

[COMMITTEE PRINT]

## ENERGY TAX PROVISIONS

# 4

### CRUDE OIL EQUALIZATION TAX AND REBATE

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PREPARED FOR THE  
COMMITTEE ON FINANCE  
UNITED STATES SENATE  
BY THE STAFF OF THE  
JOINT COMMITTEE ON TAXATION



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### INTRODUCTION

This pamphlet is the fourth in a series prepared for use by the Senate Finance Committee during its consideration of tax provisions of the House-passed energy bill (title II of H.R. 844).

This pamphlet deals with the proposed crude oil equalization tax, the proposed rebate of that tax, and a possible energy trust fund and Energy Finance Corporation.

In the 94th Congress, the major bill considered in connection with energy tax proposals was H.R. 6860. This bill was reported by the Ways and Means Committee and was amended on the House floor. Markup sessions on H.R. 6860 were held by the Finance Committee in July 1975, and tentative decisions were made in many areas, but the bill was not reported at that time. Many of the provisions approved by the Finance Committee were added to H.R. 10612, the Tax Reform bill of 1976, as Title XX, but all of the energy provisions were deleted in conference. In August 1976, the Finance Committee reported the provisions of Title XX (as passed by the Senate) as an amended version of H.R. 6860. This bill was never taken up on the Senate floor and expired with the adjournment of the 94th Congress.



## I. CRUDE OIL EQUALIZATION TAX

### A. Background

#### *Oil supply and demand*

Table 1 shows U.S. petroleum supply, demand and imports between 1955 and 1976. Petroleum accounted for 47 percent of overall U.S. energy consumption in 1976, and for 95 percent of the energy used in transportation. It is, therefore, the most significant single energy source in the United States.

Petroleum consumption rose steadily from 8.49 million barrels per day (mbd) in 1955 to 17.31 mbd in 1973. It fell to 16.32 mbd by 1975, but in 1976 it exceeded the 1973 peak. In the first five months of 1977 oil consumption has been 8.7 percent higher than the comparable months of 1976. To some extent, this growth was a result of the extraordinarily cold winter, but even in the period March-May 1977, oil consumption was 5.4 percent above 1977. U.S. production of petroleum also increased steadily until 1970, but it has declined steadily since then. Until 1972 the U.S. oil industry had some spare capacity, and until 1965 the United States was self-sufficient in oil in the sense that this spare capacity exceeded the level oil imports.

In 1976, the transportation sector consumed 52.5 percent of U.S. oil, a share that has not changed significantly in the past two decades. The household and commercial sectors consumed 19.2 percent of the oil, and the industrial sector consumed 18.6 percent of it. Nine percent of the oil was used for electrical generation, a percentage that has risen sharply since 1965 when environmental policies began to encourage use of oil and gas for electrical generation in place of coal. Curtailments of natural gas service in recent years have also forced some industries and utilities to shift from gas to oil.

TABLE 1.—*U.S. oil demand, supply and imports, 1955–76*

[In millions of barrels per day]

Year	U.S. demand for petro- leum	U.S. pro- duction of crude oil	U.S. pro- duction of natural gas liquids	U.S. spare capacity for crude oil	U.S. oil imports
1955-----	8.49	6.81	.77	1.78	1.25
1956-----	8.82	7.15	.80	2.08	1.44
1957-----	8.86	7.17	.81	2.78	1.57
1958-----	9.15	6.71	.81	2.60	1.70
1959-----	9.49	7.05	.88	2.67	1.78
1960-----	9.81	7.04	.93	2.71	1.82
1961-----	9.99	7.18	.99	2.75	1.92
1962-----	10.41	7.33	1.02	2.63	2.08
1963-----	10.75	7.54	1.10	2.67	2.12
1964-----	11.03	7.61	1.16	2.73	2.26
1965-----	11.52	7.80	1.21	2.45	2.47
1966-----	12.10	8.30	1.28	2.24	2.57
1967-----	12.57	8.81	1.41	2.12	2.54
1968-----	13.40	9.10	1.50	1.90	2.84
1969-----	14.15	9.24	1.59	1.38	3.17
1970-----	14.71	9.64	1.66	1.33	3.42
1971-----	15.23	9.46	1.69	.69	3.93
1972-----	16.37	9.44	1.74	.20	4.74
1973-----	17.31	9.21	1.74	-----	6.26
1974-----	16.65	8.77	1.69	-----	6.11
1975-----	16.32	8.38	1.63	-----	6.06
1976-----	17.44	8.12	1.60	-----	7.29

Source: Independent Petroleum Association of America (1955–71) and *Monthly Energy Review* (1972–76).

Table 2 shows the consumption of petroleum products by region for 1973. The New England and the Middle Atlantic States consume a disproportionately large share of the fuel oil, but a relatively small share of the gasoline. The percentage distributions shown in table 2 probably have not changed significantly since 1973.



TABLE 2.—*Consumption of petroleum products by region, 1973*  
(percent of total)

Region <sup>1</sup>	1972		Consumption in 1973 of		
	Popu- lation	Personal income	Distill- ate oil	Resid- ual oil	Gaso- line
New England.....	5.8	6.2	10.8	16.0	4.9
Middle Atlantic.....	18.1	20.1	23.3	29.9	13.6
East north-central.....	19.6	20.7	18.3	6.8	19.2
West north-central.....	8.0	7.6	7.9	1.5	9.4
South Atlantic.....	15.3	14.3	12.3	22.9	16.4
East south-central.....	6.3	4.9	4.7	1.2	6.8
West south-central.....	9.6	8.2	8.9	5.7	11.3
Mountain.....	4.3	3.7	5.4	1.5	5.4
Pacific.....	13.0	14.5	8.4	14.6	12.9
Total.....	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> The regions are: New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut. Middle Atlantic—New York, New Jersey, Pennsylvania. East north-central—Ohio, Indiana, Illinois, Michigan, Wisconsin. West north-central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Atlantic—Delaware, Maryland, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida. East south-central—Kentucky, Tennessee, Alabama, Mississippi, West south-central—Arkansas, Louisiana, Oklahoma, Texas. Mountain—Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada. Pacific—Washington, Oregon, California, Alaska, Hawaii.

Source: U.S. Bureau of Mines and U.S. Department of Transportation.

The result of the divergent trends in oil supply and demand has been a steady increase in oil imports. These reached 7.29 mbd in 1976, or 42 percent of U.S. oil consumption, and so far in 1977 have been 8.89 mbd, or 48 percent of consumption. Without any change in policies, there is likely to be a significant increase in our dependence on imported oil in future years. The Federal Energy Administration estimates that, under current energy policies, oil consumption will rise to 21.1 mbd in 1980, 22.8 mbd in 1985 and 24.9 mbd in 1990. This level of consumption would imply oil imports of 10.2 mbd in 1980, (48 percent of consumption), 11.5 mbd in 1985 (50 percent of consumption) and 14.5 mbd in 1990 (58 percent of consumption). These FEA estimates are consistent with independent private forecasts. In any such forecast, however, there is a range of uncertainty equal to 2-3 mbd, so that the actual situation could be slightly better or even worse than the FEA forecasts imply.

The United States consumes much more oil per dollar of GNP than other industrial nations. This fact is shown in table 3. In 1975, the United States consumed 3.92 barrels of oil per thousand dollars of GNP, compared to 2.00 for Germany, 2.07 for France and 3.39 for Italy and Canada.

TABLE 3.—*Oil consumption per dollar of GNP in various countries, 1975*

Country	Petroleum consumption (millions of barrels per year)	Gross national product (billions)	Petroleum consumption per dollar of GNP (barrels per thousand dollars of GNP)
United States.....	5,946	\$1,516.3	3.92
Japan.....	1,355	491.0	2.76
Germany.....	846	423.0	2.00
France.....	701	337.9	2.07
United Kingdom.....	589	228.8	2.57
Italy.....	582	171.6	3.39
Canada.....	536	158.3	3.39

Sources: *Monthly Energy Review* and *Statistical Abstract of the United States 1976*.**Oil production**

U.S. crude oil production peaked in 1970 and has declined steadily since then. This fact is shown in table 4, which presents various statistics relating to oil production. In 1976, U.S. production of crude petroleum (including crude oil and natural gas liquids) was 14 percent below the 1970 peak.

Oil is not a renewable resource; the world contains only a finite amount of it. Any existing petroleum deposit will be depleted over time as the petroleum is pumped out. Unless this depletion of existing deposits is offset by discovery of new reserves or by use of secondary and tertiary recovery techniques, oil production must decline. However, as the more accessible deposits have been discovered, drillers must drill deeper or in less accessible areas (such as offshore or in Alaska), so that the cost of finding new reserves must increase over time.

TABLE 4.—*U.S. oil production, 1960-76*

Year	Production of crude petroleum (million barrels) <sup>1</sup>	Number of wells drilled (thousands)	Footage drilled (millions of feet)	Percent dry holes	Proved reserves (million barrels) <sup>2</sup>
1960.....	2,915	44.0	190.7	39.8	31,613
1965.....	3,291	39.5	181.5	40.3	31,352
1970.....	4,123	28.1	142.4	39.7	39,000
1972.....	4,093	27.3	138.4	40.1	36,339
1973.....	3,995	26.6	138.9	38.5	35,300
1974.....	3,819	31.7	153.8	37.2	34,250
1975.....	3,653	37.2	178.5	35.6	32,682
1976.....	3,558	39.8	185.2	34.4	30,990

<sup>1</sup> Includes natural gas liquids.<sup>2</sup> Excludes natural gas liquids.

Sources: Statistical Abstract of the United States 1976, Monthly Energy Review, American Petroleum Institute.

In the United States, this natural trend towards declining production was reinforced in the 1960's and early 1970's by the low U.S. oil prices resulting from the availability of inexpensive oil imports. Between 1950 and 1972, U.S. crude oil prices grew by only 35 percent. During this same period the consumer price index rose by 74 percent. The combination of the increased difficulty of finding new oil and the decline in the relative price of oil led to a sharp decline in drilling activity. As shown in table 4, the number of wells drilled declined from 44,000 in 1960 to 27,000 in 1973, and the footage drilled fell from 191 million feet to 139 million feet. Except for the sharp increase in proved reserves in 1970 resulting from the Alaskan discovery, reserves have declined steadily since the mid-1960's.

There has been a significant increase in drilling activity since 1973 as a result of the sharp increase in oil prices. Footage drilled increased by 34 percent between 1972 and 1976, and the number of wells drilled rose by 46 percent. So far in 1977, drilling activity is even higher than it was in 1976. However, the additional drilling has not been sufficient to offset the depletion of existing oil reserves, so that proved reserves of crude oil have continued to decline. Indeed, proved oil reserves are now below their level prior to the Alaskan discovery.

No one knows how much oil and gas remains to be discovered in the United States or what will be the cost of finding those reserves. Table 5 presents a careful attempt to estimate U.S. oil and gas resources by the U.S. Geological Survey.

For crude oil, the Geological Survey identified several categories of reserves, based on the degree of certainty about their size. "Proved reserves" are those which can be economically extracted with existing technology. These were estimated to be 34.3 billion barrels, as of the end of 1974, or about 11 years production at the 1974 rate of 3.2 billion barrels per year. (By the end of 1976, proved reserves of crude oil had declined to 31.0 billion barrels.) How much oil can be economically extracted from a particular deposit depends, in part, on the price of the oil, and the estimates of proved reserves in table 5 do not take into account the price increases after 1973. Therefore, they are probably understated. Proved reserves also do not include "indicated reserves," which are those economically recoverable with known enhanced recovery techniques.<sup>1</sup> These amount to slightly more than a year's production. Higher oil prices would also significantly expand the amount of indicated reserves; however, much of the additional oil that would be produced with enhanced recovery is classified as "old oil" and hence is now subject to price controls. The existence of these price controls, and the expectation that they may be removed sometime in the future, has probably delayed some enhanced recovery investments. It is not clear how large indicated reserves would be at the high prices now prevailing for new oil.

"Inferred reserves" are less certain than either proved or indicated reserves but are very likely to exist. These are the reserves which will very probably be added as a result of extension of existing oil fields, revisions of estimates (which are usually upward revisions) and other

<sup>1</sup> Secondary recovery involves injecting water into an oil field to force the oil into a position where it can be pumped out of producing oil wells. Tertiary recovery involves injecting gas and chemicals, which also may liquefy extremely viscous oil to make it easier to pump out.

similar reasons. These are estimated to be 23.1 billion barrels. Thus, according to the Geological Survey, the total known U.S. oil reserves were about 62 billion barrels at the end of 1974, or about 19 years production.

The Geological Survey estimates that proved and indicated reserves of natural gas liquids (used to make propane and other close substitutes for oil) were 12.4 billion barrels, or 20 years' production at the 1974 rate of 616 million barrels.

The main uncertainty concerns oil and gas resources which have not yet been discovered. The Geological Survey has made estimates of these undiscovered resources, which are also shown in table 5. Because of the uncertainty involved, these estimates are expressed as a probability distribution. The Survey estimates that there is only a 5-percent probability that undiscovered recoverable resources of crude oil are below 50 billion barrels and a 5-percent probability that they are above 127 billion barrels. The estimate of the mean (or expected value) of the probability distribution is 82 billion barrels.<sup>2</sup> If we ultimately discover 82 billion more barrels of oil, then total reserves of crude oil will turn out to be 144 billion barrels, or 45 years of 1974 production. This would mean that if the United States produces oil at 1974 rates, it would run out of crude oil by about the year 2020. However, there is a 5-percent chance that existing reserves and undiscovered resources total only 112 billion barrels, in which case the United States would run out of crude oil at current rates of production by 2010.

The Survey estimates are similar for natural gas liquids. At their mean value, reserves and undiscovered resources would be 46 years of 1974 production.

Currently, 62 percent of proved oil reserves are onshore in the lower 48 States, and 29 percent are onshore in Alaska. Only 10 percent of proved reserves are offshore. The Survey estimates, however, that 32 percent of undiscovered recoverable crude oil resources are offshore, and that more than half of this offshore oil lies off Alaska. The fact that oil and gas exploration is more costly offshore than it is onshore is one reason why the cost of finding new oil will be much higher in the future than it has been in the past.

Oil production also involves refining the crude oil after it is extracted. The United States has the capacity to refine about 15.6 million barrels of oil per day (mbd), compared to 1976 consumption of 17.3 mbd. Thus, the United States is dependent on foreign refineries for at least 10 percent of petroleum products. There is, however, a large surplus of refining capacity worldwide. At the end of 1976, worldwide refining capacity was 72.2 mbd, while production of crude oil was 56.8 mbd.

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<sup>2</sup> The mean of a probability distribution for a particular random variable is the sum of the possible values for that variable weighted by the probability associated with that value.

TABLE 5.—Estimated U.S. reserves of oil and gas, Dec. 31, 1974

	Cumulative production to Dec. 31, 1974	Proved reserves <sup>1</sup>	"Indicated reserves" <sup>2</sup>	"Inferred reserves" <sup>3</sup>	Estimated undis- covered recover- able resources <sup>4</sup>	
Crude oil (billions of barrels):						
Lower 48 onshore-----	99.9	21.1	4.3	14.3	29-64	(44)
Alaska onshore-----	.2	9.9	0.0	6.1	6-19	(12)
Lower 48 offshore-----	5.6	3.1	.3	2.6	5-18	(11)
Alaska offshore-----	.5	.2	0.0	.1	3-31	(15)
Total-----	106.1	34.3	4.6	32.1	50-127	(82)
Natural gas liquids (billions of barrels)-----	15.7	6.4	( <sup>5</sup> )	6.0	11-22	(16)
Natural gas (trillions of cubic feet):						
Lower 48 onshore-----	446.4	169.5	( <sup>5</sup> )	119.4	246-453	(345)
Alaska onshore-----	.5	31.7	( <sup>5</sup> )	14.7	16-57	(32)
Lower 48 offshore-----	33.6	35.8	( <sup>5</sup> )	67.4	26-111	(73)
Alaska offshore-----	.4	.1	( <sup>5</sup> )	.1	8-80	(44)
Total-----	480.8	237.1	( <sup>5</sup> )	201.6	322-655	(484)

<sup>1</sup> Proved reserves are those which can be economically extracted with existing technology.

<sup>2</sup> Indicated reserves are those which are economically recoverable with known methods of enhanced recovery.

<sup>3</sup> Inferred reserves are estimated additional reserves resulting from extensions of existing fields, revision of estimates, and so forth.

<sup>4</sup> There is only an estimated 5-percent probability that undiscovered recoverable resources are below the lower end of the range, and a 5-percent probability that they are above its upper end. The figure in parentheses is the statistical mean.

<sup>5</sup> Not applicable.

Note: These estimates do not take into account oil and gas price increases after 1973.

Source: Department of the Interior, "Geological Estimates of Undiscovered Recoverable Oil and Gas Resources in the United States," 1975.

**Oil prices**

Relative to other prices, the price of crude oil declined steadily through the 1950's and 1960's. Since 1972, however, the price of imported crude oil has quadrupled and the price of crude oil produced in the United States has approximately doubled relative to consumer prices generally.

Currently, first tier crude oil (old oil), which is about 50 percent of domestic production, is controlled at an average wellhead price of \$5.20 per barrel. (The actual price varies by several dollars depending on the quality of the oil and the transportation costs from the wellhead to the refinery.) The FEA has announced that the lower tier price will increase to \$5.23 in October and to \$5.26 in November. Second tier crude oil (new oil), which is about 37 percent of domestic production, is controlled at an average wellhead price of \$11.23 per barrel. (The FEA has announced that the upper tier price will increase to \$11.49 in October and to \$11.75 in November.) Stripper oil, which is 14 percent of domestic production, is uncontrolled and is currently selling at a price of approximately \$13.31 per barrel.

The average price at the wellhead for all domestically produced crude oil is about \$8.53 per barrel, and by November will be about \$8.85 per barrel. However, the average cost to the refiner, which includes transportation and certain other costs, averages about \$9.50. The refiner acquisition cost of imported oil averages \$14.55 per barrel. If the price of domestic oil were increased to the world price, either through decontrol of oil prices or the crude oil equalization tax, this would involve a price increase for domestic production of \$5.00 per barrel at current prices. Since approximately 58 percent of U.S. consumption of oil is from domestic production, increasing the cost of domestic production to the world price of oil would increase the average cost of oil in the U.S. by approximately \$2.90 per barrel, or about 7 cents per gallon.

Because the price of U.S. crude oil is likely to rise faster than the world price in the next several years even without any changes in present policy, this 7-cent-per-gallon estimate of the effects of bringing U.S. oil up to the world price probably overstates the effect of the crude oil equalization tax on prices, particularly since that proposal would not be fully phased in until 1980, allowing for such price increases leads to an estimated price increase of 4.5 cents per gallon by 1980.

Many observers believe that the consumer does not now receive the full benefit from the price controls on U.S.-produced crude oil, in which case the full increase in refiner acquisition costs would not be passed through to consumers. The Administration estimates that refiners or other businesses would absorb one-third of the proposed increase in costs, in which case the increase in consumer prices would be 4.7 cents per gallon at present prices. By 1980, under the assumption that only two-thirds of the tax is passed through, the additional increased cost resulting from the crude oil equalization tax would probably be only about 3 cents per gallon (as compared with increased costs which would have occurred even if the proposal were not to be adopted).

Businesses should absorb part of the equalization taxes for several reasons. In effect, some of the price increases which would result from the equalization taxes has already been passed through to consumers. Currently, U.S. oil refiners (especially small refiners) receive certain benefits as a result of the existing "old oil entitlements program," which is intended to equalize the cost of crude oil among various U.S. refiners regardless of their mix of price-controlled or uncontrolled crude oil. As the crude oil equalization tax is phased in, the entitlements program will be phased out, and refiners will lose these benefits. Also, the existing controls on oil refiners and distributors reduce competition in those industries. This reduced competition would lead to higher prices for consumers which partly offset the lower consumer prices resulting from the price controls on crude oil. Phasing out the controls on oil refiners and distributors in connection with the crude oil equalization taxes, then, should mean that prices to consumers will rise by less than the full amount of those taxes. Finally, many businesses sell their products in world markets at prices based on the world price of oil. These companies now benefit from being able to buy oil at controlled U.S. prices and sell their products in markets in which their competitors must pay world oil prices. When the price of crude oil in the United States is raised to the world price, these businesses will not be able to raise their product prices above the world price, and the price to U.S. consumers of these products will not increase.

## B. Present Law

Under present law, the price of domestically produced crude oil is regulated by the FEA in accordance with the "Emergency Petroleum Allocation Act of 1973," as amended. Under these rules, all domestic oil production other than stripper oil (oil produced from properties where the average daily production per well is 10 barrels or less) is subject to price controls. The exact nature of the price controls is determined administratively, but there is a legislatively mandated limit on the average price of the nonstripper oil. Currently, the average price limit is \$8.57 per barrel. This is subject to an inflation adjustment which may not exceed 10 percent a year. Price increases in excess of this authority may be recommended by the FEA, but these increases are subject to a veto by either House of Congress within 15 legislative days. Under present law, these controls are mandatory through May 1979, and the President has discretionary authority to continue controls until September 1981.

Under the existing regulations, "old oil" (also known as "first tier oil" or "lower tier oil") is the amount of oil produced on a property up to either 1972 production of all oil or 1975 production of old oil, whichever is less, adjusted for part of the natural decline in production that occurs in any oil field. "New oil" (also known as "second tier oil" or "upper tier oil") is oil produced on a property in excess of this amount. Old oil is controlled at a price averaging about \$5.20 per barrel, and new oil is controlled at a price averaging about \$11.23 a barrel. (The price of any particular barrel of oil may vary by several dollars from these averages depending on the quality of the oil and transportation costs from the wellhead to the refinery.) The price of stripper oil averages about \$13.31 per barrel.

The administration proposes to create a new classification for "new new oil," which would be defined as is oil discovered after April 20, 1977, in a well that is either more than 2½ miles from an existing on-shore well or more than 1,000 feet deeper than any well within a 2½-mile radius, as well as oil from an offshore lease entered into after April 20, 1977. The price of new oil would be allowed to rise ratably over a 36-month period from the current controlled price for second tier crude oil (about \$11.23 per barrel) to the April 20, 1977 price of imported oil (about \$13.31 per barrel) adjusted for inflation. At the end of this 36-month phasein, this price would continue to be adjusted upward for inflation.<sup>1</sup>

Under the administration proposal, shale oil would not be subject to price controls and would receive the current world price as in effect from time to time. (Therefore, shale oil would never be subject to the equalization tax.)

<sup>1</sup> Under present law, these upward price adjustments for new new oil could be implemented through regulations as long as the administration continues to meet its legislatively imposed average controlled price for all domestically produced nonstripper crude oil.



Under the present law, there is an entitlements program which is designed generally to equalize the cost of crude oil to refineries in the United States, regardless of their actual mix of price-controlled and uncontrolled oil. Those U.S. refineries using more than the national average percentages of price-controlled crude oil must buy entitlements from refineries using less than the national average. This purchase and sale of entitlements among refiners offsets the advantages that would otherwise result for the refiners who have access to a disproportionate amount of price-controlled crude oil. The FEA sets the price of entitlements each month based on price differences between old and stripper oil. Small refiners receive advantages under the entitlements program which are discussed in greater detail below.

There are also controls on the price of certain petroleum products, including gasoline, as well as controls on the marketing and distribution of these products. These product controls are designed to ensure that the lower crude oil prices resulting from price controls are passed through to consumers. The Administration believes that, despite the product price controls, refiners and other businesses reap about one-third of the benefit of crude oil price controls and that this amount is not being passed through to consumers.

#### C. House Bill

##### *Crude oil equalization tax*

Under the House bill, an excise tax is imposed on the first purchase (generally by the refiner) of price controlled, domestically produced crude oil. The tax increases the cost of all crude oil to the world price by 1980. The termination date of the tax is September 30, 1981, the date when price controls expire.

The tax is imposed in three stages. In 1978, the tax is imposed on lower tier oil (old oil under current regulations) and is equal to one-half the difference between the controlled price of new oil of each classification and the controlled price of old oil of that classification. In 1979 the tax on lower tier oil will equal the full price gap between lower tier and upper tier oil of the same classification. In 1980 and for the duration of the tax, the tax will apply to all controlled oil and will equal the difference between the wellhead prices of uncontrolled and controlled crude oil for each classification. As a result, the price of controlled oil plus the tax will be raised to the world price of oil in 1980.

There are exemptions for oil used to extract oil and natural gas and for oil used as feedstock to produce natural gas liquids.

There is also a provision that the crude oil equalization tax shall not be taken into account in determining natural gas prices in cases where natural gas prices are set under contracts in which they are tied to the price of crude oil.

##### *Natural gas liquids equalization tax*

A tax is imposed on sales to end users of natural gas liquids. The tax is based upon the difference (the price gap) between the controlled price of the liquid and the wholesale price for No. 2 distillate fuel oil in the region, adjusted for differences in Btu content. The tax will be equal to one-third of the price gap in 1978, two-thirds of the gap in 1979, and will be equal to the entire gap in 1980 and later years.

There are exemptions for natural gas liquids used in residences, on farms and in churches, schools and hospitals.

***Presidential authority to suspend the tax***

The President is granted authority to suspend any or all of any increase in the equalization tax, if he determines that there has been a significant increase in the world price of oil that will result in a higher equalization tax and will have a substantial adverse economic effect. A suspension plan would have to be submitted to Congress and would be subject to a veto by either House within 15 days of submission.

***Energy savings***

It is estimated that these provisions of the House-passed bill would result in energy savings of from 430,000 to 650,000 barrels of oil per day by 1985 (assuming the tax were extended to that year).

***Revenue effect***

The net effect of the crude oil and natural gas liquids equalization taxes under the House bill on budgetary receipts and expenditures is shown in the following table.

**Table 6. Crude oil and natural gas liquids equalization tax under title II of H.R. 8444, as passed by the House: Relationship of gross tax to the amounts available for credits and payments, fiscal years 1978-82**

[In millions of dollars]

Provision	1978	1979	1980	1981	1982	Total 1978-82
Gross crude oil equalization tax collections-----	1, 897	6, 349	11, 294	14, 596	4, 802	38, 938
Reduction in income tax liabilities of business resulting from less than full passthrough of tax to prices-----	-305	-971	-1, 720	-1, 944	-900	-5, 840
Refund for oil used to produce natural gas liquids at refineries-----	-29	-97	-168	-211	-68	-573
Refund for oil used to heat:						
Homes-----	-82	-476	-688	-793	-181	-2, 220
Hospitals, schools and churches-----	-9	-54	-80	-91	-20	-254
Estimated per taxpayer credits-----	-1, 819	-780				-2, 599
Net effect on budget receipts-----	-347	3, 971	8, 638	11, 557	3, 633	27, 452
Special payments to refund tax collected from 1978 liabilities to qualified recipients-----		-866				-866
Amount available for return to general public in future years from equalization tax liability incurred after 1978-----	-347	3, 105	8, 638	11, 557	3, 633	26, 586

#### **D. Administration Position**

The Administration supports the House-passed bill. It supports deleting the tax on natural gas liquids and the exemption in the crude oil equalization tax for crude oil processed into natural gas liquids.

#### **E. Other Congressional Consideration**

There has been no previous consideration of a crude oil equalization tax. However, in August 1975, the Finance Committee agreed to a deregulation profits tax, which would have applied to oil and natural gas liquids and was to have been added as a Finance Committee floor amendment to a tariff bill. This deregulation tax was conditioned on price decontrol, and the measure died when proposals then pending for rapid or immediate decontrol of energy prices failed to win approval.

The Finance Committee tax would have imposed a 90-percent windfall profits tax on old oil to the extent that the price of that oil exceeded the controlled price (\$5.15 per barrel on the average), and on new oil to the extent that the sales price exceeded \$11.50 per barrel. A tax would have been imposed on natural gas liquids to the extent that the price exceeded the regulated price in effect on June 30, 1975. The tax was to be phased out over a 5½-year period.

#### **F. Areas for Committee Consideration**

##### ***Energy conserving effects of higher oil prices***

Higher oil prices to consumers, as would occur under either price decontrol (with or without a windfall profits tax) or a wellhead tax on price-controlled oil, should encourage energy conservation and eliminate economic distortions which occur under the present price controls. For the United States as a whole, the refiner acquisition cost of an additional barrel of oil is now \$14.50, yet because of price controls the price of crude oil to consumers is only about \$12.00. This differential encourages wasteful consumption and overdependence on imported oil. (Of course, the high cost of foreign oil is not the only disadvantage to relying on imports. There are also national security problems which result from this situation.)

There is some dispute about just how sensitive oil consumption is to changes in prices and by how much consumption would decline if the U.S. price were raised to the world price. It is generally agreed that in the short run oil consumption will not vary significantly in response to price changes. This is because individuals and businesses have invested in capital goods that require oil, such as gas guzzling autos, uninsulated homes, and oil-fired boilers. In the longer run, however, there is probably a significant response of oil consumption to price increases, although the precise measures of this longrun responsiveness vary considerably from one study to another. Because U.S. oil prices have been low for such a long time and have only been high in recent years, it is difficult to get any reliable estimates of the responsiveness of oil consumption to price changes by looking only at the U.S. experience. However, oil prices are much higher in Europe, and European countries whose standard of living is just as high as it is in the United States consume considerably less oil per capita, which is probably partly a response to higher prices.

Assuming, as seems likely, that the demand for oil can be affected to some extent by higher prices, the question then arises as to whether this conservation effect is weakened by a system of rebates in which the full amount of the increased cost of oil is returned to consumers in the form of tax credits. It seems likely that the conservation impact of this approach will still be substantial. First, there will be a psychological impact on the consumer each time that he must pay the increased cost of petroleum products in the market place. This psychological effect will not necessarily be reduced even though the consumer realizes that he will eventually recover these increased costs through the tax system.

Second, the rebate in the House bill will be made on a per taxpayer basis. This means that individuals who conserve energy may receive a rebate which exceeds their actual increased costs of petroleum products for that year. On the other hand, individuals who do not conserve will not be fully reimbursed by the rebate for their increased cost of petroleum products.

***Effect of price controls on consumers***

There is considerable question about the extent to which the American consumer is benefiting from current price controls on crude oil. About half of refined petroleum products are not now subject to price controls, and there is doubt about the efficacy of the controls on gasoline, the principal product still subject to controls. (The Administration has proposed decontrolling gasoline later this year.) Some U.S. refiners (especially small refiners) have probably been able to capture for themselves some of the benefits of the price controls on old oil rather than pass them on to consumers as lower prices for petroleum products. Residual fuel oil produced and sold in the U.S., for example, is now selling at approximately the world market price despite the fact that it is produced from price-controlled U.S. crude oil while imported residual fuel oil prices are based on higher world crude oil prices. This indicates that U.S. consumers of residual fuel oil are not receiving lower prices as a result of the crude oil price controls, and there is probably a similar, but lesser, problem with respect to other petroleum products. It is also possible that the regulations on the distribution of certain petroleum products are inhibiting competition, which may also reduce the extent to which the full benefits of price controls are being passed through to consumers. Finally, to the extent that oil is used by U.S. businesses which are selling products (such as steel) for which the price is generally determined by reference to world markets, these businesses may be benefiting under the current price control system, because their foreign competitors are paying the world price for oil, and must reflect this cost differential in the prices which they charge for their products.

The Administration estimates that consumers now receive only two-thirds of the benefit of the price control on crude oil and that oil refiners, distributors and other businesses are receiving the other one-third. If this is the case, then an additional benefit of raising the price of crude oil to the world price would be the elimination of this windfall profit that is being received by certain oil refiners, distributors, and other businesses, and the recycling of this money back to consumers in the form of tax rebates or use of it for other purposes.

### ***Other economic impacts***

A problem with raising oil prices to consumers is that higher prices will give them less income to spend on other goods and services, which may depress the economy. (See discussions below, under the background section of the part of this pamphlet dealing with rebates of the crude oil tax.) This problem would be largely eliminated if the revenue from any tax on oil were fully rebated to consumers. Oil producers may spend a smaller fraction of any additional income than oil consumers. Therefore, any policy that transfers income from consumers to producers, such as decontrol of oil prices without a windfall profits tax, could depress the economy initially unless offset by other stimulative policies.

Another consideration in raising oil prices is that it would increase the rate of inflation, which could initiate a wage-price spiral. Raising the U.S. oil price to the world oil price over a three-year period would increase the rate of inflation by about 0.2 percent per year plus whatever indirect inflationary pressures occur because of a wage-price spiral resulting from this initial price increase.

As indicated above, the energy savings from this provision are substantial, ranging from 430,000 to 650,000 barrels per day.

### ***Classification system***

Under the House bill, the Secretary of the Treasury is required to establish various classifications of crude oil by type, grade, and location. The approach of setting a separate rate of tax for various classifications of oil is designed to prevent the crude oil equalization tax from forcing a decrease in the price that the producer can charge for a particular classification of oil and to prevent windfall gains by refiners.

For example, assume that U.S. oil production consists equally of two grades of oil. Grade A oil is controlled at \$4 per barrel, and Grade B is controlled at \$6 per barrel. Also, assume that the uncontrolled prices of Grade A and Grade B oil are \$11 and \$15 per barrel, respectively. Under these circumstances, without the classification system the third stage crude oil tax would be equal to \$8 per barrel (i.e., an average uncontrolled price of \$13 minus the average controlled price of \$5). In such a case, the maximum amount refiners would be willing to pay for Grade A oil would be \$3, i.e., the \$11 uncontrolled price minus the tax of \$8. Producers of Grade A oil, therefore, would experience a hardship from the tax. Also, refiners who purchased price-controlled Grade B oil at \$6 would receive an unintended benefit of \$1 because their total cost for the oil (the \$6 controlled price plus the \$8 tax) would be less than its market value of \$15.

In order to prevent such situations, the bill provides for different rates of tax for each separate classification of crude oil. Thus, in the example above, the tax on Grade A oil would be equal to \$7 (the uncontrolled price of \$11 minus the controlled price of \$4). The tax on Grade B oil would be equal to \$9 (the uncontrolled price of \$15 minus the controlled price of \$6).

Under the House bill, the tax rate will not equal the gap between the controlled price and the uncontrolled price until 1980. In 1978 it will equal one-half the gap between the ceiling prices of lower and upper tier oil in each classification, and in 1979 it will equal the entire gap.

An alternative to the House bill would be to base the equalization tax rate on the gap between the ceiling price of lower tier oil and its uncontrolled price starting in 1978 instead of 1980. The tax rate could equal one-third of this gap in 1978 and two-thirds in 1979. In 1980 and thereafter, the tax rate could equal the entire gap, as in the House bill. Such a formula would reduce the "ratchet effect" referred to above in 1978 and 1979.

***Phase-in period for the tax***

Under the House bill, the crude oil equalization taxes are phased-in over a three-year period. In 1978, the tax is imposed only on lower tier oil and is equal to one-half of the difference between the upper and lower tier price for the same classification of crude oil. In 1979, the tax is also only imposed on lower tier oil and is equal to the entire difference between the upper and lower tier price for the same classification of crude oil. In 1980 and thereafter, the tax is imposed on all oil and is equal to the difference between its controlled price and the uncontrolled price. In 1980 and thereafter, the combined controlled price plus the equalization tax will increase the cost of domestic crude oil to world prices.

The Administration proposed a three-year phase-in largely to spread out the inflationary effects of the tax. However, the House bill does not include the gasoline tax proposed by the Administration and, therefore, will have considerably less impact on consumer prices. Therefore the Committee may wish to consider shortening the phase-in period for the crude oil equalization tax to two years. There appear to be at least two alternative ways to do this.

Under the first alternative, the tax could be imposed on all domestically produced crude oil in 1978. The tax would be equal to one-half of the difference between the uncontrolled price of each classification of oil and its controlled price for both lower and upper tier oil. For 1979 and thereafter, the tax would equal the full difference. The advantages of this method are that the amount of any price increase resulting from the tax will be exactly the same in both 1978 and 1979 if uncontrolled prices remain constant and the "ratchet effect" would be reduced in 1978.

Under the second alternative, the tax in 1978 would be imposed only on lower tier oil and would be equal to the entire difference between the lower tier price of each classification of oil and the upper tier price for that classification of oil (This is the same amount of tax as under the House bill for 1979). For 1979, the tax would be identical to that in the first alternative, i.e., the difference between the controlled and uncontrolled price of each classification.

This second alternative has the advantage of permitting the removal of one tier of the entitlements system in 1978. Its major disadvantage is that the price increase resulting from the tax will be slightly more (approximately \$0.40/barrel) in 1978 than 1979 if uncontrolled prices remain constant. However, if the world price increases, thereby raising the uncontrolled price, the increase would tend to make the increases in 1978 and 1979 roughly the same.

***Natural gas liquids***

The House bill also imposed an equalization tax on natural gas liquids which are price controlled (principally propane and butane). Most natural gas liquids (other than ethane) are presently subject to price controls.

Natural gas liquids and oil products are interchangeable for many purposes. The House bill imposed an equalization tax on natural gas liquids in order to prevent excessive demand for (and probably shortages of) natural gas liquids if the price of crude oil were increased to world prices by a crude oil equalization tax without similar action for natural gas liquids.

At the time of the House consideration of these provisions, it appeared that a natural gas liquids tax would be necessary in order to prevent a situation where natural gas liquids would be controlled at prices far below those charged for an equivalent amount of energy in the form of oil (after taking account of the crude oil equalization tax). However, further investigation has indicated that most natural gas liquids now sell at a price sufficiently high that no tax would be imposed under the House bill. Thus, imposing the tax on natural gas liquids would result in very little tax, achieved at a cost of substantial administrative complexity.

Moreover, while most natural gas liquids are produced by the liquification of gases which emerge from the natural gas wells, some natural gas liquids are produced in the distilling of crude oil. In order that both the crude oil equalization tax and the natural gas liquids tax not apply to the same product, the House bill provided an exemption from the crude oil equalization tax for crude oil that was manufactured into natural gas liquids. The mechanism through which this exemption is allowed is by giving the refiner a refundable credit equal to the crude oil equalization tax paid on oil used in the production of natural gas liquids.

Because the average amount of the crude oil equalization tax is larger than the average amount of the natural gas liquids tax, the combined effect of the natural gas liquids tax and the credit for liquids made from crude oil is that imposition of the natural gas liquid equalization tax probably results in a net revenue loss.

For these reasons, the Committee may wish to consider deleting the equalization tax on natural gas liquids and the credit under the crude oil tax for crude oil processed into natural gas liquids. The Administration recommends this change.

#### ***Termination date***

Under current law, price controls on crude oil are scheduled to expire in May 1979, although they can be extended through September 1981 at the discretion of the President. The House bill terminates the equalization taxes on September 30, 1981, and the Administration has recommended deleting this termination date.

Because the equalization taxes apply only to price-controlled crude oil and natural gas liquids, the taxes will become deadwood if price controls are allowed to expire after 1979 or 1981 even without a legislated termination date. A termination date will mean that, if crude oil price controls are extended beyond September 30, 1981, Congress will have to act to extend the equalization taxes, or else first purchasers of crude oil will be able to reap an unintended profit equal to what they were paying as equalization tax. Also, if revenues from the crude oil tax are dedicated to an energy trust fund or Energy Finance Corporation, the termination date would create uncertainty about the future of these programs. The committee, therefore, may wish to consider deleting the termination date.



## II. REBATES OF EQUALIZATION TAXES

### A. Background

As passed by the House, the crude oil and natural gas liquids equalization taxes would raise \$3.7 billion in calendar year 1978. If there were a two-year phasein of the tax instead of the three-year phasein the House bill, the revenue yield would be between \$5 and \$6 billion in calendar year 1978.

Most economic forecasts are that the U.S. economy will be operating below its potential in 1978, in which case a tax increase of this size would increase unemployment unless it were offset by other tax cuts or additional government spending. In its mid-year budget review, for example, the Administration predicted that the unemployment rate would be 6.1 percent at the end of 1978. (For August 1977, it was 7.1 percent.) Such high unemployment is expected despite the Administration's relatively optimistic forecast of the expected increase in gross national product in 1978 (an increase of 5.3 percent over 1977). A recent economic forecast by the Congressional Budget Office, which did not take the energy program into account, was that unemployment will be somewhere between 5.9 percent and 6.9 percent at the end of 1978. A number of private forecasters are more pessimistic than the Administration and at least the more optimistic range of the CBO forecast.

Under these circumstances, a \$4-\$6 billion tax increase which was not offset by additional government spending would lead to a further increase in unemployment of 0.1 to 0.2 percentage points (that is, from 6.1 to 6.2 or 6.3 percent) by the end of 1978. Because the budget for fiscal year 1978 will have already been determined by the time the energy bill is enacted, it will be very difficult to increase government spending to offset the equalization taxes until at least the last quarter of calendar year 1978 (the start of fiscal year 1979); and it would be difficult to pass a tax reform and reduction bill to provide offsetting tax cuts until the end of 1978.

For these reasons, the House agreed to rebate to the general public the full amount of the net revenues raised by the crude oil and natural gas liquids equalization taxes in 1978, but to leave open the question of how these revenues were to be used in subsequent years. This rebate for 1978 is achieved under the House bill by a per-taxpayer tax credit, special payments to nontaxpayers and a heating oil refund.

### B. Present Law

There is no comparable provision under present law.

### C. House Bill

#### *Crude oil rebates*

##### *Taxpayer credits*

Under the House bill, the net receipts from the equalization taxes in 1978 would be apportioned equally and returned to each taxpayer

through a new tax credit, called the crude oil equalization tax receipts credit. Single taxpayers and married persons filing separately would receive a single credit (estimated to be \$22 in 1978), and married persons filing joint returns and heads of households (single persons with dependents) would receive a credit of twice this amount. The total credits amount to \$2.5 billion.

The bill instructs the Secretary of the Treasury how to determine the exact amount of these tax credits. The credits are to be sufficient to return to the general public the full amount of the estimated net revenue to be raised by the equalization taxes for 1978, after subtracting the heating oil rebate. This estimate of net revenues is to take into account the estimated reduction in business income tax receipts expected to result because businesses will not be able to pass on to consumers the full amount of the tax.

The credit would be limited to a taxpayer's tax liability, except for recipients of the earned income credit. The estimated amounts of these credits will be reflected in the withholding tax schedules for 1978.

#### *Special payments*

Special payments would be made in the fall of 1979 to adults who are recipients of monthly benefits under social security, railroad retirement or supplemental security income. The amount of these payments would equal the credits rebated to individual taxpayers. Special payments would be reduced by any tax credit received, in order to avoid double payments.

Special payments also would be made by States to adults who receive aid to families with dependent children as relatives with whom dependent children were living, spouses of such relatives, or other adults whose needs are taken into account in determining AFDC benefits. Heads of households are to receive a double payment. This AFDC payment would not be reduced by the amount of any tax credit. (States would be reimbursed for their administrative costs to the extent of two dollars per payment.)

Other adults who do not receive a tax credit or special payment under one of the programs referred to above could file an appropriate form with the Secretary of the Treasury in order to receive a roundup payment. The roundup payment would be a flat amount for single persons and twice that amount for married couples and single heads of households. It would be reduced by the amount of any tax credit or special payment.

The House bill also authorizes payments to the governments of Puerto Rico and the U.S. possessions, if they submit acceptable plans to the Secretary of the Treasury for distribution of amounts similar to the tax credits and special payments. The Federal payments would be large enough to compensate these governments for the amount of the payments and for their administrative costs.

The special payments would involve outlays of \$849 million in fiscal year 1979.

Under the House bill, the special payments and tax refunds in excess of tax liability are to be disregarded in determining eligibility for and benefits under federal or federally assisted aid programs and are not to be considered income for federal tax purposes.

**Heating oil refund**

An exception is provided from the crude oil equalization tax for heating oil used in residences, churches, schools, universities and hospitals. Distributors of heating oil would receive a refund of the equalization tax for each gallon sold to one of these users, so long as the refund is passed through completely to the customers as lower prices. The refund per gallon would be determined by the Secretary of the Treasury based on estimates of the net revenue from the equalization taxes, adjusted for the estimated reduction in business income taxes resulting from businesses' absorbing some of the tax, divided by the estimated number of gallons of petroleum products to be consumed in the United States during the year in question.

The heating oil refund involves outlays of \$279 million in calendar year 1978.

**D. Administration Position**

The Administration supports the House-passed bill.

**E. Other Congressional Consideration****1977 Finance Committee tax rebate**

In its version of the Tax Reduction and Simplification Act of 1977, the Finance Committee included a refund of 1976 individual income taxes and special payments to nontaxpayers which was similar in many respects to the tax credit and special payments in the House version of the energy bill. (These provisions were deleted on the Senate floor, after the Administration withdrew its support for the rebate and the Finance Committee voted to delete it.)

The Finance Committee's proposal involved a refund of 1976 individual income taxes of \$50 for each taxpayer and dependent (compared to a tax credit in the House version of the energy bill equal to a flat amount per taxpayer, with a double credit for single heads of households). This refund was to be phased out as adjusted gross income rose from \$25,000 to \$30,000 (compared to no phaseout in the House energy bill). As in the House energy bill, the refund was to be limited to tax liability, except for people eligible for the earned income credit.

The Finance Committee bill also included special \$50 payments to recipients of social security, SSI, railroad retirement, certain veterans' benefits, black lung benefits and AFDC. Except for AFDC, the special payment was to be denied to those who received a tax refund, and the payments to social security, SSI, railroad retirement and black lung beneficiaries was to be phased out as adjusted gross income rose from \$25,000 to \$30,000. Child beneficiaries of social security were to be excluded if there were no adult beneficiaries in the family unit.

As in the House energy bill, the Finance Committee bill provided that the special payments be disregarded for purposes of determining eligibility for or benefits under federal or federally-assisted aid programs and that they not be considered income under the Internal Revenue Code. There were waivers of the rules to prevent double payments in cases where eliminating the double payments would have unduly delayed the payments.

The special payments in the House energy bill differ from those in the Finance Committee's tax cut bill in several other respects. In place of the special payments to veterans and black lung beneficiaries, the House bill contains a "roundup payment," which may be claimed by all adults who do not receive their full tax credit or special payment under one of the other programs (with a double roundup payment to heads of households). Also, the House special payments are limited to U.S. residents. In place of any payments to residents of Puerto Rico and the possessions, the House bill contains a special provision to compensate the governments of these areas so that they may provide tax credits and special payments to their residents, who would have to pay higher oil prices as a result of the equalization tax. The House payments are limited to adults, except for certain disabled child beneficiaries of SSI.

***1975 Finance Committee plowback proposal***

In 1975 the Finance Committee agreed to a deregulation profits tax on crude oil and natural gas liquids, which included a plowback credit against the tax. The Committee intended to propose this as a floor amendment to a minor tax bill, but the Committee's amendment was not brought up.

The committee's plowback credit would have equaled 100 percent of qualified investment in excess of a threshold. Qualified investments would have included intangible drilling and development costs, geological and geophysical costs, depreciable assets constructed or acquired for the exploration and development or production of oil or gas (including oil from shale), expenses for secondary and tertiary recovery of oil and gas, pipelines for gathering oil, and the Alaska pipeline. The plowback threshold equaled 40 percent of the current ceiling price of the old oil produced by the taxpayer.

The plowback credit was limited to 25 percent of the deregulation profits tax.

Royalty holders could have received plowback credit for investments made by corporations by purchasing special issues of stock, the proceeds of which were used to make qualified investments.

The net proceeds from the tax, after the plowback, were to be rebated on a per capita basis to all individuals who were 18 years or older through a refundable tax credit.

**F. Areas for Committee Consideration**

The first issue facing the committee is whether to have some sort of rebate of the equalization taxes or whether to use the revenues raised by those taxes to finance energy spending programs (perhaps through a trust fund).

A second issue is the extent to which such rebates should take the form of exemptions from the tax (such as the heating oil rebate), payments to the general public, or incentives for energy conservation or production.

The House bill rebates the full amount of the net revenue raised by the equalization taxes in 1978 through a heating oil rebate, tax credits and special payments. The reason the House limited the rebate (other than the heating oil rebate) to 1978 was its desire to intergrate any rebate in subsequent years with the tax reform bill expected to be considered next year. The Administration proposes rebates for the

entire life of the tax, although it acknowledges that the structure of the rebate will have to be reconsidered in the tax reform bill.

The case for rebating the taxes in some fashion is much stronger for 1978 than for subsequent years. The economy is likely to be operating below its potential through 1978, in which case a tax increase not offset by additional government spending would be a fiscal drag on the economy. Moreover, it could be difficult to implement such spending programs at least until the start of fiscal year 1979.

If the Committee decides to include rebates of the equalization taxes similar to those in the House bill, a number of more detailed issues must be decided.

***Per person versus per taxpayer credit***

The Administration recommended a tax credit equal to a flat amount per taxpayer and dependent. The House tax credit, however, equals a flat amount for single and separate returns and twice that amount for joint returns and for heads of households. Similarly the House special payments are limited to adult beneficiaries of the various income maintenance programs (with two payments to heads of households), while the Administration recommends payments to child beneficiaries of these programs as well. Under the Administration's proposed formula, the size of the per-person tax credit would be about two-thirds of the credit for single persons under the House bill (about \$15 instead of \$22 in 1978), although the overall revenue impact would, of course, be the same.

The staff does not have data on this issue, but it appears that oil consumption, and therefore the additional cost imposed by the equalization taxes, tends to increase with family size but much less than proportionately. Thus, the House bill is probably somewhat unfair to larger families, while the Administration proposal would be unfair to single persons and smaller families. In any case, if the rebates are limited to 1978, the amounts involved are not significant—\$15 per person under the Administration's proposal compared to \$22 per taxpayer under the House bill. Thus, a couple with three children would get an estimated \$75 under the Administration proposal and \$44 under the House bill, while a married couple with no dependents would get \$30 under the Administration proposal and \$44 under the House bill.

The special payments in the House bill are probably easier to administer than the Administration's formula. Under the Administration's proposal, there would have to be a restriction on the roundup payment that denies it to people claimed as dependents on other people's returns (and, who, therefore, generate a refund for those people), but this restriction could not be easily enforced because dependents' social security numbers are not listed on tax returns.

***Alternative tax cut proposals***

The tax credit in the House bill involves a relatively small amount per taxpayer (\$22); however, it requires an additional line on the tax returns (because the tax credits cannot be built into the tax tables without changes in the formula). The Committee could consider alternative tax cuts for 1978 of the same aggregate size as the rebates in the House bill which could be built into tax tables or existing Code provisions. These alternatives could include rate cuts in lower brackets or changes in the general tax credit. Alternative tax cuts could be structured to finetune the distribution of the money, such as by phasing it out at higher-income levels.

Similarly, special payments require establishing an administrative mechanism to distribute a relatively small amount of money (\$849 million). To the extent that the Federal income maintenance benefits of nontaxpayers get adjusted for inflation (as occurs automatically under social security and civil service retirement programs), many of the nontaxpayers will receive some compensation for their higher energy costs anyway. Thus, unless the Committee intends to continue the equalization tax rebates into subsequent years, when the aggregate amount of money involved will be considerably larger, it could consider deleting the special payments and using the money for the tax credit, some alternative tax reduction, direct adjustments in the relevant income maintenance programs or an energy trust fund.

#### ***Heating oil rebate***

The House bill exempts from the crude oil equalization tax heating oil used in homes, churches, schools and hospitals. This exemption is achieved by rebating to distributors of heating oil an amount equal to the average per gallon tax, conditional upon their passing the refund through to their customers. The rebate is expected to be about 1.3 cents per gallon in 1978, 2.6 cents in 1979 and 4.1 cents in 1980.

The House included the heating oil rebate because it was concerned about increasing heating costs. In title I of the House energy bill, some relief is provided to protect residences heated by gas or electricity from increases in heating costs through the incremental natural gas pricing provision, which requires that gas pipelines pass through most of their higher gas costs to nonresidential customers, and the electric utility rate reforms, which eliminate volume discounts for industrial users and thereby permit lower rates for residences. However, there is some doubt that the Administration's utility rate proposals would, in fact, lower residential electricity bills in many areas.

Those who opposed the heating oil rebate in the House argued that it would be inconsistent with the energy conservation goals of the bill. (The rebate reduces the energy saving of the crude oil tax by 50,000 to 100,000 barrels per day by 1985.) The Committee, therefore, may want to reconsider this provision.

If the heating oil rebate to hospitals, schools, and churches is included, the Committee may want to extend it to other, similar organizations, such as nonprofit homes for senior citizens. Also, in some places crude oil is processed into synthetic natural gas which is used for home heating. A rebate mechanism could be devised in these cases as well.

#### ***Other rebates for specific products***

There have been suggestions that the Committee include rebates for other specific uses of oil. These include rebates for asphalt and road oil used by State and local governments, gasoline and diesel fuel used on farms, and petrochemical feedstocks. When the tax is fully effective in 1980, the cost of these rebates would be approximately \$200 million for asphalt and road oil, \$260 million for farm use of gasoline and diesel fuel, and \$260 million for petrochemical feedstocks. (The home heating oil rebate would be \$900 million in 1980.)

#### ***Plowback***

An alternative to the general per-taxpayer and heating oil rebates would be to use some part of the revenue raised by the equalization taxes for a plowback credit for oil producers.

A plowback credit could be accomplished by shifting the imposition of the crude oil equalization tax from the first purchaser of the oil to the producer or royalty holder and to provide a tax credit against the equalization tax for qualified investments in excess of a threshold level of investment, limited to either some fraction or all of the equalization tax liability. To prevent overall tax benefits from qualified investments from exceeding 100 percent of such expenditures, the plowback credit could be included in taxable income.

Such a plowback credit against the equalization tax could be expected to increase oil production in two ways. Producers and royalty holders whose qualified plowback investments would otherwise be less than their maximum allowable credit would have an incentive to increase their investments. Also, producers whose qualified investments exceed their maximum allowable credit would have an incentive to expand their production of crude oil, particularly lower tier oil, on which the tax rate is high. For this second class of producers, the tax credit would provide much the same incentive for greater production as would deregulation of oil prices.

Regarding the possible use of a certain amount of revenues from the equalization taxes to provide incentives for greater supply, some objections have been raised against doing so through a plowback credit. In 1978 and 1979, the crude oil equalization tax applies only to lower tier or old oil, and even after 1979 most of the revenue raised by the tax comes from lower tier oil, which is oil from properties which were in production in 1972. Thus, persons who entered the oil business after 1972 get no benefit from plowback in 1978 and 1979 (unless they have purchased someone else's old oil). Also, most lower tier oil is produced by major oil companies and not by independents. (The largest 15 producers produced 67 percent of the old oil in the first half of 1976.) Income tax incentives for increased exploration and development, such as those outlined in the separate staff pamphlet on production incentives (pamphlet No. 6), would be more beneficial to independent producers and new entrants to the oil business than a plowback credit.

Shifting the crude oil equalization tax from first purchasers to producers and royalty holders would require an amendment to the crude oil price controls. Currently, price controls are imposed on the first sale of the crude oil. Therefore, unless there were an increase in the ceiling price, producers would not be able to pass through any tax to consumers. An amendment would be needed to raise the price ceiling by the amount of the tax. This could create committee jurisdictional problems. There would also be administrative problems in collecting the tax from thousands of producers and royalty holders rather than 200-300 first purchasers (as would be the case under the House bill).

#### ***Small refiners***

Another proposal which has been made is to use some of the equalization tax revenue to compensate small refiners for the loss of the "small refiners' bias" under the existing entitlements program. There are 126 refiners whose capacity is less than 175,000 barrels per day, and their capacity is 14 percent of the U.S. total. Under current regulations, small refiners receive extra entitlements, which in effect are a cash subsidy to them paid for by the large refiners. The small refiners' bias is now worth about \$1.99 per barrel for a refiner whose production is 10,000 barrels per day (\$7.3 million per year) and \$0.90 per barrel

at production of 30,000 barrels per day (\$9.9 million per year). The bias gradually phases out between 30,000 and 175,000 barrels per day of production. The aggregate amount of the bias until recently was about \$800 million, but recent changes in the regulations have reduced it to \$600-\$650 million. As the entitlements program is phased out in connection with the phasein of the crude oil equalization tax, the small refiners will lose these advantages.

It has been suggested that some exemption from the crude oil equalization tax be provided to compensate the small refiners for part or all of the loss of their bias under the entitlements program. The small refiners argue that, without the bias, they could not compete with large refiners and would be driven out of business because the larger oil companies are able to use their profits from oil extraction to subsidize their refineries. (However, under the pending cargo preference bill for oil imports, small refiners would receive an exemption which would reduce their crude oil costs relative to the major oil companies.)

When this issue was raised in the House, there were several objections to providing an exemption from the crude oil equalization tax for small refiners. The aggregate size of the small refiners bias has grown dramatically in recent years as the value of entitlements has risen—from about \$225 million in early 1975 to over \$800 million in early 1977 and about \$600-\$650 million today. Furthermore, while the bias gives refiners an incentive to increase their production up to 30,000 barrels per day, it actually provides an incentive toward reduced production in the range of 30,000 to 175,000 barrels per day because of the phaseout of the bias. Because the future of crude oil price controls and the entitlements program is so uncertain, businessmen cannot really count on receiving the small refiners bias over very much of the useful life of new investments, so that while the bias may encourage full utilization of existing capacity of small refiners (up to 30,000 barrels per day), it may not be an effective incentive for construction of new capacity. One of the reasons for the rapid growth of the bias is that refineries have been splitting into smaller units to increase the amount of their bias and also have been receiving entitlements for oil processed by other refineries. The bias also favors refining of virgin crude oil over rerefining of recycled oil. Finally, the existing small refiners' bias is really a transfer from large to small refiners, while any crude oil equalization tax exemption would be a payment to them from general revenues or would come out of consumer rebates.

In response to these problems, the House agreed to a study of the competitive problems of small refiners by the Secretary of Energy to be completed 90 days after enactment. This study was intended to analyze whether any special benefits for small refiners are appropriate and how they can be structured so as to provide incentives for both utilization of existing refining capacity and construction of new capacity.

The small refiners argue that Congress would not be able to take action on the study until later in 1978, during which time the value of their bias will be cut by about one-third, and they have urged that a small refiners exemption be added to the crude oil equalization tax. If the Committee chooses to provide such an exemption, it could take the form of a refundable credit against the crude oil tax (that is, a credit which may exceed tax liability) and could be structured to reduce some of the problems with the small refiners bias in the



existing entitlements program. The Committee could also consider limiting this credit to 1978, during which Congress will have ample time to act on the House-passed study.

The credit for small refiners could equal a fixed number of cents per barrel and could be limited to a certain number of barrels per day. Instead of being based on input of crude oil, the credit could be based on output of petroleum products, so that rerefiners of recycled oil could receive the same benefit as refiners of virgin crude oil. Also, the credit could be limited to independent refiners, who are not oil producers, and there could be strict common control rules to limit the extent to which small refiners can split up into smaller units to increase the amount of their credit. The credit could be phased out at higher levels of production.

### III. ENERGY TRUST FUND PROPOSALS

#### A. General

One possible use of the revenues from the crude oil equalization tax would be to appropriate the money into an energy trust fund, from which expenditures could be made for energy development, production and conservation.

Under present law, there is no energy trust fund. The Federal Government's energy expenditures are appropriated from general revenues, and in fiscal year 1978, Federal expenditures for energy research and development will be \$3.5 billion. The House version of H.R. 8444 contains no energy trust fund. However, in 1975, the energy tax bill passed by the House (H.R. 6860) would have established an energy conservation and conversion trust fund to finance basic and applied research on new energy technologies, projects for the development and demonstration of new technologies, programs for the development of energy resources from Federal lands or offshore properties, and research projects and capital expenditures for demonstration projects related to more efficient public transportation. The Senate Finance Committee tentatively decided against this proposal in 1975, and in its markup of the bill, tentatively decided to provide an energy loan guarantee program to encourage private industries to develop alternative energy sources. Under this program, companies would have been required to put up 20 percent of the cost of each project and could have obtained loan guarantees for the remaining 80 percent. Total guarantees were limited to \$2½ billion per year.

#### B. An Energy Finance Corporation

Another possible way to use revenues from an energy trust fund would be to fund an energy finance corporation. In addition to receiving Federal money from the trust fund, such a corporation could be authorized to raise funds by selling its capital stock to the Treasury and by issuing government guaranteed obligations to the general public.

The amounts allocated to such a Corporation could be used to make available capital needed for energy projects which the private sector alone cannot undertake because of their huge scale, special risks, or regulatory uncertainties. Thus, financial assistance could be provided to businesses for projects contributing to development, production, transportation, transmission, or conservation of energy (whether involving new or existing technologies) if sufficient financing is not available on reasonable terms from public or private sources to make such projects commercially feasible.

The scope of eligible projects could cover energy production, conversion, and conservation programs—such as coal gasification or liquefaction; production of oil shale; production of coal seam or geopressurized methane gas; nuclear, hydro-electric, or geothermal power

plants; solar energy; coal production; encouragement of insulation; major oil and gas pipelines; energy from ocean thermal gradients, biodegradable materials conversion, wave or tidal power sources, and other sources. (It might also be considered desirable to authorize assistance for the development of new technologies for protection of the environment to the extent made necessary by energy production projects aided through the trust funds.) Also, coal conversion investments by utilities could be included, subject to agreements by regulatory commissions that they set appropriate rates. In the case of an eligible energy project, financial assistance could be extended for a variety of purposes—including ownership, construction, conversion, or expansion of production facilities; acquisition of equipment, plant, machinery, and supplies; acquisition and development of land and mineral rights; purchase of services; and working capital.

A wide range of forms of financial assistance, as appropriate to particular projects, could be authorized, including loans, loan guarantees, construction or purchase of facilities to be leased and price guarantees. The amount of assistance which could be provided to any one business or affiliated group could be limited to specified dollar amounts.

Other types of assistance, like subsidies or grants, could be provided as outlays from an energy trust fund.

The management of the corporation would rest in a board of directors. Initial and successor board members would be appointed by the President, subject to confirmation by the Senate. The life of the corporation would be limited to 10 or 20 years, and the corporation would have to liquidate its portfolio of assets after that date.

The corporation could be required to furnish quarterly reports on its operations (including its lending or guarantee activities) to the Congress, and could be made subject to GAO audit.

There is a precedent for such a financing corporation. The Reconstruction Finance Corporation, established in 1932, extended credit to agriculture, commerce, and industry through loans and other financial assistance to banks, business enterprises (including railroads and air carriers), and public agencies. (The RFC was terminated in 1953 after many of its functions were reassigned to various independent agencies.)

On organization of the RFC in 1932, the Congress appropriated \$500 million (or approximately \$3.2 billion in 1977 dollars) for purchase of all authorized RFC stock. Originally, the RFC was authorized to borrow up to three times that amount from the Treasury and the public. This ceiling was increased over time, and eventually RFC borrowed a total of \$54.4 billion (or approximately \$257 billion in 1977 dollars), of which 94.3 percent came from the Treasury. During its 20-year existence, the RFC made loans and investments, including investments in its wartime subsidiaries, totaling \$40.6 billion (or about \$179 billion in 1977 dollars).

