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Report to the Joint Committee on Taxation, Congress of the United States

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TAX POLICY

Business Energy Investment Credit

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Executive Summary

The Energy Tax Act of 1978 created the business energy investment tax credit to encourage business to invest in certain property that would lessen the Nation's dependence on foreign energy sources. According to U.S. budget estimates, the credit will result in over $2 billion, or on average about $300 million annually, in foregone tax revenues during fiscal years 1979 through 1985.

The Joint Committee on Taxation asked GAO to obtain information on

- the number and characteristics of taxpayers using the credit and the types of energy properties for which the credit is being claimed, and
- the administrative problems IRS has encountered.

Background

The Energy Tax Act of 1978 provided a credit against taxes of 10 percent of the cost of investments, made by persons engaged in a business, for six categories of energy property. The credit was originally due to expire in 1982. However, in 1980, the Congress reviewed the energy investment tax credit and determined that it should apply to a broader range of alternative energy sources. Moreover, the Congress recognized that new technologies took longer periods of time to develop and involved substantial uncertainty concerning the probability of success. The Congress addressed these and other matters in the Crude Oil Windfall Profit Tax Act of 1980 by increasing the number of eligible categories of energy property, increasing the amount of the tax credit available for certain categories, and extending the expiration date for some of the credits.

Figure 1 shows each category of energy property, the applicable credit rate, and the effective dates of the credits.

To obtain information on users of the credit and types of energy property for which the credit was claimed, GAO analyzed an IRS computer tape of corporate statistics of income data for tax year 1980. This data base consisted of information from 2,244 corporate returns which were projected to a universe of 8,143 corporations that invested in energy

GAO

United States
General Accounting Office
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General Government Division

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The Honorable Dan Rostenkowski
Chairman, Joint Committee on
Taxation

The Honorable Bob Packwood
Vice Chairman, Joint Committee
on Taxation
Congress of the United States

This report, in response to your Committee's request, provides information on the business energy investment tax credit. The report contains information on the characteristics of corporations claiming the credit and the types of energy property for which the credit was claimed. It also discusses the results of Internal Revenue Service examinations of credits claimed by taxpayers.

As arranged with your Committee, we are sending copies of this report to other congressional committees, the Secretary of the Treasury, the Commissioner of Internal Revenue, and other interested parties.

W. J. Anderson

William J. Anderson
Director

To obtain information on the administrative problems IRS experienced, GAO gathered information at selected locations on cases where a business energy credit was claimed which IRS had examined. (See p. 12.)

Results in Brief

The largest corporations, those having assets of $250 million or more, claimed most of the business energy credits reported for 1980. These large corporations also accounted for most of the total corporate tax liability.

Three types of energy property—alternative, specially defined, and recycling equipment (see app. I)—accounted for most of the investments by corporations in energy property.

IRS' examinations of business energy credits claimed by taxpayers indicated that the credit was causing administrative problems for IRS in the areas of inappropriate tax benefit claims and the use of the credit in alleged abusive tax shelter schemes.

GAO Analysis

GAO's analysis of the IRS data base showed that:

Profile Data of Credit Users

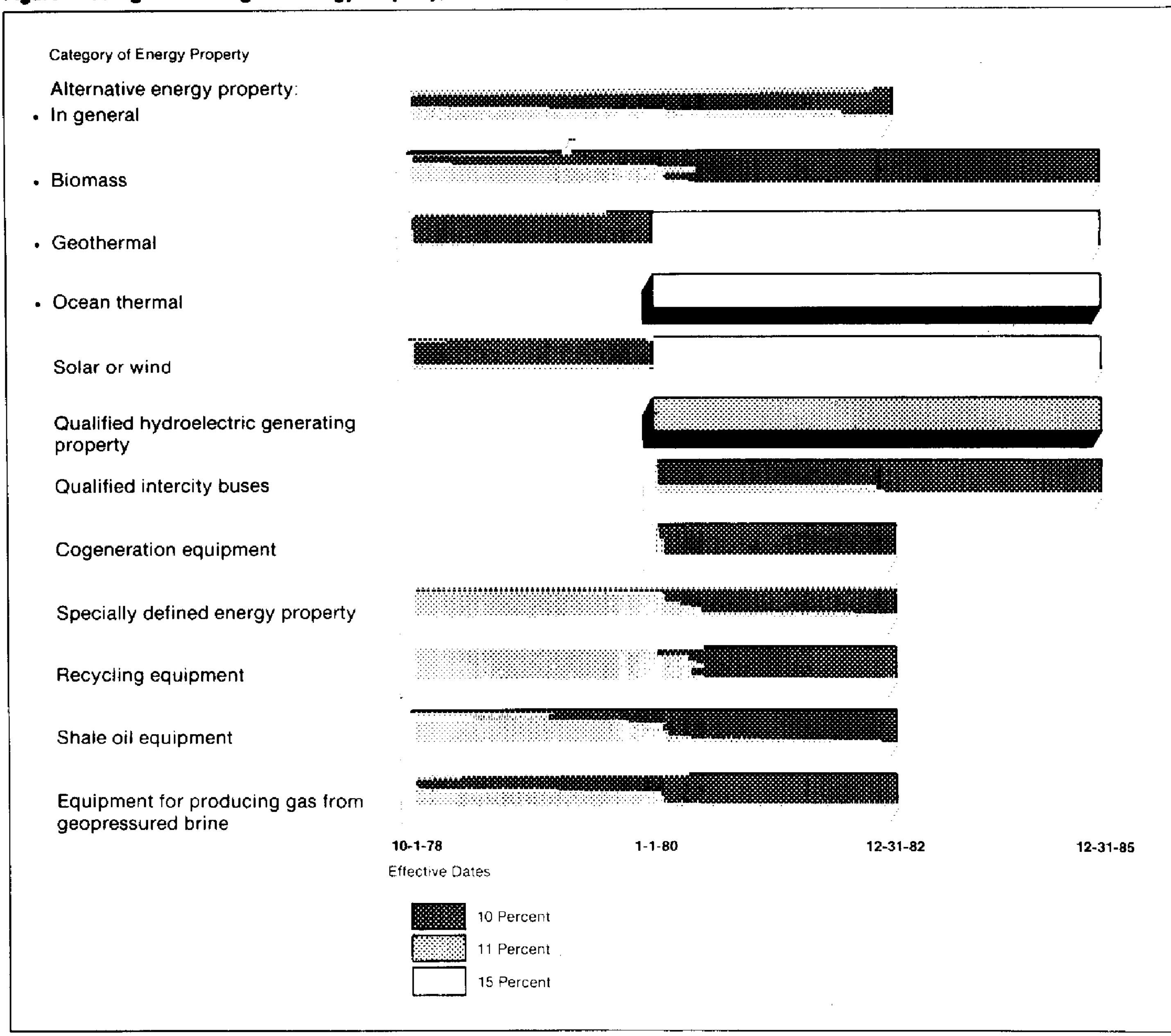
- Corporations with assets of $250 million or more claimed $333 million, or 83 percent, of the estimated $401 million claimed by all corporations.
- The credit claimed by corporations with assets of less than $250 million was, in about 70 percent of the cases, $5,000 or less, while the credit claimed by large corporations averaged $517,500. (See p. 15.)
- Of an estimated tax liability of about $24 billion for the corporations sampled, corporations with assets greater than $250 million accounted for $22 billion, or 91 percent. (See p. 16.)
- Ninety-one percent of the estimated $4 billion invested by corporations in energy property was for alternative energy property, specially defined energy property, or recycling equipment. (See p. 18.)

The sampling error for these projections is shown in appendix II.

Administrative Problems

At the locations GAO visited, revenue agents recommended disallowances of $81.4 million of the $97.3 million in tax credits claimed on examined

Figure 1: Categories of Eligible Energy Property, Credit Rates, and Effective Dates



property. The 2,244 returns consisted of all 661 returns filed in 1980 by corporations with assets of $250 million or greater. The remaining 1,583 returns are a sample of the returns filed by all other corporations. (See p. 11.)

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returns for tax years 1978 through 1982. The majority of the recommended disallowances, $70.2 million, involved noncorporate taxpayers and were based on revenue agents' determinations that the investments constituted "abusive" tax shelters. The remaining disallowances generally involved questions of when the property was acquired, when it was placed in service, or whether other eligibility criteria were met. Most of the recommended disallowances had not been agreed to by the taxpayers. Therefore, the recommendations are subject to change if successfully appealed.

Recommendations

GAO is making no recommendations.

Agency Comments

The Commissioner of Internal Revenue provided GAO with comments on a draft of this report. (See app. III.) GAO incorporated those comments as appropriate in the final report. The Department of the Treasury had no comments.

Introduction

The Energy Tax Act of 1978 provided a 10 percent tax credit for investments, made by persons engaged in a business, in the following six categories of energy property: (1) alternative energy property, (2) recycling equipment, (3) shale oil equipment, (4) equipment for producing natural gas from geopressured brine, (5) solar and wind energy property, and (6) specially defined energy property. The overall purpose of the energy tax credit was to lessen the Nation's dependence on foreign energy sources by decreasing domestic energy consumption and by increasing domestic energy supplies. More specifically, the credit was intended to (1) provide an incentive to invest in property that either uses or produces alternative sources of energy—sources other than petroleum and natural gas—or conserves energy; and (2) help overcome barriers, such as higher cost and uncertainty, to investing in new energy technology.

The energy tax credit was in addition to the regular investment tax credit[1] of 10 percent. Thus, a total of 20 percent in tax credits was offered by the 1978 act to encourage investment in qualified energy property.

The energy credit was originally due to expire in 1982. However, in 1980, the Congress reviewed the energy investment tax credit and determined that it should apply to a broader range of alternative energy sources. Moreover, the Congress recognized that new energy technologies took long periods of time to develop and involved substantial uncertainty concerning the probability of success.

The Congress addressed these and other matters in the Crude Oil Windfall Profit Tax Act of 1980. That law, which primarily deals with the taxation of oil company profits,

- expanded from six to nine the number of categories of energy property eligible for the business energy credit;
- expanded the types of property that qualified under the original six categories;
- introduced an 11- and a 15-percent credit for certain property; and
- extended the expiration of the credit for certain property until December 31, 1985.

[1]The regular investment tax credit was adopted in 1962 as a means of stimulating investment and economic growth. It provides a 10-percent credit for investments in certain machinery and equipment.

Tables

Figures

Abbreviations

DRA	Deficit Reduction Act of 1984
GAO	General Accounting Office
IRS	Internal Revenue Service
TEFRA	Tax Equity and Fiscal Responsibility Act of 1982

with assets of $250 million or greater claimed about 90 percent of the energy credits claimed by all corporations in that year. According to the Senate Committee on the Budget, large corporations use a greater portion of the energy consumed in the United States and therefore have a greater incentive to acquire energy saving property. According to U.S. budget estimates, the business energy credit will result in total foregone federal revenue of $2.05 billion during fiscal years 1979 through 1985.

IRS is responsible for assuring taxpayer compliance with the tax laws relating to the business energy credit, and it considers the examination of returns to be its primary enforcement tool. Returns of all large corporations—those with assets of $250 million or greater—are generally examined under a regular audit cycle. The majority of other returns selected for audit is identified because a computer and/or a manual screener have determined that the returns, in general, have good audit potential. In addition, in recent years, IRS has substantially increased its examinations of so-called "abusive tax shelters." IRS' examination handbook describes an abusive tax shelter as one "utilizing improper or extreme interpretations of the law or the facts to secure for investors substantial tax benefits which are clearly disproportionate to the economic reality of the transaction."

Not all tax shelters are abusive. Tax sheltering generally involves specific provisions which were added to the tax code to encourage or reward conduct considered to be socially or economically desirable. The business energy credit is an example of such a provision which might or might not be used in an abusive manner.

Objective, Scope, and Methodology

This report was prepared at the request of the Joint Committee on Taxation, who asked us to answer the following questions:

- How many taxpayers are using the tax provisions that provide incentives to invest in energy property, and what are those taxpayers' characteristics?
- What categories of energy properties are being claimed under the business energy tax provisions?
- What problems has IRS encountered in administering the energy credit?

As arranged with the Joint Committee on Taxation, we did not perform work which would enable us to assess the effectiveness of the credit

Table 1.1 describes each category of energy property, the applicable credit rate, and the period during which the credit is, or was, available.

Table 1.1: Categories of Eligible Energy Property, Credit Rates, and Effective Dates

Category of energy property[a]	Credit rate	Period: Starting on	Period: Ending on
Alternative energy property:			
—In general	10%	10-1-78	12-31-82
—Biomass	10%	10-1-78	12-31-85
—Geothermal	10%	10-1-78	12-31-79
	15%	1-1-80	12-31-85
—Ocean thermal	15%	1-1-80	12-31-85
Solar or wind	10%	10-1-78	12-31-79
	15%	1-1-80	12-31-85
Qualified hydroelectric generating property	11%	1-1-80	12-31-85
Qualified intercity buses	10%	1-1-80	12-31-85
Cogeneration equipment	10%	1-1-80	12-31-82
Specially defined energy property	10%	10-1-78	12-31-82
Recycling equipment	10%	10-1-78	12-31-82
Shale oil equipment	10%	10-1-78	12-31-82
Equipment for producing gas from geopressured brine	10%	10-1-78	12-31-82

[a]A description of each category of property is included in appendix I.

Administration of the Business Energy Tax Credit

The Internal Revenue Service's (IRS) instructions for 1980 required that individuals and corporations claiming the business energy investment credit attach a Form 3468 to their income tax returns. This form contained such information as the category of energy property, the value of the property on which the credit was claimed, the credit rate, etc. Partnerships and small business corporations were not required to file this form because the individual partners and shareholders claim the credit. However, these entities had to complete Schedule K of their returns and show the amount of business energy property investment that was to be divided among the partners or shareholders. The amount of credit allowed was limited to 100 percent of the tax liability. Any unused credit could be carried back to the 3 prior tax years, and the balance still unused could be carried forward to the 15 following tax years.

Although both corporations and individuals are eligible to claim the credit, IRS has current statistical information only on the use of the credit for corporations. IRS' statistics show that corporations claimed about $315 million in business energy tax credits in 1982. Corporations

We chose 1980 because (1) it was the latest year available from the statistics of income data base, (2) the 1980 returns were the first to reflect changes in investment credits made by the Crude Oil Windfall Profit Tax Act of 1980, and (3) the 1980 statistics of income data base contained more detailed information from the tax returns on business energy credits than in the previous year. The results of our analyses of the corporate statistics of income data are contained in chapter 2 and appendix II.

To answer the Joint Committee's third question dealing with the nature and extent of problems IRS was experiencing in administering the credit, we initially planned to draw a statistical sample of 1980 tax returns from the statistics of income data base. From this sample, we planned to review those returns which IRS had examined. However, for the following reasons this plan was not feasible:

- Our preliminary work indicated that there would not be a sufficient number of completed examinations of the business energy credit—examinations in which the taxpayers had agreed with the examiners' findings or had exhausted appeal rights—to enable us to draw valid conclusions based on our sample. For example, in the Manhattan district only seven examinations of large corporations claiming the credit had been completed for tax year 1980.
- It was not possible to identify partnerships or individuals who had claimed the business energy credit by using the statistics of income data base; therefore, we could not use this data base to draw a sample. We were unable to identify any other data base that could be used for this purpose.

As an alternative, we decided to gather information on as many examined cases where a business energy credit was claimed for any tax year that we could obtain at the locations where we performed our work. In order to locate examined cases, we researched reports issued by district engineering and valuation groups, interviewed IRS officials, and obtained listings of examinations completed and in progress at the IRS offices where our review was performed. Using this approach, we identified 53 corporate returns and 109 tax shelter cases which IRS estimated involved 7,518 partnership and individual returns.

Due to our sampling approach, our results cannot be construed as being representative of the universe of cases on which the business energy credit was claimed. Our results do, however, provide some insight into the types of problems IRS faced in administering the credit by disclosing because that would duplicate work already undertaken by the Office of Technology Assessment.[2]

To achieve our objective, we (1) reviewed applicable laws, regulations, policies, and procedures pertaining to the business energy investment credit; (2) analyzed statistics of income data provided by IRS for 1980; (3) reviewed IRS audit files of taxpayers who had claimed the business energy credit; (4) interviewed IRS officials at headquarters, regional, and district office levels; and (5) reviewed other pertinent IRS records.

Our review was done at the IRS National Office and at the following IRS regional and district offices: New York Regional Office and the Manhattan District Office in New York; San Francisco Regional and District Offices and the Laguna Nigel and Los Angeles District Offices in California. We selected these locations because many of the large corporate users of the credit have their headquarters in New York, and having locations on the East and West coasts would provide us with cases involving a greater variety of energy property.

To answer the first two questions asked by the Joint Committee, we analyzed a computer tape of corporate statistics of income data for tax year 1980 obtained from IRS. This data base consists of information from 2,244 corporate returns which IRS projected to a universe of 8,143 corporations that invested in energy property. The 2,244 returns consist of all 661 returns filed in 1980 by corporations with assets of $250 million or greater. The remaining 1,583 returns are a sample of the returns filed by all other corporations. The sample was stratified on the basis of size of total corporation assets and selected at rates that ranged from 0.25 percent of corporations with assets of less than $100,000 to 100 percent of corporations with assets of $250 million or over. Estimates produced from the IRS sample are shown at the 68 percent confidence level.

It should be recognized that any data analysis effort which is based on a sample is subject to a certain amount of sampling error. The size of the error generally depends on the size of the sample and how much the data varies for any given element. Our analysis shows that the data varies considerably. Therefore, the figures presented should not be considered precise, but rather as indicators. On the other hand, because the sample size increased as the book value of assets increased, greater reliability can be placed on the data for the larger corporations. (See p. 31.)

[2] Industrial Energy Use (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-E-198, June 1983).

Information on Corporations That Used Business Energy Investment Credits

The largest corporations, those having assets of $250 million or more, claimed most of the business energy credits reported for 1980. These large corporations had net income totaling $107 billion and accounted for about $22 billion of the estimated $24.2 billion in total corporate income tax liability. Manufacturing firms were the largest users of the credit. IRS projected that 91 percent of the investment by corporations in energy property was for alternative energy property, specially defined energy property, and recycling equipment.

Large Corporations Claimed Most of the Business Energy Credits

To profile the corporate users of business energy credits, we analyzed IRS' computer tape of statistics of income data by (1) asset class, (2) amount of energy credit claimed, (3) amount of net income, and (4) amount of tax.

As shown in Table 2.1, of 8,143 corporations, 661, or about 8 percent, had total assets greater than $250 million. About 22 percent, or 1,773 corporations, had total assets of $5,000,001 to $250 million. An estimated 5,709, or 70 percent, had total assets of $5 million or less. Of these, an estimated 2,129 corporations, or 26 percent, had total assets from $1,000,001 to $5 million; and an estimated 3,580, or about 44 percent, had total assets of $1 million or less.

Table 2.1: Number of Returns by Asset Class

Amount of assets	Estimated number of returns	Percent
Under $100,000	1,223	15.0
$100,000 to $250,000	677	8.3
$250,001 to $500,000	567	7.0
$500,001 to $1,000,000	1,113	13.7
$1,000,001 to $5,000,000	2,129	26.1
$5,000,001 to $10,000,000	573	7.0
$10,000,001 to $250,000,000	1,200	14.7
Greater than $250,000,000	661	8.1
Total	**8,143**	**100.0[a]**

[a]Total does not add due to rounding.

For the 8,143 corporations, we project that 7,553 claimed the $401 million in business energy credits which IRS estimated were claimed in 1980. Our analysis showed that of the 661 corporations with assets of the nature and, for those cases we reviewed, the magnitude of the disallowances IRS has recommended. This information is contained in chapter 3.

We performed our fieldwork from September 1983 to August 1984. Our work was performed in accordance with generally accepted government auditing standards.

We requested comments on a draft of this report from the Secretary of the Treasury and the Commissioner of Internal Revenue. The Commissioner's comments were incorporated as appropriate in the report. The Department of the Treasury had no comments.

Table 2.3: Number of Returns by Amount of Net Income

Amount of net income	Estimated number of returns	Percent
Less than zero	1,194	14.7
$0 to $50,000	2,833	34.8
$50,001 to $100,000	816	10.0
$100,001 to $500,000	1,466	18.0
$500,001 to $1,000,000	357	4.4
$1,000,001 to $10,000,000	824	10.1
$10,000,001 to $25,000,000	193	2.4
Greater than $25,000,000	460	5.6
Total	**8,143**	**100.0**

We project that about one-half (4,025, or 49.4 percent) of the 8,143 corporations had no tax liability. As shown in Table 2.4, the next largest category, which consisted of an estimated 1,015 corporations, or about 12.5 percent, had tax liabilities of $1 to $10,000. An estimated 5,040 corporations, or 61.9 percent, individually paid $10,000 or less in taxes. Included in this group are those firms that had no net income and therefore were not eligible to claim the credit for 1980.

An estimated 857 corporations, or 10.5 percent, paid over $1 million each in taxes. Corporations with assets greater than $250 million had net income totaling $107 billion and accounted for about $22 billion, or 91 percent, of the estimated $24.2 billion in total income tax liability for the 8,143 corporations in the sampled universe.

Table 2.4: Number of Returns by Amount of Tax

Amount of tax	Estimated number of returns	Percent
Equal to 0	4,025	49.4
$1 to $10,000	1,015	12.5
$10,001 to $50,000	725	8.9
$50,001 to $100,000	429	5.3
$100,001 to $500,000	825	10.1
$500,001 to $1,000,000	267	3.3
$1,000,001 to $5,000,000	410	5.0
Greater than $5,000,000	447	5.5
Total	**8,143**	**100.0**

$250 million or more, 644 claimed the credit. This amounted to 83 percent, or $333 million of the total claimed by all corporations. The average credit claimed by these 644 corporations was about $517,500 and the largest amount claimed was about $14.5 million. As shown in Table 2.2, an estimated 5,277 of these corporations, or 70 percent, claimed a credit amounting to $5,000 or less. And, almost one half of these 5,277 corporations claimed amounts of $500 or less. An estimated 359 corporations, or about 5 percent, claimed credits greater than $100,000.

Table 2.2: Number of Returns by Amount of Energy Credit Claimed

Amount of energy credits	Estimated number of returns	Percent
$1 to $500	2,512	33.3
$501 to $1,000	929	12.3
$1,001 to $5,000	1,836	24.3
$5,001 to $10,000	812	10.8
$10,001 to $20,000	412	5.5
$20,001 to $50,000	512	6.8
$50,001 to $100,000	181	2.4
$100,001 to $300,000	187	2.5
Greater than $300,000	172	2.3
Total	**7,553**	**100.0**[a]

[a]Total does not add due to rounding.

As shown in Table 2.3, of the 8,143 corporations, an estimated 460, or 5.6 percent, had net income greater than $25 million; an estimated 6,309, or 77.5 percent, had net income up to $500,000; an estimated 4,027 corporations, or 49.5 percent, had net income up to $50,000, of which an estimated 1,194, or 14.7 percent, had a loss. The largest number of corporations (2,833, or about 35 percent) fell within the net income range of $0 to $50,000.

Table 2.6: Total Amount of Energy Property by Category of Energy Property

Dollars in Thousands

Category of energy property	Total amount of energy property	Percent
Alternative	$1,613,527	40.2
Specially defined	1,151,196	28.7
Recycling equipment	886,419	22.1
Cogeneration	122,914	3.1
Qualified intercity buses	99,781	2.5
Geothermal equipment	61,834	1.5
Shale oil equipment	33,209	.8
Hydroelectric	31,265	.8
Solar or wind	7,164	.2
Ocean thermal and natural gas equipment	4,417	.1
Total	**$4,011,726**	**100.0**

Source: Statistics of Income; 1980 Corporation Income Tax Returns - Table 14.

Manufacturing Firms Are the Principal Users of the Credit

The Office of Technology Assessment, in its 1983[1] study of U.S. industrial energy use, found that manufacturing accounted for about 75 percent of the total energy consumed in the Nation in 1981. This corresponds with IRS' statistics on the types of businesses which claimed the largest proportion of the business energy credit. These statistics show that manufacturing firms by far claimed most of the business energy credit, accounting for a projected $341.4 million, or about 85 percent of the $401 million claimed by corporations. Wholesale trade was next with a projected $15.9 million, or 4 percent. Table 2.5 shows the ranking, by principal business activity, of firms which claimed the business energy credits.

Table 2.5: Total Amount of Energy Credit by Principal Business Activity

Dollars in Millions

Principal business activity	Total amount of energy credit	Percent
Manufacturing	$341.38	85.1
Wholesale trade	15.89	4.0
Transportation	15.05	3.7
Finance, insurance, and real estate	10.08	2.5
Mining	7.79	1.9
Retail trade	5.16	1.3
Service	3.00	.7
Construction	1.82	.4
Agriculture, forestry, and fishing	1.05	.3
Total	**$401.22**	**100.0[a]**

Source: Statistics of Income; 1980 Corporation Income Tax Returns - Table 14.
[a]Total does not add due to rounding.

Investment Was Heaviest in Three Categories of Property

According to IRS statistics, corporations invested a projected 91 percent of the total investment in energy property, or about $3.6 billion, in three categories of energy property— alternative, specially defined, and recycling equipment, as described in appendix I. As shown in Table 2.6, the corporations claimed a projected $1.6 billion, or 40.2 percent, on alternative energy property; $1.1 billion, or 28.7 percent, on specially defined energy property; and $0.9 billion, or 22.1 percent, on recycling equipment.

[1]Industrial Energy Use (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-E-198, June 1983), page 4.

Administrative Problems Disclosed by IRS' Examinations of Taxpayers' Claims for Business Energy Investment Credits

IRS' examinations of business energy credits claimed by taxpayers indicated that the credit was causing administrative problems for IRS in the areas of inappropriate tax benefit claims and the use of the credit in alleged abusive tax shelter schemes. These examinations have resulted in recommendations for substantial disallowances of claimed business energy credits; however, most of the recommendations have been disputed by the taxpayers. At the locations we visited, IRS examiners recommended disallowances of $81.4 million of $97.3 million in tax credits claimed on examined returns for tax years 1978 through 1982. Of the amount recommended for disallowance, about $11.2 million was claimed by corporations with assets of $250 million or greater. The remaining $70.2 million was claimed by partners and other individuals.

The recommended disallowances on the corporate returns generally involved questions of when the property was acquired or placed in service or the eligibility of the property. The recommended disallowances on the partners or other individual returns were based, in all cases, on the revenue agent's determination that the investments involved "abusive tax shelters."

IRS' Examinations of Large Corporation Returns

According to IRS statistical data, a total of 109 of the 644 large corporations which have claimed the business energy credit filed their 1980 tax forms at the locations where our audit work was performed.

We attempted to determine how many of these 109 large corporations had their business energy credit claims examined and were able to obtain information on 87. Information on the other 22 corporations could not be located or had been transferred to other districts. Of the 87 corporations for which information was available, 35 of the corporations had a total of 53 returns examined covering tax years 1978 through 1981. The examination coverage we did obtain for 1978 through 1981 was broken down, as shown in Table 3.1.

Table 3.1: Number of Examined Returns by Year

Year	Number of examined returns
1978	9
1979	21
1980	20
1981	3
Total	**53**

Table 3.2: Results of Examinations of Large Corporations' Returns

Reason for adjustment	Amount of adjustment	Agreed amount	Percent of adjustment
Property acquired, constructed, or placed in service before the effective date of the credit	$ 6,484,338	$1,858,465	28.7
Investments in excess of incremental cost[a]	1,639,557	742,930	45.3
Credit was claimed prior to property being placed in service	705,816	603,141	85.5
Property does not qualify under IRS' regulations	2,066,063	1,396,435	67.6
Equipment used to handle and prepare alternative energy substances was used for other purposes or was not located at site where the alternative energy substance was consumed	231,909	231,909	100.0
Miscellaneous reasons	24,135	1,518	6.3
Totals	**$11,151,818**	**$4,834,398**	**43.4[b]**

[a]When energy property performs functions that do not qualify for the credit as well as functions that do qualify, only the cost incurred to enable the property to perform the qualifying function is eligible for the credit.

[b]Represents average percent rather than total.

As shown, the major reasons for IRS' recommended disallowances of the energy credits were related to (1) the date that the property was acquired or placed in service and (2) the eligibility of the equipment or property. In general, the taxpayers acquired or constructed the property before the October 1, 1978, effective date of the credit or claimed the credit in one year but did not place the property into service until the following year.

Table 3.3 shows the examination recommendations and their status by type of property. It also shows that most of the recommended disallowances involved two categories of energy property—alternative and specially defined.

IRS personnel told us that the reasons why a larger number of examined returns claiming the business energy credits were not available for review were as follows:

- The credits were not, or would not be, reviewed during the examination.
- The examinations had not started and IRS had not decided whether to examine the credits claimed.
- The examinations were ongoing and, therefore, results were not yet available.

In view of the limited number of examined returns that we reviewed and the fact that we did not select them on a random basis, the information presented in the subsequent section of this report should not be considered as being representative of the universe of large corporations that claimed the business energy investment credit. However, the examined returns do provide information on the types of disallowances IRS had recommended and the magnitude of the disallowances for the cases we reviewed.

Disallowances Recommended on Large Corporations' Returns

IRS recommended disallowances of $11.2 million, or about 41.2 percent, of the $27.1 million claimed on the examined returns of large corporations we reviewed. The taxpayers had agreed with about $4.8 million, or about 43.4 percent of IRS' total adjustments, and had not agreed to or were appealing the remaining 56.6 percent of recommended disallowances at the time our fieldwork was completed in August 1984. Table 3.2 illustrates the examination results for these corporations.

program. In contrast to the examination of one taxpayer in a single IRS district, the examination of a tax shelter scheme typically involves a promoter and many taxpayers located in more than one IRS district.

Furthermore, these examinations are often partnership examinations, which could involve many individual taxpayers, because many tax shelter promotions are organized with the promoter as the general partner and the investors as limited partners. In general, the tax shelters involving business energy credits that IRS had examined or was examining at the time we did our work pertained to automatic energy control systems and solar or wind-powered energy property. The examinations were for tax years 1979 through 1982 and involved about 109 individual tax shelters. IRS estimated that these shelters involve 7,518 returns on which claims for an estimated $70.2 million of business energy investment credits were made. According to IRS, all of the claimed credits had been or will be recommended for disallowance.

In response to the growth in the number and kinds of shelters, IRS' efforts to cope with them have increased in scope. In 1973, IRS' tax shelter examinations were limited to tax-sheltering activities in oil and gas. Since then IRS has widened its program to cover additional activities in which it encountered substantial abuse. IRS presently records the results of its tax shelter examinations by providing specific codes to individual shelter types, such as coal, leasing, and lithographs. Because IRS does not use a separate code for business energy credit shelter cases, we were not able to obtain statistical data on the number of such cases being examined.

In commenting on this report, IRS informed us that although it did not have a separate code for tracking business energy shelter cases, it did have a separate code for tracking energy tax shelters. IRS stated that as of September 30, 1984, it had closed 30 such cases with recommended additional tax and penalties of $761,037. As of August 31, 1985, IRS had 5,502 energy shelter cases in inventory out of a total shelter inventory of 382,014 returns.

Energy Tax Shelters Examined by IRS

The categories of energy property covered by the examined shelter cases we reviewed included (1) specially defined energy property, consisting mainly of automatic energy control systems designed to save electricity and oil or natural gas consumed by furnaces and boilers; and (2) solar or wind-powered energy property.

Table 3.3: Status of Recommended Disallowances by Type of Property

Category of energy property	Amount of credit claimed	Amount of recommended disallowances	Percent of recommended disallowances	Agreed amount	Agreed As percent of recommended disallowances
Alternative energy property	$16,664,323	$8,520,297	51.9	$3,911,581	45.9
Recycling	4,496,965	983,117	21.9	752,781	76.6
Cogeneration	1,439,886	345,847	24.0	-0-	-0-
Hydroelectric generating equipment	14,382	-0-	-0-	-0-	-0-
Specially defined	3,806,139	1,302,557	34.2	170,036	13.1
Solar and wind equipment	1,087	-0-	-0-	-0-	-0-
Unknown	663,368	-0-	-0-	-0-	-0-
Totals	**$27,086,150**	**$11,151,818**	**41.2[a]**	**$4,834,398**	**43.4[a]**

[a]Represents average percent rather than total.

Although the recommended disallowances appear to be large in relation to the amount of credit claimed, two factors could have a significant impact on the amount of disallowances recommended on examinations of returns in subsequent years. First, although the credit took effect on October 1, 1978, IRS did not issue its regulations until 1981. IRS officials told us that some of the problems identified on tax returns may have resulted because the taxpayers had to file their returns before the regulations were issued. Second, the categories of property on which the greatest amount of disallowances were recommended were not eligible for the credit after 1982.

IRS' Examinations of Partnership and Individual Returns

In recent years IRS has made abusive tax shelters a priority tax compliance activity. IRS' examination handbook describes an abusive tax shelter as one

"utilizing improper or extreme interpretations of the law or the facts to secure for investors substantial tax benefits which are clearly disproportionate to the economic reality of the transaction."

In the early 1970s, IRS had about 400 tax shelter cases under examination. This number had grown to about 390,000 cases by the close of fiscal year 1984.

The partnership and individual returns involving business energy credits that were under examination or had been examined at the locations where we did our work had been identified by IRS through its tax shelter false or fraudulent as to a material matter. A gross valuation overstatement is made when the stated value is more than 200 percent of the correct value. The TEFRA penalty is substantial—the greater of $1,000 or 10 percent of the gross income derived or to be derived by the promoter from the shelter. In addition, TEFRA added a penalty for substantial understatement of tax liability with special rules for tax shelters, and for knowingly aiding third parties in understating their income tax. Finally, TEFRA included a potentially powerful enforcement tool—injunction. Under TEFRA, the government can seek an injunction in a U.S. District Court to halt conduct subject to the promotion penalty.

TEFRA also gave IRS examiners some relief from the administrative burden which resulted from tax shelter examinations. Before TEFRA, IRS examiners had to proceed separately against each member of a partnership involved in a tax shelter. Now, TEFRA permits a single-audit approach to a partnership. This approach enables IRS to audit the partnership as a whole rather than the partners individually. A 1982 IRS analysis of the effect of this new law concluded that IRS could save approximately 1,000 examiner staff-years because IRS would no longer need to secure and control related returns in tax shelter examinations of partnerships. IRS estimated that these staff years, when applied to other returns in need of examination, would result in $275 million in additional assessed tax per year.

More recently, the Deficit Reduction Act (DRA) of 1984 strengthened measures contained in TEFRA and made it easier for the government to identify potentially abusive shelters by:

- Doubling the 10-percent penalty on gross income derived or to be derived by the promoter of an abusive shelter.
- Setting an interest rate of 120 percent of the going IRS rate for tax underpayments attributable to certain types of abusive schemes.
- Providing authority to seek an injunction to halt conduct subject to the penalty for aiding in the understatement of tax liability.
- Requiring promoters of certain tax shelters that offer deductions or credits that are more than twice the total investment in the shelter to register their shelters with the IRS and requiring investors to list the IRS registration number on their tax returns.
- Requiring promoters to maintain lists of investors for inspection by IRS.

Although it is too early to determine how successful the tools provided by the DRA will be in solving the problem of abusive tax shelters, they

In all of these cases, IRS considered the shelters to be "abusive" tax shelters. In addition, in over one-half of the cases the agents determined that the property did not qualify for the credit.

The 109 tax shelters which were examined by IRS at the locations we visited involved a variety of financial techniques. However, the alleged overvaluation of equipment and/or the use of nonrecourse[2] notes or recourse notes which were essentially nonrecourse in nature were characteristics common to all cases. The following illustrates the structure used by 38 of the 109 shelters.

- A promoter purchased an energy system from an unrelated third party. The promoter transferred the system at inflated prices to various companies constructively owned by the promoter. A limited partnership then purchased the system for cash plus notes, either nonrecourse or notes which were essentially nonrecourse in nature, comprising about 92 percent of the purchase price. The inflated price was then used as the basis to calculate the tax credits and deductions claimed by the partnership. The system was then used by an unrelated business. In return, the business paid the partnership half of the amount it saved on energy costs. The partnership remitted 15 to 20 percent of its proceeds from the business (depending on the case) to a management firm that was hired to oversee the operation and maintenance of the equipment and measure the energy saved. The partnership used the remaining proceeds to pay the notes.

As of July 1984, final examination reports involving 10 taxpayers had been issued. Of the 10 taxpayers, 2 agreed with the recommended audit adjustments. The remaining eight are appealing their cases.

The Congress Has Provided IRS With Legislative Tools to Deal With Tax Shelter Abuses

For many years the Congress has been concerned with tax shelter abuse. With the passage of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), the Congress gave IRS additional enforcement tools. TEFRA strengthened existing penalties and added others for use against taxpayers who participate in abusive tax shelters, including business energy credit abusive shelters. It also added penalties which can be applied to promoters of such schemes. TEFRA imposes a penalty on a tax shelter promoter who makes a gross valuation overstatement, or who makes a statement which the promoter knows or has reason to know is

[2]In general, a person who purchases property with a nonrecourse note is not personally liable on the note. Instead, the seller's security in the event of default is the property.

Description of Property Eligible for the Business Energy Investment Credit

The following is a general description of the nine categories of energy property that are or were eligible for the business energy credit.

Alternative Energy Property

Alternative energy property includes certain property that uses an alternate substance as a primary fuel. An alternate substance is any substance other than oil or gas or their primary products. This category includes, but is not limited to, biomass property, geothermal equipment, and ocean thermal equipment.

Biomass property converts biomass into a synthetic solid fuel, burns such fuel or biomass, or converts biomass to alcohol for fuel purposes but only if the equipment producing the alcohol uses a primary energy source other than oil, natural gas, or a product of oil or natural gas. Biomass is an organic substance that includes waste, sewage, sludge, grain, wood, and crop residue. Oil, coal, and natural gas are excluded as well as any substance derived from those three materials.

Geothermal equipment produces, distributes, or uses energy derived from a geothermal deposit. A geothermal deposit is a geothermal reservoir consisting of natural heat which comes from an underground source and is stored in rocks or in an aqueous liquid or vapor (whether or not under pressure), having a temperature exceeding 50 degrees Celsius as measured at the wellhead or, in the case of a natural hot spring (where no well is drilled), at the intake to the distribution system.

Ocean thermal equipment converts ocean thermal energy into electrical energy or another form of useable energy. This category includes items such as turbines and generators. To qualify, the property must be located at either of two locations to be designated by the Secretary of the Treasury after consultation with the Secretary of Energy.

Solar or Wind Energy Property

This property uses energy from the sun or wind to (1) heat or cool a structure, (2) provide hot water for use in a structure, (3) generate electricity, and (4) provide solar process heat.

Hydroelectric Generating Property

This is property installed at certain hydroelectric sites that provides increased capacity to generate electricity by water power.

appear to offer IRS substantial assistance in areas that created significant administrative problems in the past, namely, the identification of shelter promoters and investors.

- Turbulators increase the turbulence of hot combustion gases to increase the rate of heat transfer to other heat exchanging surfaces.
- Preheaters recover energy, usually in the form of wasted heat, from combustion exhaust gases or steam to preheat incoming combustion air or water that feeds a boiler.
- Combustible gas recovery systems recover unburned fuel from combustion exhaust gases.
- Economizers reduce energy demand or recover energy from combustion exhaust gases and other high temperature sources to preheat boiler feedwater.

Recycling Equipment Energy Property

This is property that is used to (1) sort and prepare or recycle solid waste to recover usable raw materials or (2) convert solid waste into a fuel or other form of useful energy.

Shale Oil Equipment

This is property that is used to produce or extract oil from shale rock.

Equipment for Producing Natural Gas From Geopressured Brine

This is property that is used to extract natural gas from geopressured brine. It includes equipment used to separate gas from saline water and to remove other impurities from the gas.

Qualified Intercity Buses

This is property that is used on a full-time basis to furnish intercity passenger transportation or intercity charter service by a common carrier regulated by the Interstate Commerce Commission or similar state agency.

Cogeneration Equipment

This is property that is an integral part of a system that produces both electricity and a qualified energy—i.e., steam or heat—from the same fuel. The two forms of energy may be produced simultaneously or sequentially.

Specially Defined Energy Property

Specially defined energy property includes various types of property whose principal purpose is the reduction of energy consumed or heat wasted in any existing agricultural, industrial, or commercial process. Equipment installed in retail sales and general offices does not qualify. This category of property is directly aimed at conserving energy, whereas the other categories eligible for the credit indirectly contribute to conservation by encouraging the use of other energy sources instead of gas and oil.

Specially defined energy property includes modifications to alumina electrolytic cells and chlor-alkali electrolytic cells and the following types of property:

- <u>Recuperators</u> recover waste heat that is used to heat incoming combustion air, raw materials, or fuel.
- <u>Heat wheels</u> recover energy, usually in the form of waste heat, from exhaust gases to preheat incoming gases.
- <u>Regenerators</u> recover energy by storing heat while exposed to high temperature gases and later releasing it while exposed to low temperature gases, fluids, or solids.
- <u>Heat exchangers</u> recover energy, usually in the form of waste heat from high temperature gases, liquids, or solids for transfer to low temperature gases, liquids, or solids.
- <u>Waste heat boilers</u> use waste heat, usually in the form of combustion exhaust gases, as a substantial source of energy.
- <u>Heat pipes</u> recover energy, usually in the form of waste heat, from high temperature fluids to heat low temperature fluids.
- <u>Automatic energy control systems</u> automatically reduce energy consumed in an industrial or commercial process for purposes such as lighting, heating, or cooling.

Table II.2: Number of Returns by Amount of Energy Credit Claimed

Amount of energy credit	Sample	Universe estimate Number	Universe estimate Percent[a]	Sampling error[b]
$ 1 to $500	281	2,512	33.3	±655
$501 to $1,000	153	929	12.3	±404
$1,001 to $5,000	513	1,836	24.3	±565
$5,001 to $10,000	215	812	10.8	±374
$10,001 to $20,000	229	412	5.5	±269
$20,001 to $50,000	272	512	6.8	±299
$50,001 to $100,000	143	181	2.4	±167
$100,001 to $300,000	164	187	2.5	±172
Greater than $300,000	172	172	2.3	±159
Total	**2,142**	**7,553**	**100.0**	

[a]Total does not add due to rounding.

[b]68% confidence level.

Table II.3: Number of Returns by Amount of Net Income

Amount of net income	Sample	Universe estimate Number	Universe estimate Percent[a]	Sampling error[a]
Less than zero	369	1,194	14.7	±450
$0 to $50,000	83	2,833	34.8	±675
$50,001 to $100,000	55	816	10.0	±376
$100,001 to $500,000	277	1,466	18.0	±511
$500,001 to $1,000,000	159	357	4.4	±233
$1,000,001 to $10,000,000	652	824	10.1	±380
$10,000,001 to $25,000,000	190	193	2.4	±178
Greater than $25,000,000	459	460	5.6	±268
Total	**2,244**	**8,143**	**100.0**	

[a]68% confidence level.

Sampling Errors on Profile Data

The profile data on corporate users of the business energy investment credit was computed by using the IRS statistics of income data base. This data base was compiled by drawing a stratified sample of corporation income tax returns selected after revenue processing—the administrative steps a tax return undergoes at a service center before being selected for audit. Estimates produced from the IRS sample are shown at the 68 percent confidence level. Any data analysis effort which is based on a sample is subject to a certain amount of sampling error. The size of the error generally depends on the size of the sample and how much the data varies for any given element.

To show the reader the size of the sampling errors, we calculated the sampling errors for the four tables containing profile data on corporate users of the business energy credit contained in chapter 2. The results of those calculations are shown in the following tables. Because IRS' sample was drawn based on asset classes, we used, in computing the sampling error for Tables II.2, II.3, and II.4, the coefficient of variation provided by IRS for tables not showing classes by size of total assets.

Table II.1: Number of Returns by Asset Class

		Universe estimate		
Amount of assets	**Sample**	**Number**	**Percent**[a]	**Sampling error**[b]
Under $100,000	28	1,223	15.0	±461
$100,000 to $250,000	4	677	8.3	±224
$250,001 to $500,000	10	567	7.0	±132
$500,001 to $1,000,000	36	1,113	13.7	±141
$1,000,001 to $5,000,000	194	2,129	26.1	±117
$5,000,001 to $10,000,000	143	573	7.0	±32
$10,000,001 to $250,000,000	1,168	1,200	14.7	±28
Greater than $250,000,000	661	661	8.1	0
Total	**2,244**	**8,143**	**100.0**	

[a]Total does not add due to rounding.

[b]68% confidence level.

Advance Comments From the Commissioner of Internal Revenue.

COMMISSIONER OF INTERNAL REVENUE

Washington, DC 20224

NOV 05 1985

Mr. William J. Anderson
Director, General Government Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Anderson:

Thank you for the opportunity to review your draft report entitled "Information on the Business Energy Investment Credit" (Code 268168). Although there are no recommendations in this report, enclosed are several technical and informational comments which we hope will be helpful in preparing your final report. The Treasury office of Tax Policy has informed me that they have no comments on this report.

With kind regards,

Sincerely,

Roscoe Egger

Enclosure

GAO Note: The enclosure is not included in the report because it contains primarily suggested wording changes. However, changes have been made to the report as appropriate.

Department of the Treasury Internal Revenue Service

Table II.4: Number of Returns by Amount of Tax

Amount of tax	Sample	Universe estimate Number	Universe estimate Percent	Sampling error[a]
Equal to 0	603	4,025	49.4	±830
$1 to $10,000	93	1,015	12.5	±419
$10,001 to $50,000	127	725	8.9	±357
$50,001 to $100,000	101	429	5.3	±280
$100,001 to $500,000	290	825	10.1	±380
$500,001 to $1,000,000	181	267	3.3	±201
$1,000,001 to $5,000,000	404	410	5.0	±267
Greater than $5,000,000	445	447	5.5	±292
Total	**2,244**	**8,143**	**100.0**	

[a]68% confidence level.

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