

THE ENERGY CONSCIOUS CONSUMER  
IMPLICATIONS FOR MARKETING AND PUBLIC POLICY

by

Donald James Lowry

A

THESIS

Submitted to The University of Manitoba in  
partial fulfillment of the requirements for  
the degree of

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ABSTRACT

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"When change occurs, it is something to be explained. The fact that it is more abundant in our time than in centuries past does not mean it requires less explanation; it means there are more change producing agents operating today than there were before. It is important to discover what those factors are and how they operate." (46)

The monitoring of consumer attitudes toward and perceptions of the change-producing agents of our time is not only informative but valuable input to policy decision makers in business and government. This study focuses on one such change producing agent - Energy\* - and its impact on Canadians' attitudes toward Energy conservation.

Within the last few years the term "energy crisis" has risen to prominence and become one of the most overworked terms in our vocabulary. A crisis does not mean the end of the

\*Energy in the context of this report embraces the following natural or refined resources.....oil, coal, natural gas, gasoline, heating oil and electricity.

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world. Instead, in the words of Scott & Pearse (72)

"A crisis means literally a turning point, an interval of suspense in the groping for new directions during which there is a danger that the new scheme of things will bring quite different economic and political relationships among nations, producers, consumers and social groups."

Part of the turning point has been an increasing willingness by certain groups of consumers to conserve energy. Whereas consumers generally were once apathetic or opposed to supporting such issues as resource conservation, or pollution control, in recent years there has been a dramatic shift towards a more socially responsible position.

The purpose of this study is an attempt to develop a profile of the conservation oriented or energy conscious consumer and address the question of whether or not there really is a difference between this type of individual and the average Canadian consumer. In conjunction with the above this study seeks to measure the viability of the energy conscious segment in terms of a percentage of the Canadian population and establish whether or not it is worthy of developing marketing programmes styled to this type of consumer.

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To date most studies devoted to profiling a particular type of consumer have been of a traditional nature relating people's behaviour to certain demographic characteristics such as age and education. It is essential that these basic facts be known but they are only superficial characteristics of the consumer and may not be very good predictors of market behaviour in relation to discriminating between the energy conscious type of consumer and his less socially responsible counterpart. What needs to be added to the demographic skeleton is the "flesh" that motives, attitudes, interests and opinion information can provide.

To this end the two major hypotheses to be investigated are:

- (a) people live according to established behaviour and attitude patterns which can be identified and measured
- (b) these psychographic patterns can be related to consumer behaviour in regards to energy conservation.

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The data for this study has been collected by means of a self-administered, mail-type questionnaire submitted to two consumer groups, 1500 in each, randomly selected from major English speaking urban centres in Canada. One group represents the average Canadian consumer while the other represents the energy conscious consumer. Of this number 1,070 responses or thirty-six percent were usable and the analysis which follows is based upon this data.

The data has been organized into five groups based upon the type of questions included in the questionnaire. The data groups are as follows: fourteen Psychographic factors, four Attitude Towards Energy factors, five Interest/Exposure To Print Media factors, six Interest/Exposure to Broadcast Media factors and twelve Demographic Variables.

To answer the question whether or not the two groups are really different, the data for each group has been subjected to a multivariate analysis of means utilizing the Hotelling's  $T^2$  statistic. The results support the hypothesis that the two groups are definitely and significantly different at the .005 level.

To identify the variables on which the two groups are different the data was then submitted to a univariate t-test of the groups' means. Nineteen variables have been isolated as being

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significantly different. To test the ability of these variables to predict consumer behaviour in regards to the level of energy consciousness, an N-Way multiple discriminate analysis was performed in order to separate the respondents as to group membership: Group 1, the average consumer, and Group 2, the energy conscious consumer. The analysis correctly classified seventy-two percent of the respondents and from these results it can be concluded that people do live according to established behaviour and attitude patterns which can be identified and measured. Secondly, these psychographic patterns can be related to consumer behaviour in regards to energy conservation.

To conclude, the data suggests approximately thirty-four percent of the population can be considered energy conscious. Based on these results the study supports the development of a marketing campaign aimed at the energy conscious consumer.

## ACKNOWLEDGEMENTS

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The author is especially indebted to the hundreds of Canadians who took the time and effort to respond to the questionnaire.



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CHAPTER I  
INTRODUCTION

"Power corrupts" was written of man's control over other men, but it also applies to his control over energy resources (13). The past few decades in Canada and many other energy intensive nations may be described as a promotional era in regards to energy growth. Energy supplies appeared to be abundant and were low in price. The policy of the public and private sector was to equate growth in consumption with progress and prosperity.....words so favourable in tone that they have been used as slogans for electing prime ministers and chairmen of the board.

As a result of this type of political and social climate, a pattern of energy consumption evolved in which the more power we disposed of, the more we wanted. The more power we used, the more we shaped our cities and moulded our economic and social institutions to be dependent on the application of power and consumption of energy.

Today, energy drives our society. It heats our homes, moves our cars, runs our mines and factories.

"Without energy, our whole civilization as we know it just comes to a halt.....there is hardly a move you can make if there is not energy in the picture someplace to help you accomplish what you want to do"(19).

Energy has superseded our muscles and given us "prosperity". Present trends of energy consumption are increasingly patterning our way of life to a style that relies heavily on a continuous energy subsidy. This increasing dependence has been likened to a form of social disease; energy addiction. (21)

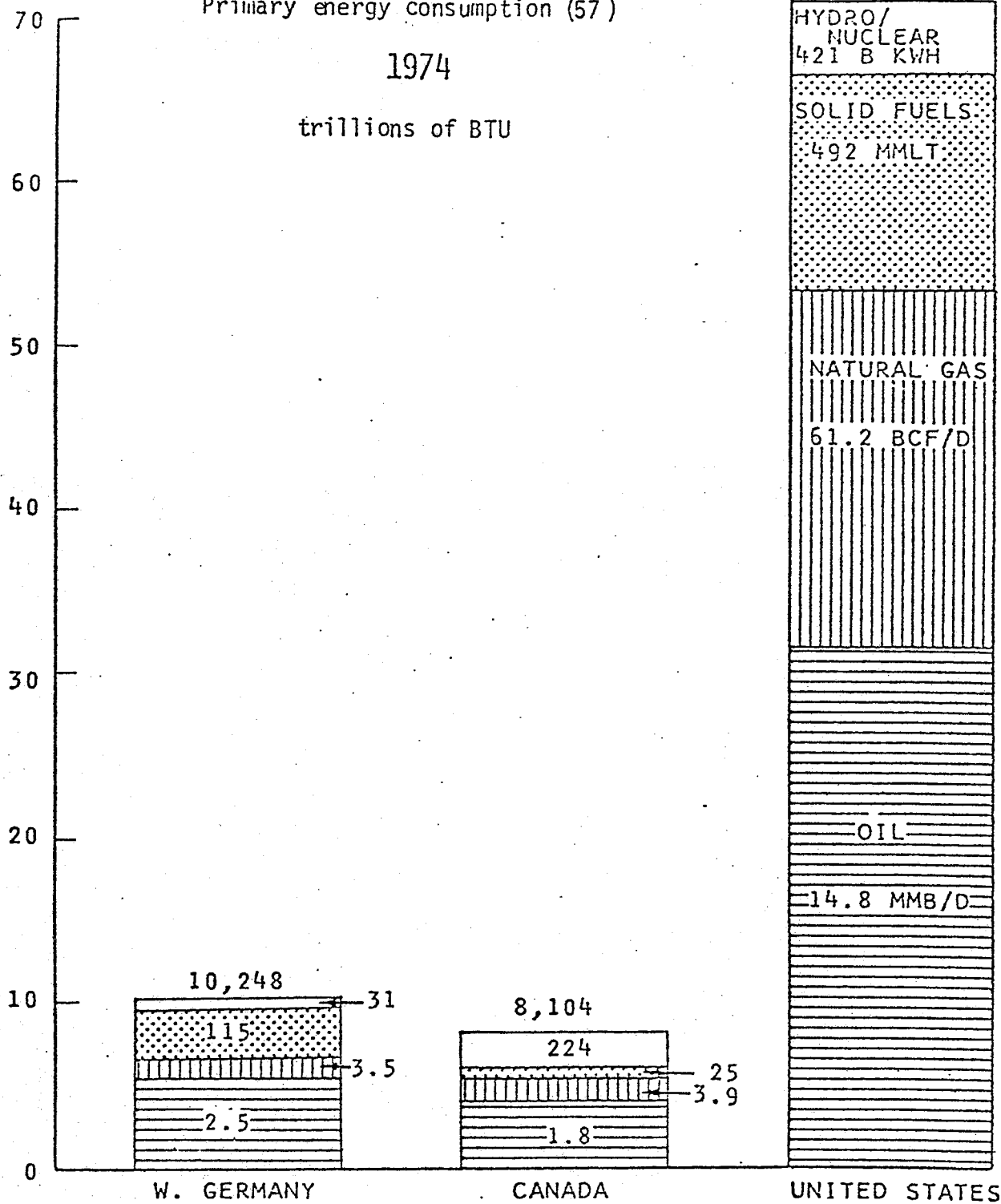
Quantitatively Canadians are the highest per capita users of energy in the world; each Canadian using, on average, the equivalent of fifty-five barrels of oil per year. (71) Our national level of energy use is also increasing at a prodigious rate, that has been predicted will be three times greater than our current level of consumption by the year 2000 (51). Figures 1 and 2 on the following page graphically portray Canada's primary consumption and end use of energy.

Not only does energy demand grow at an exponential rate, but it tends to foreclose other less energy intensive development options by creating an all-encompassing life style which is becoming increasingly difficult to withdraw from.

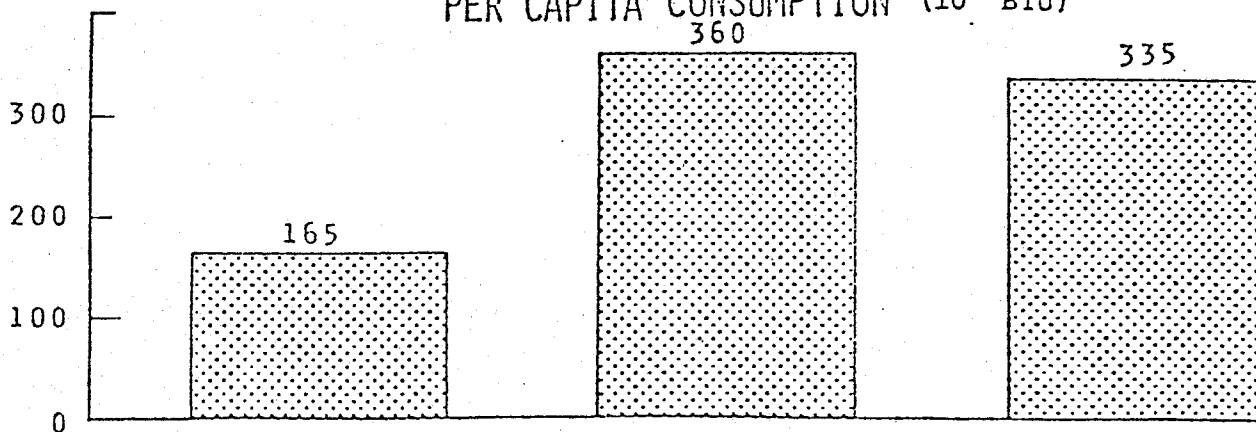
Primary energy consumption (57)

1974

trillions of BTU



PER CAPITA CONSUMPTION (10<sup>6</sup> BTU)



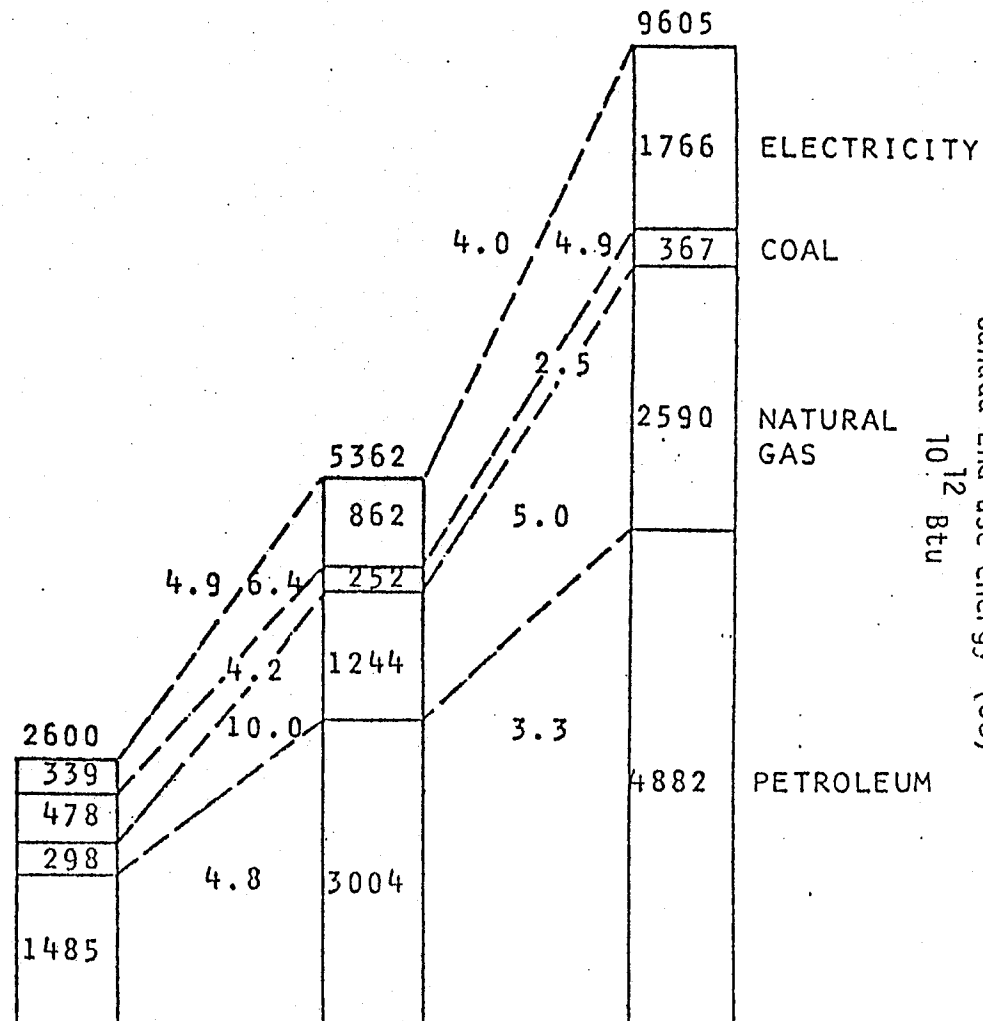
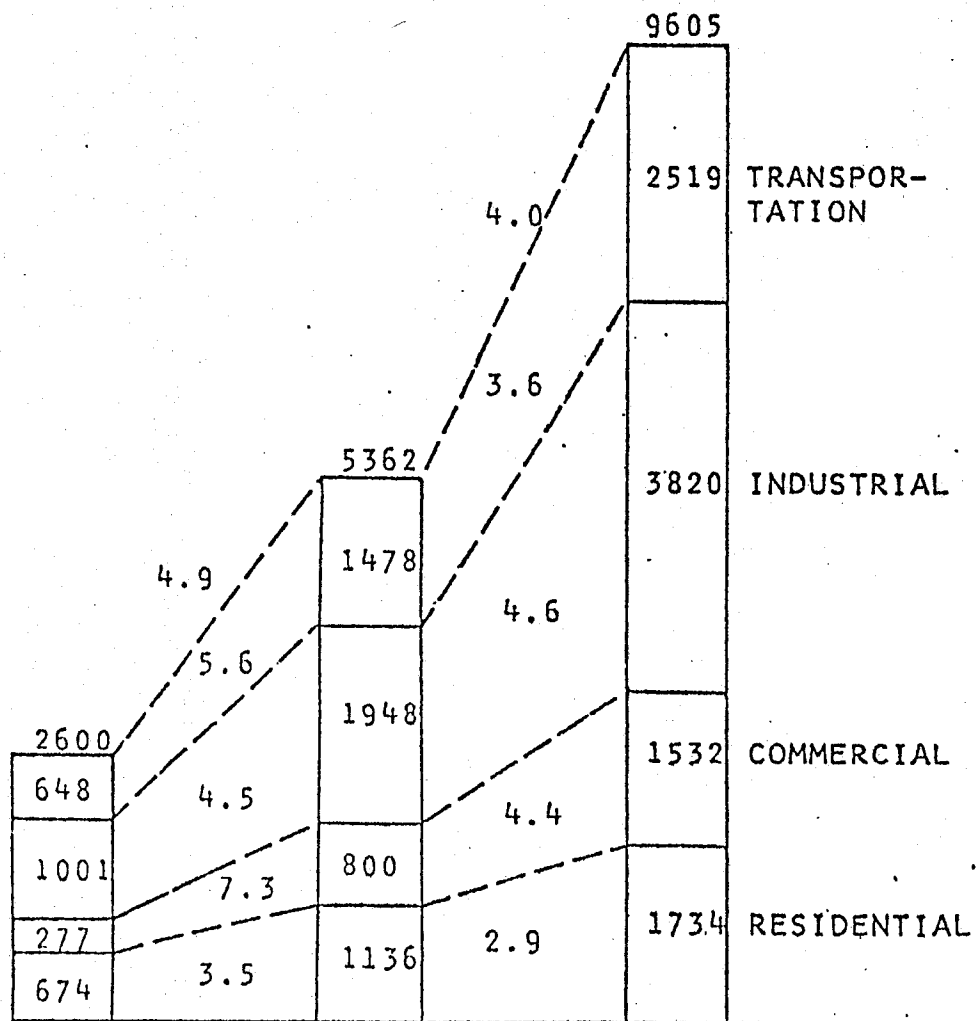


Figure 2  
Canada End-use energy (58)  
10<sup>12</sup> Btu  
P. 4

	% DISTRIBUTION		
	1960	1975	1990
RESIDENTIAL	25.9	21.2	18.0
COMMERCIAL	10.7	14.9	16.0
INDUSTRIAL	38.5	36.3	39.8
TRANSPORTATION	24.9	27.6	26.2

	% DISTRIBUTION		
	1960	1975	1990
PETROLEUM	57.1	56.0	50.8
NATURAL GAS	11.5	23.2	27.0
COAL	18.4	4.7	3.8
ELECTRICITY	13.0	16.1	18.4



Our current rate of growth is an abnormal one in human history and is incapable of continuing indefinitely. But our behaviour as a people generally shows little recognition that limits to growth do exist. This is not surprising. Garret Hardin has pointed out in his concept "The Freedom Of The Commons" (26) that even though the total behaviour of a society may be suicidal in nature, individuals and groups will do their part in hastening its end simply because they conceive of their additional contribution to and responsibility for the problem as being so small, and their individual loss so great from not getting their "fair" share.

The extensive use of the automobile, for example, has made urban sprawl possible, encouraged low density housing and in turn frustrated the expansion of the mass transit system. It is almost like Heller's "Catch-22" (33) in that the automobile reinforces itself as the only viable means of transportation in today's society.

Traditionally, Canada, in common with other developed countries, has allowed projections of energy demands to dictate policies for energy supplies, with very little thought being given to the efficiency with which we use our current resources. Attempts

to introduce an energy conservation ethic into the mainstream of Canadian society has seemed unimportant in the past because of the widely held belief that our country was so rich in resources that, provided we were prudent in the development of supplies, demand restraint or reduction was not needed. (68)

Canada is indeed rich in respect to energy resources of all kinds, but estimates of huge potential reserves are misleading, inasmuch as they can lead to the mistaken conclusion that energy resources can be made available as actual supplies on short notice without much difficulty when needed. In addition to the illusion of vast reserves and ease of access is the disconcerting habit of estimated reserves shrinking drastically in size as the date of their need fast approaches.

"Canadians were told by both government and industry that they had vast reserves of oil and gas. Then along came the oil embargo and price hiking of the OPEC nations and when it got down to a matter of discussing actual reserves and not guess estimates the National Energy Board, informed us that we did not have nearly as much oil or natural gas that we thought we had." (79)

In addition to destroying the self sufficiency myth, the cost of extracting energy from these reserves in terms of capital, technology and manpower is tremendous.

Although hydro-electric power is a non-exhaustible source of energy, practically all easily accessible sites have been, or are in the process of being developed. Similar constraints apply to generating more electric power as to the fossil fuels. The more remote the regions, the longer the transmission lines, the greater the cost and the lower the efficiency.

As Canada and other industrialized nations exhaust the easily accessible and hence cheap resources of energy, we must turn to increasingly expensive alternatives thereby lowering the net energy return per dollar invested.

Shortages in our energy supply have been noted with greater frequency and urgency during the last few years. The shift in market conditions from a position of abundance of supply to one of scarcity has had a number of noticeable effects. The "energy crisis" laid bare man's dependence on the natural resources in the environment for his current style of living. The need to control energy demand and consumption in the hope of attenuating some of the strains on our economic and social system suddenly became a priority.

The increased consciousness of man's dependence on his environment is not limited to energy. On a wide variety of fronts, over the past few years, there are encouraging signs that there is beginning a process of questioning the past acceptance of the waste of natural resources that our society's materialism has involved. There appears to be a growing element in the fabric of our society who accept the consumer citizen concept and consume as individuals concerned not only with their personal satisfaction but with societal well being as well.

This aspect of consumer behaviour has been generally neglected perhaps due to its insignificance and clash with current societal norms. The increasing importance of the socially responsible consumer and the need for government and business to move in recognition of this form of behaviour is reinforced by our current energy situation.

As an indication of the viability of this type of behaviour there have been numerous market research studies in recent years devoted to exploring various aspects of socially responsible consumer behaviour. For example Kinnear, Taylor and Ahmed (43) examined the ecology conscious consumer

Anderson and Cunningham (1) profiled the socially responsible consumer and Peters (62) studied participants at recycling centres. While these are just a few examples of the research community's interest in socially responsible consumers the increasing frequency of this type of work is an indication of its relative importance. The implication of these studies in relation to this project will be elaborated on in the following sections.

In addition to the research on the "socially responsible" element in our society, there have been numerous community groups throughout Canada and North America that have established recycling centres and pollution abatement programs as well as taking other environmentally responsible actions.

In recognition of the emergence of a conserver element within Canadian society the Federal Government has established a department of energy conservation and incorporated the energy conservation ethic into the development of their energy policies.

"Energy conservation is now an important part of Canada's overall energy policy. It will be a permanent part of that policy.....not merely a contingency plan enacted in a crisis.....and it will include all forms of energy in all areas of Canada" (15)

As an example of the public sectors commitment to the idea that conserving is becoming more culturally acceptable than consuming, the Federal Government has published a booklet "100 Ways To Save Energy And Money In The Home" (15). The booklet itself is aimed at the conserver element and its underlying purpose is to encourage and cultivate this form of more socially responsible behaviour.

In support of the government's position, the Science Council of Canada states.....

"Canadians as individuals and their governments, institutions and industries, must begin a transition from a consumer society preoccupied with resource exploitation to a conserver society engaged in more constructive endeavours." (70)

As a result of various statements, actions and policy development, the government appears convinced as to the emergence of a conservation ethic within the fabric of our society. By employing programs of public education the public sector is endeavouring to cultivate this socially responsible form of behaviour as it offers a means of controlling energy demand

The question is, how significant is the emerging conservation ethic in our society? Is it fair to assume that our energy dependent attitudes and lifestyles as well as our industrial and legislative bodies are slowly being converted to a more energy conscious perspective? Is the government justified in building an educational program based upon a belief in a consumer movement towards more socially responsible behaviour?

John Fisher, a Canadian marketing and advertising executive questions the Federal Government's energy conservation program.....

"it assumes a whole cultural milieu and accompanying economic climate which simply does not exist. To use a more specific term, it assumes the acceptance of a new social paradigm shift of major proportions"  
(24)

Mr. Fisher's comment probably echoes the thoughts of many other Canadians, and symbolizes the other body of thought which casts doubt on the existence of the conserver element in today's society.

The need to conserve is unquestionable. The existence of a significant energy conscious segment in our society to warrant labelling it a conserver society and building educational programs as well as marketing strategies to cater to this segment is questionable. In order to answer this question and provide valuable insight to problems faced by the public as well as private sector in regards to energy conversation, information is required.



Traditionally, such information about consumers has been collected by means of sample surveys. To date most of the market research studies in the private or public sector that have attempted to answer questions on identifying socially responsible segments, have been of a similar nature in that they have selected a representative sample of the population, gathered information from members of the sample about their purchase, consumption or use of products or services and presented the results relating people's behaviour or attitudinal slant to certain demographic characteristics such as age, sex, income, education and so on.

It is essential that these basic facts be known, but they do not provide the whole answer. Often more weight is attached to these types of data than is really deserved as the variables are only superficial characteristics of the consumer and may not be very good predictors of market behaviour in regards to the purchase of certain types of products or services, or, in this case, level of energy consciousness. What must be known are the motives, attitudes, interests and opinions which lead an individual to behave in a socially responsible manner or, conversely to adopt a negative attitude towards energy conservation. The impact of energy on our current lifestyle underscores the need to consider these variables.