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Direction de
la vérification,
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et du contrôle

Audit,
Evaluation and
Control Branch

TRADED GOODS

Statements of Work for Evaluation of Energuide

Consommation
et Corporations
Canada

Consumer and
Corporate Affairs
Canada

Bureau de la
coordination
des politiques

Bureau
of Policy
Coordination

TRADED GOODS

Statements of Work for Evaluation of Energuide

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Statement of Work for Energuide Evaluation - Part I:

Cost-Benefit Analysis

1. Background:

1.1 In December of 1975, the government directed the Department of Consumer and Corporate Affairs to develop an energy consumption labelling program for major household appliances. This directive resulted in the present Energuide program which covers six major household appliances (refrigerators, freezers, ranges, dishwashers, clothes washers and dryers). The program is essentially informational and is designed to improve the effectiveness of consumers in the marketplace and, thereby, improve the market's efficiency and responsiveness to consumer demands. The first Energuide labels were affixed to refrigerators manufactured after September 30th, 1978.

1.2 The Strategic Policy Research Directorate (SPRD) in the Bureau of Policy Coordination of Consumer and Corporate Affairs Canada is presently undertaking a cost-benefit analysis of the Energuide program in its current form. The results of this analysis are of interest to the Program Evaluation Division and will be incorporated, as one input among others, into a broader evaluation of Energuide.

2. Objective:

The cost-benefit analysis described above will be contracted out by SPRD. The work specified by this statement is to offer expert advice to the Program Evaluation Division with respect to the design, execution, results, and conclusions of that cost-benefit analysis.

The Contractor will offer advice with respect to:

(a) critically examining the C/B analysis and assessing which aspects of the analysis should be subjected to further detailed examination; and
(b) presenting a plan of action for extending the C/B analysis to cover the expected costs and benefits of expanding the Energuide program to cover a broader range of appliances and equipment and new fuels.

3. Scope of the Tasks:

3.1 Review and comment upon the statement of work for the cost-benefit analysis. (Verbal advice to be provided within five days after receipt by contractor).

3.2 Review the successful proposal and provide comments (verbal advice, to be provided within five days after receipt by contractor).

3.3 Attend a meeting in Ottawa at which the C/B analysis contractor will present an interim report to SPRD and provide both verbal and written comments on that report.

3.4 Review a program document discussing the expansion of the Energuide program to cover a broader range of appliances and equipment and new fuels and provide written advice and comment.

3.5 Conduct a meeting at your offices with entire project team in attendance to discuss;

i) progress to date;
ii) issues to be resolved; and
iii) format and outline of final report.

This meeting will occur on or about March 1, 1984.

3.6 Review the C/B contractor's draft report and provide comments in writing, (within 5 days of receipt by contractor).

3.7 Review C/B analysis contractor's final report and provide comments in writing, (within 10 days of receipt by contractor).

3.8 Provide a final report:

i) critically examining the C/B analysis assessing which aspects of the analysis should be subjected to further detailed examination; and
ii) presenting a plan of action for extending the C/B analysis to cover the expected costs and benefits of expanding the Energuide program to cover a broader range of appliances and equipment and new fuels.

4. Constraints:

4.1 From the description of the scope of the tasks, it can be seen that the Contractor will work on a very tight schedule and that the work will require the efforts of the four researchers agreed upon: Gordon Douglas, Walter Haessel, Jim McMillan, and Trisha Gibson.

5. Availability of Relevant Documents:

The Contractor will be provided with all necessary and relevant documents and kept properly informed by the Program Evaluation Division.

6. Presentation:

Reports must be presented in both written and oral form. Written reports are to be typed, double-spaced on standard size 213mm x 275mm paper in the usual manner. Ten (10) copies of each report will be provided.

7. Time Schedule:

7.1 By February 13, 1984

- Review Statement of Work for C/B analysis
- Review C/B Contractor's proposal and provide written comments
- Review program document and provide written comments

7.2 On or about February 16, 1984

- Attend a meeting in Ottawa of presentation of C/B Contractor's first written report
- Review interim report by February 24 and provide written comments

7.3 On or about March 1, 1984

- Meeting at Contractor's office with project team to discuss;

i) progress to date;
ii) issues to be resolved;
iii) format/outline of final report

7.4 By March 26, 1984

- Review C/B Contractor's draft report and provide written comments
- First payment $4,100

7.5 By April 16, 1984

- Review final report of C/B Contractor and provide written comments

7.6 By May 7, 1984

- Provide final report
- Final payment $4,100.

8. Financial Limitations:

The Contractor will receive an initial payment of $4,100 after submitting a review of the C/B Contractor's draft report. The second and final payment of $4,100 will be made upon timely receipt of a satisfactory final report. An allowance of $1,800 will also be made for two return trips between Calgary and Ottawa.

9. Progress Report Requirements:

The submission and presentation of timely reports as described above in proper literary form will constitute the progress report requirements.

Statement of Work for Energuide Evaluation - Part I: Perceptions Study

1. Background

1.1 In December of 1975 the government directed the Department of Consumer and Corporate Affairs to develop an energy consumption labelling program for major household appliances. This directive resulted in the present Energuide program which covers six major appliances. The program is essentially informational and is designed to facilitate comparison shopping by consumers and to encourage the manufacture of energy efficient appliances. Energuide labels were first attached to refrigerators manufactured after September 30, 1978.

1.2 The Strategic Policy Research Directorate (SPR) in the Bureau of Policy Coordination of CCAC will be undertaking a study of consumer perceptions with respect to the Energuide program, the objective being to assess Energuide's efficacy in motivating consumers to purchase more energy efficient appliances. The results of this Perception Study will be of interest to the Program Evaluation Division and will be incorporated, as one input among others, into a broader evaluation of the Energuide program.

2. Objective

2.1 The perception Study described above is being contracted out by SPR. The work specified in this Statement is to offer expert opinion to the Program Evaluation Division with respect to that study.

2.2 Specifically, the Contractor will offer expert opinion and advice by:

a) critically examining the Perception Study to be carried out by the SPR's contractor and assessing which aspects of it warrant further detailed examination to ensure that it has addressed all required issues and accurately measured all required indicators; and

b) suggesting evaluation approaches that could be considered to address the evaluation issues pertaining to the Energuide Program. In particular, the Contractor will provide advice through proposed evaluation approaches on the most cost-effective way to address, among others, issues on the continuation of the program, its impact on manufacturers, its relevance as a communication/information tool and the need to expand the program to include other products and fuels.

3. Scope of the Tasks:

3.1 Attend a meeting in Ottawa in early February at which the SPR Contractor will present proposals for questionnaire content and design.

3.2 Provide written comments with respect to:

a) the successful Perception Study proposal accepted by SPR; and

b) the questionnaires mentioned above

3.3 Prepare a written report to outline the evaluation approaches that could be considered to address the evaluation issues pertaining to the Energuide Program. In particular, the suggested approaches will indicate the most cost - effective way to obtain indications on issues such as:

- the need to continue the program in its present format according to all identified affected parties (manufacturers, retailers, consumers and any other interested party);

- the impact of the program on the manufacturers' production process; in particular, the extent to which the program has contributed to the production of more energy efficient appliances;

- the relevance of the program as a communication/information tool; and

- the need to expand the program to include other products and fuels.

The report should address sampling and surveying considerations and provide indication of potential indicators that could be used to address the evaluation issues.

This report will be submitted to the study director by February 20, 1984.

3.4 Attend a meeting on or about February 23, 1984 at CCAC's office to discuss the content of the report described in 3.3 above.

3.5 Attend a meeting in Ottawa around Mid-March at which the SPR contractor will present preliminary results in an interim report.

3.6 Submit written comments to the study director on the interim report mentioned in 3.5 above and present an outline of the final report (see 3.7).

3.7 Review the Perception Study Contractor's final report and submit your written final report which will critically analyse the Perception Study and assess the aspects of the Energuide program that will require further examination. Particular aspects of the Perception Study to be critically examined include among others the questionnaire design and content, the sample size and selection, the survey approach, the scope of the survey, the assumptions, conclusions and recommendations flowing from the results of the study and analysis.

4. Availability of Relevant Documents:

The Contractor will be provided with any relevant document already available in CCAC's Program Evaluation Division and/or a bibliography of relevant studies/researches. Furthermore, the contractor will be kept properly informed by the Program Evaluation Division.

5. Presentation:

Reports must be presented in both written and oral form. Written reports are to be typed, double-spaced on standard size 213mm x 275mm paper in the usual manner. Ten (10) copies of each report are to be provided.

6. Time Schedule:

6.1 Early February
- Attend meeting with SPR

6.2 Mid-February
- Provide written comments within 5 working days of meeting (per 6.1) on proposal and questionnaires (per 3.2)

6.3 February 23, 1984
- Attend a meeting at CCAC's office to discuss report (per 3.3)
- Payment of $5,000.00

6.4 Mid-March
- Attend meeting with SPR for their interim report

6.5 March 30, 1984
- Submission of final report
- Final payment of $5,000.00

7. Financial Limitations:

The Contractor will receive an initial payment of $5,000.00 after submitting a report on suggested evaluation approaches. Final payment of $5,000.00 will be made upon timely receipt of a satisfactory final report.

8. Progress Report Requirements:

The submission and presentation of timely reports as described above in proper literary form will constitute the progress report requirements.

Statement of Work for Energuide Evaluation Part II: Technical Issues.

1. BACKGROUND

1.1 In December 1975, the government directed the Department of Consumer and Corporate Affairs to develop an energy consumption labelling program for major household appliances. This directive resulted in the present Energuide program which covers six major appliances: refrigerators, freezers, ranges, dishwashers, clothes washers, and dryers. The first Energuide labels were affixed to refrigerators manufactured in October 1978.

1.2 The Energuide program, which supports the government's energy conservation policies, is essentially informational. It is designed to improve the effectiveness of consumers in the marketplace and, thereby, improve the market's efficiency and responsiveness to consumer demands. In addition to labels, directories have been published which provided a method for comparing appliances on the basis of energy consumption and which provided the necessary energy consumption information (as per the labels). Consumers who consider energy consumption to be an important factor in the appliance purchase decision should, on the basis of this informa-

tion, make their best choice among efficient appliances. It is anticipated that manufacturers would consider low energy consumption to be a sales feature and devote their efforts towards improving the competitiveness of their products on the basis of energy consumption.

1.3 The Program Evaluation Division is presently undertaking an evaluation of the Energuide program. The research being conducted for the evaluation includes both technical and analytical work. This statement of work pertains to the technical work.

1.4 The Program Evaluation Division has a collection of documents pertaining to the Energuide program resulting from past research. This includes program descriptions, papers, and technical reports.

2. OBJECTIVES

2.1 The Contractor shall provide the Program Evaluation Division with information of a technical nature suitable for the evaluation of the Energuide program. The Contractor will secure said information through original work augmented by a review of pertinent literature. In broad terms, the information required deals with various factors which influence the efficacy of

the existing Energuide program, and those which could influence an expanded Energuide program covering other appliances and fuels.

2.2 The Contractor will provide information on, but not limited to, the following issues:

a) a review of technological change in the Canadian household appliance market (1975-1983);

b) the potential for additional economically feasible improvements in the electrical energy efficiency of eight household appliances over the next ten years including the six Energuide appliances, hot water heaters and furnaces;

c) the flow of technology between Canadian and foreign household appliance markets;

d) the feasibility and effects in detail of including home hot water heaters of electric, gas and oil types in the Energuide program and a brief review of same for furnaces;

e) current testing procedures and the development of efficiency ratings for appliances;

f) the feasibility of minimum efficiency standards as an alternative to the existing labelling program.

3. SCOPE OF THE TASKS

3.1 The Contractor will provide two oral reports and two written reports -- an interim report and a final report -- and attend meetings to discuss the interim report and the draft final report plus up to one additional meeting as required during the course of the contract.

3.2 The review of technological change in the Canadian household appliance market (1975-1983) will provide at least the following:

i) the effect on energy efficiency of changes made to each of the six Energuide appliances;

ii) the cost effects of these changes on manufacturers and consumers.

This information will be obtained by methods including but not limited to:

i) interviews with manufacturers, technical/ engineering experts, retailer and consumer associations;

ii) review of literature including Energuide directories and various studies in the possession of the Evaluation Division.

3.3 The potential for improvement in the electrical energy efficiency of household appliances over the next ten years will be addressed so as to provide at least the following information:

i) a comparison of current efficiency levels against anticipated future efficiency levels for each of the six Energuide appliances;

ii) the cost implications of each technologically feasible improvement.

This information will be obtained by methods including but not limited to:

i) interviews with manufacturers, technical/ engineering experts, consumer organizations;

ii) review of Canadian and American literature including scholarly and trade journals, and various studies in the possession of the Evaluation Division.

3.4 The flow of technology between Canadian and foreign household appliance markets will be addressed so as to provide, at least, the following information for each Energuide appliance:

i) the extent and nature of Research and Development related information exchanged between foreign firms and their Canadian branch plants or licencees;

ii) the level of R&D undertaken in Canada and a comparison of same to our major trading partners;

iii) the level of technological sophistication of appliances made in Canada compared to that of appliances made by our major trading partners, particularly with respect to energy efficiency.

This information will be obtained by methods including but not limited to:

i) interviews with manufacturers in Canada and USA;

ii) interviews with technical/engineering experts in Canada and USA.

3.5 The feasibility and effects of including home hot water heaters of electric, gas and oil types in the Energuide program and a preliminary review of furnaces will be addressed so as to provide, at least, the following information:

i) a review of the comparative energy efficiency of hot water heaters of electric, gas and oil types;

ii) the potential for energy efficiency related improvements for heaters of each fuel type in the next ten years and the cost implications of feasible changes;

iii) a description of market conditions for heaters, especially purchase criteria and energy efficiency related perceptions of consumers, builders and manufacturers on a regional basis (i.e. Atlantic, Quebec, Ontario, Prairies, B.C.);

iv) a preliminary review of existing work with respect to the potential for efficiency improvements to furnaces.

This information will be obtained by methods including but not limited to:

i) interviews with manufacturers of hot water heaters, representatives of utility companies, technical/ engineering experts, Energuide program management, consumer associations;

ii) literature review of Canadian and foreign scholarly and trade journals.

3.6 The issue of testing procedures and the development of efficiency ratings for appliances will be addressed in a way which provides at least the following:

i) correlation between ratings and actual householder experience for the six Energuide appliances;

ii) range of variation in energy consumption of the six Energuide appliances due to variations in consumer behaviour;

iii) impact of testing and rating on technological innovation in the appliance industry;

iv) alternate test and rating methods.

This information will be obtained by methods including but not limited to:

i) interviews with consumer and manufacturer associations;

ii) interviews with technical/engineering experts (academic and trade);

iii) literature review.

3.7 The feasibility of standards as an alternative to the existing labelling program will be addressed in a way which provides at least the following:

i) implications (especially costs and benefits) of standards for consumers;

ii) implications (especially costs and benefits) of standards for manufacturers;

iii) impact of standards on the rate of technological innovation;

iv) technical obstacles to the implementation of standards;

v) administrative obstacles to the implementation of standards;

vi) need for minimum performance standards in conjunction with maximum energy consumption standards.

This information will be obtained by methods including but not limited to:

i) interviews with consumer, manufacturer and retailer associations;

ii) interviews with members of the engineering and marketing staffs of domestic appliance manufacturers;

iii) interviews with technical/engineering experts (academic and trade);

iv) interviews with the Canadian Standards Association (CSA);

v) literature review.

4. PRESENTATION

4.1 Reports must be presented in both written and oral form. Written reports are to be typed, double-spaced, on standard size 215mm x 280mm paper in the usual manner.

4.2 Ten (10) copies of each report will be provided by the Contractor.

5. TIME SCHEDULE

5.1 This contract will be executed over a 13 week period. Reports will be due and meetings scheduled at the following times:

i) Program Evaluation will meet with the Contractor in Week 1 for the purpose of discussing this statement of work and the Contractor's proposal;

ii) first oral report and meeting in Week 3;

iii) first written interim report in Week 5 discussing the issues raised in 2.2 a, b, and c;

iv) second oral report and meeting in Week 8 (first payment of up to $10,000.00) describing progress to date and establishing the format of the final report;

v) draft final report and meeting in Week 11;

vi) final report due at end of Week 13 (final payment of up to $15,000.00 on acceptance of a satisfactory final report).

5.2 Meetings will be conducted at CCAC offices at mutually agreed upon times during the weeks designated above.

6. FINANCIAL LIMITATIONS

6.1 A fixed price contract of up to $25,000.00 will be awarded to the contractor who demonstrates the potential of providing the best value for the funds to be expended. The fixed-cost will be the total paid under the contract and must include all professional fees, travel expenses, support and copying costs, telephones, and all other costs. At least 50% of the contract amount will not be payable until a satisfactory and timely final report has been presented.

6.2 The Contractor will receive an initial payment of up to $10,000.00 after receipt of the second oral report (set out in 5.1 iv above).

6.3 The second and final payment of up to $15,000.00 will be made upon timely receipt of a satisfactory final report.

6.4 Information produced during the course of this contract is required for other evaluation modules being conducted by other contractors. Due to the tight scheduling and interdependence of the Energuide evaluation modules, liquidated damages of $500.00 per day (up to a maximum of $5,000.00) will be imposed for delayed receipt of the interim and/or final reports.

7. PROGRESS REPORT REQUIREMENTS

7.1 The submission and presentation of timely reports as described above, in proper literary form, will constitute the progress report requirements.

8. PROPOSALS

8.1 Proposals must contain a chart similar to that below which shows the expected timing of each set of interviews. For each set of interviews an interview guide and schedule must be provided in advance to the study director. Program evaluation staff may accompany the contractor to any of the face-to-face interviews which are conducted.

8.2 Proposals must state clearly the names of the people to be assembled for this contract; how responsibilities

will be divided between the team (including who will write the interim and final report, and who will attend the planned interviews and planned meetings with CCAC); qualifications and experience of members of the team.

PROJECT SCHEDULE

Week 1 -orientation meeting -literature review -interview guide for first set	Week 2 -submit first guide and schedule interviews -literature review -conduct interviews	Week 3 -first oral progress report -conduct interviews
Week 4	Week 5 -submit first written interim report on Monday -meeting to discuss report on Thursday	Week 6
Week 7	Week 8 -second oral report -present outline of final report -first payment	Week 9 (additional meeting if needed during this or next week)
Week 10	Week 11 -draft final due Monday -meeting Thursday	Week 13 -final report due on Thursday

8.3 The principal author(s) of the proposal and other contributors must be clearly set out.

8.4 Proposals should show two levels of effort and differences in results expected from each level. The second level of effort should cost 80% of the first level of effort. For example, a first level of effort at $25,000.00 implies a second, reduced option at $20,000.00. A contract will be awarded for either of the two levels of effort proposed. The interim payment of up to $10,000.00 need not be varied.

Statement of Work for Energuide Evaluation Part II: Analytical Issues

1. BACKGROUND

1.1 In December 1975, the government directed the Department of Consumer and Corporate Affairs to develop an energy consumption labelling program for major household appliances. This directive resulted in the present Energuide program which covers six major appliances; refrigerators, freezers, ranges, dishwashers, clothes washers, and dryers. The first Energuide labels were affixed to refrigerators manufactured in October, 1978.

1.2 The Energuide program, which supports the government's energy conservation policies, is essentially informational. It is designed to improve the market's efficiency and responsiveness to consumer demands. In addition to labels, directories have been published which provided a method for comparing appliances on the basis of energy consumption and which provided the necessary energy consumption information (as per the labels). Consumers who consider energy consumption to be an important factor in the appliance purchase

decision should, on the basis of this information, make their best choice among efficient appliances. It is anticipated that manufacturers would consider low energy consumption to be a sales feature and devote their efforts towards improving the competitiveness of their products on the basis of energy consumption.

1.3 The Program Evaluation Division is presently undertaking an evaluation of the Energuide program. The final evaluation report will be based on both technical and analytical work. This statement of work pertains to the analytical work. A separate contract will be let for the technical work which has a high "engineering" content. The two pieces of work are interelated and will be coordinated by the study director. Reports from each Contractor will be received and reviewed by the other.

1.4 Because of the degree of professional judgement required for each of these evaluation modules and the desirability of the Study Director understanding the full range of possible interpretations, and resolving questions of professional judgement as he considers

most appropriate, an "Advocacy" approach has been adopted for this evaluation. The firm awarded the contract for the Technical module will not be awarded the contract for this Analytical module. Nor can there be any affiliation through joint ownership or parent-subsidiary arrangements between the Contractor awarded the contract for the Technical module and the one awarded a contract to undertake this Analytical work.

1.5 The Program Evaluation Division has a collection of documents pertaining to the Energuide program resulting from past research. The collection includes program descriptions, papers, and technical reports.

2. OBJECTIVES

2.1 The Contractor shall provide the Program Evaluation Division with information and policy analysis pertinent to the evaluation of the Energuide program. The Contractor will secure said information through a variety of methods. In broad terms, the work to be

performed deals with the major evaluation issues to be assessed with respect to the results expected to be obtained in the future from the existing Energuide program; options for program expansion and extension; analysis of the individual program activities and viable alternatives.

2.2 The Contractor must have a demonstrated ability to undertake policy analysis, program review, and program design as well as analysis of the component activities to determine the contribution of each activity to the attainment of results. He will advise on policy at the level of individual activities as well as on the administration of each activity. Advice will be provided on the deletion of specific activities and on viable alternatives (e.g. contractual arrangements; whether activities now carried out under contract could be taken over by the department or appliance manufacturers and resultant costs and savings).

2.3 Technical and engineering considerations will be provided to the Contractor by the Study Director. The Contractor will assess these technical considerations

for their inherent logic and consistency with the theoretical literature in the areas of economics, business, administration, production and marketing. In his reports, and attendance at meetings to review technical work being undertaken under separate contract, he will provide the Study Director with advice in these areas and comment on the reasonableness and logical consistency of opinions expressed related to feasible technological improvements; in addition, the Contractor will provide an opinion on his expectations regarding the economics (from a business viewpoint) of implementing what is technically feasible.

2.4 In addition to commenting on feasible and economic technological questions, the Contractor will assess the current functioning of the program and each program activity. Much work is now contracted out. Prototype testing, inspections, various communications aspects, and other activities are carried out under contract. The Contractor will analyse these activities and discuss the advantages and disadvantages, costs, benefits (including savings) which would be expected from various viable alternatives to the current arrangements.

2.5 The Contractor will provide information and analysis of the following major issues;

a) Policy Analysis: Should the Energuide program continue to be implemented for the six appliances now included in the program? Are there appliances that should be added to the program?

b) Activities Analysis: Are resources allocated in the most effective manner between the various program activities? Are all activities contributing as much as possible to the achievement of program objectives? Should some activities be increased or should others be deleted? Can program activities be realigned to achieve savings or get better results? Are these viable alternatives to current arrangements?

2.6 In order to address these major issues, the following steps must be taken and/or the following types of questions must be analysed by the Contractor:

a) prepare a logic model of the Energuide program, indicating program impacts and effects on consumers,

manufacturers, and retailers;

b) examine the relevance of the Energuide Directory, other communication tools and enforcement activities in the attainment of program objectives;

c) examine how current activities are being delivered (especially as most activities are delivered by contract) and improvements/alternatives to the current arrangements;

d) evaluate a review of technological change in the Canadian household appliance market (1975-1983); this review will be conducted by the Contractor undertaking the "technical contract" and will be provided by the study director;

e) based on information provided by the study director, literature review and interviews, assess the potential for additional economically feasible improvements in the electrical energy efficiency of nine household appliances over the next ten years, including the six appliancs presently covered by the

Energuide program plus hot water heaters, furnaces, and heat pumps;

f) assess how the flow of technology between Canadian and foreign household appliance markets has affected the impact of the Energuide program;

g) assess production and marketing considerations in appliance design, manufacturing, and retailing, and the role of the Energuide program in each of these;

h) review a technical assessment of current testing procedures and the development of efficiency ratings for appliances, to be provided by the study director, and, after verification through interviews and focus group discussions, assess the relevance of ratings to actual consumer experience; consider viable alternatives/improvements (could these be done in departmental labs rather than under contract as now occurs);

i) the feasibility of minimum efficiency standards as an alternative to the existing labelling program;

j) consider the different markets (individual consumers, builders, large landlords, etc.) for each of the nine appliances and the impact of Energuide in each of these different market segments;

k) review and assess a technical assessment of the feasibility and effects of including hot water heaters of electric, gas and oil types in the Energuide program and a preliminary examination of the feasibility and effects of including furnaces of electric, gas and oil types and heat pumps; this analysis must bear in mind each of the different markets; advise on expected costs and benefits of extending the regulations to cover these appliances; and

l) consider the consequences (in terms of appliance energy efficiency) of deleting ranges, clothes washers, and dryers, freezers, and/or refrigerators from the program.

3. SCOPE OF THE TASKS

3.1 The Contractor will provide two oral reports and two written reports -- an interim report and a final report plus up to one additional meeting as required during the course of the contract. The Contractor will also examine and comment upon work undertaken in a technical contract, work being undertaken by a separate consultant and carried out in a similar timeframe; meetings with respect to the technical contract will be coordinated as per the Project Schedule in this Statement of Work.

3.2 The Contractor will construct a logic model of the Energuide program indicating program activities and at least the impact on:

i) consumers via their purchase decisions;

ii) manufacturers via product design and marketing; and

iii) retailers via marketing and floor selection.

This information will be obtained by methods including, but not limited to:

i) interviews with program management, officials of government departments (Consumer and Corporate Affairs, and Energy, Mines and Resources, at least), and academic experts;

ii) interviews with consumer, manufacturer, and retailer associations;

lll) interviews with marketing personnel of manufacturers and major retail chains;

iv) review of program files, contractual agreements, resource allocation and documents; and

v) literature review involving material in scholarly and trade journals.

3.3 Each of the activities and current delivery arrangements will be assessed and alternatives investigated. This information will be obtained by methods including, but not limited to:

i) interviews with program staff, departmental staff, staff of organizations now undertaking program activities under contract;

ii) inspection of labs, physical facilities of organizations now delivering services under contract, and of similar departmental facilities;

iii) contract review;

iv) file and documents review;

v) expert opinion;

vi) data analysis;

vii) other interviews necessary to become informed about alternatives.

3.4 A review of technological change in the Canadian household appliance market (1975-1983) will be provided and will address:

i) the effect on energy efficiency of technical changes made to each of the six Energuide appliances;

ii) the cost effects of these changes on manufacturers and consumers.

The Contractor will examine this report for logic and consistency. He will discuss the extent to which Energuide influenced the introduction of these changes. To carry out this assessment, and provide this advice, information will be obtained by methods including but not limited to:

i) interviews with manufacturers, technical/engineering experts, retailer and consumer associations;

ii) review of literature including Energuide directories and various studies in the possession of the Program Evaluation Division.

3.5 The potential for additional economically feasible improvements in the electrical energy efficiency of the six Energuide appliances plus hot water heaters, furnaces, and heat pumps for the next ten years will be addressed so as to provide at least the following;

i) a comparison of current efficiency levels against anticipated future efficiency levels for each of the six Energuide appliances plus hot water heaters, furnaces and heat pumps;

ii) the cost implications of technologically feasible improvements for each appliance;

iii) the extent to which these efficiency improvements would occur in the absence of the Energuide program.

This information will be obtained by methods including but not limited to:

i) review of technical report provided by the Study Director;

ii) interviews with manufacturers, technical and engineering experts, and consumer and industry associations;

iii) review of Canadian and American literature including scholarly and trade journals, and various studies in the possession of the Program Evaluation Division.

3.6 The flow of technology between Canadian and foreign household appliance markets will be addressed so as to provide, at least, the following information for each current Energuide appliance:

i) the extent and nature of Research and Development related information exchanged between foreign

firms and their Canadian branch plants or licencees;

ii) the level of R&D undertaken in Canada compared to our major trading partners;

iii) the level of technological sophistication of appliances made in Canada compared to that of appliances made by our major trading partners, particularly with respect to energy efficiency; and

iv) the extent to which technology transfers would continue to occur in the absence of the Energuide program.

This information will be obtained by methods including but not limited to:

i) review of technical report to be provided by the Study Director;

ii) interviews with manufacturers in Canada and U.S.A.;

iii) interviews with technical/engineering experts in Canada and U.S.A.

3.7 Production and marketing considerations in appliance design, manufacturing and retailing will be addressed so as to provide at least the following:

i) the ranking by engineers of energy efficiency among appliance design objectives and whether they tend to use benchmarks as efficiency targets or if they work for incremental improvements with each new design;

ii) the importance of energy efficiency in the marketing of appliances and the strategies used to sell efficient appliances;

iii) the balance struck by manufacturers between engineering and marketing objectives with

respect to appliance energy efficiency, in particular, whether marketing objectives are dominant; and

iv) the influence that energy considerations have had on the range of appliance models and model features and the opportunity to expand the energy efficiency feature from a marketing perspective.

This information will be obtained by methods including but not limited to:

i) interviews with design, production and other decision-makers, marketing representatives and senior managers of appliance manufacturing firms;

ii) interviews with trade and scholarly experts in the fields of product design and marketing; and

iii) interviews with trade and consumer associations.

3.8 Advice on the issue of current testing procedures and the development of efficiency ratings for appliances will be addressed in a way which provides at least the following:

i) correlation between ratings and actual user experience for the six Energuide appliances;

ii) range of variation in energy consumption of teh six Energuide appliances due to variations in user behaviour;

iii) impact of testing and rating on technological innovation in the appliance industry; and

iv) the range of efficiency ratings which are possible through the use of alternate test methods.

This information will be obtained by methods including but not limited to:

i) review of technical report to be provided by the Study Director;

ii) interviews with consumer and manufacturer associations;

iii) interviews with academic and trade experts and standard organizations; and

iv) literature review.

3.9 The practicality and acceptability of minimum efficiency standards as an alternative to the existing labelling program will be addressed in a way which provides at least the following:

i) implications (costs and benefits) of standards for consumers;

ii) implications (costs and benefits) of standards for manufacturers;

iii) impact of standards on the rate of technological innovation;

iv) technical obstacles to the implementation of standards;

v) administrative obstacles to the implementation of standards;

vi) need for minimum performance standards in conjunction with maximum energy consumption standards.

This information will be obtained by methods including but not limited to:

i) review of technical "feasibility" report to be provided by the Study Director;

ii) interviews with consumer, manufacturer and retailer associations;

iii) interviews with members of the engineering and marketing staffs of domestic appliance manufacturers;

iv) interviews with academic and trade experts;

v) interviews with the Canadian Standards Association (CSA);

vi) literature review; and

vii) examination of the American experience with efficiency standards.

3.10 The practicality, acceptability and expected costs, benefits and other effects of including home hot water heaters of electric, gas and oil types in the Energuide Program -- and a preliminary review of furnaces (electric, gas and oil types) and heat pumps -- will be addressed so as to provide the following:

i) a review of the comparative energy efficiency of hot water heaters of electric, gas and oil types

and of efficiency trends of these over the past ten years;

ii) the potential for energy efficiency improvements for heaters of each type in the next ten years and the cost implications of feasible changes;

iii) a description of market conditions for hot water heaters, especially purchase criteria and energy efficiency perceptions of consumers, builders and manufacturers on a regional basis (i.e. Atlantic, Quebec, Ontario, Prairies, B.C.);

iv) options for label design and testing procedures for non-electrical hot water heaters; and

v) a brief preliminary overview of the feasibility of including furnaces and heat pumps in the Energuide Program.

This information will be obtained by methods including but not limited to:

i) interviews with manufacturers, utility companies, technical/engineering experts, program management and consumer associations; and

ii) literature review of Canadian and foreign scholarly and trade journals.

3.11 The consequences (in terms of appliance energy efficiency) of deleting refrigerators, ranges, freezers, clothes washers and dryers from the program will be ascertained through interviews with program management, manufacturers, and consumer associations.

3.12 The Department will have input into the questionnaires and interview guides used to address the issues outlined above. Final drafts and schedules must be approved by the Study Director prior to their use. Program evaluation staff may accompany the Contractor to any of the face-to-face interviews which are conducted. Interview schedules for both this and the technical contract must be integrated and this will be

coordinated by the Study Director.

4. PRESENTATION

4.1 Reports must be presented in both written and oral form. Written reports are to be typed, double-spaced, on standard size 215mm x 280mm paper in the usual manner.

4.2 Ten (10) copies of each report will be provided by the Contractor.

5. TIME SCHEDULE

5.1 This contract will be executed over a 16 week period. Reports will be due and meetings scheduled at the following times:

i) Program Evaluation will meet with the Contractor in Week 1 for the purpose of discussing this statement of work and the Contractor's proposal;

ii) Review progress report of the Technical Contractor and attend a meeting to provide oral comments and discuss this report in Week 2;

iii) First oral progress report and meeting to discuss questionnaires and interview guides in Week 3;

iv) Review interim report of technical contractor and attend a meeting of the Technical Contractor and provide oral comment in week 5;

v) First written interim report in Week 6 discussing the issues raised in 2.2 a) through d); first payment of up to $10,000.00;

vi) Review draft report of Technical Contractor and attend meeting to discuss in Week 8;

vii) Second oral report and meeting in Week 9 describing progress to date and establishing the format of the final report; second payment of up to $10,000.00;

viii) Third oral progress report and meeting in Week 12; attend a meeting on the Technical contract draft final report; third payment of up to $10,000.00;

ix) Draft final report and meeting in Week 14;

x) Final report due at end of Week 16 (final payment of up to $20,000.00 on acceptance of satisfactory final report).

5.2 Meetings will be conducted at CCAC offices at mutually agreed upon times during the weeks designated above. In general, reports are to be submitted by noon on the Monday of the due week with the follow-up meeting on the Thursday of that week.

6. PROGRESS REPORT REQUIREMENTS

6.1 The submission and presentation of timely reports as described above, in proper literary form, will constitute the progress report requirements.

7. PROPOSALS

7.1 Proposals must contain a chart similar to that in Annex "A" (attached) which shows the expected timing of each set of interviews. For each set of interviews an interview guide and schedule must be provided in advance to the Study Director. Program evaluation staff may accompany the Contractor to any of the face-to-face interviews which are conducted.

7.2 Proposals must state clearly the names of the people to be assembled for this contract; how responsibilities will be divided between the team (including who will write the interim and final report, and who will atend the planned interviews and planned meetings with CCAC); qualifications and experience of members of the team.

7.3 The principal author(s) of the proposal and other contributors must be clearly set out.

8. FINANCIAL LIMITATIONS

8.1 A fixed price contract of up to $50,000.00 will be awarded to the Contractor who demonstrates the potential of providing the best value for the funds to be expended. The fixed cost will be the total paid under the contract and must include all professional fees, travel expenses, support and copying costs, telephones, and all other costs. At least 40% of the contract amount will not be payable until a satisfactory and timely final report has been presented.

8.2 The Contractor will receive three interim payments of up to $10,000.00 each as described in section 5 and Annex 'A' of this Statement.

8.3 The final payment of up to $20,000.00 will be made upon timely receipt of a satisfactory final report.

8.4 Information produced during the course of this contract is required for other evaluation modules being conducted by other contractors. Due to the tight scheduling and interdependence of the Energuide evaluation modules, liquidated damages of $600.00 per day (up to a maximum of $12,000.00) will be imposed for delayed receipt of interim and/or final reports.

ANNEX 'A'

PROJECT SCHEDULE

Week 1	Week 2	Week 3
-orientation meeting	-attend meeting on Technical interim report	-first oral report and meeting re questionnaires and interview guides
Week 4	**Week 5**	**Week 6**
	-attend meeting on Technical oral report	-first written interim report -first payment
Week 7	**Week 8**	**Week 9**
	-attend meeting on Technical draft report	-second oral progress report and meeting -second payment
Week 10	**Week 11**	**Week 12**
		-third oral progress report and meeting -third payment
Week 13	**Week 14**	**Week 15**
-additional meeting if needed	-draft final report and meeting re same	
Week 16		
-final report due -final payment		

NOTE: Reports are to be received on Monday of the due week with the follow-up meeting on Thursday of that week. Scheduled Meetings are to be held at CCAC offices in Ottawa.

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