ESTIMATED COSTS OF ENERGY CONSERVATION OBLIGATION GUARANTEES

A Statement By

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to

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INTRODUCTION

I am William Hederman of the Budget Analysis Division of the Congressional Budget Office. It is a pleasure to be here today to provide the CBO's estimate of the budgetary effects of the Energy Conservation Obligation Guarantee provisions of H.R. 14205 and of the version of H.R. 12169 passed by the Senate. These programs, as provided for in the bills, would assist eligible borrowers to improve energy efficiency through loan guarantees for capital investments.

Many witnesses over the last few years have appeared before this committee and other committees to discuss the major energy conservation potential in the industrial sector. Since this sector consumes approximately 40 percent of the energy used in the United States, significant savings by this sector could have an important influence on the national energy balance. To the extent that commercial sector entreprenuers or other individuals would participate in this program, the effects could be greater.

The problem with developing a policy for conserving energy in the industrial sector is the diversity of the uses of energy and the consequent diversity of appropriate energy conservation measures. It has been pointed out that homes should be viewed as whole systems when discussing energy conservation in housing--the reasons for such an approach are magnified for industry. For instance, one industry may be most likely to benefit from improved heat exchanging equipment, but another industry could conserve more fuel by converting to a new process. The loan guarantee programs that would be established by these bills avoid the problem of such diversification by providing assistance for any projects that qualify according to relatively broad criteria.

DISCUSSION OF LOAN GUARANTEE PROVISIONS

Although the components of the obligation guarantee programs proposed in these two pieces of legislation are similar, they are not identical. The major elements involved in the guarantee programs are the:

- Eligible borrowers
- Qualifying investments
- Protection included for the government's interest
- Limits on amounts guaranteed
- Funding mechanisms
- Other conditions

Table 1, which is attached to this statement, presents a summary of the specifications provided in each of the bills for these elements.

Before discussing the budget effects of these proposals, I would like to highlight some of the differences in the bills as they are currently written. These major differences are:

1. H.R. 14205 authorizes $500 million more in guarantees than H.R. 12169.
2. H.R. 14205 does not specify a funding mechanism, as does H.R. 12169.
3. Both bills define eligible borrowers similarly, but H.R. 14205 does not include state and local governments and private non-profit institutions.
4. H.R. 12169 provides for the taxability of all guaranteed obligations.
5. H.R. 12169 applies the Davis-Bacon Act to all work performed under a guaranteed obligation.

These differences arise during the discussion of the budgetary effects.

BUDGET EFFECTS

Contingent Liabilities -- The budgetary impacts that should be addressed in considering the obligation guarantees program are dominated by the issue of contingent liability. Here the contingent liability is the commitment of the United States government to pay up to $4.5 billion if all the obligations were to default. While no one expects the government to be required to outlay anywhere near this sum of money, these bills would authorize commitments of that magnitude.

Contingent liabilities have been used in energy policy for many years--at least as far back as the passage of the Price-Anderson Act, and they are being included now in several other legislative proposals, including loan guarantees for synthetic fuels projects and bond guarantees related to Outer Continental Shelf oil and gas exploration and development. While there has been no decision on exactly how such contingent liability should be treated, it does appear that additional appropriations would be necessary if actual defaults were greater than original estimates. In CBO's cost estimates, we have adopted a procedure of tabulating the contingent liabilities, and when meaningful estimates can be made, we include estimates of the resultant outlays anticipated and the budget authority required to fund these outlays.

Estimated Budget Effects -- In developing estimates of the budget effects of these obligation guarantee programs, many assumptions must be made. Because some of the assumptions have important implications for the estimates, I intend to discuss briefly the sensitivity of the estimates to the major assumptions.

In discussing the development of the estimates, I will be referring to the provisions of H.R. 14205 unless stated otherwise. After I have explained the derivation of the figures, I will present the relevant estimate for the provisions of H.R. 12169. These estimates are summarized in the attached Table 2.

As I explained earlier, the first item to be tabulated is the contingent liabilities authorized. H.R. 14205 authorizes $4.5 billion as the aggregate amount of outstanding guarantees, without any time constraint. Assuming an effective date of October 1, 1976, this contingent liability would be authorized for fiscal year 1977. H.R. 12169 provides more specific authority--for $2 billion in FY 1977 and an additional $2 billion in FY 1978 for the outstanding obligations guaranteed. It is not clear from the legislative language in either bill whether or not new guarantees can be made as old obligations are retired. The only provision yielding guidance on this point is the overriding limitation provided in H.R. 12169 which would limit guarantees according to the default expectations and authorized appropriations remaining.

The development of the required authorization levels is based upon the estimated cost for implementation of the program. These costs are based primarily upon the expected default rate. Guidance in choosing a default rate often comes from historical rates of similar programs. When delinquencies occur for industrial loans, lending institutions often work out ad hoc mutual agreements, and technical defaults occur only as a last resort. Therefore, it has not been possible to obtain the desired data for loans to improve or acquire capital equipment. A loan program that is roughly comparable to this program is the Small Business Administration's (SBA) development company loans program. This program provides funds for general use and for plant construction, conversion, or expansion. A first impression might suggest that the SBA's loans would be of higher risk, but a closer evaluation does not support this view. The borrowers likely to take advantage of these energy conservation programs are those who could not secure financing without guarantees or those for whom guarantees would mean a significant enough decrease in the interest rate to justify completing the rather complex application and qualification procedures that would be associated with these programs. Therefore, we believe that the development company loans, which are for improvement and expansion of ongoing concerns, are sufficiently comparable to be used as a guide. The cumulative default rate for this program has been approximately 3 percent. Following the procedure of tabulating the authorization level required in the fiscal period that the contingent liability is authorized and assuming only one-time guarantees with this authority, the H.R. 14205 authorization level for FY 1977 would be $135 million. For H.R. 12169, specific authorization of appropriations is provided--$60 million in FY 1977 and an additional $60 million in FY 1978. The $60 million authorizations provided in each year are 3 percent of the relevant contingent liabilities, and therefore, they coincide with the best CBO estimate.

The estimates of actual costs, or outlays, associated with these programs require assumptions in addition to the defaults. In general, most defaults occur in the early years after commitment. Assuming that the program will be administered in such a manner that the borrowers are relatively stable operations, we assume there is a greater tendency in the earlier years, but that the time profile is not as dramatic as it might be for some types of loans. Here, we assume an average loan period of 15 years, with default twice as likely in each of the first 7 years as in the latter years. Thus, we would expect about one-quarter of a percent (0.27 percent) of the

outstanding obligations to default in each of the first 7 years and about one-eighth of a percent (0.14 percent) to fail in each of the remaining years. These assumptions would yield the following cost estimates for H.R. 14205 if we assumed all obligations were guaranteed in FY 1977.

(millions of dollars)

FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	Out-Years
12	12	12	12	12	75

However, our best estimate is that there would be approximately a 6 month period required to develop the regulations and procedures for program implementation and another 6 month delay for arrangement and approval of the guarantees. If we also assume that efficient administration would require that the guarantees be approved over a two-year period, as suggested in the language of H.R. 12169, the cost estimates for H.R. 14205 would become:

(millions of dollars)

	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	Out-Years
Estimated Cost (H.R. 14205)	---	6	12	12	12	93

If the same delay assumptions are made for H.R. 12169, its estimated costs are:

(millions of dollars)

	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	Out-Years
Estimated Cost (H.R. 12169)	---	5	11	11	11	82

H.R. 12169 also requires that all guaranteed obligations be taxable. This would increase revenues to the extent that taxable rather than non-taxable state and local bonds were issued. However, we would expect that the results of such a taxability provision would be more complicated and that the revenues from these bonds would most likely result from a shift from other taxable bonds and probably provide only a minor change in revenues.

Sensitivity of Results -- As stated earlier, the assumptions used in the development of these estimates can have a major influence on the results. The estimated costs are most sensitive to the default rate assumption. Because the assumed rate is low, any change will significantly affect the cost. A 1 percent change in the default rate assumption would change the cost estimates by one-third. For example, a default rate of 5 percent would imply a total cost of $225 million for the H.R. 14205 program, as opposed to the $135 million estimate used here.

A related assumption concerns net losses. Both bills provide that the Administrator may obtain and dispose of properties in the event of default. The Federal Housing Administration's experience with recovery has been that after acquisition costs, approximately half the losses have been recovered. If this program were to have similar experience and our default estimates were accurate, costs would be 50 percent of those presented earlier. Because the present language in the bills leaves the decisions about recovery to the discretion of the Administrator, our analysis has assumed no FEA recovery policy for this program.

If the assumption about the time delays were too long, some costs might be realized in FY 1977. However, this effect would be minor because of the default assumptions.

Two other items could noticeably change the estimated budget effects. The authorization for appropriations could be provided over time in a pattern more closely following the expected outlays. However, given the uncertainty associated with the prediction of default behavior, we preferred to keep the authorizations "up front." The other point is that additional authorizations might be required if new guarantees were issued as old guarantees were retired. This would probably occur after the 5-year time frame addressed by CBO cost estimates, but I wanted to draw your attention to the ambiguity we experienced in trying to interpret what would happen for H.R. 14205. H.R. 12169 limits the guarantees by the specified default rate experience and the authorizations for appropriations and therefore, the program could not be interpreted as totally open-ended.

Finally, all the estimates have been based upon the assumption that all the authorized guarantee obligations will be used. We have not been able to estimate the market for such loans. It is our judgement that it would be reasonable to expect a shift in availability of capital, shifting from general capital expenditures to energy conserving investments. Private sector witnesses may be able to provide greater insight into the relative importance of the guarantees versus other provisions of the program to potential participants.

CONCLUSION

In conclusion, we can see that the expected costs could vary significantly, and there are no data available to us at this time to improve the reliability of the estimates. The present structure of the program would attempt to make all the commitments guaranteeing obligations before any additional data could be obtained. Therefore, the budget effects would be driven by the contingent liabilities once the commmitments were made. Since defaults are usually greater in the earlier years of loans, useful data could be developed from the first year's guarantees and applied to planning for later year guarantees if the period for implementing the guarantees were extended beyond two years. However, based upon our current knowledge, CBO estimates the total cost of providing $4.5 billion in obligation guarantees through the Omnibus Energy Conservation Act to be $135 million.

TABLE 1.-COMPARISON OF MAJOR PROVISIONS OF THE ENERGY CONSERVATION OBLIGATION GUARANTEES PROGRAMS IN H.R. 14205 AND H.R. 12169

	Omnibus Energy Conservation Act (H.R. 14205, Sec. 365)	FEA Extension Act (H.R. 12169, Part F)
Eligible Borrowers	o Owners of industrial or commercial facilities	o Owners of industrial or commercial facilities
	o Corporations or subsidiaries of corporations	o Corporations or subsidiaries of corporations
	o Non-profit institutions	o Non-profit institutions
	o Any person who intends to use the assistance to finance energy conservation measures	o Any person or governmental entity which intends to use the assistance to finance energy conservation measures
Qualifying Investments		o Measures must be identified by an energy audit
	o Must recover investment and interest over the useful life of the measure	o Must recover investment and interest over the useful life of the measure
	o Return on investment must be insufficient to be commercially feasible	o Financing must not be available on terms sufficiently attractive without assistance
Protection of Government's Interest	o Pre-commitment information may be requested and records, audits and examinations are required	o Pre-commitment information may be requested and records, audits and examinations are required
	o 90 percent share of obligation is maximum guarantee	o 90 percent share of obligation is maximum guarantee
	o Administrator may take action to recover government's losses	o Administrator may take action to recover government's losses
Limit on Amounts Guaranteed	o $4.5 billion total	o $2 billion in FY 1977 $2 billion in FY 1978
	o $2 million limit for any borrower	o Limit must be lowered if default rate expected to exceed authorization of appropriations
		o 40 percent minimum to state and local governments and private nonprofit institutions
Funding Mechanisms	o None mentioned	o Appropriations Authorized $60 million in FY 1977 $60 million in FY 1978
		o For additional payments, Administrator may issue obligations to the Secretary of the Treasury to be redeemed from appropriations
Other Conditions		o Davis-Bacon Act applies
		o All obligations are taxable

TABLE 2.-COMPARATIVE SUMMARY OF BUDGET EFFECTS FOR H.R. 14205 AND H.R. 12169

(in millions of dollars)

	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	Out-Years
Contingent Liabilities						
H.R. 14205	4,500	---	---	---	---	---
H.R. 12169	2,000	2,000	---	---	---	---
Authorization Levels						
H.R. 14205	135	---	---	---	---	---
H.R. 12169	60	60	---	---	---	---
Costs						
H.R. 14205	---	6	12	12	12	93
H.R. 12169	---	5	11	11	11	82