity of the winter, the level of industrial activity, conservation efforts, alternate fuel capabilities, the availability of alternate fuels and the relative costs of alternate fuels where available. The importance of these factors is illustrated by last winter's experience when no severe economic impacts were observed, although curtailments were projected by the distribution companies at 1.7 TCF, an increase of about 380 BCF over the previous winter. The extremely mild winter, a low level of industrial activity and the use of new FPC administrative procedures to obtain emergency supplies from the intrastate market resulted in actual curtailments lower than projected by 324 BCF.

The primary factor working to mitigate severe economic impacts this winter is the availability of alternate fuels. The FEA survey of distribution companies indicates that residual fuel oil (No. 6) will be sought most to substitute for curtailed natural gas (about 1500 million gallons), followed by light (No. 2) fuel oil (about 930 million gallons), and to a lesser extent propane (about 316 million gallons).

An analysis of the short-term availability of middle distillates, residual fuel oil and propane was performed by FEA and the results are included in this report I am submitting today. This analysis indicates the following:

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Inventiories of middle distillates (e.g., No. 2 oils) are high, with current volumes equalling those for the same period in 1975.

Inventories of propane at the end of August were at record levels, approximately 10 percent higher than in August of last year.

Stocks of residual fuel oils (e.g., No. 6) in mid-October were lower than last year by about 9 percent. However, it appears that refiners and marketers can rely on reserve capacities to meet winter needs.

Based on these data, FEA has concluded that the nationwide supplies of alternate fuels appear adequate to offset anticipated curtailments of natural gas under normal weather conditions. However, unusually cold weather for a prolonged period could cause temporary shortages in some local areas due to logistical problems encountered in rapidly diverting alternate fuel supplies, especially propane. The States most susceptible to localized problems based on a comparison of available information on alternate fuels with projected requirements are:

North Carolina.
South Carolina.
Georgia.
Maryland.
Tennessee.
Virginia.
Arizona.
Kentucky.
West Virginia.

It is important to point out that it is not simply the magnitude of curtailments in a given State that is the determinant of potential economic impacts. The availability of alternate fuels, the ability of potentially curtailed customers to convert to alternate fuels and the adequacy of the distribution systems for alternate fuels are critical factors in determining those States most susceptible to impacts.

Even if there are no shortages of alternate fuels, there will be an economic impact this winter due to the higher costs of alternate fuels, supplemental gas and emergency gas supplies. The total additional costs of fuels to end-users to offset the projected increased curtailments of 424 BCF this winter could reach about 550–650 million dollars. This means the average costs of alternate fuels and supplemental supplies to offset natural gas curtailments this winter are estimated at about $2.25 to $2.50 per mcf. To draw a cost comparison, the average prices for natural gas delivered to the residential, commercial and industrial sectors in 1975 were $1.73, $1.41 and $1.01 per mcf respectively. If the same proportions of the various types of alternate fuels were used to offset the entire 3.6 TCF of firm customer curtailments proected by the interstate pipelines for the current delivery year ending in March 1977, the additional costs of fuels to end-users would be on the order of 4 to 5 billion dollars.

WHAT ARE WE DOING ABOUT THE CURTAILMENTS SITUATION BOTH OVER THE LONG-TERM AND FOR THIS WINTER

I'd now like to address what the administration is doing to mitigate the potential impacts of natural gas curtailments. First for the long-term, this administration has repeatedly requested Congress to strike at the heart of the curtailments problem by deregulating natural gas wellhead prices, thereby stimulating increased domestic production. With deregulation domestic demand can be brought in balance with increased domestic supplies such that natural gas curtailments can ultimately be eliminated. In addition, the current distortion between the interstate and intrastate markets would be erased. The recent FPC wellhead price increase will not be sufficient to attract new onshore gas supplies to the interstate market, resulting in about 2 TCF less interstate gas in 1985 than under deregulation.

Second, with regard to the shorter-term, this administration transmitted to Congress in September 1975 the proposed Natural Gas Emergency Standby Act of 1975 to provide for several measures designed to mitigate impacts of potential shortages for both last winter's and this winter's heating season. Congress has not yet provided any of the emergency authorities requested. On September 16 of this year, the Administrator of FEA transmitted a letter to the Honorable Speaker of the House apprising him of the outlook for this winter and requesting again action by the Congress on the needed standby legislation. Upon this latter request, two specific authorities were emphasized as being necessary through June 30, 1978 as follows:

Authority to allow the FPC to permit interstate pipeline companies curtailing high priority customers to acquire natural gas at free market prices on an emergency basis not to exceed 180 days.

Authority to allow the FPC to permit interstate pipeline companies to transport natural gas from the intrastate market which was purchased directly by curtailed high priority customers, at free market prices.

In addition to requesting emergency legislation, we will monitor closely the curtailments situation this winter. Several actions have been undertaken to mitigate potential economic impacts, the major ones being:

The Department of Commerce has reactivated its natural gas action group in order to assist companies economically impacted by natural gas curtailments.

The Federal Energy Administration has encouraged both alternate fuel distributors and potential customers to place orders for these fuels as early as possible to minimize allocation and transportation delays.

The Federal Energy Administration is contacting each end-user expecting curtailment that was reported by distributors to be without alternate fuel capability, in order to assess their situation and to report any needed assistance to the Commerce Department.

The Federal Energy Administration will allocate upon petition emergency supplies of propane to curtailed industrial natural gas customers and natural gas distribution companies when the availability of supply to traditional users is not disrupted.

In addition to these measures, the Federal Power Commission has undertaken several actions also aimed at identifying and mitigating potential impacts of curtailments as follows:

Hearings have been held with 10 interstate pipeline companies to determine possible impacts of curtailments on specific customers. An additional nine pipelines submitted written statements regarding customer impacts.

A curtailment plan was approved for Transcontinental Pipeline Company, one of the pipelines which is most severely curtailing customers, which provided for emergency high priority exemptions in order to ensure adequate supplies to priority 1 users.

Conferences will be held between the 19 most severely curtailing pipelines and interconnected jurisdictional pipelines to ascertain whether any beneficial exchanges of natural gas can be arranged.

The FPC also is prepared to again implement its existing procedures which allow for attainment of emergency gas supplies from the intrastate market.

I will be happy to answer any questions you may have.

Mr. ECKHARDT [presiding]. I would like to ask you, on page 1 you give figures for sort of an estimate of cost, and I want to know what these mean.

Does this mean if residential users in 1975 were having natural gas delivered at $1.73, that under your projections and assumptions, they will have it delivered for $2.25 to $2.50 this year?

Mr. CHRISTIE. No, it does not mean that, sir.

High priority customers will continue to get natural gas. The numbers I was referring to are based upon the projected need for alternate fuels; for example, 1,500 million gallons of residual fuel oil, 930 million gallons of No. 2 heating oil—and I have forgotten—about 300 million gallons of propane in round numbers.

If we compute the prices of those alternate fuels based upon last year's prices and assume that is what the customers are going to get curtailed purchase as alternate fuels, they will pay for those alternate fuels an additional $550 to $600 million.

The people who get curtailed are, generally speaking, the industrial and utility users. Industrial customers paid about $1.01 per Mcf last year for gas. They are going to pay more for alternate fuels to offset the additional gas curtailments.

Mr. ECKHARDT. Let me see if I can say it another way.

I understand the difference, what you are saying, and what I said the first time. Does this mean with respect to that portion of the gas which is added or which is replaced by virtue of using alternate fuels, that the increase would be from $1.73 to $2.25 or $2.50, recognizing, of course, that would be in a total mix, and, of course, some of the gas would still be, I assume, at $1.73?

Mr. CHRISTIE. The industrial customers who are getting curtailed are paying a price on the order of $1.01 for the gas if they get it. If they do not get that gas, they will have to pay on the average between $2.25 to $2.50, in round numbers, for the alternate fuel. That is the price per equivalent Mcf of curtailed gas.

The people that are paying $1.73, generally speaking, are not curtailed.

Mr. ECKHARDT. So, then, if you wanted to figure the average increase in price overall, you would take $1.73 times that amount of gas which will be supplied without any curtailment, without consideration of curtailment, and add to that $2.25 times the amount of gas that is produced to replace the shortage, and then strike an average figure?

Mr. CHRISTIE. I do not believe so, sir, because $1.73 is not the average price of all the gas charged to all the customers for the—in round numbers—10 Tcf of gas used over the winter.

Mr. ECKHARDT. What is it, then?

Mr. CHRISTIE. $1.73 is, generally speaking, the residential price. The average price last year was $1.32 for all marked sectors.

Mr. ECKHARDT. I intended to limit it to residential.

Mr. CHRISTIE. Excuse me.

Mr. ECKHARDT. I intended to limit my question altogether to residential prices.

Mr. CHRISTIE. The residential prices will not change, because they are not——

Mr. SMITH. Because residential customers are not curtailed, there is no impact on that price.

Mr. ECKHARDT. So you do not anticipate any change in residential price?

Mr. CHRISTIE. As a result of curtailment?

Mr. ECKHARDT. As a result of curtailment.

Mr. SMITH. That is an oversimplification, Mr. Chairman, because some of the distributing companies will be able to service residential customers only because they have access to synthetic natural gas from SNG plants or in some cases to propane-air plants that can mix propane and mix it with the natural gas strain. They will service their high-priority customers in some cases with these supplementary gas supplies, which are more expensive, for example, on the order of $4 to $5 per Mcf.

Mr. ECKHARDT. In other words, you are not in control of that situation, you are only in control of the flow of gas that enters from, say, under one of the 60-day contracts or something of that nature?

Mr. CHRISTIE. The imports Mr. Smith is addressing are independent of the 60-day contracts. Let me give you an example, in the New England States, distribution companies supply a large percentage of their gas deliveries to end-use customers, and offset the increased curtail-

ments with purchased supplemental gas including imported LNG, and synthetic gas .

When deliveries reach their highest levels during the year, that is on the peak day, supplemental gas represents as much as 40 percent of the gas delivered.

What Mr. Smith is saying, those supplemental gas supplies, LNG, SNG, cost the distributing company much more per Mcf than what they pay for natural gas delivered through the interstate pipelines. They may be paying, as he said, three, four——

Mr. SMITH. Somewhere up to about $5 per Mcf.

Mr. CHRISTIE. To that extent, curtailments can affect the residential customer because the average cost to the distributing company has gone up beyond the point if there had been no curtailment whatsoever.

Mr. SMITH. The point is, notwithstanding, Mr. Chairman, that the residential customer is going to get first call on whatever natural gas the distributing company has, and there are not going to be any curtailments to that residential customer. Even so, his prices are going to be higher this winter because of the overall shortage of natural gas in the interstate market.

He is at the end of the chain, and he is cushioned so far from the impact of actual curtailments regarding gas supplies, but he is not cushioned and has not been for the last 2 to 3 years from the impact of higher prices due to the shortage of natural gas.

Mr. ECKHARDT. And because of the change in FPC regulation.

Mr. SMITH. No, sir, aside from the change in FPC's price regulations, leaving aside entirely the FPC price change or anything of that sort, American consumers have paid more money for their natural gas in the last 2 or 3 years because increasing amounts of it came from the supplementary sources—synthetic natural gas and liquefied natural gas imports.

Mr. ECKHARDT. There also will be an increase because of the increase of FPC allowable prices?

Mr. SMITH. That is true, sir, but that is in addition to the impact they have already felt because of the shortages of natural gas.

The fact that residential customers have not been actually cut off yet, and the fact these high-cost supplementary sources have been rolled into or averaged with the gas that the distributing company buys from the pipeline has tended to dampen the increase in the residenital consumers' cost, but these consumers have already paid higher gas costs because of the interstate shortage of natural gas for the last 2 or 3 years, and the proportion rises every year.

Mr. ECKHARDT. So they will continue to pay that increase and also the increase, because of the FPC's change in regulation?

Mr. SMITH. That is right, sir.

The central point is that consumers are not, in fact, being protected by the continued regulation of new interstate gas prices. They are simply postponing the impact of the gas shortage, and in many cases, in most cases, paying more for alternate supplies from supplementary sources than they would pay for new natural gas.

Mr. ECKHARDT. That, I think, has also been your position?

Mr. SMITH. It is not my position, sir. It is the facts. That is not a question of a position.

Mr. ECKHARDT. I am glad that you are so clearly cognizant of what the facts are that there can be no doubt about your interpretation of them.

Mr. SMITH. Yes, sir.

Mr. ECKHARDT. I have always found you that way, as a matter of fact.

Let me ask you this question: If 87 percent of all new natural gas presently goes at a demand rate, that is, around $1.60, and this percentage is going up all the time, isn't this about as much price incentive to bring in new production as there could be under deregulation?

Mr. SMITH. There are two steps in the chain, Mr. Eckhardt. The first is to get the new production. As you point out, to date the incentive for new production that can be committed to the intrastate market has been fairly adequate, an average of $1.60 with individual prices ranging all the way from $1.80 to $1.20, depending on the particular State.

The second step is to get some of that new production dedicated to the interstate market where the people in Rhode Island are paying $4.50 per Mcf for supplementary gas coming out of a synthetic natural gas plant instead of the $1.60 or so they would pay for that same amount of natural gas coming out of the intrastate market and into interstate pipelines.

Mr. ECKHARDT. I do not think I disagree with you on that point. The only thing is, I am merely trying to establish the fact that the diminution of production, diminution of new discovery is not traceable, or at least it is not provable that that is as a result of artificially low prices.

Mr. SMITH. When you say not provable, it would depend on the standards of proof, and I would not be surprised if you and I might disagree on what was——

Mr. ECKHARDT. I would hope we could get into agreement on something.

The point I am making is that about 87 percent, as we say, of new gas is going into intrastate markets.

Mr. SMITH. Yes, sir, exactly.

Mr. ECKHARDT. It is commanding a demand price, and that is increasing?

Mr. SMITH. Right.

Mr. ECKHARDT. If you took off regulations with respect to dryland gas, you would not create any greater incentive for production except by possibly that 13-percent margin?

Mr. SMITH. Mr. Eckhardt, was that the end of your question, sir?

Mr. ECKHARDT. Yes.

Mr. SMITH. You create two incentives. One would be to divert some of that gas that is going into the intrastate market.

Mr. ECKHARDT. I agree with that. I am talking about increased production. I am not talking about diversion to interstate markets. I agree with you on that, if I may be permitted to agree with you on that.

Mr. SMITH. Yes, sir, thank you. It took us long enough, but we finally got there, didn't we?

Mr. ECKHARDT. Yes.

Mr. SMITH. The second incentive that would be created, Mr. Eckhardt, is that certain gas that is already dedicated to the interstate market, that exploration and continued development of certain fields and certain production that is already dedicated to interstate market, would be more economical and there would be an additional incentive to develop additional production from those supplies that are now already committed over and above the incentive that now exists.

So we get both more production from what is already dedicated to the interstate market and the shift that we agree on.

Mr. ECKHARDT. How much more?

Mr. SMITH. I do not know, Mr. Eckhardt.

Mr. CHRISTIE. Is the question how much more shift?

Mr. ECKHARDT. I understand there would be a substantial shift. As a matter of fact, that is the point I was making with the witnesses from the Federal Power Commission.

The question I was raising with the Federal Power Commission—I could not see any reason for much shift when interstate gas is moved from its former figure to 93 cents.

Mr. CHRISTIE. We totally agree with you.

Mr. ECKHARDT. I do see there could be a considerable shift if the price were the same, either by virtue of removing control of truly new gas or by putting a regulation on intrastate gas at the same level as new interstate gas.

Mr. CHRISTIE. The former, clearly; the latter, not so clear.

Mr. ECKHARDT. Why not?

Mr. SMITH. The latter, sir, would be a temporary, one-time operation because as soon as you depress the price of intrastate gas to whatever level the interstate is, you simply cut off the potential supplies of all the gas that is not economically feasible above that level.

It would be equitable in the sense of guarantees, and we would have a shortage in the intrastate market a lot sooner than we are likely to have in any case.

Mr. ECKHARDT. At any rate, there is no question it would shift a considerable amount of gas into the interstate market, would it not?

Mr. SMITH. It is not clear it would, Mr. Eckhardt, because, as you depress the price of intrastate market, you would also depress the demand in the intrastate market.

If the prices were equal, he would be sort of indifferent as to where he sold it. I am not prepared to say there would not be some shift, but it is not at all clear there would be a massive shift out of intrastate into interstate, because you are going to get a substantial increase in demand, and those people burn something else.

Mr. ECKHARDT. I think all of us attempted to move in the direction of using gas more for its highest and best purposes. That is for residential and for feedstock?

Mr. SMITH. And this would run precisely counter to that. This would give the guy that is buying residual fuel oil, for example, incentive to burn gas under a boiler. If you roll those prices back, then gas would be cheaper to burn under boilers in the intrastate market.

Mr. ECKHARDT. There are ways that that could be handled?

Mr. SMITH. Yes, sir, this would then call for another set of prohibitions.

Mr. ECKHARDT. That is right.

Mr. SMITH. Against these kinds of uses.

Mr. ECKHARDT. Tax incentives?

Mr. KINCEL. Let me supplement that with a few points.

FEA does believe, based on its projections, that there would be a difference in domestic production in the midterm, by 1985, under a deregulated condition for new natural gas at the wellhead compared to extension of the current system of price controls to the intrastate market, even with prices set as high as the current intrastate market levels.

The difference would be on the order of 1 trillion cubic feet or more by 1985. There would be less domestic production in 1985 under an extension of controls to the intrastate market than under deregulation of new natural gas.

Mr. SMITH. How much of an increase would we expect from deregulation of new natural gas?

Mr. KINCEL. We expect a 4 to 4.4 increase over what would have occurred under the previous price level of 52 cents per Mcf for new natural gas. There would be a comparable increase of only 3 trillion cubic feet in total domestic production due to the FPC's recent price increase.

Mr. ECKHARDT. Thank you.

Thank you, Mr. Chairman.

Mr. DINGELL. The Chair recognizes the gentleman from North Carolina, Mr. Broyhill.

Mr. BROYHILL. Mr. Chairman, thank you very much.

I think Mr. Smith has made a good point here in response to a question a few minutes ago, that it is very difficult to say that by holding down the prices that the consumers are actually saving money, because all you have to do is go to page 25 of your analysis to show the consumers have as a result of the curtailment in the use of natural gas had to go to other fuels, alternate fuels, and have increased the use of these fuels substantially, including propane, coal, electricity, and so forth, at a substantially increased price.

So the consumer, whoever that consumer may be, is paying the increased price in an indirect way.

Mr. SMITH. Yes, sir, the point I was trying to make, Mr. Broyhill, he is paying the price in the indirect way and through the method you outline. Some companies are paying a price high enough to cause plants to elect to curtail their operations and lay people off, or go on shorter shifts. Even more importantly, the residential natural gas customer himself is in many cases paying a higher price for his gas than he would pay were new gas deregulated, because it comes from these supplemental sources that are higher costs than the current intrastate price of natural gas.

Mr. CHRISTIE. For example, prior to FPC opinion 770, we estimated that the average residential fuel bill in 1985 would be about $280 for the year, increasing from today's value, or 1974 value, of $170, because people would have to substitute alternate fuels for the gas, and they would have that price increase. That price increase up to 1980 would be greater than the price increase they would get as a result of the 770 opinion, because 770 would bring more gas into the interstate market and, therefore, their average fuel bill would be about $250 or somewhat less than continuing under the old price——

Mr. BROYHILL. My understanding of the thrust of your testimony is, we do have a natural gas shortage and it is of considerable magnitude that will have considerable effect on different parts of the country; is that correct?

Mr. CHRISTIE. I would like to clarify, sir, curtailments this year are greater than last year. To say what the impact would be, you have to look at the needs for alternate fuels and the availability of those alternate fuels.

We see potential problems. We cannot say with certainty whether any one State will have a problem or will not have a problem, but we have to look at the needs for alternate fuels and the availability and price.

There will be impact as a result of these decreases in supplies or the increase in curtailments.

Mr. SMITH. What we are saying, in sum, although there appears to be adequate supplies of alternate fuels with the potential of some distribution problems in case of the cold winter or protracted cold spells, as far as the physical availability of fuel is concerned, nonetheless, there is still an economic impact over and above last year of somewhere between $500 million and $600 million, because of the increased curtailments this year over last year.

So we have got the economic impact. We have had it for a number of years. It continues to get bigger every year, and so far we have managed to avoid the kind of physical impact of actually shutting down plants and laying people off in massive numbers that clearly is going to come unless we find some way to increase our domestic natural gas production.

Mr. BROYHILL. The FPC testimony was indicating very little difference between this heating season and last heating season, yet their own figures show that deliveries to North Carolina would be close to 25 percent less.

Mr. SMITH. Yes, sir.

Mr. BROYHILL. And when you compare the estimates or projected deliveries contracted for demand, that is, the requirements that were contracted for some time ago, that deliveries are less than half, there is a serious situation in many parts of the country.

It concerns me the Congress has not been willing to face up to it and to let North Carolina consumers compete for the supplies that are available.

Mr. SMITH. The point made in Mr. Christie's statement, that supplements that observation, Mr. Broyhill, is that while there are decreased deliveries, there are also increased requirements from these higher priority customers. There are more homes that have been hooked up to gas, more small commercial establishments that have been hooked up to gas supplies in the interim, so that the demand from the highest priority is taking the largest share of the total gas supplies, meaning those in the lower priority. The industrial and utility customers in North Carolina are going to take a much bigger reduction this winter than last.

And we share your concern our inability to deal with the problem to date.

Mr. BROYHILL. Thank you.

Mr. DINGELL. The Chair thanks the gentlemen. The time of the gentlemen has expired.

The Chair recognizes the gentleman from Connecticut.

Mr. MOFFETT. Thank you, Mr. Chairman.

I must say, I am again struck by the comments of both the witnesses and the gentleman from North Carolina on the magic by which you allow the cost of consumers——

Mr. BROYHILL. I never said that.

Mr. MOFFETT. If the gentleman will allow me to comment, they are saying the FPC price rise is somehow going to cost consumers less because of the alternative fuel situation.

I would like to see the Congress deal with this matter, just as the gentleman from North Carolina would, but not by giving the store away to the companies which have ample incentive now to produce and are not doing so.

The summary of which I am very appreciative, and the report, are very helpful. They again mention a number of States, and you may have heard my question to the FPC Commissioner. Connecticut is not on the list of probable States—I think that is correct, isn't it?

Mr. CHRISTIE. That is correct.

Mr. MOFFETT. What can one conclude about Connecticut, for example, and the prospects?

Mr. CHRISTIE. I would refer you, I think, first to the section on New England which I just quoted, and that is on page 49, where, generally speaking, I think in effect what you will find in New England is that distributors' companies have looked for supplemental supplies of LNG and SNG, and you are going to find the customers in New England and Connecticut paying higher prices than they would have if there were no curtailments.

We do not project any difficulties with regard to total supplies of gas or alternate fuels.

So we think they will have adequate supplies to heat their homes and use gas or alternate fuels, but they will be paying a higher price.

Mr. SMITH. The point we were trying to make is, a substantial quantity of those supplies that are going to continue to heat New England's customers' homes this winter comes from imported LNG at something close to $4.50 to $5 per Mcf, from synthetic natural gas, anywhere from $3 to $4.25 per Mcf.

These changes are rolled into and averaged into those consumers' gas bills, and they are paying that increment for those additional supplies instead of paying the $1.60 or $1.70 that would be required to first get more intrastate gas into the interstate system delivered to them; and, second, get more increased domestic production.

Mr. MOFFETT. Mr. Smith, I am well acquainted with that. I have sat down with our distributing companies, and they have said the same thing. We have had this discussion many, many times.

I do not even mean to get into this argument again, because we are basically trying to find what the curtailment picture is—all I am saying is, Why in the world are we not, as a government, doing more about finding out what the real supply situation is, what the real reserve situation is, why we are not getting as much production?

That is all I am saying. I do not think we have dug deeply enough.

I believe you said that additional supplies will come about as a

result of the FPC decision, and that the supply would also increase with deregulation—I think you said by 3 Tcf.

Mr. CHRISTIE. Yes.

Mr. MOFFETT. Can you tell us a little more about the methodology involved in coming to that conclusion? Let us take the 3 Tcf for openers.

How do you arrive at that?

Mr. CHRISTIE. Basically, we go out and look at estimates of resources, and we estimate supply curves for additional reserves that will be brought on at different prices in different regions onshore and offshore. The supply curves indicate the availability of gas at different prices. For our overall projections, we go through an equilibrium model to try to figure out what the demand would be and what the supply would be, given the supply curves.

We start with a resource base, and we estimate supply curves for different regions as to how much reserve additions might be brought on at different price levels. That is the process we go through.

Mr. SMITH. There is also another component, Mr. Moffett, and that is, as the price of interstate gas rises gradually with this kind of an approach, a number of people who now have the capability to go to alternate fuel and do so only when they are curtailed, reach a point when the alternate fuel is more economical than the other.

There is a curve for the increased demand of gas delivered by interstate pipelines, leaving it to go to those people who do not have any alternate.

Mr. MOFFETT. If a customer went to No. 2 oil, for example?

Mr. SMITH. Yes, sir.

Mr. CHRISTIE. If utilization changed to No. 2 oil, that would free up more gas for higher priority users.

Mr. MOFFETT. You feel fairly comfortable then of your estimates of what increased supply might be gained?

Mr. CHRISTIE. We feel comfortable there will be increased supply of that order of magnitude. My office is currently going through the procedure of improving our calculations, but the methodology is the same. For example, next year if we come in with different numbers, it will be because we have learned things about the length of time it takes to bring on a discovery in the offshore area onto actual production.

So you may see adjustments in the future in these numbers, but we are quite confident there will be increases in supply associated with increased prices for new gas or with deregulation, which is also increased prices for new gas.

Mr. MOFFETT. One more question. Is it true FEA is planning yet another publication on natural gas?

Mr. CHRISTIE. We are planning to publish the report which I gave you today in draft and make it available to the public.

Mr. MOFFETT. I mean one of your pamphlets.

Mr. SMITH. Not before January 20, that is for sure.

Mr. CHRISTIE. Not that I am aware of.

Mr. MOFFETT. Thank you.

Mr. DINGELL. The Chair thanks the gentleman from Connecticut. The Chair recognizes the gentleman from Texas.

Mr. ECKHARDT. I note in the full statement here, Mr. Christie, that you really talk about two things. One, what you think ought to be

done in the long term, which is to deregulate natural gas, and I am not quite sure what you mean by that, whether you merely mean new natural gas from new geological structures, whether you mean to take gas coming out from under contract and take off regulation, what do you mean by it?

Mr. CHRISTIE. We really mean new natural gas. What we are interested in is what is in the national interest. To me as an individual, that means new natural gas should be deregulated.

Mr. ECKHARDT. That is gas that is to be produced now for the first time from a new geological structure, right?

Mr. CHRISTIE. Yes. Generally speaking, yes.

Mr. ECKHARDT. Then the second thing you are asking for is a short-term bill, and you refer here to the administration's recommended bill to give authority to allow the FPC to permit interstate pipeline companies curtailing high priority customers to acquire natural gas at free market prices not to exceed 180 days and authority to allow interstate pipeline companies to transport natural gas from the intrastate market which is purchased directly by curtailed high priority customers at free market prices. That is essentially the short-term thing.

Suppose we went with that. Suppose we went with your short-term proposal, and we tried to get quick action on it. Would we be confronted with the same situation or would you aid and abet in the same situation that existed last time? That is, to roll in the whole question, the long-term solution into our temporary bill?

We have a little different situation now. We are going to have a different President at the beginning of the year. Would you think it might be advisable to simply support this committee in attempting to solve the rather noncontroversial short-term question or would you, again, join in those who, it seems to me, attempted to vault this whole question of a short-term question into a long term?

Mr. CHRISTIE. It seems to me that is a question that is left up to the Congress as to what pieces they put together. I would make a comment that the short-term legislation is not a long-range solution. It does not prevent the disease. The short-term legislation, which has been proposed, is only something to address the visible causes of disease. It is not a prevention of the disease in the future.

Mr. DINGELL. Would the gentleman yield?

Mr. ECKHARDT. Surely.

Mr. DINGELL. I think, gentlemen, you ought to understand Mr. Eckhardt is expressing concerns that are very clearly mine. Just to recast some rather difficult history of this subcommittee, you will recall we had a proposal which commenced in the Rules Committee and carried over onto the floor, and it got in the Democratic caucus and everything else relating to the subject of a temporary short-term proposal as opposed to a long-term proposal.

While I am always sympathetic in trying to cure the short-term problem first and then attack the long-term problem, I feel very deeply and I would be compelled to be deeply outraged if I were to start out on some representation where we would be dealing with the short-term proposal, then find ourselves confronted with an effort to convert that into a piece of long-range legislation with which I might not agree or with which I might even agree.

Mr. ECKHARDT. Mr. Chairman, you expressed exactly the way I feel, as I think my questions have indicated.

Mr. DINGELL. The gentleman and I have understood very closely on this issue.

Mr. ECKHARDT. I have not made up my mind on deregulation if deregulation is very closely confined to new geological discoveries. But I have not yet rejected the proposal that there be some regulation of both intrastate and interstate gas.

However, I do not see how we can solve that before an emergency bill could be put into effect if it is to be effective at all. That is the situation we were placed in last time. As soon as the emergency bill became a long-term solution bill, it became impossible for us to even pass the emergency bill in time to do any good. I sort of feel like I am staying in the movie house for the second show. It just seems to be a complete repeat of last year's performance.

Mr. Chairman, I would like to ask unanimous consent to insert into the record sort of a summary of what happened last time, that I prepared shortly after that time.

Mr. DINGELL. Without objection, so ordered, and it will appear at this point in the record.

[The following information was received for the record:]

FEA'S FRIGHTENING FORECAST

In August of this year the Federal Energy Administration filed a report called "The Natural Gas Shortage: A Preliminary Report." The report said that the natural gas shortage had been growing rapidly, that last year's curtailments were up to 2 trillion cubic feet, or 10 percent of the total demand, and that for 1975 they were likely to increase to 45 percent to 2.9 trillion cubic feet, about 15 percent of demand. "Even with natural gas deregulation," said the report, "shortages can be expected to grow in each succeeding winter for several years and could approach 1.9 trillion cubic feet in the 1976–77 heating season."

FEA gave a hint toward the temporary solution in its finding that "because of the economic slowdown and much higher prices, no shortage and possibly a surplus exists in the intrastate markets, primarily Louisiana, Texas, and Oklahoma." Though the report stated that the President would "announce his decision on policy action to mitigate the shortage within the next few weeks," the President did not send up recommended legislation.

CONGRESSIONAL RESPONSE TO THE "EMERGENCY"

Consequently, John Dingell, Chairman of the Subcommittee on Energy and Power, along with his Chairman, Harley Staggers, Chairman of the Interstate and Foreign Commerce Committee, introduced H.R. 9464. This bill was solely for the purpose of dealing with the emergency. Primarily, it afforded access by priority purchases to excess intrastate gas, permitting the intrastate price to apply. Also, it prohibited use of natural gas as a boiler fuel under certain conditions, provided that production in certain fields be at the maximum efficient rate, provided for a temporary emergency production rate, protected availability of gas for agricultural users, and otherwise facilitated flow of gas into shortage situations in interstate commerce.

SENATE ACTION

An identical bill, S. 2310, was introduced in the Senate, but when it got to the floor it was amended by the Pearson-Bentsen Amendment. This added a new title expanding the bill from an emergency bill to a deregulation bill. Title II of the Senate bill removed from control gas sold or dedicated after January 1, 1975, and gas produced from new wells (even though drawing from old reservoirs) brought in after that date.

Since the House Subcommittee on Energy and Power had elected to meet the "crisis" envisioned by the FEA, and not to deal with the very controversial ques-

tion of decontrol, it redrafted its bill so as not to amend the Natural Gas Act. This made a broad amendment, such as Pearson-Bentsen, not germane to the redrafted bill.

The more the Subcommittee on Energy and Power heard about the natural gas shortage, the less credible the emergency forecast appeared. It was found that pipelines had not even insisted on their contract rights to receive certain quantities of gas from producers. It became more and more to appear that sufficient quantities of excess intrastate gas to take care of all interstate demands existed and that they would be released for that purpose if intrastate prices were permitted to be paid when gas crossed state lines.

HOW GAS WAS FOUND FOR HIGHER PRICES

The Federal Power Commission allows gas allotted for the intrastate market to be diverted to the interstate market for 60 days if an emergency shortage exists in the interstate market. Thus, such gas, normally produced and sold in the same state, can be moved by pipeline to another state under a contract by the purchaser without being subject to price controls. In such case it sells at a price between $1.50 and $1.90 per thousand cubic feet. Otherwise, the wellhead price would be about 52 cents, or less, and the delivered price, about $1.00 per thousand cubic feet.

For example, an estimated 32 billion cubic feet of gas is now involved in six sales under FPC 60-day emergency rules. The average price of this gas is $2.62 per thousand cubic feet, about three times what would have been realized on the ordinary interstate market. When producers found such a price available in the market, they also "found" the gas to supply that market, and the shortage seemed to evaporate.

Thus, the Subcommittee on Energy and Power found itself on shifting sands as respects the factual basis for emergency legislation. However, a near panic situation amongst constituents of northern and northeastern Representatives had been created and this will not quickly subside. But there remained little or no factual basis for it.

The subcommittee could have let the bill die in committee, with no grave risk of harm. But to let it pass would not harm consumers and seemed a desirable precaution.

SUBCOMMITTEE'S DILEMMA

However, the subcommittee was in this position: it had not had time fully to hear the pros and cons of such proposals as deregulation and, optionally, extension of controls over intrastate gas. Both of these proposals were before the committee in various bills. If it were to act at all on the 1975–76 winter situation, it must act quickly. Obviously, it would be disastrous to release a bill which would be a vaulting pole for oil and gas and pipeline interests to vault out of the natural gas price controls arena.

And the danger was imminent. Representative Bob Krueger of Texas had attempted to substitute for the temporary controls the Pearson-Bentsen Amendment language decontrolling large quantities of natural gas. Since the bill was narrowly drawn, this amendment was held not germane. However, he introduced a second amendment that removed price controls for seven years and protected the contracts entered into during that time from price regulations, permanently. This was defeated in subcommittee and failed on a tie vote when it was introduced by Representative Clarence Brown of Ohio in the full committee.

Obviously, the danger was there—the danger that the whole, highly complex and technical question of price control or decontrol would be fought out on the floor without any committee guidance, any committee opportunity to attempt to reconcile differences and arrive at a rational method of dealing with gas pricing. Clearly, under decontrol, gas prices would escalate rapidly to meet the high, cartel price of oil, ultimately loading about $30 billion a year consumer cost on the economy.

It would have been the height of irresponsibility for the committee to have done less than attempt to limit the question to the actual issue that the FEA had brought before Congress and that had been the principal subject of committee inquiry.

Consonant with these considerations, on November 20, the subcommittee reported the narrow bill to deal with this winter's allocation problems only. On December 2 the bill was reported out of the full committee. During all this

time, the committee and its staff had been swamped with work on the complex Commerce energy bill that dealt with oil pricing. The report on the emergency gas bill was filed on December 15. If the bill were to have any impact at all on this season's problems, it needed to be passed promptly.

STAGGERS SEEKS SUSPENSION OF RULES

Therefore, Chairman Harley Staggers wrote a letter to the Speaker of the House requesting that the bill be placed on suspension on December 15 or 16. He pointed out the situation described above and the fact that the emergency provisions were not significantly controversial, but that the addition of the issue of deregulation would make it exceedingly controversial.

When a bill is brought up under such a suspension of the rules, it may only be voted up or down. It may not be amended. Of course, if the bill had come up in this way, the oil and gas ploy would have been thwarted. They needed an opportunity to amend so as to alter drastically the simple, relatively non-controversial bill to a highly controversial decontrol bill. They cared not one whit that consumers might run short of gas if the bill was bogged down in controversy. What concerned them was the golden opportunity of trebling the price of interstate gas.

The Speaker replied on December 15 that he would not place the bill on suspension and requested that Chairman Staggers come before the Rules Committee for a rule. The Rules Committee hearing was set to consider the matter at 2:00 PM on December 16.

SPEAKER'S DELPHIAN PRONOUNCEMENT

On that morning about 11:00 AM I, as Chairman of the Democratic Study Group, at the direction of its executive committee, met with the Speaker. With me were Frank Evans of Colorado and Richard Ottinger of New York. We urged the Speaker not to press for a rule and not to take the matter away from the Committee on Interstate and Foreign Commerce through drastic Rules Committee action.

He stated to us that he would not recognize anyone to bring up the bill other than the Chairman of the Committee on Interstate and Foreign Commerce or someone designated by that committee to handle the bill. He also indicated, as I understood it, that he would ont use his influence to cause the Rules Committee to take action adverse to the Committee on Interstate and Foreign Commerce. He would simply not press the Rules Committee to take action one way or another.

RULES COMMITTEE HEARING

I reported this conversation to Chairman Staggers, and Chairman Staggers decided to appear before the Rules Committee only as a matter of courtesy to that committee and to the Speaker. When he did appear before the committee he made it clear that he was not thus submitting the bill for their consideration nor asking for a rule. He said he desired that the bill pass and that was the reason why he had asked for a suspension, but that he did not desire a rule on the bill.

Subcommittee Chairman John Dingell took precisely the same position. In answer to a question, he stated that if a rule were granted however he would handle the bill on the floor.

Representatives Brown and Krueger urged that a rule be granted, each asking that his amendment be made in order as a substitute.

Representative Don Fraser appeared before the committee and pointed out that he had a bil before the Interstate and Foreign Commerce Committee calling for extension of regulation to intrastate gas and providing for pricing of both interstate and intrastate gas at levels which would encourage production. Recognizing that there had not been sufficient time to consider his proposed bill in committee, he preferred that a rule not be granted but urged that, if one were granted, that his bill be made in order as a substitute in the same manner as the Krueger or Brown Amendments.

All other members of the Interstate and Foreign Commerce Committee who appeared before the Rules Committee supported the position taken by Chairman Staggers and Subcommittee Chairman Dingell.

RULES COMMITTEE'S DRASTIC ACTION

The Rules Committee then took two drastic and unusual actions:

First, in spite of the committee chairman's not having submitted the matter to the Rules Committee for a rule (and his saying he did not want a rule), the Rules Committee fashioned one. There was much testimony that no emergency existed at the present time. The existing rule of the Rules Committee provides that at this late time in the session bills will not be considered by the Rules Committee unless they have been submitted by the Chairman of the committee to the Speaker as emergency matters, and by the Speaker to the Rules Committee as emergency matters. The Rules Committee nevertheless granted a rule on this bill in the face of testimony that an emergency no longer exists, if it ever did.

Second, in spite of the fact that the Subcommittee Chairman, Mr. Dingell (who would ordinarily handle a bill on the floor) had agreed to handle it in case a rule was granted, the Rules Committee adopted a rule with the most unusual provision that the Speaker should recognize any member of the committee seeking to bring up the bill under the rule.

Such procedure has never been applied, so far as I know, to bills being dealt with in good faith by a committee and its Chairman. Judgment concerning timing for the seeking of the rule has, in such circumstances, always been left to the Chairman of the committee.

Members are usually very courteous to each other and committees are punctilious in their interrelations. When customs of restraint and deference are flaunted in so cavalier a fashion, one seeks an explanation.

THE STRATAGEM IN SUMMARY

The course of events that I have described exposes, I think, the stratagem of the oil and gas lobby. High stakes are involved. Because deregulation of gas would change what has become a longtime if not permanent structure of control, the stakes involved are much larger than those involved in oil price regulation. Lobbying efforts have been more intense, more unified, and have involved a wider segment of industry.

The stratagem involved the use of the bill as a launching pad for the deregulation of natural gas. The first step in carrying out the stratagem was FEA's deliberate triggering of the panic about a winter shortage of gas. This was designed to persuade consumer-oriented Congressmen from the North and Northeast to take action on permanent deregulation in at atmosphere of panic.

The second step was one that the Subcommittee on Energy and Power was forced to take out of a sense of responsibility. As in a chess game, the Subcommittee had to move or else risk severe shortfalls of gas during the winter. The committee had to move quickly and develop the facts as it proceeded.

The third step was engineered in the Senate by the lobby: the tacking of the Pearson-Bentsen Amendment on the Senate emergency bill.

At this point it appeared so easily within reach to bring about gas deregulation by putting the same amendment (the Krueger Amendment) on the House bill, that the Speaker was impelled to exercise his power to bring the House emergency bill quickly to the floor, even if it were necessary to act against the express position of the leadership of the Interstate and Foreign Commerce Committee. It was he that caused a meeting of the Rules Committee and forced Mr. Staggers and Mr. Dingell to appear before it on pain of losing control altogether.

This is what brought about a strange anomaly, a situation of the Speaker and the Rules Committee coldly rejecting the recommended course of the committee of the House to which is assigned the initial right to recommend and guide in the field of energy pricing and control. Contrarily, the Rules Committee warmly embraced the program fostered by the oil and gas lobby, the Administration, and the minority party. Thus, the machinery of the House is turned against itself.

Mr. CHRISTIE. Mr. Chairman, may I make a clarifying point?

Mr. DINGELL. Certainly.

Mr. CHRISTIE. Back on the question of new gas, new geological formations, our estimates of total new production included some assump-

tions about changing, deregulating contracts as well, rollover contracts, not previous contracts.

Second, both short- and long-term legislation are needed, and it is not up to any of us at this table to determine whether or not those would be proposed together or separately. But I would just refer you back to the letter which the Administrator sent to the Speaker of the House with regard to the short term.

Mr. ECKHARDT. Thank you, Mr. Chairman.

Mr. DINGELL. The Chair recognizes the gentleman from North Carolina.

Mr. BROYHILL. Mr. Chairman, I most respectfully take issue with the gentleman from Texas. I think the burden is still on this Congress to come up with a long-range solution, and I do not see any need to delay that. I feel like we are still in the same book; we are just in a later chapter. And all I do not know, this is a second or rerun of the same show. I know a lot of the same issues we discussed before we are going over again. But the need is still before us to come up with a long-range solution.

There is no time to, as I see it, to enact any legislation that would help out all of us this heating season. So why not start out immediately when we reconvene in January to come up with some long-range solution.

Mr. ECKHARDT. Would the gentleman yield?

Mr. BROYHILL. Yes.

Mr. ECKHARDT. I do not disagree with the gentleman on that proposition.

Mr. BROYHILL. I appreciate the clarification.

Mr. ECKHARDT. I just express the regret last time when we had a short-term solution, it could have worked, then it prevented us——

Mr. BROYHILL. This is where we disagree, why we could not have gone ahead with the long-term solution.

Mr. ECKHARDT. We could have if we had a conference appointed.

Mr. DINGELL. The Chair recognizes Mr. Schroeder for the purposes of asking questions.

Mr. SCHROEDER. Mr. Christie, you point out several times in your statement and explain on page 7 the fact the FEA curtailment study and the FPC study, which we heard earlier this morning, are very different kinds of studies. In fact, you try to take into account things like demand growth due to economic expansion, new hookups and the like.

I think also an important difference, if I understand you correctly, is that your report tries to look at both the interstate and intrastate end-use market, so in a very real sense, the two reports do not mesh very easily; that is, the FPC looks at only part of the total gas system. You are trying to look at the entire system.

Have you looked at or tried to look at the relationship of that portion of your study which relates to interstate markets? In other words, can one safely take the FPC curtailment estimates that we heard earlier, a 0.3 trillion cubic feet increase this winter, and translate that into any increase in end-use impacts for interstate customers?

Mr. CHRISTIE. No.

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Mr. SCHROEDER. We are confronted then with a situation where we have two different reports with two very different purposes, two different subject areas at least. I guess I am concerned, I expect you are, too, that the potential for misunderstanding of the curtailment outlook becomes pretty substantial when there are two substantially different kinds of surveys circulating.

Has there been a decision made to try to supplement or replace the FPC type of curtailment study with the FEA curtailment study? Or will we instead continue to have two curtailment studies, first, the FPC study which is largely irrelevant with respect to end-use impact, and then the FEA study which is largely irrelevant with respect to just interstate customer impacts? Which way are we going to go? Do you have any sense for that?

Mr. CHRISTIE. First, I would say the reports are complementary. They are not competitive. Second, to the extent the Congress and future administrations see a need for understanding each winter situation, I think you will see a need for the kind of report which FEA produced this year addressing the total market to the extent we can.

Mr. SCHROEDER. Let me just interrupt. I have to say I find the approach you have taken much more helpful, I think much more comprehensive, than the FPC approach. I am not trying to criticize what you have done. But I think it is safe to say that the two studies do not overlap in any meaningful way. You cannot translate the FPC numbers directly into FEA numbers.

It makes for a very confusing situation when the press gets FPC early projections in June, as they did this year, of what the winter curtailment outlook is and then we have to wait, I guess, until October before the FEA tells us what that means in terms of end-use impacts.

Do you not think that is a little bit less than ideal use for reporting and analyzing the curtailment situation?

Mr. CHRISTIE. You might say it is less than ideal. I think we and FPC work reasonably well together today. After sitting down with GAO last week it appears we could work a little better in terms of the timing of various events. If you have constructive suggestions, I would be glad to deal with them.

Addressing different markets and different audiences, and the FPC has an audience that is interested in that information and we are trying to look at it from a more overall national perspective and identify potential problem areas so people can focus on those questions and try and avoid serious or severe impacts, but I am not convinced we should by fiat decree that one or the other should not exist.

Mr. SMITH. I think that is the key point. Both are a component of the problem. They both come at the natural gas situation from different aspects. FPC is constrained by its jurisdictional limitations. FEA has a wider data collection authority, for example. We did cooperate with FPC in a design of a form that provides the base for input to both reports. And I think you are quite right in that the uninitiated can easily get confused at the difference between curtailments by interstate pipelines to their customers and distributing customers on the one hand and curtailments to end users by pipeline distributing companies serviced by both interstate and intrastate

supplies in some cases, some subject to FPC jurisdiction and some not a much wider issue on other cases.

I think the important consideration is that both of these kinds of reports are important and that the Congress and the public would be less well served without either. Because if you went only with FEA's report, this would tend to mask a major component of the problem which is the curtailment by the interstate pipelines. Whereas clearly if you went only with FPC's report, oyu would not have what in a real sense is the answer to the ultimate question—what difference is it going to make? Who is going to get hurt and how much?

As Mr. Christie indicated, we have been in touch with the FPC staff. In the course of the GAO review they have identified some areas where we can increase the degree of cooperation the two agencies have already had, which has been quite good. We exchanged data. FPC had a terminal into FEA's computer with which to extract the information available on these questions, and we are getting better at the cooperative approach to this problem.

I think the Congress and the public will still need both kinds of analyses and perahps, as you indicate by your question, a clear delineation of the differences and exactly what it is that is being treated and analyzed in each of the reports.

Mr. DINGELL. I would like to raise a question here. To get a magnitude of difference, I would like to read. Mr. Christie, I want to tell you you have given us a very fine statement and I think a very helpful one.

At page 6 you said:

> I would like to discuss reasons for differences in the FPC and FEA estimates of curtailment for this winter. As mentioned above, the FPC projects and increase of 340 billion cubic feet over last winter to a total curtailment of 1.6 trillion cubic feet, while the FEA reports show an increase of 424 billion cubic feet to a total curtailment level of 1.84 trillion cubic feet this winter.

Then you go on to illustrate the primary reasons. I am not prepared to challenge the validity of either report and either set of figures. As a matter of fact, I suspect on careful analysis it would probably turn out they are both about right.

I do not want to say I am sophisticated or not sophisticated. I have been attending the school of hard knocks on this subject now for 2 years. I suspect that generally we would arrive at roughly the same conclusions from either depending on how we philosophically approach this. But it may well be we need both reports as opposed to one but I have made available a letter to Monty Canfield. Monty Canfield is the Director of the Energy and Mineral Division General Contracting Office. The letter is dated November 5, 1975. I do not think it has yet been made available to you gentlemen. I would like to read one paragraph here, and it says:

> However, the description admits a significant element of Commission order dated July 20, 1975, which initiated the proceedings in docket No. RP 76–116 et al. On page 7 of that order, the Commission specifically requested participation by FEA to provide State and regional audit and fuel availability for the forthcoming winter heating season. The FEA August 26, 1976, letter to the Chief of the Bureau of Natural Gas indicated that it would not be a direct participant in the FPC proceedings. FEA's nonparticipation resulted in the lack of high impact, regional alternate fuel availability data cited on page 12, last paragraph of the draft report.

That does tend to indicate there may be some problems in coordination and cooperation between the two agencies and staff. I am not prepared to say FPC is correct in what they say or this is even significant with regard to the difference in figures. But it is something that, given where we are, I think we have got to make some kind of special effort to see to it that there be the fullest cooperation. Maybe you want to make a comment, Mr. Christie, and maybe you want to review the letter.

Mr. CHRISTIE. I would like to review the letter later, and I would like to make a comment.

Mr. SMITH. Since I signed the letter maybe I can comment on it.

Mr. DINGELL. We recognize both you gentlemen.

Mr. CHRISTIE. I will let Gorman fill me in. Basically, the data for our 1,700 sample survey, that form was sent out in June and the data came back in September. At the time this discussion and dialogue was going on, we did not have most of the information which the FPC requested. This was my response to Mr. Schroeder's point, our discussion with GAO indicated there may be areas such as timing where we can improve FEA and FPC coordination in looking at that.

Mr. DINGELL. Let me interrupt. My comments are not castigations; they are to see to it that the machinery in this area functions as smoothly as possible.

Mr. SMITH. I understand. That is a good example of where we are going to try to work out the timing of various surveys. We have already worked together on the information included in them. We completed early this week, actually completed over the weekend, putting this draft report on alternate fuel availability together in the degree of detail that the FPC would have liked to have had for its hearings.

It simply was not available, which was the reason for not participating directly in the hearings, because we had nothing more than the more general observation that there was sufficient supplies of alternate fuel available.

That letter was, of course, to be included in the public record of the hearings to make clear the need for those people who face potential curtailments to make early arrangements with their suppliers for alternate fuels so as not to overload the distribution system at the time when it will have its biggest load anyway when things get cold.

I think the bottom line is for this fall. We went as far as we could and we found an area where when the two agencies get together and plan out what they are going to do and on what schedule, we are likely to be better off next time.

Mr. DINGELL. Gentlemen, I would hope that you would only take my comments here as saying I hope you would join me in a keen recognition of the fact one of the most important tasks of the two agencies is to cooperate as fully and vigorously and intentively as they can in getting this information to the Congress which will activate proceedings and also to its own decisionmaking. That is my dissertation to you for the day.

The Chair recognizes Mr. Schroeder.

Mr. SCHROEDER. On final question, in your statement you make reference to the fact that among the alternate fuels for natural gas, should it be in short supply, would be middle distillate fuel oils. I wonder in

the context of today's hearings whether you might tell us where you stand with respect to the trigger that was discussed during congressional debate over decontrol of middle distillate prices.

Mr. SMITH. Let me clarify first, Mr. Schroeder, the finding with respect to possible supply problems having to do with middle distillates which are, specifically, if unusually cold weather occurs for prolonged periods this winter, there may be delivery problems for certain fuels in the States identified above.

Again, there is no finding in the report of a shortage of any fuel. The only possibility is that in the worst case outcome, the capability of the logistical system to move the fuel from where it is to where it is needed in time to get there when it is needed in the quantities required may present some problems in those States.

By the way, in those States we have identified, FEA's regional offices are looking at the supply situation in greater detail than this survey and analysis went into. This one deals primarily with inventories by prime suppliers into the State.

In each of the regions, we are following the analysis further and looking at the inventories of end users and secondary inventories of the supplies inside those States. We are taking whatever kind of actions are necessary, including exhortations to people to maintain high inventories and this kind of thing, in order to minimize the load on the distribution system.

The key point is there is no finding of any shortage of the fuels even in those States that may present logistical distribution problems in the worst case.

Mr. CHRISTIE. With regard to your question on monitoring middle distillate prices, FEA will issue its first press release on that today and that will contain June, July, and August survey and index prices for No. 2 heating oil; and also contain survey and index prices for diesel fuel, survey prices for June, July, August, September, October and index prices through September.

With regard to heating oil, we found the average heating oil price to all end users in June ranged from 34.3 cents in the South to 38.2 cents in the Northeast and West, and obviously for June corresponding index prices we are 2 cents higher.

I think it is important that we realize that the national average heating oil price to residential users will be higher. For example, in June, it was 39.3 cents compared to 38.6 cents to all end users. Average residential prices for the regions ranged between 37.4 cents in the north-central region to 31.5 cents in the West.

In addition, prices vary considerably within the regions. For instance, the prices in the Northeast range from 36 to 44 cents per gallon to the residential user.

So there is a wide spread in prices. Second, the residential price is not the national average price to all end users, which include a larger quantity of price users. But that information will be out today in a press release and succeedingly we will get on a week-by-week basis, the weekly system.

The only difficulty in having it today is that we need the September monthly data to have the initial peg point for the weekly index just as we needed the June data in good and final form to start the monthly processing.

Have I answered your question?

Mr. SCHROEDER. Yes.

Mr. DINGELL. Gentlemen, we appreciate your kindness to us. Mr. Christie, I believe it is your first time here. It is one of the more tranquil meetings we have had, I am sure, as Mr. Smith will recognize.

Gentlemen, the subcommittee appreciates your kindness in being here. We thank you, Mr. Christie, for your very helpful and well thought out presentation.

The subcommittee will stand in recess until 2 p.m. at which time we will reconvene to hear other witnesses as scheduled.

The subcommittee stands in recess.

[Whereupon, at 1 p.m. the subcommittee recessed, to reconvene at 2 p.m. the same day.]

AFTER RECESS

[The subcommittee reconvened at 2 p.m., Hon. John D. Dingell chairman, presiding.]

Mr. DINGELL. The subcommittee will come to order.

This is a continuation of the hearings of the Subcommittee on Energy and Power with regard to natural gas supplies during the winter of 1976–77. Our next witnesses are a panel composed of Mr. George H. Lawrence, president of American Gas Association; Mr. Claude H. Mullendore, Jr., vice president, rates and marketing, Transcontinental Gas Pipe Line Corp.; Mr. Jerome J. McGrath, executive vice president and general counsel, Interstate Natural Gas Association of America; Mr. Jack R. Angell, vice president of governmental affairs, United Gas Pipe Line Co.

Gentlemen, we are pleased you are with us. If you will each identify yourself for purposes of the record to assist our reporter, we would be most pleased to receive your statements.

STATEMENTS OF JEROME J. McGRATH, EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA; JACK R. ANGELL, VICE PRESIDENT, GOVERNMENTAL AFFAIRS, UNITED GAS PIPE LINE CO.; GEORGE H. LAWRENCE, PRESIDENT, AMERICAN GAS ASSOCIATION; CLAUDE H. MULLENDORE, JR., VICE PRESIDENT, RATES AND MARKETING, TRANSCONTINENTAL GAS PIPE LINE CORP.; ACCOMPANIED BY THOMAS F. RYAN, JR.

Mr. MCGRATH. Mr. Chairman, my name is Jerome J. McGrath. I am executive vice president and general counsel of Interstate Natural Gas Association of America—INGAA—Washington, D.C. INGAA, Mr. Chairman, is a national trade association. Did you wish me to proceed with the statement?

Mr. DINGELL. If each will identify himself for our reporter, then we will go forward.

Mr. ANGELL. Mr. Chairman, my name is Jack Angell. I am vice president of United Gas Pipe Line Co.

Mr. DINGELL. All right.

Mr. LAWRENCE. I am George Lawrence, president of American Gas Association.

Mr. MULLENDORE. I am C. H. Mullendore, vice president of Transcontinental Gas Pipeline Corp. Also appearing on behalf of Transco is Mr. Thomas F. Ryan.

Mr. RYAN. My name is Thomas F. Ryan, Jr. I am appearing along with Mr. Mullendore for Transco.

Mr. DINGELL. Very well, gentlemen, consider yourselves welcome, and I guess we should start with Mr. McGrath.

STATEMENT OF JEROME J. McGRATH

Mr. MCGRATH. Thank you, Mr. Chairman. INGAA is a national trade association representing virtually all of the major interstate natural gas pipeline companies operating in the United States today. Our companies supply gas to all of the lower 48 States with the exception of Vermont, and their systems account for approximately 90 percent of all gas transported and sold in interstate commerce. All of our members are subject to the jurisdiction of the Federal Power Commission under the Natural Gas Act, 15 U.S.C. 717 et seq., and to the Department of Transportation, Office of Pipeline Safety Operations under the Natural Gas Pipeline Safety Act of 1968, 49 U.S.C. 1671, et seq.

The subcommittee has requested INGAA to appear before it today to discuss the natural gas supply outlook for the winter season of 1976–77 and measures for dealing with supply shortages. We are pleased, Mr. Chairman, to respond to that request and welcome the opportunity to discuss these matters with the committee.

As the committee knows and heard this morning, the Federal Power Commission in August and September of this year undertook an investigation of 19 pipeline companies whose projected curtailments this winter, based on data filed last April, were estimated to be 20 percent or more below estimated firm requirements. After reviewing the staff reports of this investigation, I think it can fairly be said that, barring extremely cold weather this winter, there will be no serious impacts due to natural gas curtailments. Most pipelines and their distributors will be curtailing FPC priorities 3 through 9 in varying degrees and some pipelines may curtail into priority 2. But, as the staff reports indicate, the FEA projects adequate supplies of alternate fuels, so that the likelihood of plant shutdowns because of interruptions in gas service should be minimal.

The improvement in the supply picture for this winter is due to a number of factors, not the least of which is that many industrial users have either switched entirely to alternate fuels or have installed alternate fuel burning equipment. Still other industries have taken advantage of FPC order 533 and have purchased gas directly from producers in the field with the pipelines transporting it to their plant. Some companies have been expanding their storage capabilities and others have been able to improve their supplies through emergency purchases of gas or otherwise. While all of these have helped to alleviate the shortage somewhat, they are only makeshift arrangements which, except for storage, provide no solution to the long-range problem of developing substantial new reserves for the interstate market. Deregulation of new gas both onshore and offshore is still the best

means for encouraging the massive exploration and development programs needed to foster the search for natural gas in this country.

Emergency short-term purchases of gas will probably be the best means this winter to avoid critical interruptions, but even here such stopgap arrangements could be improved by making it easier for the interstate pipelines to buy emergency gas not only from producers but from intrastate pipelines.

The Federal Power Commission, for example, should permit a pipeline, as it did a few years ago, to purchase emergency gas on successive 60-day contracts from the same producer for a limited period rather than restricting the pipeline to one 60-day purchase from a single producer. I think the FPC records will show that, when the pipelines were able to roll over 60-day purchases, they were able to buy more gas than they are now under existing restrictive regulations. Also the Commission should permit the pipelines to recover in their rates the amounts paid for such gas rather than having such costs subject to later disallowance if the Commission believes the price paid was too high. This ex post facto regulatory policy has discouraged many pipelines from buying emergency gas.

If Congress were to consider emergency legislation, it would be important to include provisions, such as that contained in various bills considered last year or earlier this year, to enable intrastate pipelines to sell gas to interstate pipelines without the threat of becoming subject to the jurisdiction of the Commission by reason of making such emergency sales.

If a real emergency should strike this winter—and at present we do not foresee one unless we have extremely cold weather—the intrastate market could well be the source of relatively substantial volumes of natural gas on a short-term basis if the interstate pipelines are put in a position to buy such gas. We would be pleased, Mr. Chairman, to work with the subcommittee staff to develop appropriate amendatory language if the committee desires to pursue this route.

In sum, both distributors and pipelines have been taking steps to minimize as best they can the impact of curtailments on high priority users. Residential consumers should have no difficulty this winter—again unless the weather is extremely cold—nor should priority 2 customers on most systems.

If extreme cold weather is experienced, there are self-help measures that can be taken by the pipelines as well as by many distributors to protect the residential users against interruption in service. We think the situation could be helped considerably, however, if the FPC would relax its regulation so as to permit pipelines to have ready and easy access to gas in the intrastate market.

Now, Mr. Chairman, lest there be any misunderstanding concerning the gas shortage, I must point out to the committee that when the FPC staff reports indicate there will be no serious impacts on high priority users this winter with normal weather, there will still be substantial curtailments in the lower priorities, many of which include industries using gas for very preferential uses. Fortunately in many of these cases alternate fuels are available but at a cost higher than natural gas. The pipelines are doing everything in their power to ameliorate the situation; but, until the statutory constraints under which the FPC now operates are loosened, there is little likelihood of

any significant improvement in supply. I might emphasize also that the last several winters have been warmer than normal and that, together with the general recession in the economy, has enabled us to squeak by with a minimum of disruption.

Finally, in any event we are dealing with estimates and projections based on a variety of assumptions—weather, new emergency purchases, storage availability, to name a few—a change in any one of which could alter the situation considerably. Right now these are our best estimates based on the facts as we see them at this time.

We appreciate the opportunity to appear before your committee and will attempt to answer any questions you may have. Thank you, Mr. Chairman.

Mr. DINGELL. Mr. McGrath, the committee thanks you for very helpful testimony and for your kindness in being with us today. Mr. Angell.

STATEMENT OF JACK R. ANGELL

Mr. ANGELL. Thank you, Mr. Chairman. My name is Jack R. Angell; I am a vice president of United Gas Pipe Line Co. I am happy to appear today before the subcommittee to provide information on the gas supply problems expected during the 1976–77 winter season from United's standpoint.

United is one of the largest natural gas pipeline companies in the United States. Prior to the gas shortage, United handled about 10 percent of all gas moving in interstate commerce. Our direct market area covers the eastern portion of Texas, the entire State of Louisiana, most portions of Mississippi, the gulf coast area of Alabama and that part of Florida in and around Pensacola. Within this direct market area, United makes sales directly to 184 industrial customers and to 408 local gas distribution systems who in turn resell such gas to residential, commercial, and industrial users.

In addition, United makes substantial sales to other pipeline companies, the five principal pipelines being Natural Gas Pipeline Co. of America, Mississippi River Transmission Corp., Texas Gas Transmission Corp., Texas Eastern Transmission Corp., and Southern Natural Gas Co. These five pipeline companies in turn serve some 24 other States in the Midwest, Northeast and the Atlantic seaboard area.

United was first forced to curtail customers across its system in November of 1970. In ensuing years, the nationwide shortage of natural gas has intensified and United's curtailments have steadily increased. This can be seen from the fact that 1971 curtailments were 106 billion cubic feet, or 6.6 percent of United's firm requirements; and that figure had risen in 1975 to 696 billion cubic feet, or 43 percent of firm requirements. In United's latest form No. 16, which was filed with the Federal Power Commission on September 30 of this year, United projected curtailments this winter of approximately 50 percent of our firm requirements of 705 billion cubic feet. I have provided copies of this filing to the subcommittee.

United has been making every effort to improve its supply position for this winter. I am happy to say that we have had some success in doing so. Since the form 16 was filed, the Federal Power Commission has granted certificates for two delayed exchanges which will provide added gas for United's system during the 1976–77 winter months.

United is also conducting an extensive program of making emergency purchases. As a result of these programs, we now believe that our supply picture may enable us to deliver to our customers approximately 380 to 385 billion cubic feet of gas this winter as compared with the 1975–77 winter deliveries of 391 billion cubic feet.

I must caution, however, that while these new supply figures represent our best estimate at this time, there are various circumstances that could alter these figures. As an example, we included in our projected supply some 6.9 billion cubic feet of new gas that we anticipated would be connected to our offshore system sometime during this winter. To date we have not obtained the necessary approval for this project and it now appears that a portion if not all of this volume will not be available this winter.

In addition, while United will be making substantial purchases of emergency gas, we must remember that the majority of emergency gas must be sold on a best-efforts basis and experience shows that, as cold weather moves in, these emergency volumes are subject to being reduced or completely cut off because the gas is needed by the sellers to meet their own firm commitments. Also, in the event of very cold weather, we can anticipate losing some of our normal supply due to freezeoffs of producing equipment.

On the demand side, United's requirements form the starting point for the Federal Power Commission's consideration of the manner in which curtailments should be made on United's system. These requirements are based on historic takes by the customers, which in some instances were adjusted to reflect changes due to economic conditions or growth requirements. Of course, weather conditions greatly influence the demand for gas on the system of any pipeline. The temperature-sensitive portion of United's stated requirements are based on the 1972–73 winter, during which weather conditions were considered about normal.

In the event we experience colder than normal weather, the higher priority domestic customers will require more gas and, therefore, we will have less gas available to lower priority industrial customers than shown in our studies. In this regard, United has undertaken an active campaign throughout the year urging all of our customers, including residential users, to make a concerted effort to conserve gas in their daily activities.

The precise manner in which curtailments are made depends on the curtailment program approved by the Federal Power Commission and the reviewing courts. At the present time, hearings are still in progress before the Federal Power Commission to determine United's permanent program.

On November 1, United began curtailing under a proposed program which it believes will minimize the hardship on all customers. On November 5, the U.S. Court of Appeals for the Fifth Circuit, as a result of challenges to the program by several of United's customers, ordered United to implement a different program which had been in effect several years ago. However, the court also directed modifications to that program which will, in United's view, enable curtailments to be made this winter in a manner similar to that contemplated in the program which had become effective on November 1.

Consequently we believe it will be possible to provide sufficient gas to customers in our service area this winter to protect all domestic use and sufficient gas for industrial purposes to prevent any plant closings, job layoffs or loss of normal production.

In summary, United believes that it will be possible to curtail this winter on a basis which will avoid severe economic dislocation, provided that United is able to obtain the quantities of emergency gas projected and there are not unusually cold weather conditions. Under these assumptions, there will be no need to curtail into the human-needs requirements of residential and small business customers. While our curtailments to the industrial sector will be very deep, there appears to be sufficient alternate fuel available to offset these curtailments and, perhaps with some minor exceptions, these customers can operate with alternate fuels, at least to the extent we are unable to provide them with gas for their entire fuel requirements. Of course, the requirements that these customers use fuels other than gas puts added demand pressures on those fuels and in many cases the alternate fuel will be more expensive.

This completes my statement, Mr. Chairman.

Mr. DINGELL. Mr. Angell, thank you very much for your helpful testimony. The next witness is Mr. Lawrence.

STATEMENT OF GEORGE H. LAWRENCE

Mr. LAWRENCE. Mr. Chairman, I am George Lawrence and I do appear on behalf of the American Gas Association. Our 300 companies are largely dependent on gas sold in the interstate market at rates established by the FPC.

The steady decline of available supplies in this market has severely restricted the capacity of our member companies to fulfill their public utility responsibilities. In most areas of the country it is forcing our membership to deny services to new customers and curtail supplies to present customers. Some extent of this is detailed in the tables attached as appendix A [see p. 108]

I might point out, Mr. Chairman, indeed that has been the situation here in the District of Columbia metropolitan area since 1972, where there has been a moratorium on new residential hookups.

Unfortunately the failure of the shortage to impact as severely as predicted this last winter has been interpreted by some as evidence that the shortage is a myth, that it has been manufactured by the gas industry to speed the passage of legislation to remove Federal controls on the wellhead price of new gas. Although our members, who are not producers—they are distributors and transmission companies—solidly support efforts to remove field price regulation of new gas, they do so only because they see it as the best way to get the gas needed to serve their customers in the future. Our members receive no economic advantage from higher wellhead prices.

If I may, I wish to discuss the impact of last winter's shortage and how that was alleviated. The shortage last winter did not result in as severe an impact as predicted, not because there was more gas available than needed but rather due to a combination of factors which lessened the obvious effects of the shortage and temporarily decreased demand.

Because the FPC is predicting pipeline curtailments in excess of 1.6

trillion cubic feet for this winter and because many of the factors that mitigated the effect of last winter's shortage will again be present this winter, it is worthwhile to examine these factors closely. They include:

1. A continuation of the recession caused an economic slowdown and decline of the industrial production index of about 10 percent between 1974 and 1975 with a corresponding reduction in industrial gas consumption. The cumulative effect of the decline in industrial production and warmer weather resulted in a reduction of industrial consumption from 8.1 trillion cubic feet in 1974 to 6.9 trillion cubic feet in 1975. It presently appears that the improvement in the economy this year has not been dramatic enough to cause a serious increase in industrial consumption this winter over last.

Point No. 2 is mild weather. The mild weather last winter contributed significantly to the reduction of gas use. Degree-days were down approximately 7.5 percent as compared to 1974 for the months of October, November, and December. Obviously it is impossible to predict accurately the weather for this winter. However, a colder than usual winter—and it is starting out that way—could have a serious impact. As a matter of fact, the October degree-days are some 43 percent colder for 1976 than for 1975.

A third point is the emergency purchase provision. The Federal Power Commission, having been upheld by the courts, authorized 60-day emergency gas purchases—through Order 533, that Mr. McGrath mentioned—which, combined with similar authorization for direct industrial purchases, enabled many distribution companies and large industries to increase their volumes to the point there they experienced little work stoppage or curtailments affecting jobs.

Last winter about 1 trillion cubic feet of intrastate gas—and this was about 8 percent of the volume moving interstate—was transported by interstate pipelines to customers who qualified for this relief. It should be noted again that this did not make any more gas available; it was simply an emergency procedure which permitted some redistribution of supplies that were temporarily surplus in unregulated areas.

Point No. 4 is the natural gas companies' self-held steps. A great number of gas companies, in anticipation of severe shortages which were forecast for this year and the years ahead, took independent actions to (a) find new supplies through joint venture exploration and production excesses; (b) construct facilities to manufacture supplemental gas; and, I might point out, liquefied hydrocarbons, naphtha, propane, et cetera, is contributing 1.1 billion cubic feet, or about 8 percent of that which moves in the interstate market; (c) increase storage capacities; (d) start planning for LNG imports; and (e) greatly expand conservation initiatives.

Point No. 5 is a switch to alternate fuels. Potentially, the most serious result of the shortage is the necessity to switch from gas to alternate fuels, usually imported oil. This has had a cascading effect on our economy in several ways:

First, the building trades have suffered because buyers are reluctant to buy all-electric homes, whether the electricity is generated by imported oil or coal, because of their sharply higher operating cost. Second, manufacturers either do not produce if they cannot get gas, or switch to oil or electricity and are forced to raise prices on their

products to meet those higher operating costs. Third, the uncertainties caused by the energy situation—which is predominantly a gas shortage—has at least put a psychological damper on business expansion. And, finally, because alternate fuels—oil or electricity—cost much more than gas, several billion dollars have not been available for business investment. The cost to consumers alone has been estimated to be from $4 to $6 billion a year.

I would like to discuss, if I might, the emergency legislation considered by Congress in the past and at present. Because of the fact that a gas supply shortage is a potential threat to economic prosperity and even to health and safety in schools, homes, and hospitals, there is a temptation to seek emergency legislation that would be in place to deal with a severe shortage situation should one occur.

We can understand this and certainly would support legislation along the lines of title I of the Pearson-Bentsen bill, S. 2310, or as spelled out in FEA Administrator Frank Zarb's letter of September 16 of this year to Speaker Carl Albert. These recommendations essentially would provide for 180-day emergency purchases by pipelines and industrial users under an abbreviated certification procedure which should speed delivery. AGA has no objection to these types of emergency measures but we would oppose any type of legislation requiring mandatory allocation and/or interconnection between pipelines. The most important reason for our opposition to mandatory allocations is the inhibiting effect it would have on the very end it attempted to accomplish. We feel strongly that the consumer and the overall public interest clearly would be the losers if this were done. The following points should be taken into account in considering emergency legislation at this time:

First, it might well be too late for even the acceptable emergency provisions of the type noted above to have any significant effect this winter, assuming their enactment would occur even at the earliest possible date.

Second, we have already seen that the problems of allocating gas among the customers of even a single pipeline involve complex, time-consuming proceedings, with numerous claims of potential hardship on the part of particular customers. These problems would be greatly compounded in any attempt by the FPC to take gas supplies away from the customers of one pipeline in order to supply those of another, and would lead to prolonged court appeals and massive confusion and instability.

Third, even if the Commission were able to fairly and equitably assess competing claims between pipelines, there would then follow the problem of actually implementing a physical interconnection, and these are spelled out in the prepared testimony and while these things are handled routinely on a voluntary basis we submit that their problems would be more difficult if they were ordered through a third party.

Fourth, any mandatory allocation system would lead inevitably to prolonged administrative proceedings and litigation related to resolving the level of compensation.

The fifth point, granting authority for the FPC to mandate interconnection and allocate natural gas between pipelines would be a severe blow to diligent, knowledgeable and aggressive management of both pipelines and distribution companies at a time when such qualities

were never more necessary. We question the wisdom of substituting Government judgment for that of gas company management in solving gas supply problems. Similarly, those State commissions and other public officials who have placed the long-term public interest over short-term expediency—usually while demonstrating political courage—to improve the gas supply posture of their local constituents, would have to wonder if it is worth it. Also, the incentive for aggressive conservation efforts to prolong an adequate supply through research and efficient engineering practices, as well as through effective communications programs efforts would be mitigated.

Sixth, apparently it is not well known, at least by the general public, that pipelines already respond on a voluntary basis almost routinely to periodic short-term emergencies. This is done through exchanges, displacements made under circumstances where all of the complexities described above are considered and resolved by the parties who best understand them and who want them to work. This is a far cry from decisions having to be made through formal proceedings and bureaucratic fiat pursuant to a statute which provided an open initiation for any company or customer of that company to go after the supplies of another and the "have" company, as distinguished from the have not, will undoubtedly utilize the fullest of legal recourse to protect itself.

For these reasons, in our opinion, mandatory interconnections and end-use allocation should not be included in any natural gas legislation, emergency or otherwise.

As a summary, Mr. Chairman, to date we have managed to combine a certain amount of luck with the aggressive programs of our various gas companies and have been able to avoid most of the potentially disastrous economic dislocations that could have resulted from the natural gas shortage. But the consumer has not completely escaped. He is paying a higher cost for most manufactured goods, homes, schools, hospitals, et cetera, caused by the switch to more expensive alternative energy sources.

Also, the utility companies, in shifting loads from low-priority to high-priority customers, are responding both to regulatory policy and a desire to serve the best interest of all classes of customers. When load is removed from a low-priority user, who has access to alternate energies, unless the gas thus saved is applied within the system to high-priority customers, either traditional or new, the system load factors will deteriorate and cost-of-service to all customers will rise. It is not a fact that this practice of shifting from low- to high-priority users is motivated by desire to increase utility company profits. In fact, cost-of-service studies by utilities as well as those conducted by regulatory commissions have shown that larger, industrial and commercial class customers produce greater profit per unit of sales volume than do residential class customers.

Unfortunately, we are rapidly approaching the time when even these short-term efforts will not be enough. The real solution to the overall gas supply problem must come through a series of related activities—all of which are vital to the assurance of an adequate domestic energy policy that will minimize oil imports. In our opinion, these are:

1. The passage of a bill to deregulate the field price of new natural gas;

2. The development of our offshore and Alaskan oil and gas reserves;

3. Realistic policies on LNG and liquid feedstocks for synthetic natural gas.

We submit that if our vast domestic coal supplies are to meet their potential in alleviating our domestic energy problem then coal gasification must be aggressively pursued. It is the most economic, least capital intensive, most efficient, and we submit the most environmentally compatible way to use these coal supplies.

A final point, pursuit of a dynamic research program including gaseous fuels in tight formations and dissolved methane in geopressurized, geothermal zones. Unless we get on with these initiatives, the American public will continue to be penalized by an energy policy that inhibits the production of our cleanest, most efficient and most economic energy source and encourages increased reliance on imported oil.

Thank you, Mr. Chairman.

[Appendix A referred to follows:]

APPENDIX A

Extent of Housheating Customer Restrictions,
By State, 1975

New England	43/	14/	43
Connecticut	32/	25/	43
Maine	0/	87/	13
Massachusetts	41/	9/	50
New Hampshire	47/	32/	21
Rhode Island	92/	0/	8
Vermont	0/	60/	40
Middle Atlantic	97/	0/	3
New Jersey	100/	0/	0
New York	100/	0/	0
Pennsylvania	90/	0/	10
East North Central	43/	53/	4
Illinois	57/	40/	3
Indiana	55/	39/	6
Michigan	6/	94/	0
Ohio	56/	36/	8
Wisconsin	25/	65/	10
West North Central	22/	66/	12
Iowa	76/	5/	19
Kansas	3/	84/	13
Minnesota	12/	75/	13
Missouri	11/	80/	9
Nebraska	9/	82/	9
North Dakota	0/	93/	7
South Dakota	37/	63/	0
South Atlantic	62/	23/	15
Delaware	100/	0/	0
District of Columbia	100/	0/	0
Florida	22/	39/	39
Georgia	3/	75/	22
Maryland	99/	0/	1
North Carolina	76/	0/	24
South Carolina	76/	3/	21
Virginia	85/	9/	6
West Virginia	85/	0/	15
East South Central	39/	37/	24
Alabama	3/	71/	26
Kentucky	86/	3/	11
Mississippi	0/	76/	24
Tennessee	58/	5/	37
West South Central	0/	79/	21
Arkansas	0/100/		0
Louisiana	0/	62/	38
Oklahoma	0/	91/	9
Texas	0/	78/	22
Mountain	44/	25/	31
Arizona	66/	4/	30
Colorado	89/	1/	10
Idaho	0/100/		0
Montana	0/	99/	1
Nevada	0/	34/	66
New Mexico	0/	0/100	
Utah	0/	99/	1
Wyoming	0/	89/	11
Pacific	3/	96/	1
Alaska	0/100/		0
California	0/100/		0
Hawaii	0/100/		0
Oregon	91/	7/	2
Washington	2/	81/	17

Gas Utility Company Restriction Forecast-1976
(Expressed in Percentage of Residential Customers Served)

	Yes/No/Uncertain
New England	51/ 30/ 19
Connecticut	53/ 47/ 0
Maine	0/100/ 0
Massachusetts	61/ 11/ 28
New Hampshire	0/ 36/ 64
Rhode Island	0/100/ 0
Vermont	0/100/ 0
Middle Atlantic	97/ 0/ 3
New Jersey	100/ 0/ 0
New York	99/ 1/ 0
Pennsylvania	91/ 0/ 9
East North Central	60/ 34/ 6
Illinois	57/ 43/ 0
Indiana	56/ 44/ 0
Michigan	6/ 94/ 0
Ohio	100/ 0/ 0
Wisconsin	20/ 25/ 55
West North Central	13/ 73/ 14
Iowa	39/ 0/ 61
Kansas	0/ 80/ 20
Minnesota	10/ 87/ 3
Missouri	9/ 91/ 0
Nebraska	11/ 89/ 0
North Dakota	30/ 70/ 0
South Dakota	29/ 63/ 8
South Atlantic	60/ 25/ 15
Delaware	100/ 0/ 0
District of Columbia	100/ 0/ 0
Florida	0/ 46/ 54
Georgia	1/ 98/ 1
Maryland	100/ 0/ 0
North Carolina	57/ 0/ 43
South Carolina	81/ 0/ 19
Virginia	100/ 0/ 0
West Virginia	32/ 3/ 65
East South Central	57/ 42/ 1
Alabama	2/ 98/ 0
Kentucky	100/ 0/ 0
Mississippi	0/100/ 0
Tennessee	97/ 0/ 3
West South Central	0/ 94/ 6
Arkansas	0/100/ 0
Louisiana	0/ 99/ 1
Oklahoma	0/100/ 0
Texas	0/ 91/ 9
Mountain	69/ 14/ 17
Arizona	100/ 0/ 0
Colorado	86/ 3/ 11
Idaho	0/100/ 0
Montana	0/ 94/ 6
Nevada	0/100/ 0
New Mexico	0/ 18/ 82
Utah	100/ 0/ 0
Wyoming	0/100/ 0
Pacific	0/ 96/ 4
Alaska	0/ 0/100
California	0/100/ 0
Hawaii	0/ 0/100
Oregon	0/ 0/100
Washington	0/100/ 0
United States	47/ 46/ 7

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Mr. DINGELL. Could you please, Mr. Lawrence, just comment briefly on the appendix to your statement which you have given us, gas utility company restriction forecast—1976, expressed in percentage of residential customers served. Would you want to explain this chart just a little bit so that we have a clearer order of record on that point.

Mr. LAWRENCE. Yes. We have three numbers reading from left to right, by different geographical areas of the country, and then with different States within that geographical area.

For example, taking the New England area, and the State of Connecticut, this would mean that the gas companies serving 53 percent of the gas in the State of Connecticut are now restricting new residential gas. They do to some extent have a moratorium; 47 percent of the gas served by companies in the State of Connecticut are to date experiencing no intrastate—I mean, are experiencing no residential moratoriums.

The third column means where we have no information as to whether they are or are not. For example, I might point out that in the South Atlantic area, the District of Columbia, the State of Maryland, served by the Washington Gas Light Co., for example, they do have a total moratorium on all residential hookups. This, by no means, quantifies it, but I think it does identify the areas where there are moratoriums on new residential hookups.

Mr. DINGELL. Thank you very much.

Our next witness is Mr. Mullendore.

STATEMENT OF C. H. MULLENDORE, JR.

Mr. MULLENDORE. Thank you, Mr. Chairman. I appreciate the invitation of the subcommittee to present a statement on the natural gas outlook for this winter on the Transcontinental Gas Pipe Line Corp. System (Transco).

Transco transports and sells natural gas along the eastern seaboard primarily from Atlanta, Ga. to New York City. It sells gas to 69 wholesale customers and 1 direct industrial customer. It is the largest supplier to the Philadelphia-New York megalopolis and is the sole supplier of natural gas to North Carolina, Delaware, and portions of Virginia, Maryland, and New Jersey.

Based upon the FPC's method of projecting curtailment, Transco is projecting a systemwide curtailment percentage this winter of approximately 37 percent which is 7 percent greater than it curtailed its customers last winter, However, to alleviate the potential economic dislocation which would result due to heavy curtailment of industrial users of natural gas, we undertook the following steps:

We obtained all of the additional temporary storage requested by its customers. This amounted to 6.4 billion cubic feet (bcf) of storage capacity.

We are encouraging and assisting industrial consumers in locating supplies which they might purchase directly from producers for transportation by Transco to the market area, pursuant to the FPC's announced policy in order No. 533. At the present time the Commission has authorized 18 such transportation services involving 33 industrial firms and an additional 5 are currently awaiting FPC approval.

We located substantial volumes of emergency gas for purchase directly by its customers. It is hoped that there will be available over the winter sufficient volume of emergency gas to satisfy the requests of the customers.

As a result of these steps and the self-help projects of the distributors, it is Tansco's opinion that there will be no curtailment of residential and commercial customers in its market area and hopefully, adverse consequences, because of industrial shutdowns, will be avoided.

Mr. ECKHARDT [presiding]. Thank you, sir.

Do you have questions?

Mr. CURTIS. Mr. Chairman, I would like to direct a couple of questions to the panel at large. I would perhaps start with Mr. Lawrence, if I may.

The picture as presented to the paned as I understand it is reasonably optimistic in terms of our avoiding significant dislocations and disruptions in the coming winter, barring circumstances which are still variable by the weather and unforeseen at this moment. I take it the panel would agree with the statement that we, no matter what is accomplished on a national level in terms of energy policy for the long term, are confronted with inevitably significant shortage of natural gas relative to the demand for this premium fuel over the next several years.

Let me ask Mr. Lawrence as I am just assuming that that is a general agrement; is that correct?

Mr. LAWRENCE. Yes.

Mr. CURTIS. I would like to focus some questions on what the Federal Government should do, beyond deregulation of wellhead prices to manage the shortages as will occur in the next several years. Is there any room, in your opinion, for a Federal policy initiative in this area, and, if so, how should it be defined?

Mr. LAWRENCE. Mr. Curtis, I think indeed there is. First, in the order that I have mentioned them in my direct testimony I think some statutory expansion of the emergency period, with some statutory expedited certificate procedures would enhance an acceptable emergency program, and that is very distinct from a mandatory interconnection or allocation or mandatory program.

Second, I think the Federal policy should include one which would permit a rapid and continuing development in the Outer Continental Shelf of areas.

The recent legislation that the Senate and House considered in the past Congress, while it had many redeeming benefits which we as directors and I think many pipeline companies might consider positive and helpful, it also had some provisions which were not helpful. And to the extent that those can be removed it would be a very positive step, because we are very encouraged at the potential in the Atlantic Outer Continental Shelf.

You have got something like, oh, 1½ million square miles out there, shelf area, the initial lease-sale bids I think were more than twice those anticipated. The initial of structure test wells thus far have been indicative of formations conducive to hydrocarbon accumulations so the Outer Continental Shelf area has been considered beneficial.

Mr. CURTIS. Let me try and define my question a little more exactly.

Mr. LAWRENCE. OK.

Mr. CURTIS. If the Congress were to adopt a policy of removing the Federal presence in price regulation at the wellhead, then there would be no restriction on the ability of the pipeline systems to access the intrastate market to acquire whatever gas is available in parity with competing consumers as they occur in the intrastate markets.

Mr. LAWRENCE. True.

Mr. CURTIS. If the Federal Government is to pursue an aggressive Outer Continental Shelf policy, we are looking at lead development, as I understand it, 3 to 5 years before meaningful supplies will start to be brought to the market from those coastal areas; is that correct?

Mr. LAWRENCE. I think that is certainly true, as far as rank wildcat areas are concerned. But I think in the Gulf of Mexico, where there has been for years vast exploration where many pipeline delivery systems are in place, that we could reduce that timelag substantially.

Mr. CURTIS. But these, all of these policies, look toward enhancing supply availability, both your access to existing supplies by removing the disparity between the two markets and the bringing on of additional supplies through what you would regard as more enlightened Federal policy to our energy requirements.

Nonetheless, am I incorrect in believing that in the next 3 years we are still going to have significant shortages in natural gas, not only into your existing firm commitments but certainly as compared to potential demand for the fuel? Aren't we going to be at a stage of continuing moratoriums and fuel hookups and in a stage of continuing curtailment of various dimensions?

Mr. LAWRENCE. Mr. Curtis, I am afraid you are right, and that makes it all the more important that we get on with these steps that you have just stated. I would point out, however, that again in a lot of the conventional producing areas both onshore and offshore if the field incentive is there the timelag would not have to be the normal 3 to 5 years that you would normally have in a rank wildcat area because a considerable amount of exploratory work has been done, and if the incentive is there to pursue development some additional supplies could be brought along in a short term as I think the rising prices in the intrastate area indicated in the period of late 1973 and 1975.

Mr. CURTIS. One of the principal tools now existing for managing shortage, national Federal Commission uses, is its curtailment authority. It has often been said that that suffers from an inadequate statutory base, that the Commission does not have a full measure authority that perhaps it needs to have to make effective a national curtailment policy, and the use of adjudicatory procedures are themselves inflexible and incapable of responding in the near term as might be required in emergency circumstances.

Can you give us AGA's position on whether the curtailment authority is adequately based in statute, and whether there is any suggested policy that you would present to the committee for making hopefully a more rational curtailment system tool for the FPC in addressing the realities of a curtailment market?

Mr. LAWRENCE. I guess, Mr. Curtis, we would say perhaps we would consider that it is adequately based in statutory authority, because

it is working thus far. I think the two pipeline representatives on my left and right might indeed expand on that. I think it is good that there be a certain amount of regulatory flexibility in meeting changing circumstances at either the Federal level or the State level, and I think we have seen that Federal Power Commission regulatory policy has tended to be initially at least standard for many State curtailment priority proceedings.

Perhaps if this were put in a rigid statutory framework it might deprive both the Federal Power Commission and the States of some needed flexibility.

Mr. CURTIS. But is it fair to say you are satisfied with the curtailment mechanism that the Federal Power Commission uses, and that you believe it is of sufficient scope and flexibility to respond to it?

Mr. LAWRENCE. Our association, Mr. Curtis, really does not have a specific policy on this because I think our member companies' views run on a pretty wide spectrum. I guess the best answer I might give you is my personal concern is that we might be concerned as to what would come out of a rigid Federal statute, and again depriving a knowledgeable Commission, in light of all the attendant and changing circumstances to be flexible and responsive.

Mr. CURTIS. I wonder if other members of the panel might comment on the adequacy of the curtailment power and its administration particularly? Has it been satisfactory? I think Mr. Angell indicated a circumstance where they have got a moving target on curtailment for your particular company.

Mr. ANGELL. Let me put it this way. I think probably the statute, as has been interpreted in more recent years by the courts, probably really is a satisfactory tool. I agree with Mr. Lawrence.

Mr. DINGELL. You say it is a satisfactory tool, or it is not?

Mr. ANGELL. I think basically it is, yes. I agree with Mr. Lawrence. I guess it depends on a philosophy. If you want to have the Federal Power Commission, as an example, extend its end use programs automatically beyond the pipelines to the city gates, and so forth, well, that is a philosophy. I don't think they are capable of doing it. I don't think they have the manpower. Even if you could staff them, I think it is something that is better done at the local level. To be sure——

Mr. CURTIS. May I interrupt? Is it being adequately done at the local level, your opinion, now?

Mr. ANGELL. Basically, yes. I think it is. I agree with Mr. Lawrence's statement, it has worked. Now, there have been difficulties, there is no question about that. Probably that is the fault of human beings, perhaps. I don't think it is the fault of the system, necessarily. As I say, I don't think the statute is that bad. We have had to develop an awful lot of new law as a result of curtailments, and unfortunately my particular company was one of those involved in much of that new law. I guess if we have a complaint it is the degree of administrative delays that go on. As an example, we are still looking for a permanent program, and we will have been in trial for 6 years. Hopefully, we are going to have an answer to that one of these days. I don't mean to suggest that our trial has been uninterrupted. It has not. We have been up and back to the courts. In fact, we just had a court decision last Friday which changed the program slightly. I alluded to that

in my prepared testimony. But in answer to your basic question, I think that, yes, that the statute as now written basically is adequate.

Mr. CURTIS. Do you believe it is also adequate, it has an exceptions relief mechanism. Is that adequate to deal with a cascade of applications should we get a severe curtailment problem due to unusually cold weather or the loss of emergency supplies that you are now counting upon?

Mr. ANGELL. I am sorry, Mr. Curtis, I am not sure I understood your premise. Are you saying it does have it?

Mr. CURTIS. Well, there are exceptions, relief from the general category curtailment orders, but those proceed under adjudicatory case-by-case basis. Is that machinery adequate if we do get the type of severe shortage that certainly we hope will not occur or do you need a different tool to deal with that as well?

Mr. ANGELL. I will put it this way. If the situation does not improve itself, as most people now look at it, over where we are today, say, 3 years from now, if the shortage continues to increase, there may well be additional steps required. I might add I don't believe a national allocation is the answer to that.

Mr. CURTIS. Would anyone else care to comment?

Mr. MCGRATH. Mr. Curtis, I think as a general proposition the pipelines believe that the Commission's order 467–B priorities, and so on, if handled in a flexible manner, and not rigidly, probably are the best way to handle the situation today. Now, circumstances may change a few years from now, and one of the problems that we have encountered is that each pipeline company is different.

Each system is different. And you just can't have a mold and expect all the companies to fit it. They have their own supply problems, their own supply situation, their own marketing problems, the different regional problems that they have that they serve, and the 467–B priorities have been an attempt by the Commission to cover a very broad situation, and I think they have done that now.

One of the real problems has been the delay, as Mr. Angell pointed out, in getting final approval for some of these curtailment plans that the companies are required to submit to the Commission. And when you consider the fact that you have hundreds of customers, both distribution and industrial, competing for gas all over the country, and these numerous pipeline systems that are trying to balance their supplies against requirements, it is no wonder that you do have some delay. But if there is a criticism of the system. I think it is the undue delay encountered in getting these programs under final approval. And then we have the situation, as Mr. Angell pointed out, of the court reviews that are always lurking in the background on any FPC order that is issued, and the parties are never hesitant to go to the courthouse to seek court review.

Mr. CURTIS. Those are both problems. Are they problems which elevate in your mind to the point that the Congress should address them to provide means for truncating the administrative procedures and in indeed truncating the judicial review of the curtailment plans once declared ineffective?

Mr. MCGRATH. Well, if there could be a way found to speed up the process legislatively or to circumscribe the areas of court review that might be helpful, but I don't know that I am in a position to say that

you could do that without intruding on people's constitutional rights and legal rights and everything else. I doubt seriously that Congress could meaningfully address that problem.

Mr. ANGELL. If I may interrupt there just a moment, I do believe that we have had this long delay, but I believe that things are beginning to shake themselves out on this now. And it has been under existing statutes. I don't think that the future is necessarily going to be what the past has been in terms of these delays. The courts have identified the problem areas. The Commission has responded to them or whatever. And so I think that we have made a lot of progress on what we can expect in the future years.

Mr. CURTIS. Let me ask in what probably is a more controversial area, and that relates to the sharing of supplies among systems. The Federal Power Commission witnesses this morning testified to their efforts to develop voluntary agreements for sharing of supplies. They evidenced that they have been less than pleased with the results. Mr. Lawrence testified that historically the major distribution, the major pipeline systems have engaged in the practice of sharing either through displacement or direct passthrough on existing interconnections. What is the industry's view?

Let me ask Mr. Lawrence. Do you think that there is any possibility for developing as a contingency plan, a voluntary, drafted, but in existence mechanism for sharing among pipelines should distribution companies feeding off those pipelines in fact cut into the priority one residential or small commercial user?

Mr. LAWRENCE. You mean sort of a contingent plan of operation and involuntary procedures?

Mr. CURTIS. Let me ask it this way. You have all testified that this is very unlikely it is going to occur. But most likely should it occur there is going to be a request of the Congress to respond to it. If the industry's position is the Congress should not do the unwise thing, setting in place mandatory sharing program, wouldn't the Congress be dissuaded from that if the industry bound together a voluntary sharing which would make unnecessary this type of governmental response, if in fact you do suffer curtaiments in the priority one area?

Mr. LAWRENCE. I think, Mr. Curtis, the answer to that is probably yes, with a qualification, if it is not perceived as an interim step toward the unwise, the mandatory allocation, which we firmly believe will be counterproductive, because I think you are going to have massive resorting to legal recourse. And I really think perhaps some of the others on the panel might explain in more detail some of the voluntary circumstances that are taking place and are working, and how they are doing that under the voluntary circumstances, and I guess in short we disagree with the testimony you heard this morning. We heard Mr. Holloman, Commissioner Holloman testify before, that he does support mandatory allocation. He did it on the Senate side, and I would just have to say that we respectfully disagree.

Mr. CURTIS. Well, let me just ask it this way, before the other members of the panel. I take it there is not now a formalized sharing of agreement among either the pipelines or a group of pipelines and distribution companies.

Mr. LAWRENCE. That is true because I think——

Mr. CURTIS. Another case-by-case or pipeline basis?

Mr. LAWRENCE. Yes; because I think some of the same problems you would have in drafting legislation that would meet all of the highly changeable circumstances you would find present in trying to draft such a voluntary plan. I would have to say, though, that I think some of the hesitance to proceed into some sort of a formal voluntary program is the perception that that would lead to a more rigid, mandatory allocation plan. I think a part of the success of any congressional action in that regard would be to make clear that that was neither the intent nor would it be the result.

Mr. CURTIS. Is it your perception that if curtailments in fact occur in priority one customer categories, that the industry will respond by making gas available to a person, a supplier found in those circumstances?

Mr. LAWRENCE. I think absolutely, yes.

Mr. CURTIS. Then what is the hesitancy to make some formalized agreement to so make that supply available?

Mr. LAWRENCE. I really think——

Mr. CURTIS. Just on a priority one.

Mr. LAWRENCE. I think I can only repeat what I said, some of the difficulties in reducing such a voluntary agreement to writing, but I suspect more important would be the fear that this would be an interim step toward the more rigid mandatory allocation.

Mr. CURTIS. But you don't have antitrust problems or difficulties in arriving at such an agreement that you are aware of other than those?

Mr. LAWRENCE. I think that those are always present and always considered by counsel of the exchanging companies, but I think the fact that both the pipelines and the distributors are essentially 100-percent regulated companies greatly alleviates the antitrust concern.

Mr. DINGELL. Well, if I could, this is a question I had not intended to go into, but I think Mr. Curtis is doing the committee and all of us a service in this matter.

As I understand the antitrust exemption received by regulated companies, it only goes to those activities of the company which are regulated, and agreements which are approved by the regulatory body, or which are possibly—and I am not even sure of this—which are pursuant to the regulated activities of the company, and not necessarily agreements which might not fall within the jurisdiction or the power of the agency to approve. Now, we find ourselves here apparently with a situation where the regulated agency, rather the regulating agency, has no authority to regulate the pipelines in connection with the agreements of this sort.

Now, if that be so, how then would these agreements be sheltered from the antitrust laws, or how could the companies which exercise such agreements in good faith be protected against possible antitrust problems.

Mr. LAWRENCE. I think many of these are done right under the umbrella of the 60-day emergency provision pursuant to a Federal regulation.

Mr. DINGELL. You are saying that because of the 60-day sales provision for emergency, that this kind of an agreement would fall under that particular power of the Commission. Is that essentially what you are saying?

Mr. LAWRENCE. Yes, sir.

Mr. DINGELL. And that, therefore, there would be an antitrust exemption which would attach, I would assume, within reasonable bounds?

Mr. LAWRENCE. Within the normal regulatory umbrella, yes.

Mr. DINGELL. I am a little more comfortable, but I am not fully comforted yet, and I say this with respect for you, Mr. Lawrence, but with a measure of justifiable apprehension, because I would hate to see the industry doing something to help folks and wind up getting into antitrust difficulty on the matter.

Mr. LAWRENCE. Well, I am not personally aware of any antitrust roadblocks that have prohibited the voluntary exchanges that have taken place which are considerable.

Mr. MCGRATH. Mr. Chairman, if I could comment. I don't necessarily suggest that we see any antitrust roadblocks, but there is no immunity granted the companies from antitrust statutes by reason of their regulation by the Federal Power Commission. I think the *El Paso* case is a classic example of that situation. And if you will note the Commission's order establishing the investigations of the 19 pipeline companies, they specifically invited the Department of Justice Antitrust Division to have a representative present in case any antitrust problems were lurking in the investigation that they were undertaking. So I don't think we can be sanguine about the fact that just because the Federal Power Commission regulates the interstate pipeline companies that they are immune from antitrust problems. We are not.

I would like to comment further on Commissioner Holloman's comment this morning in expressing alarm that there had been no voluntary agreements entered into by the companies. And the answer to that is very simple, because there are no emergencies yet to which these companies are being asked to respond.

When the emergencies arise, I think the history of the industry shows that the pipelines have responded. And if, as and when an emergency occurs this winter, I am confident that the companies will do whatever they can within the perameters of their own supply situation, their own customer demands, to meet the voluntary exchange of gases that may come up. But it is certainly premature at this point in time for any pipeline company which is wrestling with its own supply problems to enter into a voluntary agreement to supply gas of unknown quantities at unknown places at unknown times. And so I am really much surprised that Commissioner Holloman would express concern that there was a lack of any kind of agreement at this point in time.

Mr. MULLENDORE. Mr. Curtis, I might also comment on that in behalf of Transco. We have many exchange points with other companies not only in the production area, but up and down our system that we have entered into. The Commission is well aware of all of those exchange points. As a matter of fact, we entered a tabulation in the omnibus proceeding pursuant to their suggestion that we list all exchange points with all of the other pipeline companies that we have. And we exchange gas from time to time in the production areas and others and a system, other pipeline companies, in moving volumes around in order to meet their market demands.

Mr. CURTIS. Well, I think the point that I was getting at is we get somewhat between the rock and a hard place. I am saying that we don't believe you are saying that you don't believe that the curtail-

ments will cut into priority one. Should they occur, I think we can all agree that the Congress is going to find almost irresistible some effort to allocate gas to priority one residential and small commercial customers if their is gas somewhere in the Nation being consumed for oil or fuel construction, for electricity generation purposes. Yet if the Congress does that, it is your position that the Congress will do it unwisely, and it will contain many negative implications, not only for the short-term situation, but the long-term situation. Yet the industry as a whole can't develop, or hesitates to develop a formalized contingency plan to give assurance that priority on curtailments will in fact be met, or satisfied, for fear that if it develops it then the Federal policy would merely incorporate it into a mandatory program. Is that the general position that is the opinion of the panel?

Mr. MULLENDORE. I might comment further on that. We are confident that other interstate pipelines would help each other voluntarily. Again, as Mr. McGrath says, given consideration to what their supply is, and what their market is, and particularly in the event of a serious emergency occurring on one system which threatened human needs, of residential customers.

I might also say that other distributors, not only on the same system but on the other systems, we think likewise would come to the aid of a distributor customer. But until all of these self-help measures are failed, and every avenue had been explored, other pipelines had refused to help out—or could not help out—other distributors could not help out, and there was a genuine emergency, not supposed, but a genuine emergency threatening residential customers.

Now, Transco has taken the position up with INGAA. In a position paper with INGAA we were the dissenter saying that in the event all of those things occurred, that a mandatory allocation may be appropriate. However, we did say that the donor of the gas, the pipeline or the distributor should be fully compensated for the gas that it delivers, including any losses occasioned by the loss of the gas. But we were, I think, probably the dissenting pipeline on that point.

Mr. CURTIS. This is my last question.

To the extent that the donor is donating gas which it has firm contractual delivery requirements to deliver, does it have the legal authority, in your opinion, to voluntarily, even at a compensable basis, share that base with a pipeline with another distribution company that is curtailed into priority one?

Mr. MULLENDORE. I could not truly answer that not knowing the contract or the other circumstances.

Mr. CURTIS. Mr. Lawrence, does the industry have a position on whether—I take it all the distribution companies—excuse me, all the pipelines are roughly in either a zero curtailment or some measure of curtailment, and this is a measure of delivery requirements pursuant to firm contractual commitments. Does a pipeline have the authority to share gas which it has a firm contractual commitment to deliver with some other pipeline, even on a compensable basis, to the event of its sharing that gas would cause additional curtailment of its own customers' needs?

Mr. LAWRENCE. Well, I think if I understand your question that that would be done under circumstances where the customer would relieve some of his entitlements to another more deeply curtailed

customer of greater need, but where there are contract entitlements, those would have to be formally relieved under the existing interpretation of the law by the Commission.

Mr. CURTIS. And there is no mechanism for formally relieving those, or is there?

Mr. LAWRENCE. To my knowledge, no.

Mr. MCGRATH. No.

Mr. ANGELL. There is no mechanism, but the party who may be the party giving up gas to the troubled pipeline can certainly explain to its customers the curtailment situation. I might also add, depending on where the problem comes in, what time of the year, most of the pipelines, not all of them, most of the pipelines have day-to-day flexibility in terms of storage, so they can still meet what they consider their obligations to their customers at that point, and perhaps withdraw a little more from storage than is programed, all consistent with their curtailment.

Mr. CURTIS. If we are cutting into priority one, we are contemplating a very, very severe supply circumstance, where that storage may not any longer be available.

Mr. ANGELL. I am talking about the pipeline who would be willing to give up some gas at that point in time to help the one who is going into this high-priority curtailment. Obviously, if the pipeline itself is experiencing difficulty with that priority, he would be in no position to give up gas. I am speaking of circumstances where another company could use his storage facilities, as an example.

Mr. CURTIS. Barring storage facilities it is feasible you would have to get permission of your customers to take delivery entitlement away from a customer and share it with another, even on a compensable basis?

Mr. ANGELL. I certainly think we would. I think we would.

Mr. CURTIS. If a customer says no, then you are not able obviously to proceed with a sharing. Should the Federal Power Commission, or any other governmental agency, have the authority to relieve you of your delivery requirements in those circumstances?

Mr. ANGELL. You say should they?

Mr. CURTIS. Yes.

Mr. ANGEL. In all honesty, Mr. Curtis, the problem as we see it as a company, and I guess as most pipeline companies see it, if you are talking about a fail-safe type of mechanism, and we honestly believe the other pipeline companies will cooperate, but if everything goes down the drain, and we don't have that ability, and if we had a mechanism, whether it be legislation, where it would be used solely for that purpose, I am not sure United Gas Pipeline would say that we are opposed to that.

What we are very concerned with, and we have seen this happen all too often is the fear of what happens when the camel gets his head under the tent, and once he gets in there it gets awfully crowded. Plus who is to say what the emergency is. Right now I think the pipelines are in better position to communicate between themselves and really identify the problem. Who in Washington or in the State of Louisiana, or Mississippi or wherever it may be, who is to make that determination? I think the pipelines are in a better position to do it.

Mr. CURTIS. I hope you don't understand my questions as urging the Federal involvement.

Mr. ANGELL. No; I understand.

Mr. CURTIS. It does seem to me that the best way to deflect it is by having in place a workable contingency plan which would obviate the need for, or justification for Federal involvement.

Mr. ANGELL. Well, in a sense I think we on our system have such an understanding. We haven't reduced it to writing, because as Mr. McGrath pointed out, we can't identify when it will happen, where it will happen, and to what degree. So when we ask a company to sort of hold an umbrella over our head, we can't tell him what the circumstances are, so he is in no position to judge whether he can do it at that point in time. We could enter into an agreement with very broad terms, but it probably would not have very much meaning to it. The way we have it now, I think we have an understanding that if we get into trouble to the extent they can help us they are going to do it.

Mr. CURTIS. Thank you, Mr. Chairman.

Mr. LAWRENCE. Mr. Chairman, might I add just one point on your pursuing the antitrust question?

Mr. DINGELL. Certainly.

Mr. LAWRENCE. I certainly concur in the statement of Mr. McGrath, that regulated interstate pipelines are not immune to the antitrust law. But I think we found that frequently the consequences of antitrust concerns are in the minds of the counsel representing the companies, whether they are cautious or aggressive, or whatever. And when we consider the fact that all these voluntary exchanges would be made with the concurrence of the Federal Power Commission, I cannot help but think that regulatory umbrella is one that gives them some feeling of comfort, and this is why to our knowledge I am not aware of any antitrust roadblocks to voluntary exchanges.

Mr. DINGELL. Thank you, sir.

Mr. Eckhardt.

Mr. ECKHARDT. Do I understand that the members of the panel generally agree with the statement of Mr. Angell, that you believe that it will be possible to curtail this on the basis which will avoid severe economic dislocation provided that your companies are available to obtain emergency gas protected under not unusually cold weather provisions? Is that pretty much the consensus?

Mr. LAWRENCE. I think, Mr. Eckhardt, as far as shutting down plants, putting people out of work, et cetera, yes. But there is an economic consequence of that in the case of having to curtail natural gas supplies or resort to alternate fuels, and that is the higher price of the alternate fuels.

Mr. ECKHARDT. But as of this winter that is already a foredrawn conclusion; is it not? I mean, there is not much we can do about that.

Mr. LAWRENCE. I think perhaps that is right, but as I mentioned earlier even in an emergency bill that the 95th Congress could pass, unless there is a lame duck session, would be pretty much into this winter.

Mr. ECKHARDT. Well, sure, I think we can certainly assume that no action could be taken until about the end of January, as a practical matter.

Now, of course, we have got two questions that your panel has addressed, and other persons coming before this committee have addressed, one is what ought to be done with respect to getting sufficient gas for the high priority users, and of course somewhere down the priority line but I think eventually we are going to be talking about utilizing gas largely in other than boiler fuel users. We have been talking about that question, and we have been talking about what might be desirable with respect to taking care of these unusual contingencies that you say may come up, the exception that you make to the proposition that we will probably get through all right with winter. Now, on this second proposition, do you feel that we should address that at all? Do you think we should address the question of any changes with respect to existing law concerning the problem that may exist, say, in February and March? I guess that is what we are talking about, practically speaking, aren't we?

Mr. McGrath. Yes.

Mr. Eckhardt. Is it feasible to do it? Is it desirable. Do you recommend it. Do you feel that we should take legislative action with respect to questions for those 2 months? Of course, we may have to.

Mr. McGrath. Mr. Eckhardt, if I could venture a response, I think the comment was made this morning and we talked a little about it this afternoon, on the leadtimes required even if you were to pass a deregulation bill today that it would be a couple of years before you would, hopefully——

Mr. Eckhardt. Do you not think we could put the deregulation thing to the side, right now?

Mr. McGrath. Well, I think.

Mr. Eckhardt. Because if we were to do that, we would probably be through March.

Mr. McGrath. Well, that is the problem. I think if we approach it in a tandem way, which I think Mr. Lawrence mentioned S. 2310 did come over from the Senate last year, title I—I think you would accomplish both of your objectives. One, you would provide emergency provisions to meet the emergencies that might arise until such time as the deregulation becomes operative, that is, that the new supplies begin to come on line.

Mr. Eckhardt. That is determined differently perhaps because I had been seeking emergency legislation as legislation that would be available at least for a portion of this winter. Now, I think it is absolutely inconceivable that we can deal with deregulation in time for it to have any impact at all with respect to this winter. Now, of course, if you are using "emergency" in the sense that even though we put into effect certain provisions concerning curtailment of additional production over a period of time, you are using emergency to say even though we are doing that that we ought to have also in place some legislation, say, for next winter, and even after permanent legislation is passed, then I can see the emergency legislation is linked with a permanent solution to the question. But I think what you are telling me is that there is no need to try because it is virtually impossible to get legislation passed that would deal with this winter's emergency.

Mr. McGrath. I think as a practical matter that is right. As Mr. Lawrence pointed out, it will be the 95th Congress, unless you have a lame duck session this year, which is doubtful, and then you are getting

into February and March, toward the tailend of the heating season and any action taken then may be a little bit too late.

Mr. ECKHARDT. Of course, I have always been of the opinion we should have moved right away and come to some kind of conclusion between the Smith amendment in the House and the Pearson-Benson bill in the Senate. I thought we had the vehicle to work on it then and I thought we ought to have done it as soon as the two bills got out of the House and Senate. But, of course, that is water under the bridge.

It seems to me what we ought to recognize now is that we have to deal with two related problems. But we should deal with them with sufficient exactness and in sufficient depth to be assured of a good program. Those two problems would seem to me to be the question of what can be done concerning the question of assuring ourselves of gas for various uses in their line of priority.

I would assume that would include, and I think we almost all agree with it, would include some means of getting rid of a disparity between price of intrastate and interstate gas.

And second, certain interim measures, so we do not run into shortages during the winter. Would you agree with that?

Mr. LAWRENCE. Could I make a couple of comments? I would hope as early as possible in the next Congress this committee would deem advisable to pursue a resolution between Pearson-Benson and whatever alternative might come out of the House on the permanent solution.

As to the more expeditious emegency-type legislation, I would reiterate what I said on direct. That is, to codify, that might expand the emergency period to 180 days of the Pearson-Benson as was in the administration's recommendation to the Speaker, to expand it to streamline some of the certificated procedures and codify that emergency provision on a voluntary basis. We would support that.

We would be concerned, though, and would not support a program of the more rigid mandatory interconnections and allocations which we think would be most counterproductive.

Mr. ECKHARDT. If the gentleman would indulge for just a moment more. What I am getting at is, do you not think, if we are going to do something for this winter, we better forget about the general question because we cannot possibly do that in time to meet any exigencies of this winter. I would think you are telling me we might as well get into the whole question and forget about trying to do something that affects this winter.

Mr. LAWRENCE. On your premise, Mr. Eckhardt, we cannot. We need to move expeditiously as soon as possible. Late in January when the 95th Congress convenes, we would hope you would focus on the voluntary type emergency program of the type I described—it was title 1 of Pearson-Benson—and steer away from more controversial unworkable mandatory allocation.

Mr. ECKHARDT. Of course I think we have to steer away from any drastic change with respect to price if we expect to get anything through early next year.

Mr. LAWRENCE. But keep it at the top of your priority list.

Mr. ECKHARDT. Subsequent to that, that is what this committee has always done, at least on this side of the fence.

Mr. ANGELL. Accepting your premise, we think the long-term solution is long overdue, but putting that aside for the moment——

Mr. ECKHARDT. I agree with you on that.

Mr. ANGELL. How much help would a title 1 be, we will call of it—I think it will be fairly limited. But I do not see any down side of having that enacted.

Mr. ECKHARDT. The point is, if we are going to do that, do not put us in the position we were in last time of letting us attempt to meet this exigency, this emergency situation, and then have thrust upon us on the floor a decision with respect to the question of deregulation.

That is entirely unacceptable because this question of meeting the long-term problem of gas regulation or deregulation is at least as complex as the whole question of oil pricing. And to throw that question on the floor of the House, it seems to me, is the height of irresponsibility. I would have thought that would have been proved by the history in the last session.

Mr. MULLENDORE. On behalf of Transco, given the premise you stated in the difficulties and controversies that would apparently come about as a result of talking deregulation or whatever form it might take, we would like to see emergency legislation passed along the lines of the rest of the panel as soon as possible because we may need the emergency legislation this summer to fill storage fields.

We do not know what kind of a winter we are going to have. If it is a very severe winter, we might draw the storage fields down considerably. It might very well be we have to buy emergency gas this summer in order to supplement our fluid supply and get ready for next winter.

Given the complexities of the arguments about deregulation, I think our company would like to see some type of emergency legislation permitting us to buy on 180 day situation, not mandatory allocation but perhaps giving us that right, at least codifying the permission would have us to have that right in case we require it this summer and next winter.

Mr. ECKHARDT. Thank you.

Mr. MCGRATH. The interstate pipelines do not disagree with that statement at all. We are saying we have been doing this patchwork for so long now that we have got to get moving on the long term, and we really feel that is a step that has to be taken. That is why we urge that it be done in tandem.

Mr. ECKHARDT. Aren't you saying steps can be taken and should be taken irrespective of what we do as respect to the other step?

Mr. MCGRATH. Definitely.

Mr. ECKHARDT. Thank you.

Mr. DINGELL. The time of the gentleman has expired.

Gentlemen, one of my concerns in approaching any kind of short-term legislation has been the concern we might find ourselves with the same kind of unpleasantness we had during the previous Congress. I would suspect possibly with change of Speakers, and other circumstances here about, we might have a little different set of conditions to face.

I loath to place the Congress in a position under the kind of circumstances we are compelled to consider natural gas circumstances in the past Congress without rather better justification than history shows we had.

Gentlemen, your comments today have ranged only slightly afield from the question at hand. Perhaps you will forgive me for going just a hair further afield. But I am curious. What has been the impact of the Federal Power Commission's order increasing prices of natural gas from $.52 to $.93 or $.95, depending on how you take the figure, and increasing the cost of new natural gas to $1.42 per thousand? Can you give me some comment as to what that has done to supply or what that will do to supply?

Mr. McGrath. Mr. Chairman, right now it is too early to assess what impact it has had on supply. As you probably know, almost since the day the opinion was issued in July, there have been court proceedings instituted challenging the Commission's order, opinion 770-A issued on Friday has been appealed to both the fifth circuit court of appeals and D.C. circuit court.

With that kind of cloud on it, there is an uncertainty as to when those rates would really become effective. I think as a general proposition, however, the pipelines look upon this as a bold and major step forward by the Commission to get the field prices in line with reality, and we hope that they will generate new supplies for the interstate pipelines.

Mr. Dingell. We all hope that. I am sure the Federal Power Commission hopes that. But the question is, a, I think you are fair in responding, it has not yet gone into effect for a sufficient period of time to produce new gas. What is your expectation with regard to it?

Mr. McGrath. We think it will bring additional gas to the interstate market. We think it will enhance the incentives for increased drilling. It will improve the outlook for marginal wells that heretofore many producers and pipelines may have passed up because the costs were just not in line with what the area rates were permitting. We think in the offshore areas, it will stimulate some additional drilling there. We are going out in the Atlantic area, hopefully soon. That is hostile territory out there.

The prices may be encouraging to the producers to devote more money than they might otherwise to those kinds of frontier areas, if you will.

We are very convinced that they will elicit new supplies. How much is anybody's guess.

Mr. Dingell. I want to be courteous, gentlemen, could I so say do any of you have comments you would like to make on this?

Mr. Lawrence. I certainly agree with what Mr. McGrath said in the Outer Continental area which, of course, is subject to FPC jurisdiction. I think in the last couple of years, we have seen some accelerated activity in the on-shore area in gas well exlorations and completions. This is attributed to the higher incentive intrastate prices. There has been 180 degree experience in the OCS area where there has been a decline in activity. We think the $1.42 new price will stimulate some OCS activity.

Mr. Dingell. How about onshore?

Mr. Lawrence. We do not see that as being able to compete with the intrastate market. In some areas, it would certainly, but across the board, we think not.

Mr. Dingell. Could I say you are all in agreement with that statement or, would I be unfair if I did that?

Mr. ANGELL. I agree with it. I think there may be some gas that we can buy onshore, but it is going to be pretty small comparatively. We are not going to be competitive. If all other things were equal, if the intrastate buyer and United had an equal shot at it, he is going to get that gas. We are not going to be able to meet his price, I do not believe. There might be isolated places where we can pick up some gas. For $1.42, the producer will drill it and commit it to us whereas he might not do it at $1 or whatever because it is not economically feasible for him to do so. But basically we are not going to be competitive, in our judgment, with intrastate markets.

Mr. DINGELL. What is the level of price of intrastate gas? It varies considerably across the country. Roughly what would be the level?

Mr. ANGELL. In Texas, I think Texas is a very good case.

Mr. DINGELL. Texas, Oklahoma, Louisiana.

Mr. ANGELL. Texas in particular, 3 years ago, something on that order, they had fairly deep curtailments in Texas on their intrastate lines. When they turned those prices around to where they are today, they greatly improve their supply. I agree with the comment made earlier, they are not by any means fat on their supply, however, they are much better off than we are. But they are not tremendously wealthy in gas reserves.

Mr. DINGELL. You are talking about the State of Texas?

Mr. ANGELL. I am talking about the intrastate pipelines. The reason they have done it is because they can go out and get that gas for that price. I think that is a case that can be made. I really do believe this for deregulation. I will not go into arguing that point.

Mr. DINGELL. Without arguing that question, can we get some appreciation of what is the level of intrastate gas prices now, let us talk Texas, Oklahoma, Louisiana, maybe a State that produces less for intrastate usage for California, Montana.

Mr. MCGRATH. The Federal Power Commission recently issued a report on intrastate prices. I believe the average is about $1.59 overall.

Mr. DINGELL. $1.59 overall?

Mr. MCGRATH. Overall. That is taking Texas, Oklahoma, Kansas, Louisiana, what have you. In the State of Texas, which is really the single largest source of intrastate gas and the one which the interstate pipelines by and large look to for the bulk of the intrastate gas, there is gas in Oklahoma and other areas but Texas is the biggest source, the General Land Office of the State of Texas monthly issues a report of the prices paid. I happen to have the most recent one, published at least. It is dated September 16 and the prices range from $1.97 down to a low of $1.43 and a half. This is issued monthly and the prices I gather would change monthly, but not significantly because the August price ranges from $1.97 to $1.42 and a half.

Mr. DINGELL. That is Texas?

Mr. MCGRATH. Yes, sir.

Mr. DINGELL. That is all above the new Federal figure?

Mr. MCGRATH. Yes, sir.

Mr. DINGELL. What would the interstate figure be, say, in Louisiana?

Mr. MCGRATH. That intrastate figure in Louisiana, I do not have that information with me, Mr. Chairman. I am sure it is in the FPC report. We would be glad to supply it to you.

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Mr. DINGELL. I guess it would be helpful. I was hoping you could give that to us off the top of your head.

Mr. MCGRATH. I have the data somewhere in my bag here if you want me to take the time to look it up. It is available from the FPC reports.

Mr. ECKHARDT. Would the gentleman yield?

Mr. DINGELL. Yes.

Mr. ECKHARDT. As you say, Texas is a potentially larger supplier, but Texas itself recognizes the possibility of shortage even for intrastate use because on March 3 of this year, it put on very strict priority requirements. It prevented the sale of anything in excess, I believe, of 3,000 Mcf per day for any new boiler use, which seems to me to be recognizing the fact that it is running to the point of shortage even within Texas for higher priority uses, or else I would not think that any such restriction would have been likely to come through the Texas Railroad Commission.

Mr. MCGRATH. I believe that is true, Mr. Eckhardt, but there is gas available that may be surplus to the immediate needs of the intrastate pipelines.

Mr. ECKHARDT. Of course, it is also true that since intrastate prices are not controlled, intrastate residential uses in Texas are not in any ways protected against the high prices. What would you think about a limitation on the price of intrastate gas perhaps even as an interim proposition along with such regulations as was issued by the Texas Railroad Commission on March 3? Of course that could be done federally as well as by the State. There certainly is no question that the intrastate gas prices affect interstate commerce.

Mr. MCGRATH. I think it would be disastrous.

Mr. ECKHARDT. Why?

Mr. MCGRATH. It would have the same inhibiting effect on the incentives to go out and look for new gas as Federal regulation has had on the producers supplying the interstate markets. Texas would soon be in the same position we are in.

Mr. ECKHARDT. If gas is selling in Texas without regulation; prices at a range from $1.42 to, say, $1.90, does not $1.90 look more like a demand price rather than a cost-dictated price?

Mr. MCGRATH. It would appear that way to me, yes, sir. I do not know the makeup of the prices down there.

Mr. ECKHARDT. Thank you, Mr. Chairman.

Mr. DINGELL. Gentlemen, can you tell us what has been the impact on intrastate gas supplies of the Federal order? That is, the order of the Federal Power Commission fixing prices at $1.42 in interstate prices?

Mr. ANGELL. Are you asking will it drive the intrastate prices up?

Mr. DINGELL. Yes; that is a simple way of putting it. Has it driven it up?

Mr. ANGELL. Has it?

Mr. DINGELL. Yes.

Mr. ANGELL. I do not know.

Mr. DINGELL. Mr. Lawrence, you have an inquisitive look on your face.

Mr. LAWRENCE. I do not know, and I would doubt that it would in those areas where a greater incentive price is necessary to stimulate

drilling at a particular intrastate market would require than it would sell for above $1.42 in the areas where the intrastate market is very limited and there are distress sales. I am not sure the $1.42 would in any way serve as the so-called floor from which they would expand.

Mr. DINGELL. Let me state it a little differently. Would I be unfair in inferring that it has probably become the floor?

Mr. LAWRENCE. That what, sir?

Mr. DINGELL. Would I be unfair in inferring that this has probably become the floor, the $1.42 under the Federal Power Commission's order relating to prices of interstate natural gas?

Mr. LAWRENCE. In my opinion, yes, sir. I think it would not become the floor in the intrastate market.

Mr. DINGELL. Prices today are $1.42 and a half; $1.59 as indicated earlier——

Mr. LAWRENCE. That is an average which means there is some below and some above. I would think whatever caused those to be over and under would continue to prevail.

Could I make just another point, Mr. Chairman, on the impact of 770 as far as some of our gas distribution companies are concerned?

Mr. DINGELL. You have indicated the range was $1.42 to $1.59 on intrastate—$1.40 through $1.97.

Mr. MCGRATH. That was in Texas, Mr. Chairman.

Mr. DINGELL. $1.40, $1.97, they didn't get very far above the lowest sales, and I am not sure there have been many sales below that figure since in Texas.

Mr. ANGELL. Mr. Chairman, I was going to make this comment as well. You ask, Would it become a floor? There are so many intangibles. It depends on where it is located and everything else. I tend to think it might be close to a floor, but even if it were a floor, at least our experience has been the complete uncertainty of how long, first off, that $1.42—it is already in court—what is going to happen to it. If a fellow had his choice of going inter or intra at the $1.42, he is going to go intrastate. He knows what he is going to get. If its interstate he is not sure what he is going to get until the courts get through with the various appeals. I think that is really part of the big problem. They do not know. If they had some degree of certainty of what was going to happen in the future, they would feel a lot more comfortable about where they are going to go. They need that certainty to plan their own business.

Mr. LAWRENCE. As far as your AGA member companies that have supported deregulation of new natural gas where the percentage would be prospective strictly in the future. Many of our companies, not all, certainly some, have had concern about the impact of 770 mainly because of flowing gas. I think they also recognize that if the Commission's decision is upheld in the courts then the 1973–74 93-cent gas, et cetera, will be adjudged just and reasonable. That is just the price we pay for playing catchup. Consumers that have had a free lunch in the past are going to have a more suddent impact in the future.

Mr. DINGELL. Gentlemen, the committee thanks you. You have been very patient. We are grateful to you for your kindness.

The next witness before the subcommittee will be a panel composed of Mr. Gordon P. MacDougall, Mr. Rex White, and Mr. Mason Willrich. Gentleman, we thank you for being present with us. We regret

any delay or inconvenience. If you will come forward and be seated, we will be most pleased if you would identify yourself, each for purposes of the record, and we will be most pleased to receive your statements.

The Chair is advised Mr. White will not be with us today. So, Mr. Willrich and Mr. MacDougall if you would come forward.

Mr. WILLRICH. I am Mason Willrich.

Mr. MACDOUGALL. I am Gordon P. MacDougall.

Mr. DINGELL. Gentlemen, we will recognize you in whichever order you prefer to be recognized.

Mr. MACDOUGALL. We will let Texas go first.

Mr. DINGELL. Texas is not here today.

Mr. MACDOUGALL. Rockefeller go first.

Mr. DINGELL. Counsel advise me they are admirably represented by Mr. Eckhardt.

Mr. ECKHARDT. They might not recognize that.

Mr. DINGELL. I understand the people in your district did by 60 percent.

Mr. WILLRICH. I will defer to the State of Pennsylvania.

Mr. DINGELL. We will recognize Mr. MacDougall.

STATEMENT OF GORDON P. MacDOUGALL, SPECIAL ASSISTANT COUNSEL, PENNSYLVANIA PUBLIC UTILITY COMMISSION

Mr. MACDOUGALL. Mr. Chairman and members of the subcommittee, I have prepared a 3½ page introduction to which I have attached the curtailment plan of the Pennsylvania Public Utility Commission. My statement is fairly short. I do not think I need to read it. I have been involved in the various curtailment cases at the Federal Power Commission. However, in Pennsylvania, we prefer a seven-category scheme rather than the nine which is the FPC's policies under Order 467–B. I might just say, listening today about the $1.42 price for new gas, that the Pennsylvania Public Utility Commission voted to join the various groups in the court attack on the Commission's decision, which was rendered Friday in Opinion 770–A.

Basically we got involved in the curtailment thing 2 years ago primarily because of the Transco curtailment. Governor Shapp had to come down to Washington and testify at the Federal Power Commission. We understand that the situation will not be as severe this winter, but we have set up our own intrastate curtailment plan to provide for us, if it should be necessary. Of course, we are very concerned with the Transco situation. We hope we do not have a repeat performance of what transpired 2 years ago.

Mr. DINGELL. Without objection, your full statement will be inserted in the record, Mr. MacDougall, and also the appendices which you inserted or which you had included thereafter.

[Testimony resumes on p. 144.]

[Mr. MacDougall's prepared statement and attachments follow:]

STATEMENT OF GORDON P. MACDOUGALL, SPECIAL ASSISTANT COUNSEL, PENNSYLVANIA PUBLIC UTILITY COMMISSION

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to be here today to testify on the subject "Natural Gas Supply Outlook for the Winter Season and Measures for Dealing with Supply Shortages".

I serve as Special Assistance Counsel for the Pennsylvania Public Utility Commission ("P.U.C.") in Washington, D.C., and appear for the state regulatory commission at various proceedings at federal agencies and the federal courts. I have served the P.U.C. and/or Pennsylvania's Department of Justice, since March, 1971.

Hon. Louis J. Carter, Chairman of the P.U.C., and Mr. Thomas R. Clift, Head-Gas Supply Section of P.U.C.'s Bureau of Investigations, Service & Enforcement, are unable to attend the hearing today because of public P.U.C. proceedings being conducted today in Harrisburg, Pa.

My appearance here today is in connection with the second part of your topic regarding natural gas supply, i.e., "Measures for Dealing with Supply Shortages".

The P.U.C. on July 7, 1976, promulgated regulations to govern the curtailment of gas deliveries by gas utilities subject to the jurisdiction of the P.U.C. I should like to present the Subcommittee with a copy of the P.U.C.'s order of July 7, issued in its 75 P.R.M.D. No. 19, "Amendments to Curtailment Policies of Jurisdictional Gas Utilities," consisting of 6 pages plus an appendix of 8 pages.

The order of July 7, 1976, was the culmination of an extensive investigation by the P.U.C. Major impetus for the P.U.C.'s action arose as the result of hardships which occurred during the winter 1974–75 season, when major interstate pipelines imposed deep curtailments. Of the five major interstate pipelines serving Pennsylvania (Columbia Gas Transmission; Consolidated Gas Supply; Tennessee Gas Pipeline; Texas Eastern Transmission; and Transcontinental Gas Pipeline), it was the proposed shutdown of the New Jersey Zinc Company's plant at Palmerton, Carbon County, Pennsylvania, which highlighted the problem of an adequate gas supply for Pennsylvania.

New Jersey Zinc, an affiliate of Gulf & Western Industries, Inc., is served by Union Gas Company, one of 26 affiliates of Penn Fuel Gas, Inc. The Federal Power Commission, on January 9, 1975, denied a petition by New Jersey Zinc for extraordinary relief from Transcontinental's curtailment, and ordered Transco only to grant such deliveries of gas as necessary to permit the orderly shutdown of the Palmerton plant operated by New Jersey Zinc.

The Governor of Pennsylvania, Hon. Milton J. Shapp, personally testified at the Federal Power Commission on January 15, 1975, and was subject to cross-examination, in the Transco curtailment case. Fortunately, the New Jersey Zinc situation ended on a happy note.

The P.U.C. staff examined the various curtailment formulas at length during 1975 and in early 1976. Extensive hearings were held in December, 1975, and in January, 1976. Fortunately, the gas supply situation during the 1975–76 winter season was not as severe a hardship as the previous year, primarily due to the economic recession and the mild weather.

The curtailment plan finally arrived at by the P.U.C. may be said to be a "modified and condensed 467–B end-use policy". The term 467–B refers to Order No. 467–B, issued March 2, 1973, by the Federal Power Commission in its Docket No. R–469 and, as supplemented, is reproduced in the Code of Federal Regulations at 18 CFR 2.78.

However, as stated in the P.U.C.'s July 7, 1976 order, certain departures were made from the F.P.C.'s 467–B Order:

"While the FPC's Order 467–B assigns priority to "feed stock" and "process use", our plan achieves the same result through the classification of various uses as "critical", hereinafter defined; similarly, in both the 467–B and our order, lowest priority is assigned to interruptible users and then to boiler fuel use."

The major differences between the P.U.C. plan and the 467–B plan is that the 467–B plan grants priority to all commercial uses, whereas the P.U.C. plan subjects large commercial uses to curtailment along with the analogous industrial use.

Gas utilities are directed to submit revised tariffs as quickly as possible. Any gas utility not filing such an amended curtailment tariff within 6 months from entry of the July 7, 1976 order shall submit progress reports.

The P.U.C. at this time has not received any tariffs under its July 7 order, as the time for compliance has not expired. However, the agency had held informal staff conferences with some of the gas utilities, and we are optimistic concerning a harmonious implementation of the State curtailment program.

This concludes my prepared statement. I will be glad to answer any questions you may have.

PENNSYLVANIA
PUBLIC UTILITY COMMISSION

Public Meeting held July 7, 1976
Harrisburg, PA. 17120

COMMISSIONERS PRESENT:

Chairman Carter
Commissioner Kelly
Commissioner Bloom
Commissioner O'Bannon
Commissioner Johnson

In re: 75 Proposed Rule Making Docket No. 19 - Amendments to Curtailment Policies of Jurisdictional Gas Utilities

O R D E R

BY THE COMMISSION:

On March 8, 1971, we instituted an investigation into the adequacy of natural gas supplies in Pennsylvania. Pursuant thereto, hearings were held throughout the Commonwealth with jurisdictional natural gas distribution utilities as well as other interested parties participating.

As a result of our investigation, we issued an Order at Investigation Docket No. 124 dated February 1, 1972; in that order, each gas utility was directed to file as part of its tariff, procedures for the curtailment of service. Subsequently, the Commission issued an Order Nisi dated October 10, 1972, indicating a possible set of guidelines to be followed in future gas curtailment tariffs. Hearings were held and testimony was presented by major gas utilities and interested industrial customers; however, no formal Commission action ensued.

Since then, the entire country's natural gas supply position has continued to worsen. A Federal Power Commission report on the subject, dated December, 1974 and entitled " A Realistic View of U.S. Natural Gas Supply", states that in the U.S., conventional gas production has reached its peak and will decline for the indefinite future, and that natural gas reserves are far less than earlier anticipated. The supply situation in Pennsylvania mirrors the national trend and the gas utilities' supply projections indicate that a majority of the larger distributors will curtail their customers severely over at least the next several years.

This Commission believes that the impact of future gas curtailments on Pennsylvania industry will be minimized by allocating the available commercial and industrial gas preferentially to those uses where conversion to an alternate fuel is not feasible, i.e., pursuant to an "end-use" type curtailment policy. Because gas curtailment policies

on file with the Commission generally do not follow this criterion, the Commission prepared an end-use policy proposal which if found feasible, would have been adopted by all jurisdictional gas utilities pursuant to Commission mandate. The Commission issued the proposed policy as an Order Nisi at 75 Proposed Rule Making Docket No. 19, published September 6, 1975, at 5 Pa.B. 2325. Hearings on the proposal were held December 4 and 5, 1975, and January 7, 8, 22, and 23, 1976, as to provide an opportunity for gas utilities and customers to comment on the proposed rule; testimony was received from 31 witnesses representing industrial and commercial customers as well as jurisdictional gas utilities and the Commonwealth of Pennsylvania.

In general, the broad context of the proposed amendments was supported. However, a significant and compelling amount of testimony was received concerning the infeasibility of certain features of the proposal and the need for flexibility in any state-wide curtailment plan.

The Commission remains convinced that three concepts should form the basis for our state-wide curtailment policy:

(1) A mandatory state-wide system with certain built-in flexibility should be adopted, but that upon good cause shown, exceptions should be allowed where necessitated by particular local problems or situations. A state-wide policy is required to insure that all jurisdictional gas utilities follow the mandated priorities of service and document, in their tariffs, the procedures and policies followed with respect to the establishment of base periods, penalty provisions, hereinafter defined, etc. as to assure equitable treatment of similar classes of customers throughout Pennsylvania.

(2) Priorities of service and curtailment should be based on the "end-use" principle, the most socially and economically efficient manner in which to regulate the distribution of available gas supplies.

(3) For purpose of curtailment, large commercial customers should be treated similarly to large industrial customers since generally, conversion to alternate fuels is equally feasible for both; in those cases where conversion is for some reason not practical, special exception should be allowed upon good cause shown.

In our Order Nisi, the Commission proposed, inter alia:

(1) That residential, small commercial and small industrial customers be subjected to a limited curtailment after curtailment of large customers reached a specified "trigger" level.

(2) That within categories of priority, an absolute priority be established for certain industrial customers based on end-product considerations.

We conclude on the basis of the testimony that these two proposals should be withdrawn. Curtailment of small customers would be impractical because of their sheer numbers in relation to the minor amount of gas conserved and costs entailed; inclusion of end-product classifications would represent an approach to curtailment diametrically opposed to the principles of an end-use system and would lead to an administrative nightmare. Consequently, these two concepts do not appear in the attached mandate for priorities of service.

Several of the jurisdictional gas utilities participating in the 75 P.R.M.D. No. 19 proceedings sought to retain their existing curtailment plans or alternatively, suggested that the Commission adopt the FPC's curtailment plan at Order 467-B. Neither approach has been followed; however, the Commission's plan is basically a modified and condensed 467-B end-use policy. While the FPC's Order 467-B assigns priority to "feed stock" and "process use", our plan achieves the same result through the classification of various uses as "critical", hereinafter defined; similarly, in both the 467-B plan and our order, lowest priority is assigned to interruptible users and then to boiler fuel use. The major difference is that the 467-B plan grants priority to all commercial uses whereas our plan subjects large commercial uses to curtailment along with the analogous industrial use.

Moreover, the attached mandatory priority scheme incorporates the following major changes from the Order Nisi proposal:

(1) Boiler fuel use, which in the Order Nisi was included with other non-critical use, has been segregated and assigned second-lowest priority. This step is occasioned by testimony evidencing the fact that boiler fuel use can be converted to alternate fuel most easily and at the lowest unit cost.

(2) Essential human needs (Category 1) has been restricted to such customers without alternate fuel capability; also, the volumetric restriction was removed from Category 1.

(3) Priority for plant protection in Category 2 has been restricted to large users because small users generally do not require this express priority protection. The change will obviate the necessity of determining such volumes for numerous small commercial and industrial users.

(4) A penalty provision has been added in Section 6 (now renumbered as Section 7) to assist in enforcement during emergency curtailments.

Other changes are generally minor and primarily for clarification.

The attached curtailment rule has been adopted pursuant to the order of the Pennsylvania Public Utility Commission dated February 1, 1972, and for the protection of the gas utilities' customers existing as of February 15, 1972, and those customers who may have been lawfully connected thereafter. It is the Commission's intent that the current gas curtailment policies of all jurisdictional gas utilities be amended as rapidly as possible in accordance with this order and the following schedule of priorities.

At any time, natural gas customers shall have the right to make an application to their distributor for a temporary or permanent change of priority classification upon a showing that alternate fuel capability is not feasible. In analyzing the appropriateness of any application for such relief, the distributor shall take into account, inter alia, the following criteria which must be addressed in the customer's application for special relief:

1. Economic and technical feasibility of conversion- Although the technical feasibility of conversion to alternate fuels is necessarily taken into account in the classification of a particular end-use as "critical" or "non-critical", the applicant showing technical difficulty of conversion is more appropriately awarded special relief; similarly, where an applicant can demonstrate that under its particular circumstances, the economic implications of required conversion are especially onerous.

2. Applicant's attempts at conservation - Where the applicant can establish that due diligence has been exercised toward conservation of its own requirements for natural gas, special relief is more appropriate.

3. Applicant's attempts to locate other sources of supply, both gas and alternate fuels - Special relief should be more likely where the applicant can demonstrate that alternate fuel, as well as natural gas from other sources and supply, is not available. While the cost of such alternate fuels is generally irrelevant, it may be afforded some limited significance in the distributor's decision on a special relief application.

4. Extent and duration of requested relief - Implicitly, the smaller the total volume of requested relief gas, the more appropriate a grant of that request.

5. End-use to which the relief gas will be applied - The higher the priority of the end-use for the requested gas, the more proper a grant of relief. The importance of the particular "end-product" involved is usually irrelevant, except where the social utility of that product is so vitally important to the economy that end-product considerations cannot reasonably be ignored.

6. Impact of the requested relief upon other customers - A grant of relief cannot be affirmatively justified by showing the absence of substantial harm to other customers of the distributor; however, the showing of adverse impact on those customers will militate against the granting of relief.

The unreasonable denial of any application for relief will constitute grounds for review by the Commission, upon formal petition, of the propriety of the distributor's decision in light of the criteria set forth above in this order. The utility may likewise entertain applications for emergency relief; in such applications, the customer must show that the requested deliveries are needed to forestall irreparable injury to life or property and a specific payback provision should be attached as a condition to any grant of emergency relief, except where such is shown to be inappropriate.

Every customer shall likewise have the right to make application to its distributor for an extension of time in which to implement alternate fuel capability; any statement or representation made by a customer or any other person to a gas utility, in the course of investigation of an application for change of priority or extension of time, shall constitute a statement or representation made to this Commission itself.

Moreover, whenever a public utility believes that the application of this curtailment tariff rule works an undue hardship or is otherwise inappropriate, either generally or in a particular instance, such utility may petition the Commission for special exception. Such petition for allowance of deviations from the above-described curtailment mandate may be approved upon good cause shown. The allowance of variation will be to reflect non-typical load profiles and/or other unique characteristics of the specific distributor involved.

In the Order Nisi, a twelve-month grace period was proposed as necessary (a) to permit the gas utilities to compile the detailed end-use data needed to categorize their customers' usage as "critical" or "non-critical" and to determine base period allotments, all as hereinafter defined; and (b) to give all natural gas customers the opportunity to

install on-site alternate fuel facilities wherever possible. However, the Commission notes that four of the major utilities currently have or are scheduled to adopt end-use plans, resembling in many particulars the instant end-use plan. Additionally, the Commission was informed by one major distributor that its end-use plan was designed and implemented over a six-month period by temporarily categorizing non-critical users without existing alternate fuel facilities as critical users. Consequently, the Commission finds that the attached priority mandate should become effective immediately.

In light of evidence adduced at hearings on the Commission's proposal at 75 P.R.M.D. No. 19 and the culmination of our investigation into the matter of a mandatory state-wide natural gas curtailment policy; THEREFORE,

IT IS ORDERED:

1. That the attached curtailment priority mandate shall become effective immediately.

2. That all jurisdictional gas utilities shall immediately begin development of curtailment policies pursuant to the mandate of Appendix A to this order and shall submit revised tariffs as quickly as possible, but in no event later than twelve months after the entry of the instant Order. Any gas utility not filing such an amended curtailment tariff within 6 months of the entry of this order shall at that time, and quarterly thereafter until such filing is made, report in writing to the Commission concerning the status of preparations for completion of the mandated filing.

3. That amended individual curtailment plans submitted pursuant to this order shall become effective after review and approval by this Commission, but until such time, the filed curtailment tariff of each utility shall be effective for that particular distributor.

4. That after the individual utility's modified curtailment plan becomes effective, all its customers shall be curtailed thereunder with the following temporary exception:

> Customers with alternate fuel capability but without existing alternate fuel facilities, will be granted a period of time to be determined jointly by the utility and the customer, in which to install alternate fuel facilities. During that period, the customer shall be considered a user without alternate fuel capability.

BY THE COMMISSION,

C. J. McElwee
Secretary

(SEAL)

ORDER ADOPTED: July 7, 1976

ORDER ENTERED: JUL 16 1976

APPENDIX A

Pennsylvania Public Utility Commission
Mandatory State-wide End-use
Natural Gas Curtailment Scheme

Section 1 : Priority of Service

The available gas supplies to the utility should be allocated among its customers in accordance with the priorities of use listed below. Customers in a higher priority will not be curtailed until all customers falling into the lower classifications have been completely curtailed; where only partial curtailment of any one classification is required, implementation should be pro rata, that is, weighted in accordance with the base allotments of the customers within that classification. Following are the priority categories listed in descending order:

1. Residential and firm critical commercial essential human needs.

2. Firm small commercial requirements, excluding critical essential human needs requirements in Category 1, and firm large commercial and industrial requirements for plant protection.

3. Firm small industrial requirements.

4. Firm large critical commercial and industrial requirements, excluding firm critical commercial essential human needs requirements in Category 1.

5. Firm large non-critical commercial and industrial requirements other than requirements for boiler fuel use.

6. Firm large non-critical commercial and industrial requirements for boilèr fuel use.

7. Contractually interruptible use.

NOTE: Definitions of "large" and "small" in Categories 2-6 above are to be formulated by the individual gas distribution utility based on peak day usage or such daily, monthly or annual volume level as may be selected by the utility. It is recognized by the Commission that gas utilities in Pennsylvania are a widely disparate group as to number, type and size of customers, i.e., as to "customer mix". Uniform volumetric definitions of "small" and "large" would not take disparities of customer mix into account. Additionally, because an individual gas utility's supply entitlement may be predicated on a peak day, daily, monthly, seasonal or annual supply arrangement, flexibility in volumetric definitions is likewise appropriate.

Section 2 : Definitions Applicable

The definitions for terms used in the priority of service categories are as follows:

1. Alternate Fuel Capability: The ability to use an alternate fuel whether or not the facilities for such use have actually been installed. For purposes of this definition, alternate fuel means any fuel other than natural gas, propane or other gaseous fuel.

2. Commercial Use: Gas usage by customers engaged primarily in the sale of goods or services including, but not limited to, consumption by office buildings, institutions and governmental agencies. Commercial use shall not include use of gas for manufacturing or electric power generation.

3. Critical Uses: Gas usage where natural gas, propane or other gaseous fuel is the only feasible form of energy due to its combustion characteristics, controllability or chemical properties.

4. Essential Human Needs Use: Gas usage by customers for service to any buildings where persons normally dwell including, but not limited to, apartment houses, dormitories, hotels, hospitals and nursing homes as well as the use of natural gas by sewage plants.

5. Firm Service: Service pursuant to schedules or contracts under which the utility is expressly or impliedly obligated to deliver specific volumes within a given time period or which anticipate no interruptions, but which may permit unexpected interruptions in case service to higher priority customers is threatened. A utility shall be deemed to be impliedly obligated to deliver specific volumes where such utility has by any means previously or presently established periodic allocations for its customers.

6. Industrial Use: Gas usage by customers engaged primarily in a process which creates or changes raw or unfinished materials into another form or product including the generation of electric power.

7. Interruptible Service: Service pursuant to schedules or contracts under which the utility expressly or impliedly reserves the option to interrupt or curtail deliveries.

8. Non-Critical Use: Gas usage where natural gas, propane or other gaseous fuel is not the only feasible form of energy, i.e., where the user has alternate fuel capability.

9. Plant Protection Use: Minimum volumes of natural gas required to prevent physical harm to the plant facilities or danger to plant personnel when such protection cannot be afforded through the use of an alternative fuel. Plant protection requirements include volumes necessary for the protection of such material in process as would otherwise be destroyed, but does not include deliveries required to maintain production.

10. Residential Use: Gas usage in a residential dwelling or unit for space heating, air conditioning, cooking, water heating, or other domestic purposes.

Section 3 : Base Period Volumes

To provide for the equitable allocation of gas available for sale to firm customers, base period volumes for peak day, daily, monthly, seasonal (winter and summer) or annual periods, as the utility may select, shall be established for each customer whose usage exceeded such peak day, daily, monthly, seasonal or annual volume level during the base period of 24 months from January 1, 1971 through December 31, 1972 except as modified below.

The base period volume shall be further divided by the utility into the base volumes for each priority of use in Categories 4, 5, 6 and 7. For the purpose of breaking down base period volumes into their appropriate curtailment priority category, each affected commercial and industrial customer shall furnish such historic consumption and equipment data as the utility may require.

Base period volumes shall be adjusted: (1) to recognize abnormalities in plant operations during the base period as well as deletions or approved installations of equipment during or subsequent to the base period, (2) to include volumes of gas equivalent to volumes conserved during the base period when the customer converted gas burning equipment to alternate fuel in anticipation of future curtailment and (3) to exclude volumes of gas consumed by equipment for facilities installed after January 1, 1970 without the approval of the utility as well as volumes consumed under temporary authorization.

Where a gas utility has entered into a contract specifying an annual volume of gas to be delivered, and that volume is less than the calculated base period volume, the annual contractual volume shall be deemed to be the annual base period volume.

NOTE: Some Pennsylvania gas utilities already have existing curtailment plans in which the base period volume concept is an integral part. Those utilities are permitted to substitute that base period for the base period outlined above, provided that the procedure used to establish base period volumes is explained in the curtailment policy to be filed with the Commission. Additionally, if any gas utility presently has established peak day, daily, monthly, seasonal or annual allocations, as the case may be, for certain customers and has previously notified these customers of such allocations, then that utility will be permitted to use these allocations as the base period volumes for such customers.

Section 4 : Gas Shortage Curtailment

Base period volumes shall be used as the basis for determining each customer's authorized entitlement in the event of curtailment. Authorized entitlement shall be determined by multiplying the customer's base period volume for the priority to be curtailed by the ratio of the total gas available for that priority category to the total of all base period volumes of all customers in that priority category.

When, in the utility's judgement its supply of gas is insufficient to meet the base period volume requirements of all customers on a continuing basis, or when continued delivery of gas to customers would prevent the injection of gas into underground storage pools for the protection of winter supply, deliveries may be curtailed in accordance with the seven priorities of service outlined above.

Whenever any curtailment in Category 6 is in effect, all customers in Categories 4 and 5, shall be limited to the lesser of their base period volumes or their authorized entitlement.

Maximum possible notice of a gas shortage curtailment or of a change in curtailment level shall be given. If such notice is by telephone, then it must be followed by a written notice to the customer, specifying the customer's curtailment percentage and resulting peak day, daily, monthly, seasonal or annual authorized entitlement as the case may be.

Each gas utility may curtail or discontinue gas service in accordance with this rule without thereby incurring any liability for any loss, injury or expense that may be sustained by the customer.

Section 5 : Penalty Provisions For Excess Takes

The tariffs, operating practices and billing periods of the Pennsylvania distributors and their suppliers differ significantly. Therefore, each utility is permitted to utilize its own appropriate billing periods for calculating over-run penalties and its own procedure for imposing penalties and for recovering over-run volumes if desired, provided that any deviations from the following guidelines concerning penalties and allowable over-run provisions are fully explained and justified in supporting material submitted with the curtailment policy submitted to the Commission.

The following is a guideline for assessment of penalties for unauthorized over-runs of allocated volumes:

A. General

The provisions of these or any other penalty sections do not serve to reduce any charge, assessments or penalties otherwise payable or applicable under provisions of any effective rate schedule or contract.

Penalties shall be assessed on over-run volumes (a) in excess of 103% of the authorized entitlement when the period concerned is daily, monthly, or seasonal as described below and (b) in excess of 101% of the authorized entitlement when the period concerned is twelve months and the utility invokes an annual as well as a daily, monthly or seasonal penalty.

B. Winter Penalty Clause

If at the end of the five month period ending with the March billing period a customer has exceeded the sum of its monthly authorized entitlement for such a period, that customer shall pay on demand a penalty according to the following schedule:

Actual Usage as Percentage of Total Monthly Authorized Entitlements	Penalty For Excess Take
Greater than 103% but not in excess of 110%.	$10/Mcf
Greater than 110% but not in excess of 125%.	$20/Mcf
Greater than 125%.	$50/Mcf

There shall be excluded from the volumes subject to penalty under this provision, volumes for which the buyer has previously been penalized pursuant to over-runs of emergency curtailment (Section 7 of this priority scheme).

C. Summer Penalty Clause

If at the end of the seven month period ending with the October billing month, a customer has exceeded the sum of its monthly authorized entitlements for such period, that customer shall pay on demand a penalty according to the following schedule:

Actual Usage as Percentage of Total Monthly Authorized Entitlements	Penalty For Excess Takes
Greater than 103% but not in excess of 110%.	$10/Mcf
Greater than 110% but not in excess of 125%.	$20/Mcf
Greater than 125%.	$30/Mcf

Likewise, there shall be excluded from the volumes subject to penalty hereunder, volumes for which the buyer has previously been penalized pursuant to over-runs of emergency curtailment.

D. Yearly Penalty Clause

If at the end of the twelve month period ending with the October billing month, a customer has exceeded the sum of its monthly authorized entitlements for such twelve month period, that customer shall pay on demand a penalty according to the following schedule:

Actual Usage as Percentage of Annual Authorized Entitlement	Penalty For Excess Takes
Greater than 101% but not in excess of 110%.	$10/Mcf
Greater than 110% but not in excess of 125%.	$30/Mcf
Greater than 125%.	$50/Mcf

There shall be excluded from the volume subject to penalty under this section, volumes for which the buyer has previously been penalized during such twelve month period pursuant to winter or summer over-runs or emergency curtailments.

E. Availability of Excess Gas

If in the utility's judgement, sufficient gas supply is available to permit deliveries in addition to the monthly authorized entitlement in any month, the utility will provide all buyers with as much advance notice as possible of the amount of such additional gas anticipated to be available. Such gas shall be apportioned by the utility to all customers of the highest priority being curtailed on the basis of the total of the base period volumes for all buyers in that priority for that month.

To the extent that a customer has exceeded the sum of its authorized entitlements for any period, penalties shall not be assessed for any excess volumes authorized pursuant to the provisions of this section.

Section 6 : Disposition of Penalties

The following provisions for disposition of penalties are suggested as guidelines; however, the Commission will permit deviations only for good cause shown. In those instances where circumstances dictate different disposition of penalties, utilities are directed to formulate and submit for Commission approval a method of distributing, with interest, the excess penalty receipts to their customers.

Commission Guidelines for
Disposition of Excess Collections

As of December 31 of each year, the utility shall subtract the total of all over-run penalties paid that year to the utility's suppliers from penalties collected that year from customers. The utility will then distribute among its curtailed customers who did not incur over-runs, all penalties collected in excess of those paid by the gas utility to its suppliers.

To determine the amount of reimbursement due a customer, the total amount to be redistributed shall be divided by the total volume of sales during the twelve month period to all customers eligible for reimbursement. This quotient shall represent the factor, which when multiplied by an eligible customer's total purchase volume during the twelve month period will equal the amount to be credited to that customer. However, no reimbursement shall be made to customers who have terminated service during the year.

The utility should specify a reasonable minimum for the amount of penalties that will be distributed, below which excess penalties shall be retained until the distributable amount is accumulated. The utility will make periodic reports to the Commission containing itemized statements, status of penalty accounts and the extent and nature of disbursements from such accounts made during that period.

Section 7 : Emergency Curtailment

When the utility is unable to fulfill the daily requirements of all its customers because of reasons unrelated to long range supplies, the utility may require each large commercial and industrial customer to reduce its consumption of gas. The reduction required shall be determined by the utility without regard to priorities of use; however, the authorized volume shall not be lower than the minimum volume necessary for the prevention of damage to plant equipment.

The utility shall specify in the notice of the emergency curtailment, the authorized consumption for a specified period or until further notice. An emergency curtailment may be made after oral notice to the customer, effective when so given, but such oral notice must be confirmed in writing within 48 hours. The Commission is to be notified immediately of the declaration of an emergency situation.

If a customer exceeds its authorized consumption during a period of emergency curtailment, then the customer shall pay a penalty according to the following schedule:

Actual Usage as a Percentage of Emergency Authorized Consumption	Penalty For Excess Takes
Greater than 103% but not in excess of 110%.	$10/Mcf
Greater than 110%.	$25/Mcf

Mr. DINGELL. Mr. Willrich.

STATEMENT OF MASON WILLRICH, DIRECTOR, INTERNATIONAL RELATIONS, ROCKEFELLER FOUNDATION

Mr. WILLRICH. Mr. Chairman, I too have submitted a statement which I trust will be inserted.

Mr. DINGELL. Without objection, your full statement will appear in the record [see p. 146].

Mr. WILLRICH. It is a pleasure to appear before you today and assist in your considerations of measures to deal with the U.S. natural gas shortage. I recently completed a study for the Administrative Conference of the United States on the administration of possible natural gas and petroleum shortages in the United States. My testimony today is based largely on the relevant conclusions and recommendations of this study. Potential natural gas shortages and the growing petroleum supply vulnerability in the United States during the late 1970's raise serious risks to the welfare, safety and security of the American people.

A serious energy shortage will affect jobs, profits, life styles and possibly votes. Ineffective government administration might lead to serious social conflict as well as widespread economic disruption. Policies may be designed to restore and maintain a balance between U.S. energy supply and demand. In the long run, mismanagement of energy shortages, would, however, make long-term national energy policies more difficult to achieve.

Government authority over the natural gas shortage is fragmented in a way that makes effective administration impossible. The Federal Power Commission does not have sufficient jurisdiction to cope with the problem at the Federal level. The FPC's curtailment jurisdiction will be limited mainly to the interstate transportation of natural gas via pipeline. The FPC has no authority to allocate among various interstate pipelines natural gas that is produced and sold in the interstate wholesale market, to allocate gas that is sold and delivered by distributors in retail markets, to allocate gas that is produced and consumed in the same State. Therefore, the FPC's authority to administer the Nation's natural gas shortage is narrowly focused on the interface between the interstate pipeline and the local distributor or direct sales customer.

Primary governmental power to administer the Nation's wide natural gas shortage is divided among the several States. State power includes authority to conclude natural gas production, to regulate retail distribution and to determine retail prices that allocate such supplies among end-users.

Only a few States are large natural gas producers and consumers while the rest are primarily consumers. Faced with a natural gas shortage with nationwide dimensions, the FPC has developed a national curtailment policy based on end-use priorities. The Commission cannot effectively implement such a policy.

Because it lacks authority to order interconnections between pipelines, the FPC has been forced to administer curtailments, including its end-use policy, pipeline by pipeline. The amount of shortage varies among the interstate pipelines. Consequently, use of natural gas as an industrial boiler fuel continues in some States served by

relatively well-supplied interstate pipelines subject to FPC jurisdiction while at the same time suppliers for even residential and small commercial users are threatened in other States. The FPC curtailment proceedings are adjudicative and its end-use policy is not binding on the parties to particular proceedings. In some cases, the interstate pipelines, their local distributors and their direct sales customers have advocated plans emphasizing different concepts such as contract entitlements or pro rata reductions. In other cases, the parties have advocated end-use priorities different from the FPC. In any event, the FPC's end-use policy as applied in curtailment proceedings before the Commission itself is persuasive, not mandatory.

While the FPC is attempting to implement its end use policy pipeline by pipeline, that policy may be frustrated at the State level. The FPC's end use priorities may determine the amount of gas imported into a State, but the State utility commission's priorities will largely decide who, in fact, gets how much of the imported gas. The FPC is not equipped with procedural devices required to manage an emergency shortage effectively. The procedural alternatives available in the Natural Gas Act were intended for ratemaking proceedings, not curtailments. The act requires a primarily adjudicatory type of proceeding that is inherently too slow to permit a timely, flexible response to emergency conditions.

The natural gas shortage cannot be effectively administered by the several States given their diverse resources in interest. There is no way for the States to distribute the burden of the natural gas shortage equitably among themselves and throughout the Nation. The States have an important role to play in administering curtailment policy. But that policy should be fashioned at the Federal level and be mandatory for the States to follow. Therefore, the Congress, I believe, should enact legislation for the specific purpose of administering the natural gas shortage on a nationwide basis. The legislation should be considered in addition to or as part of legislation on natural gas prices at the wellhead.

Natural gas supply emergency legislation should, in my view, contain the following elements: The purpose would be to achieve an equitable distribution of costs and burdens of the natural gas shortage throughout the country, taking into account the price and availability of alternative fuels, the cost of switching to alternative fuels, the impact of curtailment on employment in the local economy, and the impact of curtailment on public health and safety.

The FPC would be granted primary authority to administer the natural gas shortage nationwide. This authority would be exercised in close coordination with the FEA and in consultation with State and public utility commissions.

The FPC would have comprehensive emergency authority to allocate natural gas supplies at all levels in the distribution system after production through retail distribution in both interstate and intrastate markets. The extent of the FPC jurisdiction to administer natural gas shortages would thus be roughly comparable to the FEA's authority to administer petroleum shortages.

The FPC would have authority to order physical interconnections among pipelines, and, in case of supply emergencies, to order transfer of gas between pipelines including transfers from intrastate to interstate pipelines, in certain circumstances.

The FPC, in coordination with the FEA, would be directed to develop Federal guidelines for administration of the natural gas shortage. In connection with developing such guidelines, the FPC and the FEA would review and appropriately modify existing FPC curtailment policies. Factors to be considered in developing priorities would include economic and technical efficiency, the diverse rules of natural gas in the economies of various regions, environmental impacts, and an equitable geographic distribution of the shortage. The FPC would be specially directed to consult with the Governors and State utility commissions of the several States. Proposed guidelines would be presented to Congress and become effective as regulations unless disapproved by a majority of either House. The FPC would be empowered to delegate authority to the several States to administer natural gas shortages at the retail sales level. State administration would be pursuant to plans developed by the State concerned in accordance with the Federal guidelines and approved by the FPC. Distressed interstate pipelines unable to meet projections would be authorized to purchase new natural gas not previously dedicated or prospectively available to the interstate market at prices comparable to prevailing prices in the relevant intrastate markets.

Mr. Chairman, in conclusion, there is a clear and urgent need for the Government to strengthen its capacity to administer energy shortages fairly and effectively. This task is to be an integral part of any national energy policy for America.

[Testimony resumes on p. 150.]

[Mr. Willrich's prepared statement follows:]

STATEMENT OF MASON WILLRICH, DIRECTOR, INTERNATIONAL RELATIONS, ROCKEFELLER FOUNDATION

Mr. Chairman, it is a pleasure to appear before you today and to assist in your consideration of measures to deal with the U.S. natural gas shortage. I recently completed a study for the Administrative Conference of the United States on the administration of possible natural gas and petroleum shortages in the U.S.[1] My testimony today is based largely on the relevant conclusions and recommendations of this study.

Potential natural gas shortages and the growing petroleum supply vulnerability in the U.S. during the late 1970's raise serious risks to the welfare, safety, and security of the American people.

A major task of the U.S. government will be to deal effectively with these reasonable foreseeable risks:

One risk is welcome. A sustained period of economic expansion may cause a resumption of near historical growth rates in demand for natural gas and petroleum as the economy moves closer to its full productive capacity. Ineffective government administration of an energy shortage during an economic recovery might endanger the recovery process.

A second risk is in the lap of the gods. Demand for natural gas and petroleum varies with the seasons. A cold winter may cause a larger increase in requirements for natural gas and fuel oils. The increase in oil demand during a cold winter would be compounded by the increased shortfall in natural gas. Ineffective government administration during a cold winter might endanger public health and safety, as well as the national economy.

A third risk is in the hands of the governments of the countries bordering the Persian Gulf. Despite recent progress on the Israeli-Egyptian front, the Middle East seems likely to remain a powder keg indefinitely. The risk of an interruption of U.S. oil imports at any given time will depend on the state of the Middle East political environment at that time. The risk of damage to the U.S. in the event of an oil supply interruption will, however, increase with the size of U.S.

[1] Mason Willrich, "Administration of Energy Shortages: Natural Gas and Petroleum," Cambridge, Mass.: Ballinger Publishing Co., 1976.

oil imports from Arab sources. Ineffective domestic administration of the petroleum shortage that would follow a future Arab oil embargo might jeopardize U.S. capabilities to fulfill its oil-sharing commitments to other OECD countries participating in the International Energy Program, complicate U.S. diplomatic efforts aimed at achieving an early end of the embargo, and substantially increase the damage from the embargo to the U.S. economy.

A fourth risk is to American government. The consequences of a serious energy shortage would be acute and yet pervasive. A serious energy shortage will affect jobs, profits, lifestyles, and votes. Ineffective government administration might lead to serious social conflict, as well as widespread economic disruption. Increased public cynicism about government and mistrust of private industry would probably follow.

The U.S. natural gas shortage and petroleum supply vulnerability are inescapable and must be administered effectively, no matter what long-term national energy policies are ultimately developed and implemented.

Policies may be designed to restore and maintain a balance between U.S. energy supply and demand in the long run. Mismanagement of energy shortages would, however, make long-term national energy policies more difficult to achieve.

Most measures implemented now in order to expand domestic energy supplies will not yield substantial results until the 1980's at the earliest. Similarly, many actions taken to increase the efficiency of energy-consuming buildings, machines, appliances, and processes will not realize large conservation savings for several years. Whether energy prices are decontrolled gradually or intensive regulation continues, shortages will persist in the near future. (Even abrupt and complete deregulation may not bring supply and demand into immediate balance if demand proves to be very price inelastic in the short run.)

The problem of administering an energy shortage is largely political; yet a shortage is especially difficult to deal with politically in a federal democracy during peacetime.

The problem is political because it involves government action to control and distribute energy supplies by non-price methods. Democratic institutions, with their supporting administrative mechanisms, have proven to be reasonably capable of determining who gets how much of an expanding pie. An energy shortage, however, requires the government to intervene in the market in order to determine who gets how much of a shrinking pie.

Faced with a shortage, every important group in society, whether functionally or territorially based, can be expected to react strongly in order to minimize the damage to its essential interests. In administering an energy shortage, the government must deal fairly, and appear to deal fairly, with the manifold interests competing for a shrinking supply of a vital necessity.

It is sometimes argued that any step to make government administration of energy shortages more effective and equitable should be avoided because it would reduced political pressure for deregulation of energy prices. This argument is not persuasive in view of the increased damage to the nation that would result from ineffective government administration of a shortage.

Whatever government does to administer an energy shortage will cause hardship for large numbers of persons. But the damage will be much greater if nothing is done.

Government authority over the natural gas shortage is fragmented in a way that makes effective administration impossible. The Federal Power Commission (FPC) does not have sufficient jurisdiction to cope with the problem at the federal level.

At the federal level, governmental authority to administer the shortage is vested by the Natural Gas Act of 1938 in the FPC, which is an independent economic regulatory agency. The FPC's curtailment jurisdiction is limited mainly to the interstate transportation of natural gas via pipeline. The FPC has *no* authority: to allocate among the various interstate pipelines natural gas that is produced and sold in the interstate wholesale market; to allocate gas that is sold and delivered by distributors in retail markets; to allocate gas that is produced and consumed in the same state. Therefore, the FPC's authority to administer the nation's natural gas shortage is narrowly focused on the interface between the interstate pipeline and the local distributor or direct sales customer.

Primary governmental power to administer the nationwide natural gas shortage is divided among the several states. State power includes authority: to control natural gas production; to regulate retail distribution; and to determine retail prices and allocate supplies among end users. In most states, this authority

is vested in the public utilities commissions or analogous state agencies. The thrust of state regulatory authority varies to reflect the fact that only a few states are large natural gas producers (and consumers) while the rest are primarily consumers.

Faced with a natural gas shortage with nationwide dimensions, the FPC has developed a national curtailment policy based on end-use priorities. The Commission cannot effectively implement such a policy.

Because it lacks authority to order interconnections between pipelines, the FPC has been forced to administer curtailments, including its end-use policy, pipeline-by-pipeline. The amount of shortage varies widely among the interstate pipelines. Consequently, use of natural gas as industrial boiler fuel continues in some states served by relatively well-supplied interstate pipelines subject to FPC jurisdiction, while at the same time suppliers for even residential and small commercial users are threatened in other states.

The FPC's curtailment proceedings are adjudicative, and its end-use policy is not binding on the parties to particular proceedings. In some cases the interstate pipelines, their local distributors, and their direct sales customers have advocated plans emphasizing different concepts, such as contract entitlements or pro rata reductions. In other cases the parties have advocated end-use priorities different from the FPC's. In any event, the FPC's end-use policy as applied in curtailment proceedings before the Commission itself has persuasive, not mandatory effect.

While the FPC is attempting to implement its end-use policy pipeline-by-pipeline, that policy is often being frustrated at the state level. The several state utility commissions have primary authority to allocate available natural gas supplies among various end uses within their respective states. The FPC's end-use priorities may determine the amount of gas imported into a state, but the state utility commission's priorities will largely decide who in fact gets how much of the imported gas. In practice, some states have cooperated with, some have modified, and some have quite ignored the FPC's curtailment policy.

The FPC is not equipped with procedural devices required to manage an emergency shortage effectively.

The Natural Gas Act of 1938 not only limits the FPC's curtailment jurisdiction, but also requires the use of procedures that are not suitable for the administration of a natural gas shortage. The procedural alternatives available in the Natural Gas Act were intended for ratemaking proceedings, not curtailment. The Act requires a primarily adjudicatory type of proceeding that is inherently too slow to permit a timely and flexible response to emergency conditions.

The FPC has attempted to speed up the administrative process by permitting proposed curtailment plans to become effective almost immediately on a temporary basis. While the use of interim plans has enabled the FPC and the pipelines to have an approved curtailment plan in effect during winter peak curtailments, the temporary nature of the relief and the recurring and deepening character of the shortage mean that permanent curtailment plans may never be finally approved in many cases. Curtailment proceedings for a pipeline might, therefore, be endless.

The FPC has also attempted to make the administrative process flexible through emergency and extraordinary relief procedures. A severe shortage, however, may overload the Commission with petitions for extraordinary relief at the worst possible moment from the standpoint of crisis management. This is a critical unresolved problem of administrative procedure.

The FPC does not have the authority to require the natural gas industry and consumers to provide much of the data it needs in order to implement an end-use policy efficiently and fairly. If the FPC could obtain the data, it is doubtful that it would have adequate resources to process and use them effectively. This is another critical unresolved administrative problem.

The natural gas shortage cannot be effectively administered by the several states.

As noted above, governmental power to control the distribution of available natural gas supplies, aside from interstate transportation, is divided among the several states. Given their diverse resources and interests, there is no way for the states to distribute the burden of the natural gas shortage equitably among themselves and throughout the nation. The states have an important role to play in administering curtailment policy, but that policy should be fashioned at the federal level and be mandatory for the states to follow.

The Congress should enact legislation for the specific purpose of administering the natural gas shortage on a nationwide basis. The legislation should be considered in addition to or as part of legislation on natural gas prices at the wellhead.

The following legislative suggestions are a blend of certain ideas drawn from the Energy Policy and Conservation Act of 1975, and various proposals for natural gas emergency legislation, especially the proposed Natural Gas Emergency Act of 1975 (H.R. 9464 as originally reported by the Committee on Interstate and Foreign Commerce to the House of Representatives on December 15, 1975). However, my suggestions go considerably beyond the proposed Emergency Act in an attempt to develop a governmental capacity adequate to administer natural gas shortages for the duration.

Natural gas supply emergency legislation should, in my view, contain the following elements:

The purpose would be to achieve an equitable distribution of the costs and burdens of the natural gas shortage throughout the country, taking into account: the price and availability of alternate fuels; the cost of switching to alternate fuels; the impact of curtailment on employment and the local economy; and the impact of curtailment on the public health and safety.

The FPC would be granted primary authority to administer the natural gas shortage nationwide. This authority would be exercised in close coordination with the FEA and in consultation with state public utilities commissions.

The FPC would have comprehensive emergency authority to allocate natural gas supplies at all levels in the distribution system after production through retail distribution, in both interstate and intrastate markets. The extent of the FPC's jurisdiction to administer natural gas shortages would thus be roughly comparable to the FEA's authority to administer petroleum shortages.

The FPC would have authority to order physical interconnections among pipelines and, in case of supply emergencies, to order transfers of gas between pipelines, including transfers from intrastate to interstate pipelines in certain circumstances (outlined below).

The FPC, in coordination with the FEA, would be directed to develop federal guidelines for administration of the national natural gas shortage. In connection with developing such guidelines, the FPC and the FEA would review and, as appropriate, modify existing FPC curtailment policy. Factors to be considered in developing priorities would include economic and technical efficiency, the diverse roles of natural gas in the economies of various regions, environmental impacts, and an equitable geographical distribution of the shortage.

In developing proposed guidelines, the FPC would be authorized to proceed by administrative rulemaking. Rulemaking procedures for this purpose would provide notice and opportunity for interested persons to make written and oral presentations, and, to the extent practicable, an opportunity for rebuttal.

The FPC would be specially directed to consult with the governors and state utility commissions of the several states. Proposed guidelines would be presented to Congress and become effective as regulations unless disapproved by a majority vote of either House.

The FPC would be empowered to delegate authority to the several states to administer natural gas shortages at the retail sales level. State administration would be pursuant to plans developed by the state concerned in accordance with the federal guidelines and approved by the FPC. Federal guidelines for the retail level would be sufficiently flexible to permit the states to take appropriate account of local circumstances in determining final allocations to end users. The FPC would continue to administer itself the shortage at the interstate pipeline level.

Distressed interstate pipelines, unable to meet predicted requirements of their customers for essential uses, would be authorized to purchase new natural gas, not previously dedicated or prospectively available to the interstate market, at prices comparable to prevailing prices in the relevant intrastate markets.

Transferors under an FPC emergency transfer order would receive the same price for transferred gas as they were entitled to receive from their contract puchasers. If the transfer price were less than the prevailing price for natural gas in the relevant intrastate market, the recipient distressed interstate pipeline would be required to reimburse customers of the transferor for increased fuel costs incurred as a result of being deprived of natural gas. A transfer order could not be issued unless the FPC found that a supply emergency existed for the distressed interstate pipeline, and that the pipeline had attempted unsuccessfully to purchase new natural gas.

Even now after the shocking energy price increases of the early 1970's, most Americans continue to expect an abundance of energy in the future. Yet in the later 1970's, U.S. vulnerability to an oil supply interruption will grow to omnious dimensions, and it is likely that the American people will have to endure the hardship of increasing natural gas shortages.

In view of these dangerous prospects, there is a clear and urgent need for government to strengthen its capacity to administer energy shortages fairly and effectively. This task must be an integral part of any national energy policy for America.

Mr. DINGELL. Gentlemen, you have given us excellent statements here. The Chair wants to commend you for your assistance to us, the time and effort that went into your action in this manner. Mr. Eckhardt.

Mr. ECKHARDT. Mr. Willrich, what would you do about FPC's authority respecting control of wellhead price of intrastate gas, if anything?

Mr. WILLRICH. Mr. Eckhardt, I favor the deregulation of new natural gas prices.

Mr. ECKHARDT. When you say new natural gas, are you referring to gas produced from new geological formations?

Mr. WILLRICH. The problem of legislating in this area, you know much better than I, is a terribly complex matter. Basically, I would tend to favor more deregulation than less. But I would not go so far as to say there should be legislation which would deregulate all natural gas produced. So in other words, were I to make a judgment, I would draw the line in favor of deregulation, but I do not have a specific opinion on increased volumes from existing reservoirs. I think that probably should be relegated to administrative proceeding subject to criteria that would be drawn in the legislation by the Congress.

Mr. ECKHARDT. Thank you. Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Schroeder.

Mr. SCHROEDER. Mr. MacDougall, would you explain how the State curtailment program would go into effect during emergency periods and how that would operate?

Mr. MACDOUGALL. What we have done is, we had a number of hearings and we have a different priority scheme from the Federal Power Commission, and that is described in the order of the Commission, the description at page 3 of the order itself. We feel there should be a greater preference given to industrial use as opposed to commercial than appears in the FPC's nine-point priority scheme. So we would prefer to give a slight more edge to the industrial than the Federal plan.

As far as the emergency goes—the thing we have heard today on interchange of gas between various pipelines—recent legislation in the Pennsylvania Legislature gave the PUC in Pennsylvania the power to do just that. The commission; that is the PUC, now has taken no steps to exercise that power. There are, as you know, a lot of pros and cons to it. There are a number of reasons that have been urged why it is not a good idea to have such an interchange, as you are aware of. But the legislature has given the power to the PUC to do that. It was only given just within the last month. We have not issued regulations on it. The power was given to us. Some may challenge the constitutionality of that. I am not sure. It is just a new thing that is on the books. I will be glad to furnish a copy of the new legislation to the committee. I have not gotten my copy yet. It was just passed.

Mr. SCHROEDER. The curtailment plan, is this proposed——

Mr. MACDOUGALL. No; this is in effect. We had a proposed curtailment plan sent out for comment by the industry, by consumers, by everyone. The regulations which you have here, which I submitted, are the final regulations. They are in effect. They must be complied with.

Mr. SCHROEDER. During a period of curtailment then, as I understand it, the Commission, through its local gas utilities, basically determines an amount that each category of customer or each individual customer is entitled to during a specified curtailment period; is that correct? Then there is a series of penalties imposed upon people who take more than their entitled volumes of gas; would you explain that?

Mr. MACDOUGALL. Basically you are correct, although the initial step is between the customer and the gas company. We are clear on that, the customer should make an application to the gas company, not to the PUC in the first instance. If the customer does not get the satisfaction from the local gas distributor, then it goes to the PUC. And if you notice in the regulations, they are quite flexible. There is possibility of modifications. We do have the penalty provisions which are in appendix A to the order. If you will notice on page 6 of appendix A, you have the penalty clauses, for—it is a penalty for taking more than your entitlement during a certain period—and the penalty gets quite stiff, it goes up to $50 per Mcf. You are talking about a $1.42 interstate price. You can see $50 per Mcf, and so on, can become expensive.

Mr. SCHROEDER. I find this a very imaginative kind of scheme. Without having looked at how other States have approached this same question, I may be tempted to read more into it than exists. But is the philosophy one of trying to use economic incentives to say, sure, you as a customer may take more gas than you are allotted if you deem it worth that much to you, but that you will pay for it. Indeed, you will pay for it. But the choice is yours. In other words, you are giving basically a reference mark, but you can go beyond that paying the penalties. Then I think also an important principle involved is that the penalty is then collected by the distributor and paid to those customers who are disadvantaged by the excess takes of those customers who choose to take more than their entitlement.

Mr. MACDOUGALL. We like to take credit for this, but Transco has proposed penalty plans. This is not a new idea for curtailments. This has been under discussion by some of the interstate pipelines, setting up penalty provisions and so on, paying more for it and so on. We have done this. We made it now our regulation. But we are not the first ones to suggest this. Maybe we are the first ones to put it into effect on a statewide basis, but this has been discussed in settlement negotiations that I have been to in some of the major curtailment cases at the FPC.

Mr. SCHROEDER. Thank you.

Mr. DINGELL. Gentlemen, the committee thanks you for your help to us today. We very much appreciate your courtesy. I believe you both have given every inovative and helpful statements.

Mr. Curtis.

Mr. CURTIS. I would like to ask just a couple of questions with respect to Mr. Willrich's proposals that the Federal Power Commission

be equipped with better tools for managing the shortages both expected for this winter and for the next several. One aspect of that proposal, Mr. Willrich, is that the Federal Power Commission curtailment authority reached down and it, in fact, supersedes that exercise by the State public utility commissions at this time.

Mr. MacDougall, can you tell us, summarize very briefly, what has been your assessment of the tool that the Federal Power Commission presently uses in curtailment powers? Is it as inflexible as Mr. Willrich found it to be in his study, and do you feel there is a role for the State regulatory commissions in curtailment policies that would be damaged if Mr. Willrich's suggestions were adopted by the Congress?

Mr. MACDOUGALL. Of course, I have not given your question to our commission. So I am going to give you my own experience on it.

The FPC relies a lot upon settlement procedures. You encourage everybody to settle, so a lot of the work is done outside the hearing room. It is done in the settlement arrangements. I think the first permanent plan that has come out recently has been the Transco one. There have been petitions for rehearing on that. To be very frank about Pennsylvania, we have not been at the FPC urging 467–B settlement for all lines. We have people in our State, some distributors, who like end-use and others that do not. Many times we can take no position before the FPC, because we have a difference among distributors in our own State. Many times we would like to get something other than 467–B; and we would like to have a modified 467–B within our own State. We like that. We want to get as much gas as we can federally, and then we will distribute it the way we think the needs of our State are. So we would look askance at any Federal legislation requiring interconnections and pooling, you might say, of gas. We have not supported that here. I do not think our Commission would. Of course, I do not know for sure. We would like to have the power to make that allocation within our own State. Naturally, we feel we are closer to the scene and we know our needs better in many cases than does Washington, D.C., irrespective of whatever administration is in power. We have set up our own allocation emergency program, if we need it. But I do not find anything seriously wrong with the FPC's procedures. They were described and supported by the Transco witnesses who just preceded us, certainly Transco is the biggest problem at FPC.

Mr. CURTIS. Mr. Willrich, can you define for the committee why you believe that the State should not have dominion over the gas once it enters its borders to tailor the supplies available to it to the peculiar circumstances of the State as they may exist?

Mr. WILLRICH. Yes, Mr. Curtis. I think perhaps my notion of Federal legislation and other people's differs to some extent. What I think is needed is a Federal framework within which the States would play a very active role. Actually under the proposal as I envision it, the State would have a more active role at the Federal level in fashioning an allocation process than they presently do. And, in fact, one of the possibilities that should be considered at the Federal level is abandoning an end-use priority scheme entirely and allocating volumes to States according to prorata distribution of the shortage. And that could be equated with all kinds of factors behind it as to the volume of gas, and then let the States allocated freely amongst their own customers inside their borders.

So I am not wedded at all to either the Federal scheme or the existing State scheme, but what I think is necessary is for us to put in place at the Federal level a scheme which would provide a way of fashioning an allocation scheme that in an emergency would be perceived by the consumers as being as fair and equitable as possible. There are all kinds of reasons why a shortage may occur. This can be fashioned at the Federal level as part of national energy policy.

Mr. CURTIS. Let me try and define what an emergency is. When do we have an emergency? We are told we have curtailments, that is deliverability, volumes, 25 or 30 percent below current firm contractual commitments on a national level. Is that an emergency? When do we have one?

Mr. WILLRICH. Once again, it is a legislative matter to develop criteria that would be effective triggers for an emergency. At one extreme, a cold winter may well trigger an emergency. Another event might well be an oil embargo where, at that point, the pressure on natural gas supplies becomes enormous as well as the pressure in a lot of other directions. But as far as defining in advance the precise circumstances—as you know, the contract entitlements as a definition of an emergency are really not that valid any more because we have gotten along by increasing oil imports and doing some other things with a lot of contract entitlements not being filled. So the precise definition of emergency conditions, I would suggest, again, would be administratively determined subject to criteria that would be legislatively drawn in a statute.

Actually, previous legislation from this committee did quite well in that regard.

Mr. MACDOUGALL. Could I volunteer a definition of emergency? It is when a plant threatens to shut down and the curtailment cannot be handled by the FPC's extraordinary procedures. The most recent is the Transco one of 2 years ago, at Danville, N.J., places down in North Carolina. If those cannot be handled by the extraordinary procedures of FPC that have been basically solved by the FPC, if they cannot be solved, you have the plant shut down, Congress is going to see an emergency.

Mr. CURTIS. Let us take that circumstance, Mr. MacDougall. You do not believe your commission would favor an allocation system? Would their position change if that circumstance occurred within the borders of Pennsylvania and, in fact, there were not voluntarily forthcoming supplies to meet a significant close shutdown?

Mr. MACDOUGALL. You say voluntary? There are procedures at the FPC for extraordinary relief when a plant shutdown is threatened. I do not know what our commission would do. I am saying from a practical, political, human standpoint, the emergency occurs when you shut down a plant or threaten to shut down a plant. That is when the Governor comes down to Washington, that is when Shapp comes down to Washington: that is when we come to Congress.

Mr. CURTIS. I guess the basic question here is: Is there anything the Congress should be doing now or the industry should be doing in terms of contingency plans that would be in place and triggered automatically should these emergencies occur rather than what I am afraid would be running around in an attempt to deal with the circumstance

which, because of ponderousness of the legislative process, will never catch up with that circumstance?

Mr. MACDOUGALL. All I can say is, I do not know. The prognosis now that we have from the FPC is that the situation this winter is not unmanageable. That is what they have said. They put a caveat as to Transco. They said maybe there is that Transco thing again that is going to come up. All I can say is, I do not know. I will talk to our commissioners and pose your question. It is not an easy one to answer. Thus far we have gotten through it by the extraordinary relief procedures. The heat was put on Transco from FPC, what happened with their supplies. All of a sudden, they started finding new gas. Two years ago, each week another letter came out, we have more gas. Some people would say that is a direct response to the pressures from the Congress, and from the FPC. Other people say it was not. I just do not know the answer.

Mr. CURTIS. If we do get the type of emergency described and Governor Shapp comes down to Washington, what is he going to ask for, in your opinion?

Mr. MACDOUGALL. The last time he came down he asked for extraordinary relief from the Transco curtailment at the Federal Power Commission. And after he testified, all of a sudden, Transco found some more gas, and they found more gas the following week, and more after that. We got through the winter 2 years ago. I am just answering in pragmatic ways as to the solution. The system worked. It creaked through 2 years ago, but it worked. Hopefully it will work again. I just do not know the supply situation that well. We do not know in Pennsylvania all that well. Apparently everything is all right except for Transco, and I just do not know how to answer your question at this point. I am sorry. Maybe the other panel member can try it.

Mr. WILLRICH. As someone not involved directly in the process but as an observer who has watched it, I think it is high time we had some legislation which would rationalize this area. How long are we going to creak through?

Mr. CURTIS. Thank you, Mr. Chairman.

Mr. DINGELL. The committee thanks you for your presence.

The committee will stand adjourned.

[Whereupon, at 4:28 p.m., the subcommittee adjourned.]

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