July 15, 1977

CARTER'S ENERGY PROGRAM: AN UPDATE

BACKGROUND

With the July 14th vote of 23 to 20, the House Commerce Committee subcommittee on Energy and Power agreed to incorporate the Administration's plan for regulating both the interstate and intrastate natural gas markets. This means that the Carter Administration will have, with few exceptions, managed to move its energy program through the House intact. The initial bill was broken up into sections and referred to a number of committees with Interstate and Foreign Commerce and Ways and Means dealing with the most significant portions. In addition to these two committees, other portions of the measure were considered in Banking and Currency, Science and Technology, and Government Opera-The various parts will now be sent to the Ad Hoc Committee on tions. Energy which has completed its own hearings and which will reassemble and mark up the bill. It is the goal of the Speaker to have the measure come to the floor prior to the August 5th recess so that action can be completed before the Members return to their districts.

NATURAL GAS DEREGULATION

The most controversial measure before the Commerce Committee was the deregulation of natural gas. The Administration's proposal which became the Dingell Amendment will raise the price of gas on the interstate market to \$1.75 from its currently controlled price of \$1.42. For the first time, gas on the intrastate market will also come under federal price controls. Currently, it is selling for between \$2 and \$2.25 depending on the area. Under the provisions of the energy bill, it will also sell at the interstate price of \$1.75.

The approval of this provision in the Commerce Committee was the result of intense lobbying by the Administration. The subcommittee had approved a different plan sponsored by Rep. Brown (R-Ohio) and Rep. Kreuger (D-Texas) which would have deregulated newly discovered natural gas immediately and which would have deregulated offshore natural gas over a five-year period. The Kreuger-Brown measure would also

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have protected the holders of existing natural gas contracts on the intrastate market from increased prices resulting from bidding for gas on the interstate market.

There has been a significant change in the Administration-backed proposal as it was passed by the Committee. Originally, gas discovered 1½ miles from an existing well would have been subject to the \$1.75 price. Now, however, that distance has been increased to 2½ miles. This will have the effect of controlling a far larger segment of natural gas at the lower \$1.42 price. The impact that this change will have on the development of existing supplies which have not been developed due to high costs is yet to be determined.

An attempt at a compromise fell through when the chairman ruled that an amendment offered by Rep. Wirth which would have provided an excess profits tax was not within the Committee's jurisdiction. Rep. Luken had previously indicated that he would vote for deregulation if such a tax were included.

ANALYSIS

Essentially the debate over natural gas stemmed from a difference in philosophies. From the 1954 decision in <u>Phillips</u> <u>v. Wisconsin</u>, the public has enjoyed an artificially low price for this fuel. The advocates of the Carter plan were primarily concerned with price, whereas the advocates of deregulation were primarily concerned with continuing supply. Historical evidence indicates a high degree of price elasticity for natural gas. The fact that the unregulated intrastate market does not suffer from shortages whereas the regulated interstate market does would tend to confirm this evidence.

Much concern among the advocates of deregulation was expressed over the projected shortfall of natural gas for this winter's heating season. They felt that this shortfall was only a hint of far more shortages which would result without the advent of deregulation. As Dr. H. A. Merklein, an eminent petroleum economist with the University of Dallas, indicated, "The increased price of energy has little impact in terms of the overall economy, however, the lack of it is devastating."

A recent study released by Rep. Stockman (R-Mich.) indicates that decontrol would have brought 25 trillion cubic feet of natural gas onto the market through 1990 which will not be brought on under the provisions of the Carter-Dingell measure. The same study indicates that the added cost to the consumer resulting from controlling natural gas prices will be at least \$48 billion. It has been further estimated by Rep. Stockman that the cost of replacement fuels for the natural gas not produced as a result of controls will be as much as \$168 billion. It should also be noted that under price controls, reserves of natural gas declined by 51 trillion cubic feet over the last five years.

COAL CONVERSION

The Commerce Committee has approved the Administration's coal conversion requirements. Basically, these mandate the conversion of all industries which are currently burning oil or natural gas to convert to coal by 1982. Within 120 days of enactment of the legislation, users of oil or natural gas who need additional time to implement conversion may file petitions for waivers of up to five years. All new industrial facilities constructed after April 20, 1977, must use coal, and all utility plants burning oil or natural gas must begin conversion by 1983. In all instances, the Best Available Control Technology must be used to control emissions. This effectively means that all new and converted facilities must use "scrubbers."

ANALYSIS

Ignoring the capital requirement for converting boilers from oil or natural gas to coal for the moment, it is worthwhile to look at the cost of pollution control technology. Currently, the cost of installing scrubbers on a utility plant is estimated at \$150 per kwh of capacity. This is up from \$60 in 1972. In the near future, it is anticipated that the cost of such devices may reach as much as \$300 per kwh. At the current level, the installation of such equipment on a standard-sized generating plant would cost between \$15 and \$20 million. The utility industry expects to spend as much as \$50.6 billion to comply with the Administration's coal conversion requirements.

TAX ON INDUSTRIAL AND UTILITY USE OF OIL AND NATURAL GAS

The House Ways and Means Committee has approved a system of taxes on the use of oil and natural gas by utilities and industry. The system would have three tiers: the first tier referring to industrial use of oil or natural gas for purposes other than as a boiler fuel; the second tier referring to the industrial use of oil or natural gas as a boiler fuel; and the third tier referring to the use of either oil or natural gas by utilities. The taxes on oil will begin in 1979 with tier 1 and tier 2 paying a 30¢ per barrel tax going up to \$1 and \$3 for tiers 1 and 2 respectively by 1985. Tier 3 will begin paying a flat \$1.50 per barrel tax in 1983. The following table represents the taxes imposed on oil for each tier.

YEAR	TIER 1	TIER 2	TIER 3
1979	\$.30	\$.30	none
1980	\$.60	\$.60	none
1981	\$1.00	\$1.00	none
1982	\$1.00	\$1.45	none
1983	\$1.00	\$2.00	\$1.50

YEAR	TIER 1		TIER 2	TIER 3
1984	\$1.00	·.•	\$2.50	\$1.50
1985	\$1.00		\$3.00	\$1.50
2				

*taxes will remain at 1985 levels

Natural gas will be priced according to a formula which will take into consideration the Btu equivalent price of oil. Utilities, however, will have a special tax imposed on the burning of natural gas which will begin at 55¢ per mcf in 1983 and rise to 75¢ per mcf in 1985 and thereafter.

ANALYSIS

Estimates of the impact of the tax on oil and natural gas vary, but are anticipated to run into the tens of billions of dollars. While no hard figures are available, an earlier version of the tax was estimated to cost as much as \$39.8 billion through 1985.

While it is undoubtedly true that the imposition of such taxes will create a strong disincentive for the industrial or utility use of oil and natural gas, the imposition of these taxes will also drain off desperately needed capital which would otherwise be used for the construction of new facilities and the conversion to coal. Our nation has been suffering from a shortage of investment capital as it is, and this measure is likely to seriously exacerbate that shortage. It has been argued that the imposition of these taxes may make the conversion to coal more attractive; however, some observers have contended that given the high costs associated with conversion, some users may just pay the taxes and then pass the costs along to the consumers.

Another concern which has been voiced by observers is that the coal industry may not be able to meet the production levels necessitated by the mandatory conversion requirements. If this is the case, then the users taxes on oil and natural gas will be ineffective, as one cannot burn a fuel which is not available.

ELECTRIC POWER GENERATION

The House Commerce Committee has voted sweeping changes in the manner in which our nation's electric utility industry will be regulated. Included in the measure is a significant broadening of the role of the Federal Power Commission in the setting of rates, and the design of rate structures. Most of the measures included in the section of the energy bill dealing with utilities come from the Dingell-Moffet bill of last year. Basically, the committee's version would

impose "peak load" charges, and "marginal cost pricing." It also would require certain sharing of facilities and the use of certain types of meters. It is the intent of the measure to alter current patterns of electric use in terms of when the electricity is being used. The reason for this is that power companies tend to incur heavy demand during certain hours while demand significantly diminishes during others. For example, during the morning hours there is far greater use of electricity than there is at night. The utilities generally have supplemental generation capacity known as "peak load" generators which are used for meeting the demand during these periods. These generators, however, are fairly expensive to operate and resultantly raise the overall cost of generation and the amount of fuel used.

What the Commerce Committee measure would do is to add a specific charge to the customer's bill for the use of electricity during "peak" periods. This would be accomplished through the use of a special meter which would take the time of use in consideration along with the amount of electricity used. The Committee measure also provides for what is known as Full or Marginal Cost pricing. By this it is meant that the customer is charged the actual price of generating the power he is consuming. This would be accomplished by estimating the cost for a particular period and varying the rate charged the customer accordingly.

Other portions of the section require the interconnection, pooling, or wheeling of facilities by utilities. This basically means that they must share their capacity when they have excess. The intent of this is to achieve the highest levels of efficiency for each utility. The use of such techniques would require considerable coordination, most probably achieved through the use of computers.

Currently, utilities are allowed to have several applications for rate increases before the Federal Power Commission at a given time. This is primarily as a result of the rapid escalation of fuel costs. This practice would be outlawed under the new proposal. Also, the Federal Power Commission would be required to outlaw master metering in large buildings, such as apartment houses or condominiums. The deduction of cost of advertising as a business expense would be disallowed, and fuel adjustment clauses would be done away with.

ANALYSIS

There is considerable concern among experts in the utility industry over several segments of this portion of the energy bill. One of the primary reasons is that there has been little experience with the types of rate structures which the bill would impose. It has been suggested that the peak load type of rate structure has at least two major flaws. The first is that industrial customers are the only ones who can really adjust their hours of consumption of electricity. This would normally be accomplished through the use of shifts. Since the workers would have their life styles adjusted, services would have to be provided to them. The creation of a twenty-four hour demand for services, however, might have the effect of actually increasing the consumption of electricity.

A second flaw in the design of these rate structures concerns the "marginal_cost" concept. In fact, since estimates will be used, as cost cannot be constantly computed, there will occur a very heavy influx of cash to the utility which will then have to be rebated to the consumer in some fashion. Just how this is to occur is not addressed in the measure nor is the fact that the net effect of marginal costs pricing is to_ significantly raise the customer's bill.

Other concerns center on the expanded role of the Federal Power Commission. This bill will in effect federalize the nation's power grid. For all intents and purposes, the FPC will preempt state authorities. It has been suggested that the statesoriginally gained the power to regulate utilities because they were closer to the populations the utilities served and were, therefore, more able to determine the needs of those populations. The FPC, having a national outlook, may not be in the most favorable position to understand the unique needs of a given state. Further, fear of the bureaucratic tendency to want to standardize the delivery of services has been voiced. The requirements of an industrial state such as Pennsylvania are obviously quite different from those of an agricultural one such as Idaho. Some observers are concerned that these differences will not be taken into consideration in decisions made by the FPC.

GAS GUZZLER TAX

Perhaps the most highly publicized portion of the President's energy message concerned the proposed tax on automobiles which did not meet certain fuel-efficiency standards. This is commonly referred to as a "gas guzzler" tax. The tax as passed differs slightly from the original proposal. The Ways and Means Committee in the final version of the tax did not provide for a rebate of the tax to the purchasers of fuel-efficient automobiles. Instead, the tax is to be set aside for the retirement of the public debt. The attached tables indicate the tax levels for each model year. (see Attachment A).

ANALYSIS

The "gas guzzler" tax approved by the Ways and Means Committee is another example of the coercive nature of the Administration's approach to the energy crisis. While it may have some marginal impact in the long run, most of the automobile manufacturers have planned to make their models more fuel-efficient anyway, so the measure is really more symbolic than substantive. Its only real effect will be to make some of the more expensive models even more expensive. On the other hand, those who purchase such automobiles are not likely

to be as concerned with price as they will be with other features. As a result, there is likely to be no effect on demand for such cars.

REPEAL OF THE GASOLINE TAX CREDIT

House Ways and Means has included a repeal of the deduction of state and local taxes on gasoline and other motor fuels in their section of the energy bill. While the deduction may not have been exceptionally large, again, it will hit the low and moderate income families hardest. Similarly, the continuation of the 3¢ federal tax on gasoline and motor fuels through 1985 will also be felt at the lower levels of the income scale.

INSULATION

House Commerce Committee has passed a section which would have made mandatory the insulation of homes to federally imposed standards prior to sale. This section, however, will be substituted by one passed by the House Banking and Currency Committee. The Banking and Currency measure essentially provides subsidies of up to \$800 for the purpose of insulating to low-income families (those at or below the poverty level). For individuals with incomes of up to 90% of the national median income, the measure would provide loans of up to \$2,200 at subsidized interest rates.

Additionally, \$900 million in matching grants will be provided to hospitals, schools, and nursing homes for the purposes of insulating. The federal grants will provide 50% of the funds. In a separate move, the House Commerce Committee had proposed the mandating of insulation as a prerequisite to the resale of a home. This would have been accomplished through the barring of loans by federally-insured institutions for mortgages on the resale of those homes. The measure was subject to such intense criticism, however, it was withdrawn. The Commerce Committee has also mandated mandatory efficiency standards for appliances beginning in 1979.

ANALYSIS

The insulation of homes is anticipated to save as much as 30% of the energy currently used for heating homes and of water. There is some question as to whether or not the Administration's goal of insulating 90% of the homes in America by 1985 is realistic, however. Some critics have indicated that there may not be adequate supplies of fiberglass available to meet the insulation needs of this portion of the act in the time frame indicated by the Administration.

GRUDE OIL EQUALIZATION TAX

Under the Administration's proposal, there are actually three tiers of oil. Beginning in 1978, what has currently been termed "old oil," <u>i.e.</u>, oil which has been in production prior to the 1973 embargo is going to be subjected to a \$3.50 per barrel. tax. In 1979 it will be brought up to the level of what has currently been termed "new oil." Both of these tiers of oil will then gradually be brought up to the 1977 OPEC level weighted for inflation through the imposition of additional taxes. Under this section there is also a third tier termed "new, new oil" which is oil brought into production after April 20, 1977. This oil will be sold at the 1977 OPEC price. The taxes, less administrative costs for the collection and rebate of them, will be rebated to consumers through a fairly complicated formula.

ANALYSIS

Basically, the measure will make oil much more expensive and will tax away any increase in price. This is likely to create a serious disincentive to production and exploration for new reserves. There is some question as to just how much of the taxes will eventually reach the public as there have already been suggestions from within the Administration that some portions of it be used for various welfare or other social programs.

ENERGY CONSERVATION TAX CREDITS

The House Ways and Means Committee has provided a tax credit for the installation of energy conservation devices or for insulation. These devices include such things as solar power units and wind generation units. For insulation, taxpayers are allowed to deduct 20% of their expenditures of up to \$2,000. For solar and wind units, 30% of the first \$1,500 is deductible, and 20% of the next \$8,500 is deductible.

ANALYSIS

Basically, the arguments for insulation have been outlined in a preceding paragrph and still hold for this provision. The installation of solar and wind devices is fairly uncontroversial, except that it has been suggested that in their present stage of development, the contribution they can make to conservation is minimal.

CONCLUSION

The Administration has essentially gotten everything it had requested with the exception of the standby gasoline tax. It has been estimated that the total cost of the program as it stands could be as much as \$285 billion through 1985. There is little doubt that it will exacerbate the nation's current capital shortage seriously and that there will be a growing dependence on foreign oil as a result of the disincentives to the production of oil and natural gas. There remain the deliberations in the Senate where there is considerable opposition to the tax on crude oil and on the regulation of natural gas. Whether or not these portions of the bill are changed on the Senate floor or in conference remains to be seen.

> By Milton R. Copulos Policy Analyst

"(1) In the case of a 1979 model year automobile:

"If the fuel economy of the model type in which the automobile falls is: The t	ax is:
At least 15	0
At least 14 but less than 15	\$339
At least 13 but less than 14	438
Less than 13	553

"(2) In the case of a 1980 model year automobile:

"If the fuel economy of the model

type in which the automobile falls is:	The tax is:
At least 17	0
At least 16 but less than 17	\$249
At least 15 but less than 16	333
At least 14 but less than 15	428
At least 13 but less than 14	538
Less than 13	666

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"(3) In the case of a 1981 model year automobile:

"If the fuel economy of the model type in which the automobile falls is: The tax is: At least 18.5_____ 0 At least 17.5 but less than 18.5_____ \$245 At least 16.5 but less than 17.5_____ 341 At least 15.5 but less than 16.5_____ 458At least 14.5 but less than 15.5_____ 597 764 At least 13.5 but less than 14.5_____ 968 At least 12.5 but less than 13.5_____ Less than 12.5_____ 1,216

"(4) In the case of a 1982 model year automobile:

"If the fuel economy of the model The tax is: type in which the automobile falls is: At least 20_____ 0 At least 19 but less than 20_____ \$266 369 At least 18 but less than 19_____ At least 17 but less than 18_____ 491 636 At least 16 but less than 17_____ At least 15 but less than 16_____ 809 At least 14 but less than 15_____ 1,015 At least 13 but less than 14_____ 1,264 Less than 13_____ 1,565

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"(5) In the case of a 1983 model year automobile:

"If the fuel economy of the model type in which the automobile falls is: The t	ax is:
At least 20.5	0
At least 19.5 but less than 20.5	\$345
At least 18.5 but less than 19.5	459
At least 17. 5 but less than 18. 5	593
At least 16.5 but less than 17.5	751
At least 15. 5 but less than 16.5	938
At least 14.5 but less than 15.5	1, 161
At least 13. 5 but less than 14. 5	1,427
At least 12.5 but less than 13.5	1,747
Less than 12, 5	2, 134

"(6) In the case of a 1984 model year automobile:

"If the fuel economy of the model type in which the automobile falls is:	The tax is:
At least 22	0
At least 21 but less than 22	\$371
At least 20 but less than 21	490
At least 19 but less than 20	631
At least 18 but less than 19	797
At least 17 but less than 18	990
At least 16 but less than 17	1,218
At least 15 but less than 16	1,486
At least 14 but less than 15	1,804
At least 13 but less than 14	2,183
Less than 13	2,638

"(7) In the case of a 1985 or later model year

automobile:

"If the fuel economy of the model type in which the automobile falls is: The tax i	is:
At least 23. 5	0
At least 22.5 but less than 23.5 \$3	97
	24
At least 20.5 but less than 21.5 6	71
At least 19.5 but less than 20.5 8	43
At least 18.5 but less than 19.5 1,0	43
At least 17.5 but less than 18.5 1,2	
At least 16.5 but less than 17.5 1,5	
At least 15.5 but less than 16.5 1,8	68
At least 14.5 but less than 15.5 2,2	
At least 13.5 but less than 14.5 2,6	
At least 12.5 but less than 13.5 3,2	
Less than 12.53,8	

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