

REPORT OF A QUALITATIVE STUDY ON ENERGY EFFICIENCY LABEL DESIGNS

Prepared For:

THE DEPARTMENT OF CONSUMER & CORPORATE AFFAIRS



CONTEMPORARY RESEARCH CENTRE

### REPORT OF A QUALITATIVE STUDY ON ENERGY EFFICIENCY LABEL DESIGNS

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THE DEPARTMENT OF CONSUMER & CORPORATE AFFAIRS

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Topic Outline

Self-Administered Questionnaire

The Labels

### INTRODUCTION

The Department of Consumer and Corporate Affairs in co-operation with the Department of Energy, Mines and Resources are planning to launch an energy efficiency labelling program for major electrical household appliances. The objectives of the program are:

- To develop an energy efficiency label that manufacturers will accept and prominently display on major electrical appliances at the point of sale;
- To make consumers aware of the new label, understand its background and implications for making appliance purchase decisions;
- To promote consumer acceptance of the label as a symbol of confidence in the area of energy efficiency;
- To contribute to and support government objectives on energy conservation.

The Department of Consumer and Corporate Affairs, with the assistance of a professional designer, developed four alternative label designs and wished to test these labels among consumers in order to provide information that will assist in finalizing the design to be used initially for Refrigerators.

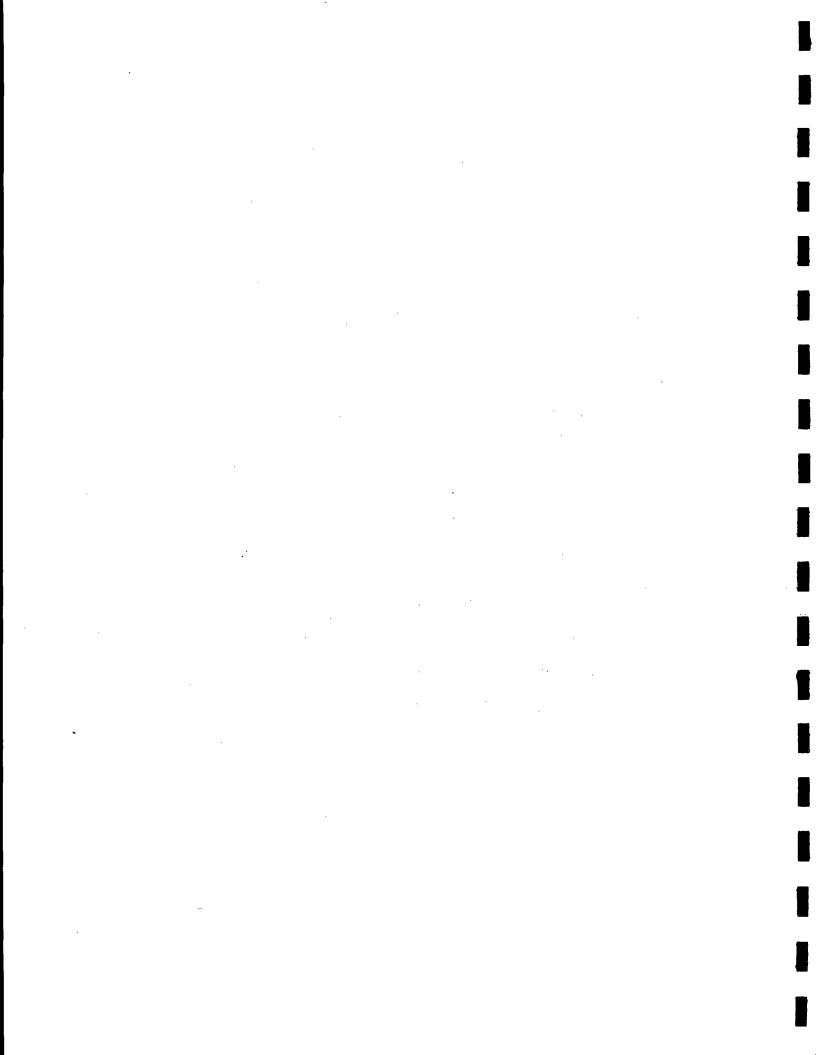
To this end, six focus group interviews, or group discussions, were convened, three in Toronto and three in Montreal. The findings of these groups are the subject of this report.

### RESEARCH OBJECTIVES

To explore, among various consumer segments in Toronto and Montreal:

- factors that consumers consider important in making a major household appliance purchase decision;
- attitudes towards energy conservation in general and the energy consumption of household appliances in particular;
- 3. reaction to the principle of an energy efficiency label for appliances;
- 4. reaction to the four label designs and preference in terms of their impact and ability to communicate.

As mentioned earlier, these objectives were considered primarily in the context of domestic refrigerators.



### RESEARCH DESIGN

A total of 6 group discussions were conducted, 3 of these in English in Toronto and 3 in French in Montreal.

Consumer participants in these groups were derived from 3 segments of the consumer population:

- those who are potential first-time purchasers of a domestic refrigerator;
- ii) those who are potential repeat purchasers;
- iii) those who are recent purchasers, whether for the first time or on a repeat basis.

Since the purchase decisions with respect to major appliances are generally a joint one of the husband and wife, all the groups were conducted with domestic couples.

Thus, groups for the first segment were recruited from among young couples who live in apartments and do not currently own a refrigerator.

Groups for the second segment were convened among older couples who own a home and have owned a refrigerator for at least 10 years.

Groups for the third segment were drawn from couples who had purchased a refrigerator within the last 6 months.

Each group consisted of between 4 and 6 couples (a total of 62 participants) and lasted approximately 1 1/2 – 2 hours. The English groups were moderated by Robert Day, Vice-President of C.R.C., and the French groups by Gisele Marquis, consultant to C.R.C.

All 6 groups were conducted over the period 24 - 31 August, 1977.

While the group sessions allowed ample opportunity for free discussion, they were loosely structured around a previously formulated topic guide, a copy of which is given at the back of the report.

### CONCLUSIONS AND RECOMMENDATIONS

Note: Such suggestions for action as are made in the course of this section are based solely on the research findings and are the responsibility of the C.R.C. researchers involved. There may, of course, be other considerations that affect the feasibility or appropriateness of such suggestions.

The indications are clear that at this point in time the energy-consumption of a refrigerator is a very minor consideration in the choice of a particular make or model. This is because not only are refrigerators not perceived to be one of the heaviest energy users among appliances but it is felt that there is little difference between different makes with respect to electrical usage. Furthermore, information about the energy-consumption of different makes is regarded as not readily available.

In any case, there was little evidence from any of these six groups of a real concern with energy conservation in general or with the conservation of electrical energy in particular – electricity is thought to be still plentiful in both Quebec and Ontario. Only the prospect of saving money on operating costs would appear to be a meaningful incentive to conserve electricity and with respect to this motive of economizing it is worth pointing out that a high proportion of potential first-time buyers of electrical appliances (particularly refrigerators) currently rent apartments where they do not pay Hydro bills separately (i.e. bulk metering) and in fact tend to be relatively light users of electricity.

In other words, perhaps a significant proportion of first-time buyers need to be made aware of the homeowner's expenditure on electricity before they take the idea of electricity conservation seriously. In the case of those who do 'own' their homes and are therefore predominantly appliance replacement buyers, the emphasis should perhaps initially be on the heaviness of consumption of the average refrigerator and what this amounts to in monetary terms.

Initial reaction to the concept of Energuide was very much influenced by the assumption that the government itself would be involved in the actual testing and reporting of refrigerator consumption levels. With the introduction of the idea of the C.S.A.'s involvement participants' fears of expensive bureaucracy and their doubts as to the credibility of such testing diminish considerably. It is worth noting, however, that to most francophones 'l'Association canadienne de normalisation' is unfamiliar as compared to the English 'Canadian Standards Association'.

Reaction to the labels themselves tended to be expressed in terms of reactions to the various executional elements. Thus, the name Energuide appears to be reasonably acceptable, with some pronunciation problems only among francophones. Similarly, the symbol presented few problems except perhaps for the tendency on the part of both anglophones and francophones to see in it a resemblance to the General Electric symbol.

As for any other tangible executional details, perhaps the main concern was that of some francophones who objected to the precedence of the English text.

As might be expected from their concern with financial economies, most of the participants in these groups felt that the label information omitted an important dimension – the significance of the kilowatt hours consumption in terms of dollars and cents or, in other words, how much does a kilowatt hour cost. There is clearly a felt-need for some information supplementary (or perhaps complementary) to the Energuide label which makes the energy rating more meaningful to the average consumer.

A possibly minor point but one that was made by a number of francophones was the impression given that the categorical tone of the English text ('when tested in accordance...') becomes conditional in the French ('s'il est conforme...').

As for the relative acceptance or ranking of the four test labels, while there is a clearcut 'loser' (label A) among both anglophones and francophones, the situation is both less clear and different with respect to preference. Among anglophones label C is marginally preferred to D in terms of impact and ability to communicate a message; among francophones the votes for B are slightly ahead of D and C.

With somewhat inconclusive results such as these it is necessary to examine closely whatever 'diagnostic' findings are available to explain preferences and it then becomes apparent that label C has some important advantages over either D or B in that it contains some of the positive elements of both for example, the Energuide term in white on black, an appearance that is not only 'official' but also a little more contemporary than the other square layout. It also has the undoubted benefits of the largest print size and the votes of the more numerous ethnic group. Despite these advantages, a variation on the design of label C that places Energuide in the centre to separate the English and French texts might be worth considering.

In conclusion, it is clear that the Energuide concept and executions as tested encounter no severe attitudinal negatives among the target groups concerned.

It is also clear, however, that the case has yet to be made for the importance and relevance of the scheme, both in general and specifically with respect to refrigerators, before consumers can be expected to display obvious enthusiasm. There is, in other words, a very strong case for an introductory publicity or promotional campaign to prepare the way for the launch of an energy efficiency labelling program. Without such a campaign the programme will resemble, in the words of one Toronto man, "a big breath in a windstorm". He continued, "For something like this to be effective it has to be preceded by an educational program".

### **DETAILED FINDINGS**

As always it is necessary to warn the reader that a qualitative study such as this, based as it is on groups involving a total of some 60 participants, has severe limitations as to the generality and projectability of its findings. The observations presented in this report are therefore to be regarded simply as suppositions or hypotheses that may be confirmed or negated by subsequent quantitative research.

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THE CONSUMER ATTITUDES TO APPLIANCE ENERGY CONSUMPTION

### CHOICE-CRITERIA IN REFRIGERATOR PURCHASE DECISIONS

All six groups were relatively consistent in the criteria they use, or would use, in the selection of a refrigerator for purchase although the priorities as reflected in the order of mention differed somewhat from group to group.

Common to all groups were considerations of:

dimensions so that it would fit easily into the available space; cubic capacity, related to size of family; aesthetics, particularly the colour and its ability to match the overall decor of the kitchen; a frost-free freezer section; overall quality or manufacturer's reputation.

Most of the groups also mentioned the price (or considerations of value—for—money) while those groups who had purchased a refrigerator in the last six months not surprisingly were able to mention other, detailed features that they had considered in the purchase decision, such as whether the door was hung on the left or the right, the placement of shelving and various compartments and even such items as built—in castors and the amount of operating noise.

Only in the context of discussing the pros and cons of frost-free freezers was there any spontaneous mention of the energy consumption factor, even among those who had only recently purchased a refrigerator.

### 2. THE IMPORTANCE OF ENERGY-CONSUMPTION AS A PURCHASE DECISION FACTOR

Since the consumption of electricity had been mentioned by only one or two participants, and that strictly in the context of running costs, the group moderators asked whether this was not a factor in the purchase decision.

The answer to this in general was that the amount of energy that a refrigerator used was not an important consideration in the choice of one for purchase and certainly secondary to the other considerations. As one Toronto female put it, "To me that would be a minor problem really. I feel that if its the one I want, that's it – it (energy consumption) wouldn't really matter to me".

There appear to be several main reasons for this attitude which were expressed in each of the six groups:

- i) that refrigerators are not perceived as particularly heavy users of energy, compared to other household appliances;
- ii) that there is little difference between makes with respect to electricity usage, although certain features such as a frost-free freezer or an ice-maker do make a difference;
- iii) that there is no readily available information about energyconsumption levels, either from the manufacturers or anybody else;
- iv) that they generally have doubts about the reality or importance of any need to conserve electricity.

So pervasive are these views, to both French and English and to all age-groups, and so basic to any energy-conservation program that it is worth examining them in some detail.

### i) Refrigerators as energy-users:

The group participants were asked to rank a refrigerator in terms of its electricity consumption in the average home versus five other items – clothes dryer, colour television, dishwasher, a single lamp and a vacuum cleaner.

As the following table indicates, there was a considerable degree of consistency between all six groups:

	ENGI	ISH GR	OUPS	FRENCH GROUPS		
Clothes dryer	1 st	1 st	lst	,1 st	lst	1 st
Dishwasher	2nd	4th	3rd	2nd	2nd	2nd
Colour T.V.	2nd	3rd	2nd	3rd	4th	3rd
Refrig <b>er</b> at <b>o</b> r	4th	2nd	' 4th	3rd	3rd	4th
Vacuum cleaner	5 <del>t</del> h	5ih	5th	5th	5th	5th
Single lamp	6th	6th	6th	6th	6th	6th

Thus, the majority of the group participants tend to rank refrigerators at about mid-way in the list of six items, using less electricity than clothes dryers or dishwashers and about the same as colour television sets. As several participants pointed out, the consumption of energy by a refrigerator is less 'visible' than in the case of a boiler or a stove. In fact, the refrigerator probably consumes on average most energy of the six because it is running more or less continuously.

### ii) Variation between refrigerator makes/models:

For all practical purposes there is little difference, according to these groups, between one refrigerator and another in terms of energy consumption, given that they are of average size (12 or 15 cubic feet capacity) and with the same basic features, e.g. frost-free, etc.

If there is any difference it is perceived to be because of better or worse insulation and there was some feeling that current refrigerators are probably less well-insulated than they were ten or more years ago. Several of the older couples cited cases where older refrigerators have been put to work as freezers simply by turning the thermostat control down.

But among current products, no participant was willing to state that certain makes or models were lighter users of energy than others. Indeed, one Toronto female expressed a touching faith in the power of some unknown regulatory body – "They (the manufacturers) wouldn't be allowed to make a big energy user".

### iii) The current availability of information:

This assumption that refrigerators are not currently differentiated by the amount of energy they use is clearly based on an admitted lack of information about the subject. Most of the anglophone participants felt that information about the amount of energy used was not readily available, although a few did mention that there were probably some numbers hidden away somewhere at the back of the refrigerator which indicated its power load. Some mentioned Consumer Association reports but on closer examination these were admitted to be more concerned with the differences between various types, i.e. 2 versus 1- door, frost-free versus defrosting, etc. Among francophones there was some recollection of having received a pamphlet which gave information on the relative consumption of various appliances.

Both language groups were agreed that it was unlikely that sales people would be a useful source of information on this point. As several commented, any salesman would say that the one he was trying to sell would use less, and besides, the knowledgeability of sales people was doubted.

### iv) The credibility of the need to conserve electricity:

There was little evidence in any of these groups of a sincere belief in and commitment to energy conservation except to save money.

The rationale given for this lack of interest is essentially two-fold:

a) there is considerable doubt that a real energy crisis does exist.

Although these group participants have all read articles or seen program on television (usually from the U.S.) about an increasing shortage of energy in the world and in North America the credibility of this publicity is often regarded as dubious.

Attitudes range from the comment, "This whole energy crisis from the beginning was 90% manufactured" to, "It's a good idea to save but they shouldn't shoot us all this bull".

b) both Torontonians and, especially, Montrealers find it difficult to accept that there is a shortage of electrical energy, either currently or in the foreseeable future. Quebec is seen as having an abundance of electricity – as one person pointed out, "L'électricité...c'est naturel pour nous. On en a beaucoup". In Toronto, much the same opinion was expressed – "We have the resources for boundless electrical energy in this country", and, "The water is still running over Niagara Falls as it was one hundred years ago". Any brownouts that occurred were the result of temporary overloading and this could be overcome by building more generating stations or improved transmission lines. Many of the older group participants still recall promotional campaigns for all-electric homes and the optimistic claims on behalf of appliances that they cost 'only pennies a day' to run.

In view of these attitudes it is not surprising that electricity conservation behaviour among these group participants is relatively uncommon. This is particularly true among those groups made up of apartment dwellers since in the majority of cases they are not paying separate Hydro bills.

Some of the older participants claimed that they did try to save electricity by using the oven or the clothes dryer less but few ever thought of adjusting the refrigerator thermostat dial, either because they thought it unwise to move it from the 'normal' position or, as already pointed out, "You never think about a fridge in conserving energy.

One thing is quite clear from these groups' discussion of energy conservation – any interest in saving energy is largely, if not solely, motivated by the prospect of saving money, either in the short or long run. Concerns of a social nature, even among younger couples, are conspicious by their absence.

### 3. AWARENESS OF NEW, ENERGY-SAVING APPLIANCES

When asked whether they had heard about any new, energy-saving appliances a number of the participants mentioned micro-wave ovens while several cited solar heating.

Only very few were able to mention appliances designed to use less electricity – in Toronto Amana appliances were mentioned and in Montreal one couple had purchased an air-conditioner recently that had an energy-saving device built-in.

The opinion was general that the technology existed now to manufacture such appliances but that they would probably retail at premium prices.

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THE CONSUMER REACTIONS TO PROTOTYPE ENERGY
EFFICIENCY LABELS FOR REFRIGERATORS

### 1. REACTIONS TO THE CONCEPT OF GOVERNMENT-SPONSORED APPLIANCE LISTINGS.

At this stage in the discussion the moderators introduced the idea of government-sponsored testing of the different makes and models of domestic appliances, and initially refrigerators, for their consumption of electricity and the availability to the public of the results of such testing. For the purpose of exposition the analogy was drawn with the E.P.A. testing and publication of the mileage per gallon of various makes and models of automobiles.

Initial reaction to the concept tended to be divided. Some participants, and this seemed more common among francophones, welcomed the idea, since it would help them decide which refrigerator to buy. Some liked the idea but felt that it should be applied to all appliances or at least to those appliances that are considered to be heavy users, such as a dryer.

A number of participants both in Toronto and Montreal criticized the concept on two counts, first that if it were administered by the government it would be expensive, would increase the level of taxes and would tend to lack credibility; second, that the expected differences in consumption between refrigerators would be so small that it would not be a factor in the purchase decision. As one young Toronto male put it, "For 90 cents a month, I'd rather have what I want!", or more generally, "A waste of the tax-payers' money - they all use the same".

Rejection of the government's participation in the scheme was particularly strong among older anglophone couples and resulted in most of them mutually agreeing that the idea was a good one but only if it were administered by the industry itself rather than the government.

### 2. INITIAL REACTIONS TO THE LABELS AND THEIR ELEMENTS

Following discussion of the concept of energy efficiency labelling the participants were exposed to the four test labels, presented both as adhering to large white boards and individually as duplicated on copier paper.

It is perhaps convenient to report the reactions of participants by element – that is to say, the term 'Energuide' and the symbol; the consumption figures of so many kilowatt hours per month; the Canadian Standards Association specification; the shape and the layout of design elements, and the colour of these labels.

### i) Energuide and the Symbol:

at this point it is worth considering separately the reactions of anglophones and francophones.

Anglophones – the great majority of these participants had no problem with the pronunciation of Energuide, invariably giving it a hard 'g'. However, label A (elliptical) would possibly cause a problem since the word appears to start with a capital 'G'. Among the older participants there was some objection to the 'cuteness' of the elision and a demand for the phrase 'Energy Guide' to be spelled out – this was very much a minority opinion however.

The symbol was recognized as deriving from an 'E' and a 'G'. In two out of the three groups several participants commented that it looked like the G.E. (General Electric) symbol and expressed surprise that the designer had not realized this.

Francophone – reactions to the term Energuide among the Montreal groups varied in accordance with whether respondents were unilingual or bilingual. The bilingual participants pronounced the word as in English and with the hard 'g', while those who are unilingual used a French pronunciation with a hard 'g' and a short 'ui'.

While it was recognized that the term is a combination of 'énergie et guide' it was pointed out that in French the term should really be 'guide d'énergie'; however, there was some agreement that Quebecers had become accustomed to these inversions although there was still an element of resistance to them.

Francophone reactions to Energuide covered a large spectrum. At one extreme there was total acceptance of a French version; further along there was a group of participants who felt the word is not as easy to pronounce in French as it is in English but neverthe less found it acceptable. Still further along this spectrum some felt that other people might object to it but would get used to it in time. At the other extreme were those participants who found the word difficult to accept and make such comments as:

<sup>&</sup>quot;Ca sonne drôle"

<sup>&</sup>quot;Le type gui a composé ca doit être un anglais"

<sup>&</sup>quot;C'est un mot anglais, francisé," etc.

The symbol was perceived as either a 'G' or an 'E' or a combination of the two, plus an arrow showing the way. It was generally well-accepted and regarded as appropriate though a few participants remarked on its resemblance to the General Electric symbol.

### ii) The Consumption Data:

For use of exposition the moderators suggested that a figure like 125 or 140 kilowatt hours per month should be considered.

In each of the six groups perhaps a majority of the participants raised the point that in itself the number of kilowatt hours was meaningless until it was translated into monetary terms. As one young Toronto female said, "How much does a kilowatt hour cost? It could be 10 cents or \$10."

A number of participants pointed out that Hydro bills give the price of a kilowatt hour but tended to agree with the others that the Energuide campaign should supply this part of the story in some way, even though it was conceded that Hydro rates varied between areas and also over time.

While other, fewer participants were less concerned with a monetary equivalent to the number of kilowatt hours given and saw this information as strictly a means to compare the relative efficiencies of different refrigerators, perhaps the great majority of group participants came round to the thought that it was a question of consumer education and that with proper promotion people will eventually know the cost of a unit of energy as they do a gallon of gas.

The idea of a brochure or booklet available at the point of purchase giving more information about the testing and the findings and perhaps some more general information about appliance energy usage was therefore generally welcomed.

### iii) Canadian Standards Association Specification:

The Canadian Standards Association, or the C.S.A., is well known by both anglophones and francophones. It is seen as an independent, objective body and its test findings are trusted. In the context of the Energuide label there is no doubt that it lends a much-needed credibility to the programme. In fact, among young Torontonians there was some suggestions that the C.S.A. symbol should be included in the label design.

Among francophones, however, two problems present themselves.

First, for the majority of these participants the title 'l'Association canadienne de normalization' is quite unfamiliar compared with the English title.

Perhaps a more serious problem, however, concerns the French version of 'when tested in accordance with..." – "s'il est conforme a' la...". In two of the three francophone groups this phrase stirred up a number of comments of an unfavourable nature since it was felt that the French version created an element of doubt that is not present in the English. In participants own words:

"Si....ca veut dire que c'est pas sûr"

"Si....ca laisse un petit doute"

In other words, in translation it was felt that the meaning had been changed, or as one participant put it, "En anglais, ils sont categoriques; én français, ils ne sont pas sûrs". Consequently, there was a strong desire to see the word 'verifié' or its equivalent in the French version.

### iv) Shape and Layouts:

Overall, the elliptical shape of label A was rejected on the grounds that it is 'too cute' or that it lacks the air of officialdom or authority. It was also perceived to be confusing to some in as much as the symbol preceded the word Energuide and seemed to be the initial letter. Finally the print was thought to be too small.

For some participants the round shape of label B signified a seal, the seal of approval. The fact that Energuide clearly separates the two languages was also thought by some (both anglophone and francophone) to be an advantage. Similarly, the white of Energuide against a black ground was liked.

The chief benefits of label C (square with rounded corners) were the apparent 'modernity' of the shape, the white on black of Energuide and the large print.

For label D the main advantages are its 'official' appearance and the separation of the symbol from the word Energuide. The significance of this latter is that, for francophones particularly, it makes the word Energuide easier to read. In addition, there was some feeling that the symbol has more impact on its own and would become recognized more quickly.

On the subject of the layout, two of the francophone groups raised the issue of the English text preceding the French. While some participants were prepared to tolerate this, particularly as it was the federal government involved rather than the Quebec government, others found it unacceptable, saying that in Quebec the French text should come first, or that when Quebec becomes independent the French text will be given priority.

### v) Colour:

While most participants accepted that black and white for these labels had considerable impact, a few suggested that the use of red, either as an outline or as a background to the word Energuide, might be more arresting. However, others pointed out that the use of any colour other than black and white could clash with coloured appliances.

As already mentioned, there was some support for white lettering on a black background.

### 3. LABEL PREFERENCES

Towards the end of the group sessions participants were asked to rank each of the four test labels in terms of their ability to stand out visually and to communicate their information.

This ranking was done by each participant individually and the results are as follows:

			ANGLOPHONES			FRA	NCO	PHON	ES	
	Lo	ıbel s	<u>A</u>	В	<u>C</u>	D	<u>A</u>	<u>B</u> _	<u>C</u>	D
1.	Potential Re	purchasers								
	l st 2nd 3rd 4th	d H n	- 1 9	2 - 6 2	3 6 1 -	5 4 1 -	1 2 1 4	2 1 4 1	2 5 1 1	5 - 2 2
	WE	AN:	1.1	2.2	3.2	3.4	2.0	2.5	2.9	2.9
2.	Potential Fin Purchasers	rst								
	lst 2nd 3rd 4th	d d	1 3 2 4	4 1 3 2	4 1 4 1	1 5 1 3	1 3 1 1	2 1 2 1	2 1 3 1	3 1 - 3
	ME	AN:	2.1	2.7	2.8	2.4	2.7	2.3	2.6	2.6
3.	Recent Purc	hasers		٠						
	l st 2nd 3rd 4th	d d	- - - 10	1 3 6 -	5 3 2	4 4 2 –	1 4 3 4	7 1 3 1	1 4 3 4	3 3 3 3
	WE	AN:	1.0	2.5	3.3	3.2	2.2	3.2	2.2	2.5

Note: MEANS are derived by allocating 4 points to the first choice, 3 points to the second, 2 points to the third and 1 point to the last choice and then dividing by the number of respondents.

If the groups are aggregated the situation is:

	<u>ANGLOPHONES</u>				FRANCOPHONES			ES
	A	В	C	D	A	В	C	D
lst	1	7	12	10	3	11	5	11
2nd	3	4	10	13	9	3	10	4
3rd	3	15	7	4	5	9	7	5
4th	23	4	1	3	9	3	6	8
MEAN:	1.4	2.5	3.2	3.0	2.2	2.8	2.5	2.6
Overall ranking:	4th	3rd	1 st	2nd	4th	1 st	3rd	2nd

A number of comments can be made about these data:

- i) there is a larger spread between the most and least preferred label among anglophones than among francophones.
- ii) label A is the least preferred by both language groups, although it has most support among first purchasers.
- iii) label B's success among francophones overall comes from the votes of recent purchasers – if they were excluded then labels C and D would be equal first.
- iv) the difference in preference between labels C and D is relatively small.

Of the four labels tested, C would appear to be the most acceptable since it not only scores highest with anglophones but has some of the same elements as label B that scores highest among francophones (i.e. has the same Energuide logo in white on black) and is in the largest point size. Possibly a variation on label C, with Energuide in the middle, separating the English and French texts, would be worth examining.

**APPENDICES** 

### TOPIC OUTLINE

### INTRODUCTION

1. FACTORS IMPORTANT IN APPLIANCE PURCHASE DECISIONS, eg. Refrigerator.

Group A - What factors/criteria would be considered if planning to buy a refrigerator?

Group B - As above, and also extent to which the criteria are different now than 10 years or so ago - how different?

Group C - What factors/criteria were considered in recent purchase of refrigerator?

- 2. IMPORTANCE OF ENERGY CONSUMPTION AS A PURCHASE FACTOR.
  - (assume energy consumptioned not mentioned in 1 above, or mentioned by minority only) what about the amount of energy the refrigerator consumes?
  - do refrigerators use a lot of electricity?
  - do different makes and models of refrigerators use different amounts of electricity?
- 3. SELF-ADMINISTERED QUESTIONNAIRE Q. 1.

(Actual ranking - Refrigerator 1
Clothes dryer 2
Colour T.V. 3
Dishwasher 4
Vacuum Cleaner 5
Single lamp 6)

- 4. AWARENESS OF NEW GENERATION OF ENERGY-SAVING APPLIANCES
  - in Canada or the States
  - which appliances
  - is the significance of lower energy consumption purely economic or is there an element of social concern.
- 5. SOURCES OF INFORMATION ABOUT CONSUMPTION OF DIFFERENT REFRIGERATORS
  - i.e. how can you tell if a particular make and model is a higher, average or lower energy user.

- 6. REACTION TO IDEA OF GOVERNMENT-SPONSORED LISTING OF REFRIGERATORS BY ENERGY CONSUMPTION
  - compare E.P.A. figures for automobile
  - will this be worthwhile
  - why/why not
- 7. SHOW 4 BOARDS WITH LABELS Explain that it is the intention of Government to test (via the C.S.A.) all major makes and models of domestic refrigerators for their monthly usage of electricity
  - does testing by the C.S.A. add credibility
  - overall reaction to the labels
- 8. UNDERSTANDING OF INFORMATION COMMUNICATED BY LABELS Explain that 15 ft cubic capacity refrigerator might use 125 k. /hrs per month
  - what does the information mean
  - what other information is necessary
- 9. RELATIVE ACCEPTANCE OF THE LABEL DESIGNS
  - the G symbol
  - the term 'Energuide'
  - the colours
  - the shapes, etc.
- 10. SELF-ADMINISTERED QUESTIONNAIRE Q. 2
  - reasons for the rankings given
- 11. POSSIBLE DESIGN IMPROVEMENTS.

### QUESTIONNAIRE

٦.	Which of these 6 items	uses most energy on average in your home?	And which is the
	second heaviest user?	Third, fourth, fifth and the lightest?	**

	Clothes dryer	Colour T.V.	Dish- washer	Refrig- erator	Single lamp	Vacuum cleaner
Heaviest user				l 🗆 '		
Second		IJ				
Third						
Fourth		Ι⊐				
Fifth			Ü			ū
Lightest user				П		

2. Which one of these 4 labels does the best job? And the second best? Third? And which is last?

Label:

	A	В	C	D
Best		; <b>□</b>		
Second				ſ⊒
Third				
Fourth			口	



This appliance uses 000 kilowatt hours per month when tested in accordance with Canadian Standards Association Specification = 00000000000

### **ENERGUIDE**

Cet appareil consomme 000 kilowattsheures par mois s'il est conforme à la Norme 0000000000 de l'Association canadienne de normalisation.

В.

This appliance uses
000 kilowatt hours per month
when tested in accordance with
Canadian Standards Association
Specification # 0000000000

# ENER GUIDE

Cét appareil consomme 000 kilowatts-heures par mois s'il est conforme à la Norme 0000000000 de l'Association canadienne de normalisation.

## **ENERGUIDE**

This appliance uses
000 kilowatt hours per month
when tested in accordance with
Canadian Standards Association
Specification # 0000000000

Cet appareil consomme 000 kilowatts-heures par mois s'il est conforme à la Norme 000000000 de l'Association canadienne de normalisation.

D.

# GENERGUIDE

This appliance uses 000 kilowatt hours per month when tested in accordance with Canadian Standards Association Specification # 0000000000

Cet appareil consomme 000 kilowattsheures par mois s'il est conforme à la Norme 0000000000 de l'Association canadienne de normalisation.



-KC [\$1,96.6 R4 1,977 G Report of a qualitative serve study on energy efficiency of label designs	)

# DATE DUE DATE DE RETOUR

CARR MCLEAN

38-296

