

# Household Energy Use Survey Interviewer's Manual

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## TABLE OF CONTENTS

	Page
<b>1. GENERAL INFORMATION</b>	<b>1</b>
1.1 Introduction	1
1.2 Objectives	1
1.3 Sample	1
1.4 Overview of the Collection Phase	2
1.5 Uses and Users	3
<b>2. COLLECTION PROCEDURES</b>	<b>5</b>
2.1 Schedule of Activities	5
2.2 Supplies	5
2.3 Assignment Control Report (F07)	6
2.4 Training	7
2.5 Survey Preparation	7
2.6 Shipment of Completed Questionnaires	7
<b>3. INTERVIEWING PROCEDURES</b>	<b>9</b>
3.1 Identification Label (Items 1 - 11)	9
3.2 Collection Method Indicator (Item 8)	10
3.3 Telephone Portion	11
3.4 Personal Visit Portion	12
3.5 Completion Status (Item 12)	14
3.6 Respondent Speaks Other Official Language	15
3.7 Unusual Circumstances	15
• Temporary Dockets	15
• Change of Household/First Interviews	15
• Undelivered Letters and Guides	15
• Collective Dwellings (e.g., Institutions, Hotels or Camps)	16
EXERCISE A	17
<b>4. INSTRUCTIONS FOR COMPLETING THE F08</b>	<b>21</b>
4.1 General Rules	21
• Conducting the Interview	21
• Concepts	21
• Notes Section	22
4.2 Introduction (Items 13 - 19)	23
EXERCISE B	25
4.3 Appliances	26
• Refrigerator (Items 21 to 27)	27

---

EXERCISE C:	28
EXERCISE D:	31
• Cooking Appliances (Items 28 to 40)	34
• Dishwasher (Items 41 to 48)	37
• Freezer (Items 49 to 53)	40
• Washing Machine (Items 54 to 65)	41
• Clothes Dryer (Items 66 to 75)	44
• Other appliances (Items 76)	47
EXERCISE E	50
4.4 House Heating (Items 78 to 103)	51
• Heat Pump (Items 78 to 83)	51
• Principal Heating (Items 84 to 90)	52
• Fireplaces (Items 91 to 96)	56
• Supplementary Heating (Items 97 to 98)	57
EXERCISE F	62
4.5 House Features and Condition (Items 104 to 142)	66
• Exterior (Items 105 to 109)	66
• Basement (Items 110 to 117)	69
• Garage (Items 118 to 121)	72
• Attic (Item 122)	72
• Solarium/Sunroom (Item 123)	73
• Doors (Items 124 to 127)	73
• Windows (Items 128 to 133)	75
• Swimming Pool (Items 136 to 140)	79
• Hot Tubs and Saunas (Items 141 and 142)	80
EXERCISE G	81
4.6 Apartment Heating and Size (Items 143 to 159)	83
• Principal Heating Equipment (Items 143 to 147)	84
• Fireplaces (Items 148 to 153)	85
• Supplementary Heating (Items 154 to 159)	86
EXERCISE H:	88
4.7 Air Conditioning (Items 160 to 172)	89
• Central Air Conditioning (Items 160 to 165)	89
• Window or Room Air Conditioners (Items 166 to 170)	90
• Fans (Items 171 & 172)	91
4.8 Hot Water (Items 173 to 180)	92
4.9 Lighting (Items 181 to 183)	94
EXERCISE I:	97
4.10 Dwelling and Household (Items 184 to 190)	99
4.11 General Energy Information (Items 191 to 196)	102
EXERCISE J:	105
<b>5. QUESTIONS AND ANSWERS</b>	<b>107</b>



---

<b>6. AUGMENTED SAMPLE</b>	<b>111</b>
6.1 General	111
6.2 Collection Period	111
6.3 Supplies	111
6.4 Training	112
6.5 Interviewing Procedures	112
6.6 Introductory Letter to Respondent in Augmented Sample	114
6.7 Example of Assignment Control Report for Augmented Sample	116
 <b>APPENDIX A : INTRODUCTORY LETTER</b>	 <b>117</b>
 <b>APPENDIX B : INTERVIEWER'S CODE SHEET</b>	 <b>121</b>
 <b>APPENDIX C : ASSIGNMENT CONTROL REPORT</b>	 <b>125</b>
 <b>APPENDIX D : ANSWER KEY</b>	 <b>129</b>
EXERCISE A:	131
EXERCISE B:	133
EXERCISE C:	134
EXERCISE D:	135
EXERCISE E	136
EXERCISE F:	137
EXERCISE G:	141
EXERCISE H:	144
EXERCISE I:	145
EXERCISE J:	147
 <b>APPENDIX E: DEFINITIONS</b>	 <b>149</b>



## **1. GENERAL INFORMATION**

### **1.1 Introduction**

The Household Energy Use Survey is conducted for Energy, Mines and Resources Canada as a supplement to the Labour Force Survey.

The focus of this survey is on energy consumption in residences. To improve our knowledge about how Canadians use energy in their homes, the survey covers all sources of energy used - the fuels burned as well as the technical characteristics of the energy using equipment such as appliances, space heating and cooling, water heating and lighting. The survey will also ask questions about the characteristics of the dwelling itself to measure the performance of the thermal envelope of the home.

### **1.2 Objectives**

Not only in Canada, but worldwide, the increasing demand on our non-renewable resources has a significant impact on our environment. The increasing use of fossil and other fuels contribute greatly to the creation of greenhouse gas emissions in the earth's atmosphere. These greenhouse gas emissions are considered to be a major factor towards global warming.

In response to this problem, the Federal Government announced several new initiatives under its Environmental Green Plan to increase the efficiency of energy-use in Canada. These new programs will enable the Federal government to monitor and evaluate progress towards its goal of limiting these greenhouse gas emissions.

### **1.3 Sample**

The Household Energy Use Survey will be completed in each dwelling in one or two rotations in the Labour Force Survey. In some provinces the sample will be augmented by dwellings that have rotated out of the sample. Refer to the following table for the number of rotations in your assignment:

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1. GENERAL INFORMATION

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	LFS Rotations	Augmented Sample Off Rotations	Total Rotations
Newfoundland	4 and 5	N/A	2
Prince Edward Is.	4 and 5	1 and 2	4
Nova Scotia	4 and 5	2	3
New Brunswick	4 and 5	2	3
Quebec	One half of 4	N/A	.5
Ontario	70% of 4	N/A	.7
Manitoba	4 and 5	2	3
Saskatchewan	4 and 5	2	3
Alberta	4	N/A	1
British Columbia	4	N/A	1

Both owned and rented dwellings are included.

Excluded are collective dwellings and households that were coded B, C, D, V, or R3 in January.

NOTE: There is more information on the augmented sample in Section 6.

#### 1.4 Overview of the Collection Phase

Early in February, the Regional Office mailed an introductory letter and guide to the LFS respondent in dwellings with mailing addresses so that they would be prepared for this survey. Refer to Appendix A for a copy of this letter.

Interviews will be conducted upon the completion of the Labour Force Survey and Absence from Work Survey in selected dwellings by telephone and personal visit. The questionnaire will usually be completed with the respondent, fifteen years of age and over, who is most knowledgeable of the household's appliances, heating and cooling equipment, etc. during the LFS week and the following week.

Personal visits will be made to rented dwellings where

- all the adult members are 65 and over

OR

- the maximum education is grade 8



## *I. GENERAL INFORMATION*

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Telephone collection should take about 10-20 minutes for apartment dwellers and about 30 minutes for house dwellers, depending on the preparation done by respondents and the extent of their equipment.

Personal interviews with renters should take about 30 minutes.

### **1.5 Uses and Users**

The compiled statistics will be released in a microdata file format once it has been reviewed to ensure that the identity of any respondent or household has not been disclosed directly or residually.

This information will be used in specific energy efficiency programs and policies of Energy Mines and Resources Canada, such as:

- developing regulations to ensure efficiency standards for energy-using equipment;
- calculating the impact of various programs towards increasing the efficiency of energy-use, decreasing energy demand and reducing greenhouse gas emissions.



## 2. COLLECTION PROCEDURES

### 2.1 Schedule of Activities

ACTIVITIES	FROM	TO	WORK DAYS
R.O. mails letters and guides to dwellings selected for the Household Energy Use Survey	Feb. 3, 1993	Feb. 5, 1993	3
R.O. sends out survey material in LFS assignment	Feb. 11, 1993	Feb. 15, 1993	5
Homestudy and discussion of survey with Senior Interviewer	Feb. 15, 1993	Feb. 19, 1993	5
Data Collection of F08	Feb. 22, 1993	Mar. 5, 1993	11
Shipment of survey documents to R.O.		Mar. 6, 1993	1

### 2.2 Supplies

In addition to this Interviewer's Manual, you will receive the following supplies:

<b>Form F08</b>	Labelled Household Energy Use Survey Questionnaires (French and English), plus 5 unlabelled or blank ones.
<b>Introductory Letter and Guide</b>	A supply of each for the HEUS. (See Appendix A for a sample of the English and French introductory letters). You will also receive letters and guides for respondents for whom the Regional Office was unable to mail due to the LFS respondent refusing to provide the mailings during the birth interview or to a lack of a valid mailing address.

In the case of a refusal, a single asterisk will appear on the mailing label in the space where the address would normally appear.

123456

12345 E

John Jones

\*

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## 2. COLLECTION PROCEDURES

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In situations where the mailing address is not valid, the message "DO NOT MAIL" will appear beneath the invalid address at the bottom of the label.

123456	12345 E
John Jones 123 Anystreet Anywhere	
** DO NOT MAIL/NE PAS POSTER**	

**Code Sheet  
F10**

One code sheet for reference in completing questions concerning "Make" of appliances and equipment. (See Appendix B.)

**Assignment Control  
Report F07**

This form lists all of the dwellings for which labels were produced for the Household Energy Use Survey. (See Appendix C.)

### 2.3 Assignment Control Report (F07)

Refer to Appendix C for a sample of the Assignment Control Report (F07).

The Assignment Control Report lists the docket number for each household. A separate report will be printed for the LFS rotations and the augmented sample.

You will first use this form to check your supplies. The count (or total) provided at the bottom of the form will tell you how many labelled questionnaires you should have received.

During the survey you will use this form to record your work. Upon the completion of each interview, the final status recorded in Item 12 indicated on the F08 is to be entered on the F07 beside the appropriate docket number. For example, for a completed interview, an "X" would be entered directly below the column headed (2). The "2" refers to the cell number for a completed interview in Item 12 on the F08.

After collection, the Assignment Control Report serves as your record of transmittal or packing slip. The F07 must be sent back to the Regional Office with your completed documents. Clerks will use it in the Regional Office to "check-in" your forms. R.O. staff may call you if they think documents are missing.



## 2. COLLECTION PROCEDURES

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### 2.4 Training

Interviewers will be required to:

1. Read the Interviewer's Manual and complete the self-study exercises throughout the manual.
2. Conduct a practice interview (with a family member or friend).
3. Discuss any questions, etc., if necessary, with your Senior Interviewer prior to the start of Survey Week.

### 2.5 Survey Preparation

1. Upon receipt of your assignment, ensure that you have received the necessary supplies outlined in Section 2.2 - Supplies.
2. Using the F07 Assignment Control Report, ensure that you have received a labelled F08 for each docket number.
3. Place the F08 in the corresponding Household Record Docket (F03). Ensure that Item 2 (Docket Number) on the F03 is the same as Item 1 (Docket Number) on the label of the F08.

### 2.6 Shipment of Completed Questionnaires

Return your completed LFS forms (i.e., F03, F04, and F05) to your Regional Office as usual. Remember that your LFS returns are not to be delayed beyond regular deadlines.

Retain the Household Energy Use questionnaires until you have finished your assignment.

When completed:

- . Arrange in the same order as the Assignment Control Report
- . Bind together the questionnaires and the F07 with an elastic band, F07 on top.
- . **Ship in one shipment only, not later than March 6, 1992**, using the same mode of shipping that is used for the Labour Force Survey.

Clerks will use the F07 in the Regional Office to "check-in" your forms. The F07 serves as your record of transmittal. R.O. staff may call if they think documents are missing.



### 3. INTERVIEWING PROCEDURES

#### 3.1 Identification Label (Items 1 - 11)

An identification label will be affixed to each F08. On receipt of your survey supplies, ensure that Item 2 (Docket Number) on the F03 is the same as Item 1 (Docket Number) on the identification label of the F08.

You will seldom be required to manually enter any data in Items 1 to 11. This will only be necessary when the questionnaire is completed in the other official language and the label is affixed to a questionnaire of the wrong language.

The identification label contains the following information:

1: 123456 - 001	2: 0293	3: 12345
4: 1	6: LISTING ADDRESS	
5: OWN/RENT		
7: E/A or F	8: P	9: 123-123-1234
10: D	11: HEAD OF HOUSEHOLD	

- |          |  |
|----------|--|
| Item 1:  | Docket No. and sequence number   |
| Item 2:  | Survey Date  |
| Item 3:  | Assignment Number  |
| Item 4:  | Dwelling Type  |
| Item 5:  | Owner/Renter status: OWN or RENT   |
| Item 6:  | Listing Address  |
| Item 7:  | Language of household;<br>E = English<br>A = Anglais (in Que.)<br>F = French                     |
| Item 8:  | Collection Method (Personal Visit) indicator: P or blank   |
| Item 9:  | Telephone Number   |
| Item 10: | Code indicates to complete section D in questionnaire (instead of sections B and C) : D or blank |
| Item 11: | Name of the Head of the household  |

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### 3. INTERVIEWER'S PROCEDURES

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#### 3.2 Collection Method Indicator (Item 8)

Item 8 on the Label indicates whether the dwelling is to be collected by telephone or by personal visit.

Where Item 8 is blank on the label, this is the telephone portion of the sample. Attempt to collect HEUS by telephone unless

it is usually a personal visit for the LFS

the respondent insists on a personal visit.

In these cases one personal visit may be made to collect the data. When this occurs, IN RED ADD A "P" in Item 8 on THE PRE-PRINTED LABEL as follows:

1: 123456 - 001	2: 0293	3: 12345
4: 1	6: 999 MAIN STREET	
	ANYWHERE, ANY PROVINCE	
	A1B 2C3	
5: OWN		
7: E	8: P	9: 123-123-1234
10:	11: JOE COOL	

Similarly, where "P" (personal visit) is indicated, the data may be collected by telephone only if the respondent insists. In this case CROSS OUT THE P IN ITEM 8 IN RED as follows:

1: 123456 - 001	2: 0293	3: 12345
4: 1	6: 111 MAIN STREET, APT. A	
	ANYWHERE, ANY PROVINCE	
5: RENT		
7: E	8: P	9: 123-123-1234
10: D	11: SUZIE CUTE	

**NOTE:** The alternate method of collection is preferable to a refusal.



### 3. INTERVIEWING PROCEDURES

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#### 3.3 Telephone Portion

Most cases designated "telephone" will be conducted on the telephone unless the LFS interview requires a personal visit (i.e., no telephone, person has refused all surveys over the telephone, etc.).

##### LFS Telephone Interview

1. Complete the LFS interview.
2. Read the brief introduction, ask if the guide has been received and request to speak with the household member who is the most knowledgeable about appliances, heating and cooling.
3. If the respondent most knowledgeable of the household appliances, etc. is not available, make arrangements to call back and record the date, call-back time and comments in the "Record of Calls and Appointments" section on the front page of the F08.

<b>NOTE: Up to two call-backs will be allowed.</b>
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4. On the second call-back, if the respondent is still not available, the interviewer will determine if there is another knowledgeable household member available to complete the interview. In the event there is no other knowledgeable household member available, mark Circle "Other Non-response" in Item 12 and explain the situation in the Notes Section at the end of the questionnaire.
5. 

<p>NOTE: If the respondent will not complete the interview on the telephone, a personal visit may be conducted. Make an appointment to visit the household and record the date, time and comments in Item 16 of the F08. Add a "P" to Item 8 in red. <b>Only one personal visit will be allowed.</b> If the respondent cannot be interviewed at the appointed time, mark Circle "Other Non-Response" in Item 12.</p>
--
6. If the appointed time cannot be made within the collection period, mark "Other Non-response" in Item 12.

##### LFS Personal Interview

1. Complete the LFS interview.
2. Read the brief introduction, ask if the guide has been received and request to speak with the household member who is the most knowledgeable about appliances, heating and cooling.

### 3. INTERVIEWER'S PROCEDURES

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3. If the respondent most knowledgeable is not present (at time of LFS visit)

- . Arrange a TELEPHONE call-back, if possible.
- . Upon the telephone call-back, if the respondent is not available, make another appointment to call back.
- . On the second call-back, if the respondent is still not available for a telephone interview, ask if there is another knowledgeable household member available. Should there be no other knowledgeable household member available, mark Circle "Other Non-response" in Item 12.

If, at the time of the LFS visit, the knowledgeable respondent is not present and the LFS respondent refuses a telephone call-back or cannot be reached by telephone, arrange for another personal visit

- . Be sure that you are given a definite time to call back.

<b>NOTE: one personal call-back visit will be allowed.</b>
--

- . At the time of the call-back visit, if the respondent is still not available for an interview, ask if there is another knowledgeable household member available. Should there be no other knowledgeable household member available, mark Circle "Other Non-response" in Item 12 and explain the situation in the Notes Section. **(No additional personal visits should be made unless it is required for the Labour Force Survey).**

#### 3.4 Personal Visit Portion

Planners for this survey believe that persons who rent and who are either over 65 or older or have limited education would find the completion of this questionnaire troublesome. To obtain better data, they have designated this portion of the sample as personal visits so that you can help them with the more difficult aspects of the questionnaires, especially, finding model numbers, estimating their apartment size and age of their building.

1. Complete the Labour Force Survey according the usual method of collection.
2. Read the brief introduction, ask if the guide has been received and request to speak with the household member who is the most knowledgeable about appliances, heating and cooling.

### 3. INTERVIEWING PROCEDURES

---

3. Make arrangements for a personal visit and record the date, time and comments in the "Record of Calls and Appointments" section on the front page of the F08.

**NOTE: two personal visits will be allowed.**

4. At the appointed time of the personal visit, if the respondent is not available follow these steps in the order they appear:
- The interviewer will determine if there is another knowledgeable household member available to complete the interview.
  - Try to reach the respondent by phone to arrange another visit if you feel the prospects are good,
  - If not, conduct the interview over the phone and cross out the "P" in Item 8.
  - As a last resort, mark Circle "Other Non-response" in Item 12 and explain the situation in the Notes Section at the end of the questionnaire.

The following chart summarizes the maximum number of calls/visits for the HEUS and may provide a handy reference:

LFS	Household Energy Use Survey (HEU)	
	"Blank" in Item 8	"P" in Item 8
Telephone	1 call for LFS and HEUS and 2 call-backs for HEUS	1 call for LFS and 2 visits for HEUS
Personal visit	1 visit for LFS and HEUS and 1 extra visit for HEUS 2 telephone call-backs for HEUS	1 visit for LFS and HEUS 1 visit for HEUS

These rules will apply to most of the cases although there may be exceptions as explained before.

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### 3. INTERVIEWER'S PROCEDURES

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#### 3.5 Completion Status (Item 12)

At the end of the interview, indicate the Completion Status by marking the appropriate circle in Item 12 of the F08 and on the F07.

**LFS NON-INTERVIEWS:** Non-interviews C, B, D, R, V for the Labour Force Survey are automatically non-interviews for the Household Energy Use Survey. In such cases, mark Circle 1 **beside "LFS non-interview"**. However, where there is a possibility to collect the Energy data in the week following the LFS, i.e., the code is L, K, N or T, wait to apply this status code until the end of the HEUS collection period March 6, 1993.

**COMPLETED:** All items have been answered by the respondent. Therefore, this status code is for fully completed questionnaires.

**PARTIALLY COMPLETED:** At least one section has been completed, e.g. A. Appliances.

**REFUSED HOUSEHOLD ENERGY SURVEY:** The respondent has refused to participate in the survey and less than one section has been answered.

**OTHER NON-RESPONSE:** No questions have been answered because you were unable to make contact with the knowledgeable household respondent upon call-back; for example, temporary absence due to a vacation or business trip, not home when call-back was made, illness, etc.

An unusual situation has arisen between the LFS interview and call-back preventing the interview, for example, illness, death in the family, etc.

**NOTE:** Ensure that all F08's have an entry in the Completion Status Box and the corresponding status is marked on the Assignment Control Report.



### 3. INTERVIEWING PROCEDURES

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#### 3.6 Respondent Speaks Other Official Language

The language indicated on the label of the questionnaire is the language preferred by the usual LFS respondent and may not reflect the language of the most knowledgeable survey respondent. For example, the LFS respondent prefers to be interviewed in English but the respondent to the HEUS prefers to be interviewed in French. The label has been placed on the English questionnaire.

Therefore, when the selected respondent's preferred language is different from that of the questionnaire:

- ◆ Put an "X" through the label
- ◆ Take an unlabelled questionnaire in the other official language
- ◆ Transcribe the label information in Items 1 to 11
- ◆ Correct the language code
- ◆ Continue the interview in the respondent's preferred language. If you are unable to speak this language, contact your supervisor.

When respondents tell you that they have received the Guide in the wrong language, offer to hand-deliver one in the preferred language. We expect the case to be rare where a respondent will insist on another Guide; however, it is important to comply with government policy.

#### 3.7 Unusual Circumstances

##### Temporary Dockets

Temporary dockets are excluded from the Household Energy Survey as they have not received the guide. Do not complete the F08.

##### Change of Household/First Interviews

For dwellings that have never been previously contacted until this survey month due to a change of household, follow the same procedures as for temporary dockets. Mark circle 5, Other Non-response in Item 12.

##### Undelivered Letters and Guides

Undelivered guides will be placed in your assignments. They will have an asterisk to identify a refusal to supply a mailing address or a message "DO NOT MAIL" to identify an invalid mailing address. Refer to section 2.2 for examples. These guides should be placed with the appropriate household docket to identify who did not receive them.

### 3. INTERVIEWER'S PROCEDURES

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When it is early in Survey Week, you may hand-deliver them if you are in the neighbourhood.

Otherwise, you may want to attempt to conduct the interview and call back for the missing data, such as model numbers of appliances and equipment.

#### Collective Dwellings (e.g., Institutions, Hotels or Camps)

EXCLUDE dwellings that are considered collective such as a boarding house, an institution, a hotel or a camp.

<b>NOTE:</b> <u>Most</u> of these procedures apply to the augmented sample. Refer to Section 6 for information on how they differ.
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### 3. INTERVIEWING PROCEDURES

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**EXERCISE A:** To test your knowledge of what you have read to so far, complete the following questions.

**1. The Household Energy Use Survey collection involves collecting data...**

(Circle as many correct answers as apply.)

- a) from dwellings that are rented.
- b) from households that were absent last month.
- c) from collective dwellings.
- d) from dwellings that are occupied by its owners.
- e) from dwellings that have temporary docket numbers.
- f) from respondents that completed the Guide only.

**2. Name two policies and programs in which Energy Mines and Resources will use the data.**

- a) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- b) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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3. INTERVIEWER'S PROCEDURES

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**EXERCISE A: (CONTINUED)****3. What does a "P" in Item 8 mean?**

- a) the collection method is by \_\_\_\_\_ (Fill in the blank.)
- b) the adult respondents in the household must meet two conditions: (Circle **two** answers)
  - i) are renters
  - ii) are owners and renters
  - iii) are all over 65 years of age
  - iv) have a maximum education of grade 8
  - v) are over 65 years of age OR are any age but have maximum of grade 8 education
  - vi) are 65 years of age and over AND have a maximum of grade 8 education.

**4. Where the LFS normal collection method is**

- a) by telephone and F08s that have a P in Item 8 should be collected by \_\_\_\_\_
- b) by personal visit and F08s that have no P in Item 8 should be collected by \_\_\_\_\_.

**5. How many times do you call or call back? (Fill in the blanks)**

- a) Where both the F08 and the LFS collection method is by telephone you can make a maximum \_\_\_\_\_ call back(s) by telephone.
- b) Where both the F08 and the LFS collection is by personal visit you can make a maximum of \_\_\_\_\_ visit(s).

### 3. INTERVIEWING PROCEDURES

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#### EXERCISE A: (CONTINUED)

- c) Where the F08 collection is by personal visit but the LFS collection is by telephone you can make a maximum of \_\_\_\_\_ call(s) or call-back(s) by \_\_\_\_\_ and \_\_\_\_\_ call(s) or call back(s) by \_\_\_\_\_.
6. What do you do to the label when Item 8 tells you that
- a) the collection method should be by personal visit but the respondent insists on a telephone interview?
- \_\_\_\_\_
- b) the collection method should be by telephone but the respondent has no telephone?
- \_\_\_\_\_

**REFER TO APPENDIX D FOR THE CORRECT RESPONSES**





## 4. INSTRUCTIONS FOR COMPLETING THE F08

This manual explains how to complete the Household Energy Use Survey Questionnaire (F08). As you read through this manual, it is important that you have a blank copy of the F08 in front of you. Refer to the questionnaire for the exact wording of each question or item number, then read the explanation provided in this manual. This method will familiarize you with both the manual and the questionnaire.

### 4.1 General Rules

#### Conducting the Interview

When asking questions and making entries on the F08, observe the following rules:

- Words in **bold** are to be read aloud during the interview.
- Boxes **require** leading zeros.
- Estimates are acceptable.
- Mark the "don't know" circle only as a last resort. In questions where there is no such circle, indicate "Don't know" with the standard "DK".
- Not all questions permit one answer only. Pay attention to the notes in italics to guide you.

<p><b>NOTE:</b> Questions that are in the Guide are indicated on the questionnaire with an asterisk and the word "Guide" beside it in italics. For example, look at Question 19 on the Questionnaire, you will see "<i>*Guide</i>". This will help you to know when to refer respondents to their guide.</p>
--

#### Concepts

**AGE:** Always round up age of energy using equipment when age falls between category ranges.

For example, a respondent reports the age of her refrigerator as "one and a half years old" and the response categories are: "one year or less, two years, three years,... etc." In this case, the correct response would be "two years".

#### 4. GENERAL INSTRUCTIONS FOR COMPLETING THE F08

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USE: Whenever "use" appears in the question it means that the item,

- has been used at least once in the last twelve months
- is usually in working order ( or temporarily in need of repair).
- can be used for a business.
- is used by the household members only (exclude shared appliances in laundry rooms)

This does not necessarily mean "owned". The item may be owned rented or borrowed to be included. But, it must be part of the household on a regular basis. Exclude occasional borrowing and renting.

Some examples of cases to be excluded:

Example 1: A new gas furnace has been installed but has not been used because the gas is not hooked up. Count existing heating equipment.

Example 2: A family occasionally rents or borrows a VCR to edit tapes or a household member brings home a portable computer from work once in a while.

LOCATION: The appliance or item must be located within the apartment or for all other dwelling types, within the boundaries of the dwelling property. In other words it cannot be kept at a neighbour's, at a cottage, etc.

#### Notes Section

Use this section to:

1. Explain the reason for a non-interview.
2. Qualify an unusual entry or estimate. Example of unusual entries:

"Electricity not available to respondent--cut off (or remote location)."

Ensure that you have entered the item number to which the comment refers, e.g.:

"Q.90 uses a computer to regulate heat."

#### 4. GENERAL INSTRUCTIONS FOR COMPLETING THE F08

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3. Make a note of any problems you or respondents encounter in answering questions in case you are called upon to complete a debriefing questionnaire.

#### 4.2 Introduction (Items 13 - 19)

13. *Now let's move to the Energy Use Survey. Did you receive the Guide we mailed you?*

Introduce the Household Energy Use Survey to each LFS respondent by reading aloud this statement.

In the following items of the cover page the order may have to be adjusted to suit the situation.

Here, when the respondent answers "No" you will have to determine if you will be in the neighbourhood to get a copy of the letter and guide to the respondent. If not, you will ask the next question about the most knowledgeable person but, obviously there is no point in asking the Item 17 ("Have you completed the Guide?").

14. *Who would be the best person to answer questions about your appliances, heating and cooling?*

If not the name in Item 11, enter the respondent's name and page line number in the appropriate cells. This information is found in Items 31 and 32 on the F03. This is particularly important for your reference when appointments arranged at a time after the LFS F03 is sent back to the regional office.

If the household respondent that is considered the best source of information regarding the household energy use is not available, make an appointment to call back. Ensure the correct date, time and telephone number for the call-back are recorded in the Record of Calls and Appointments section. If the "best" person will not be available to call back within the survey period and there is another person who has knowledge of the household's energy use, list the next best person and interview.

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4. GENERAL INSTRUCTIONS FOR COMPLETING THE F08

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15. *If not ready for interview, make an appointment and remind the respondent to complete the Guide.*

16. *Record of Calls*

Use Item 16 to record the date, time and any comments for appointments. "Call back for" is used to record item numbers for which the respondent has requested a call-back be made in order to provide the appropriate information. For example, the respondent wishes to check his/her model number on his/her appliances.

Try to reschedule the interview as soon as possible. If it cannot be done during the collection period, proceed and call back for missing information.

17. *For those who received the Guide: Have you completed the Guide?  
Please get the Guide.*

The questionnaire requires that the respondent do some "homework" such as look up make and model numbers of appliances and equipment. The interview will be more complete and quicker if the respondent has completed the Guide.

18. *Start time \_\_\_\_\_*

It is important that you record the start and end times so that we know how long the questionnaire will take for the similar surveys in the future. This will give us a better idea of costs.

Please use the 24 hour clock. For example, six-thirty in the evening is 18:30.

Always begin by reading the introduction to the respondent:

19. *This month's supplement is being done for Energy, Mines and Resources and will help to plan energy efficiency programs. While your participation is voluntary, your answers are important and will be kept confidential under the Statistics Act.*

4. GENERAL INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE B**

1. Apply the concepts of use and location in the following statements to determine if the appliance should be included or excluded on the questionnaire.
  - a) an extra stove that has been stored in the basement for two years.  
Included \_\_\_\_ Excluded \_\_\_\_
  - b) a freezer used at a cottage owned by the household.  
Included \_\_\_\_ Excluded \_\_\_\_
  - c) a dishwasher that is usually used but has broken and expected to be repaired.  
Included \_\_\_\_ Excluded \_\_\_\_
  - d) a dryer that is plugged in, is in working order but not turned on during the past year because the family hangs their clothes out to dry.  
Included \_\_\_\_ Excluded \_\_\_\_
  - e) a refrigerator in the garage, detached from the farmhouse  
Included \_\_\_\_ Excluded \_\_\_\_
  - f) a teenager has taken the family's extra fridge to his apartment where he stays in another city while going to university.  
Included \_\_\_\_ Excluded \_\_\_\_
4. What age would you consider a furnace to be when a respondent tells you, "Its about 15 or 20 years old."  
  
\_\_\_\_\_ years old.

REFER TO APPENDIX D FOR THE CORRECT RESPONSES

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4. INSTRUCTIONS FOR COMPLETING THE F08

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## 4.3 Appliances

20. *I'm starting with appliances. Consider those used at least once in the past 12 months.*

Major appliances account for 15% of total household energy use. Information on appliances is collected

- to set priorities on setting minimum standards for energy-efficiency using standardized methods. All models of appliances sold in Canada are tested to determine their energy-use. The more frequently a particular type of appliance occurs, the greater the importance that energy consumption standards be instated.
- to determine energy consumption by age, model number, size, features, etc. Model number is the most effective indicator of energy use.

All appliances must be used within the apartment, or within the property boundaries of the house, mobile home, etc. and solely for the use of the household members listed on the F03. Do not count appliances if they are shared with other households, such as in central laundry rooms in apartment buildings.

Where there are more appliances than the questionnaire allows to be collected, for example, the respondent has two dryers and the questionnaire asks only about one, **count the one used most often.**

## SPECIAL NOTE

- Count all appliances in working order as well as those normally used by the household that are temporarily in need of repair.

For example, a refrigerator or stove that stopped working last week but is soon to be repaired or replaced should be counted. A freezer that no longer works and which the household does not intend to replace, should not be counted.

- Count appliances owned, borrowed or leased for the exclusive use within the household.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

##### Refrigerator (Items 21 to 27)

Refrigerators account for a third of the energy use of all appliances of the dwelling.

21. *How many refrigerators do you use?*

The refrigerator must be in working order to be counted. A fridge that has been broken for some time and there are no plans to fix it, should be excluded. However, when the respondent tells you that it normally is working but is broken at the moment and will be fixed soon, include it.

Count refrigerator/freezer combinations and small bar refrigerators.

EXCLUDE THE FOLLOWING CASES: ice box or ice house with storage space for perishable food, a well cooler, an open spring, a window box in the winter, etc.

The remainder of the questions refer to the "main" and "secondary" refrigerators. It is not necessary to read these words where the respondent has one refrigerator.

Where a respondent has two, read the question with the word "main" and complete the appropriate response for the fridge used most often. This is usually the one in the kitchen. Then, read it again, this time with the word "secondary" and complete the appropriate response for the fridge of lesser use. For example, the respondent has a refrigerator in the basement or garage for keeping drinks cold or storing extra food on special occasions.

When a respondent has more than two ask the respondent to tell you about the two refrigerators used most often.



"Grandma told me to put this in the ice box.  
What's an ice box?"

---

4. INSTRUCTIONS FOR COMPLETING THE F08

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22. What are the make and model number of your (main/second) refrigerator?

These data provide the most accurate indicator of energy consumption.

**MAKE**

The make of a refrigerator is usually displayed prominently in a logo on the door. This is also known as the brand name. Refer to the Code Sheet (F10) for some common makes of Refrigerators. When respondents provide the make of the fridge, refer to this list and record the corresponding three-digit code. If the make is not on the Code Sheet, write out the name in the space provided.

Some examples are:

General Electric - Code 066

Viking - Code 177

Amana - Code 005

**EXERCISE C:**

- I. To practice using your Code Sheet, find the codes on your F10 for the following makes.
  - a) Kenmore \_ \_ \_
  - b) Roy \_ \_ \_
  - c) Inglis \_ \_ \_
  - d) Jenn-Air \_ \_ \_
  - e) Woods \_ \_ \_
  - f) Frigidaire \_ \_ \_
  - g) White Westinghouse \_ \_ \_

**REFER TO APPENDIX D FOR THE CORRECT RESPONSES**

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### MODEL NUMBERS

The model number of each unit appears on a factory applied rectangular metal or plastic plate (about 3" X 2") that is attached with rivets or adhesive to the unit.

The plate includes several items of information in addition to the model number. For example, it may also include a serial number, a series number, and a type number. **We are only interested in the model number.** It is easily identified because on the plate it says "model" (or "mod" followed by a series of digits (numbers only, or letters and numbers combined). Respondents should not confuse it with the serial number or any other number that appears on the plate. Serial numbers are identified as "Serial #", or "Ser" or something similar.

Model numbers are usually less conspicuous than the make. Typical spots for finding the location are inside top of refrigerator section, inside right wall, inside left wall, on door frame (top or sides), behind the removable kick plate (at the bottom of the fridge), etc. or at the back of the fridge.

Similar models from a particular manufacturer will show the plate in similar locations. For example, if one Maytag side-by-side refrigerator has the plate inside on the left wall, all Maytag side-by-side refrigerators will be in a comparable location. You can help respondents that have the same make and style as your appliances. If you know where your model numbers are found you can direct respondents experiencing difficulty to the correct spot.

##### PARTIAL MODEL NUMBERS

When respondents are unable to read the whole model number because it has worn off or the location is inaccessible, record whatever part they can provide.

23. <i>How old is your (main/second) refrigerator?</i>
--

For this question and all similar questions on age of appliances or equipment,

- estimates are acceptable
- round-up whenever respondents provide a range, e.g., "Oh, its about 7 or 8 years old", always record the older age, in this example--8 years.

The age of the appliance tells us about the energy it uses. For example: an average 16 cu. ft. refrigerator made in 1979 uses close to 2,000 kWh of electricity per year; a similar fridge made 8 years later in 1987 uses about 950 kWh!

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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If the respondent replies "as old as the house/apartment building", to obtain the answer you should ask, "About how old is the house/apartment building?"

**NOTE:** In the personal visit portion,

- 1) if the respondent has not found the model number or you suspect that the number given is a serial number, please obtain permission to check it.
- 2) never move an appliance to find model numbers.

4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE D:** This exercise will familiarize you with the refrigerator codes and help you to give advice to respondents experiencing difficulty.

1. Using your Code Sheet, record the make of your own (main/second) refrigerator(s).

Main: \_\_\_\_

Second: \_\_\_\_

2. Try to find the Model Number on your refrigerators.

Main: \_\_\_\_\_

Second: \_\_\_\_\_

3. Why is the make and model number important for this survey?

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(REFER TO APPENDIX D FOR THE CORRECT RESPONSES FOR QUESTION 3)

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4. INSTRUCTIONS FOR COMPLETING THE F08

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24. What kind of door(s) does your (main/second) refrigerator have? Is it...
- single?
  - side by side?
  - top & bottom with freezer on top?
  - top & bottom with freezer on the bottom?
  - three doors?

Energy efficiency is influenced by a number of factors, including the type of refrigerator doors. Units with side-by-side doors generally use the most energy.

A single door refrigerator usually has a door to a freezer inside the main door.

"Side by side" and "top and bottom" (both variations) types are examples of refrigerators with two doors.

When respondents' refrigerators have more than three doors, mark the response "three doors".

25. What is the size of your (main/second) refrigerator? Is it....
- |                   |                                   |
|-------------------|-----------------------------------|
| <i>bar</i>        | (less than 6.5 cu. ft.)?          |
| <i>small</i>      | (6.5 to 12.4 cu. ft.)?            |
| <i>medium</i>     | (12.5 to 16.4 cu. ft.)?           |
| <i>large</i>      | (more than 16.5 to 20.0 cu. ft.)? |
| <i>very large</i> | (more than 20.0 cu. ft.)?         |

In cases where respondents have difficulty, read the size ranges in cu. ft. in each answer category to the respondents so they can best determine which size accurately reflects their refrigerators.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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26. *Is your (main/second) refrigerator frost-free (automatically defrosted) or manually defrosted?*

*frost-free...*

*manually defrosted...*

*no freezer in fridge..*

Respondents have a manually defrosted fridge when:

- it has a single door
- frost or snow-like ice builds up in the freezer when the door of the freezer is opened, requiring the respondent to remove it by "defrosting" it.

Respondent have a "frost-free" refrigerator when:

- it has two or more doors
- a fan runs every time the door of the freezer compartment is opened.
- it has two separate controls for freezer and fridge compartments.

A semi-automatic refrigerator is a combination refrigerator/freezer with automatic defrost section for fresh food section, but manual defrost for freezer section. If the respondent knows he/she has one of these, answer "frost free". Except for one door units which require manual defrosting, most refrigerators sold today provide frost-free (fully automatic) defrosting.

Mark "no freezer in fridge" for bar refrigerators.

27. *Does your refrigerator have an automatic ice-maker in the door?*

An ice-maker makes ice automatically. The respondent does not have to fill ice trays and then empty them manually; a push of a lever or button is all that is required. An example is a "through the door ice server".

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4. INSTRUCTIONS FOR COMPLETING THE F08

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Cooking Appliances (Items 28 to 40)

28. Now moving on to your cooking appliances, do you use a...

...regular stove (range)?

...built-in oven with  
separate cook top?

----> If separate cook-top, is it...  
..electric?  
..natural gas?  
...other?

A "regular stove (range)" is a standard combined oven with four-burner cook top.

"Built-in" refers to ovens separated from cook top permanently installed in the wall or cupboard space/cabinet.

Note that you must ask the fuel used for the cook tops and hot plates.

Mark "other" when respondents tell you that the only cooking appliance they have is a microwave oven, regardless if it has a broiler or convection feature and/or an electric frypan, wok, grill, etc.

29. What are the make and model of your (stove/oven)?

The model number is often on or near the frame of the storage drawer, usually at the bottom. If there is no storage drawer, it may be behind a removable metal plate where a storage drawer would normally be. Model number location for built-in ovens vary greatly by manufacturers but respondents should try inside oven near front.

Refer to Item 22 for more information.

Where a respondent uses a combination of refrigerator and stove, record the information, i.e., model numbers and make twice - once for the refrigerator, and once for the stove. Confirm with the respondent that they are the same.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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30. *How old is your (stove/oven)?*

Refer to Item 23 for more information.

31. *What fuel does your (stove/oven) use?*

This item refers to the fuel used most by the range, stove, or built-in wall oven. The majority of ovens use electricity or natural gas.

Some are equipped, e.g. Kmack burner to use more than one fuel, at the same time different fuels in different seasons. But, one circle may be marked.

For combinations of electricity and natural gas, mark circle 2. For other combinations let the respondent decide which is the **principal** one. For example, combination electric/wood stoves, mark "electric" or "wood" according to respondent perception.

If the fuel used to operate the cooking equipment does not belong to any of the types named, mark "other"; for example, a respondent has a coal stove.

32. *Does your oven have the self-cleaning feature?*

A self-cleaning feature should not be confused with "continuous clean" ovens. A self-cleaning feature requires that the user lock the oven door, set an automatic control, which generates a high heat for a few hours. Continuous clean refers to the special dull surface material which encases the oven and burns off splatters as it is used.

**NOTE:** The self-cleaning feature is only available on electric ovens.

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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33. *How often, if ever, is the self-cleaning feature used? Is it ...*

*once a year or less*  
*every 4-6 months*  
*every 2-3 months*  
*at least once a month*  
*never*

This question is asked only of respondents who have answered yes to Item 32. Be sure to read the categories so that respondents know how precise we want them to be.

34. *Is it a convection oven, that is, an oven with a fan to circulate the hot air?*

A convection oven works by circulating hot air inside the unit. Example: "Jenn-Air" make ovens that are convection types.

**NOTE:** This option is only available on electric ovens.

Exclude microwave/convection combinations.

35. *Do you use a range hood or exhaust fan in your kitchen?*

Range hoods are usually above the burners or cook-top.

Some cook-tops and convection ovens have built-in exhaust fans, e.g., "Jenn-Air" brand. Any exhaust system that propels air outdoors should be included.

36. *Does it have an outdoor vent or a charcoal filter only?*

Not all range hoods vent outside. Those with charcoal filters do not. The fan draws the steam through the charcoal to remove odour and grease and then the air is recirculated back into the room as opposed to the outdoors.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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37. Do you use a microwave oven in your (house/apartment)?

**Include** counter top and built-in microwave ovens as well as combination microwave/convection ovens.

38. How often do you use your microwave for re-heating?

39. for defrosting?

40. for cooking?

everyday?

a few times a week?

once a week or less?

never?

don't know?

The question is trying to determine the extent to which the lower energy-consuming microwaves replace higher energy-consuming conventional or regular stoves and to determine the amount of energy typically consumed using microwaves.

"Reheating" means heating up foods already cooked such as leftovers or meals prepared in advance. Include in this category the preparation of snacks.

"Defrosting" means time used for defrosting frozen foods.

"Cooking" means all or part of meals prepared, baking, etc.

#### Dishwasher (Items 41 to 48)

41. Do you use a dishwasher in your (house/apartment)?

An automatic dishwasher is a machine designed to wash dishes. It operates with an electric motor and is controlled by timed cycles.

Try to be cheerful when you hear for the one hundredth time, "Yeah, me!", "Yes, my husband!", etc. Afterall, they are skipped out of the dishwasher segment.

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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42. *What are the make and model of your dishwasher?*

The model number is usually inside of the machine on the door frame.

Refer to Item 22 for more information.

43. *How old is your dishwasher?*

Refer to Item 23 for more information.

44. *Is the dishwasher built-in?*

**Built-In dishwasher:** a dishwasher that is permanently connected to the household water and electric supply, and is permanently installed or located under the kitchen work surface or countertop.

**Portable dishwasher:** a dishwasher that is not permanently connected to the household water and electric supply. It is usually mounted on wheels and of sufficiently light weight to be easily moved from one place to another.

45. *Is it a standard or compact size dishwasher?*

Standard dishwashers are about 22 inches wide and about 30 inches high or greater. Compact dishwashers are smaller.

46. *Does your dishwasher have a switch that allows you to turn off the heat and to dry with unheated air only?*

Some dishwashers have a switch which will allow the user to turn the heating element off and dry the dishes with air only. When this option is chosen, a fan circulates the hot air left over from the hot water. The name of this feature often varies between different makes. Some common names for this option are: Air dry; No heat dry; Cool dry; Heat On/Heat Off; Energy Saver. If the dishwasher has this option, answer "Yes" and go to Item 47.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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Some models do not provide the option of turning the heating element off. The element turns on automatically to dry the dishes and cannot be switched off. Therefore, the user must either dry the dishes with heat on or open the door to let the dishes dry naturally. If it is this type of dishwasher, answer "No" and ask the next question.

The above two models are the most common available on the market today. Some older models which do not have a heating element to dry the dishes may still be used. For these models, the dishes are automatically dried by a fan as above or the user must open the door to let the dishes dry naturally. If it is this type of dishwasher, answer "No".

*Is it heat dry only?*

"Yes" means that a heating element turns on automatically and cannot be switched off. "No" to this second question means there is no special heating element to dry dishes, only a fan that automatically dries the dishes (older models usually).

47. *Do you usually dry the dishes with . . .*

*heat on?*

*heat off?*

*open door?*

"Heat on" applies to all dishwashers except older models with no heating element.

"Heat off" applies only to dishwashers that have air-dry/heat on-off/cool-dry, etc. option to turn heat off.

"Open door" applies to all dishwashers as everyone is able to stop the dishwasher cycle and open the door to air dry the dishes.

48. *How many loads of dishes do you do in an average week?*

It does not matter if the loads are full or not. Do not count "rinsing" cycles.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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Freezer (Items 49 to 53)

49. *How many freezers do you use, separate from your refrigerator(s)?*

In this item, a freezer refers only to a **separate appliance** that is not part of a refrigerator or combination freezer/refrigerator.

50. *What are the make and model number of your (main/second) freezer?*

The model number of a chest freezer is likely to be on the inside top or inside walls. For upright types the locations are similar to a refrigerator: inside right wall, inside left wall, on door frame (top or sides), behind the removable kick plate.

Refer to Item 22 for additional information.

51. *How old is your (main/second) freezer?*

Refer to Item 23 for additional information.

52. *Is your (main/second) freezer a chest or upright?*

a) *chest? (top opening)*

b) *upright? (front opening)*  
*Is it manual defrost?*  
*frost-free?*

An upright freezer looks like and opens like a fridge at the front. A chest type opens from the top. Chest type are most popular, accounting for about 90% of sales.

Chest freezers almost always have manual defrost because they only require defrosting about once a year. Upright models on the other hand are much more prone to frost, so some models are available with an auto defrost feature.

Refer to Item 26 for more information on manual defrosting/frost-free.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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53. What is the size of your (main/second) freezer? Is it...

*very small (less than 7 cu. ft.)?*

*small (7.0 to 13.9 cu. ft.)?*

*medium (14.0 - 17.9 cu. ft.)?*

*large (18.0 - 22.9 cu. ft.)?*

*very large (23 cu. ft. or more)?*

Refer to Item 25 for more information.

#### Washing Machine (Items 54 to 65)

54. Do you use a washing machine in your house or apartment?

This item refers to all machines that wash clothes and are located inside the dwelling for the **exclusive use of household members**.

**Exclude** washing machines located outside the dwelling and jointly used by other households (for example, laundry rooms in the basement of an apartment building).

Interviewers who know that their respondents live in a house or in an apartment as they go through the questions, may drop "house or" or "or apartment".

55. Is your washing machine...

*an automatic washer?*

A fully or semi-automatic machine has WASH, RINSE, DRAIN & SPIN functions and can be either front or top loaded.

Fully automatic is directly connected or permanently connected to separate hot and cold water lines. Semi-automatic is faucet connected water and must be adjusted manually from external water valves.

---

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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**Include** the automatic apartment size washer in this category, known as washer-spin dryers.

Only this type requires the respondent to complete questions on size, make and model.

*a washer/dryer combination?*

Fully automatic combination washer/dryer machines sold in a set (one unit) with dryer on stand over the washing machine in cabinet/frame.

When respondents have the following types they are skipped to number of loads of laundry, Item 64 :

*a wringer washer?*

A washing machine with an attached wringer through which each piece of laundry must be passed manually.

*other?*

This category **includes** all other types of washers not mentioned above. It also **includes** non-automatic spin-dry or twin-tub spinner washers.

56. *What are the make and model of your washing machine?*

Usual places to look for model numbers are: on top surface of control panel; on rim of tub (after door lifted); on the outside near the bottom of the unit.

Refer to Item 22 for more information.

57. *How old is your washing machine?*

Refer to Item 23 for more information.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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58. *What size (tub capacity) is the washing machine? Is it...*

*mini? (compact)*

*standard? (full size)*

*large? (extra capacity)*

"Standard" washing machines have a 45 litre **tub** capacity; "compact" machines have less than a 45 litre capacity. Washer spin dryers are considered "compact".

Advise respondents to look for tub capacity in their owners' manual.

59. *What water temperature options do you have for washing?*

60. *And for rinsing?*

*hot...*

*warm...*

*cold...*

61. *What water temperature do you use for most of your washing?*

62. *And for rinsing?*

Note that the list of responses refers to the water temperature options available on the washer (Item 59 and 60) and water temperatures used most (Item 61 and 62) for washing and for rinsing. Exclude temperatures for pre-soaking laundry.

When respondents tell you that different types of clothing or that different seasons require that they use different temperature settings, probe to find out what temperatures they use **MOST** often.

For respondents who do not have a choice of water temperature for rinsing, mark the same temperature category as marked for washing.

63. *Can you choose the water level in your washing machine depending on your needs?  
... Do you use this feature?*

---

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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Some washers have an option which allows the user to regulate the water fill level. This can be used to limit water use for doing small loads. Understanding the use of energy saving devices is important to accurately estimate the energy use of the appliance.

64. *On an average week in WINTER, how many loads of laundry do you wash?*

65. *And in SUMMER?*

Note: Question refers to LOADS of laundry. They can be full or part loads.

"Less than one" refers to the average over the season. For example, when respondents tell you that they do two loads every three weeks, the average would be less than one a week.

Exclude loads of laundry done elsewhere, e.g. at mother's, at the dry cleaners, etc.

#### Clothes Dryer (Items 66 to 75)

66. *INTERVIEWER CHECK ITEM*

*If "washer/dryer combination"*

*in Item 55      --→ Go to 68*

*Otherwise continue*

From the response in Item 55 we know already that respondents have a dryer and the following question would seem silly.

67. *Do you use a clothes dryer in your house or apartment?*

To be counted in this survey, a clothes dryer must be located inside the dwelling and be provided **for the exclusive use of its household members**.

**Exclude** clothes dryers located outside the dwelling and jointly used by other households (for example, in the basement of an apartment building).

Interviewers who know that their respondents live in a house or in an apartment as they go through the questions, may drop "house or" or "or apartment".



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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68. *What are the make and model of the clothes dryer?*

Model numbers are usually on the door frame inside near the opening, facing front.

In washer/dryer combinations there is only one model number for both. It is found in the dryer.

For more information, refer to Item 22.

69. *What size is your clothes dryer? Is it...*

*mini (compact)*

*standard (full size)*

*large (extra capacity)*

*don't know*

Size is determined by **drum** size. Consider dryers in washer/dryer combination sets to be "compact".

Compact: Drum volume of less than 125 litres.

Standard: Drum volume of 125 litres or more.

Most common size is standard.

Hint: Usually washer/dryers are sold in a pair if purchased together. If respondent knows size of the washer but not the dryer, you can ask if they are the same size.

Suggest respondents check their owners' manual if it is close by.

70. *How old is your clothes dryer?*

Refer to Item 23 for more information.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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71. Does your clothes dryer use...

electricity?

natural gas?

other fuel?

In most cases, dryers use electricity to make them run.

72. Which of the following options does your clothes dryer have?

a manual timer (shuts off after pre-selected time)?

shuts off when the clothes are dry (auto-dry)?

cool-down or permappress setting (cold air used in the last few minutes of the cycle)?

73. And which of them do you regularly use?

"A manual timer" is an adjustable timer pre-set by user to shut dryer off. The user estimates the length of time he/she thinks it will take to dry the load. Not always energy efficient as the user may over-estimate the amount of time required to dry the clothes.

Automatic shut-off or Auto-Dry means that the dryer is equipped with a sensor which monitors the amount of moisture in the clothes and shuts the dryer off automatically as soon as the clothes are dry.

"Cool down or permappress setting" means no heat is supplied for the last few minutes of the cycle so that cool air is blown through the tumbling clothes. The drying process continues and you save energy.

74. On an average week in WINTER, how many loads of laundry do you dry in the clothes dryer? (Do not count loads if heat was not used).

75. And in SUMMER?

Exclude loads where heat was not used. This is sometimes called "air fluff" or "air only". On dryers where the respondent can chose the temperature of the air, this would be "cool" or "cold".

Refer to Items 64 and 65 for more information.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Other appliances (Items 76)

In this part of the questionnaire, we are looking for appliances that use on average a **large amount of energy** and are used **regularly**. Be sure to count rented, leased or borrowed appliances used in the dwelling over a long period of time. For example, computers provided by an employer on a relatively permanent basis in the home.

Don't count them if they are borrowed or rented for the occasional week-end.

76. *Now, I'd like to ask about other appliances used by your household. How many of the following are used?*

*colour TV set*  
*black & white TV set*

**Include** television sets owned or leased by members of the household. **Include** portable and stationary televisions that combine the television with other audio-visual components. Also **include** projection televisions (giant screen television).

*VCR (video cassette recorder)*

VCRs play video tape cassettes when attached to a television or monitor. They are able to record and play back television broadcasts. **Include** VHS, BETA and 8 millimetre-format equipments as well as video disk machines that play only pre-recorded disks.

*CD player (compact disk)*

CD stands for compact disk, a pre-recorded audio disks about 5 inches in diameter. These require a special player. CD players cannot play the type of records that are used with turntables/record players (LP, 45's, 78's).

The player, which may or may not be portable, must be plugged in at least once in the last 12 months to count.

**Include** CD players if they are single units, part of a component or built in (as in a stereo unit).

**Exclude** machines that are used exclusively in vehicles.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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*other separate stereo system*  
(exclude portable stereos, "walkmans", etc.)

Stereo systems may be made up of various components enclosed into one unit. By the word "separate" here we mean any stereo system that was not counted as part of the CD player.

Do not count portable ghetto blasters or walkmans even if they are used plugged in because they use little energy.

Exclude stereo television sets. They should be already counted under one of the "TV" categories.

*computer*

A home computer must have a keyboard (i.e. be programmable by user) and be located in the dwelling. The system may include its own display screen or use the picture screen of a TV set.

**Exclude:**

- Nintendo machines and other similar machine used only to play video games.
- computers that are used only occasionally (e.g. brought home from work once in a while).
- programmable hand calculators.

*electric blanket*

Electric blankets work like regular blankets except that they have a plug and one or two controls to regulate the heat. Count blankets, not controls.

*waterbed heater*

Waterbed heaters heat the water that forms the mattress of the waterbed.

*portable dehumidifier*  
*portable humidifier*

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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A dehumidifier takes moisture out of the air and a humidifier puts it in. Dehumidifiers are used in damp places, often in the basement, whereas humidifiers are used in dry places.

Exclude humidifiers and dehumidifiers attached to the furnace because these are not portable (cannot be moved from room to room) as Item 89 asks for central humidifiers and dehumidifiers later.

Exclude vaporizers often used in a child's room when the child has a cold, etc. because these are not substantial users of energy.

*car block heater*  
*interior car warmer*

A "car block heater" is installed permanently in the car's engine so that when plugged in cold weather, it keeps the engine warm so that the car will start. On the other hand, an "interior car warmer" warms the interior of the car so that it is pleasant inside in cold weather without having to wait for the car's engine to warm up.

*water cooler*

A device used to cool large containers of water.

*fish tank with pump, heater, and light*

An aquarium must have all three to be counted, as it is the combination of equipment which uses a lot of energy.

*bathroom exhaust fans*

Exhaust fans circulate the air and remove the moisture through a vent to the outdoors. Remember to answer "no" when respondents have exhaust fans but they are not used or not in working order.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE E:** On a blank questionnaire, complete Section A (Appliances) question 23 to 78 for your own household. (You have already completed Items 21 and 22 in Exercise D). Use the same care you would take when interviewing.

This exercise will familiarize you with the questions on the questionnaire and help you to give advice to respondents experiencing difficulty.

VERIFY YOUR ANSWERS WITH ANOTHER MEMBER OF YOUR HOUSEHOLD OR  
YOUR SUPERVISOR

77. INTERVIEWER CHECK ITEM

*If Item 10 on Label is "D" → go to SECTION D, 143, page 14*

*Otherwise continue*

In general, apartment dwellers (regardless whether they are owners or renters) skip over questions on basements, attics, solariums, exterior, swimming pools, etc. We feel that these respondents will not be knowledgeable about them or the questions are not applicable to these respondents.

Respondents who live in a duplex that they own are the exception. They are treated as house dwellers.

For the purpose of this survey mobile homes are considered houses.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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#### 4.4 House Heating (Items 78 to 103)

*Lets move on now to your heating equipment.*

##### Heat Pump (Items 78 to 83)

78. *Do you have a heat pump?*

A heat pump is an electrical device that acts much like a refrigeration system. Most heat pumps can be used for both heating and cooling. In the summer, it removes heat from the air and expels it outside much like a conventional air conditioner and in winter the heat pump operates in reverse, removing heat from the cold outside air (air source) or heat from ground water (ground source or earth energy system) and depositing it within the house.

Heat pumps are not common in Canadian homes today, but are gaining in popularity because of their efficiency and ability to significantly reduce heating costs (40 - 65%).

79. *Is your heat pump air source or ground source?*

The air source heat pump is the most common type found in Canadian homes today. They operate directly between the air inside and outside the home. The ground source heat pump or earth energy system uses the earth or ground water as a source of heat in the winter and as a sink for heat removed from the home in the summer. They account for a small proportion of heat pumps sold today but they are gaining popularity.

Typically the heat pump device is located indoors (usually basement) for a ground source heat pump and outdoors for an air source heat pump.

80. *How old is it?*

If the respondent does not know the actual age of the heat pump, ask for an estimate.

If the respondent has a back-up furnace mark only the age of the heat pump.

Refer to Item 23 for more information.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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81. *How much power does your heat pump have?*

Responses may be in BTU's or tonnes. A BTU stands for British thermal unit per hour and measures the heat output of a heating system. One BTU is the amount of heat energy given off by a typical birthday candle. This heat energy released over one hour, equals one BTUh.

A tonne is 12,000 BTUh or 3.5kW.

82. *Do you use a back-up furnace with your heat pump?*

Heat pumps can be add on; all electric or use a combination of electricity and another fuel. Add on heat pumps are designed to be used with another source of supplementary heat such as an oil or gas furnace. All electric heat pumps come equipped with their own supplementary heating system in the form of electric resistance heaters - which means they do not require a back up furnace. The main point to remember is that the heat pump is always considered the principal heating system even if it has a back up furnace.

83. *What fuel does this furnace use?*

This item refers to the fuel being burned to produce heat, and not to operate the equipment.

Principal Heating (Items 84 to 90)

84. *What is the heating equipment that heats most of the house? Is it..*

This item asks about the PRINCIPAL heating equipment. Where more than one type is used, the **principal** one is the one that heats most of the house or is used for most of the time. If two are used equally (in time used and in size of space it heats), the respondent should choose one.

For Item 84, the type of fuel used in the furnace is irrelevant, as the fuel will be identified in Item 85. Thus, whether a furnace with hot air vents is fuelled by oil, gas, electricity, wood or other, or whether furnace with hot air vents fed by a heat pump, the applicable heating equipment category remains the same: hot air vents.

*... furnace with hot air vents?*

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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Hot air distributed by a motor-driven fan through vents located throughout the dwelling. (This is the most common system of central heating.)

Also include hot air distributed by convection (natural) flow of hot air through vents located throughout the house. **Include** gravity furnaces in this category.

... wood stove?

Free-standing devices attached to a vertical chimney or flue pipe. It is localized heating with no central distribution system to other parts of the house.

... boiler (furnace) with hot water radiator?

Hot water central heating distributed through radiators located throughout the house and connected by pressure pipes. This type of furnace is readily known as a "**boiler**".

... electric baseboards?

**Includes** permanently installed baseboard electric heating in all or most rooms, which are considered the principal heating system.

**Note:** Electric baseboards can also be used to supplement a principal heating system such as a central wood furnace or wood-oil combination furnace.

... electric radiant heating?

Cables mounted in ceilings or beneath floor surface.

... other?

"Other" **includes** all cases where you are in doubt as to the proper category of the heating equipment and:

- Cookstove: provides localized heating, with no central distribution system to other parts of the house, as well as providing cooking facilities.
- solar heating
- oil space heater.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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85. *What fuel or fuels does your heating system use? If it uses two fuels, that is a dual fuel system, please mention both.*

This item refers to fuel being burned to produce heat, and not to operate the equipment.

Sometimes the principal heating equipment can operate with a combination of two heating fuels, known as "dual fuels". They will switch automatically (with the change in temperature) or manually by the user. Examples of dual fuel furnaces are those which can operate wood-electricity; oil-electricity; with oil or wood. An electric plenum heater added on to a forced air oil heating system can also be considered a dual fuel system. Mark both fuels.

**NOTE:** **Oil and gas take priority over all other fuels when following the skips.** For example, if oil and wood are both marked, go to Item 86 not to Item 87.

Note that on the questionnaire the two brackets were an error. All responses from circle 3 to 8 go to Item 87.

86. *What is the efficiency rating of the heating equipment?*

*standard (50-65%)*

*medium (75-80%)*

*high (90% or higher)*

This question is only for furnaces that use oil or gas. Furnaces installed prior to 1978 do not have a rating. These would be "standard".

87. *What are the make and model of your furnace.*

Refer to Item 22 for more information. Make and model number almost always appear on a manufacturer's label or CSA (Cdn. Standard Association) label either on the front or the side of the furnace. Be sure to refer to the main furnace box and not to any add-on burners attached. It can be a small metal box or sticker.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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88. *How old is the heating equipment?*

If the respondent does not know the actual age of the heating equipment, ask for an estimate. Many may say, "as old as the house". Find out how old the house is and use as an estimate.

When the original furnace has been converted to operate on a different kind of fuel or upgraded, mark the period when the conversion was made.

If the respondent has added any other special feature to the heating equipment, mark only the age of the original furnace. Additions to a heating system are not considered to be conversions.

Where respondents heat their homes with two wood stoves of different ages, record the age of the one used the most.

89. *Do any of the following special features complement your heating system?*

*central electronic air filter...*

Every furnace has an air filter, but not all have an electronic one.

*central humidifier...*  
*central dehumidifier...*

Refer to Item 76 for definitions of humidifier and dehumidifier. Note that these are attached to the principal heating equipment and work in conjunction with it.

90. *.. Do you use a programmable thermostat with a timer to change the heating temperature automatically?*

A programmable thermostat is either an electronic or mechanical device that is **pre-set** by the user ahead of time to move the temperature up or down automatically, e.g. set temperatures for different periods of day and night in advance (eg. when a person is not home during the day).



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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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The device is intended to reduce energy consumption when people are not in the house or at night.

Exclude all thermostats without automatic timers that householders must manually adjust at the time a temperature change is required.

##### Fireplaces (Items 91 to 96)

91. *Do you have a wood burning fireplace in your home? How many?*

The question asks only if the fireplace exists, not whether it is used, because existence alone is an indicator of heat loss.

92. *Does it have glass doors?*

Fireplaces that do not have glass doors contribute significantly to air loss through the thermal envelope of the home. Cold air leaks into the home and warm air escapes. Glass doors shield the air leakage, thus improving the air tightness of the home somewhat. Glass doors do not make the fireplace itself airtight.

93. *Does it have a fireplace insert?*

Fireplace Insert: Often installed in masonry fireplaces to increase efficiency because they greatly reduce the flow of cold air into the home and loss of warm air outside of the home. The device is really a space heater or small wood stove installed in the fireplace cavity. They must have a direct connection with the existing fireplace chimney.

Do not count fireplace forms (shells used as liners) inserted into fireplace as they only improve efficiency of the fireplace slightly. Also do not count zero clearance fireplaces as they are not considered air tight, thus not very efficient.

94. *How old is it?*

Refer to Items 23 and 88 for more information.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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95. About how often do you use the fireplace during the heating season? Is it...
- never
  - not every week
  - 1 - 3 times per week
  - more than 3 times per week

Note that it does not matter if the respondent uses it for aesthetics or for heating.

96. Do you have a gas burning fireplace in your home?
- How many?

The question asks only if the fireplaces exist, not whether they are used, because existence alone is an indicator of heat loss.

#### Supplementary Heating (Items 97 to 98)

97. Do you use any of the following types of supplementary heating...(Mark all that apply)?

This item refers to any separate piece of heating equipment used to supplement heat produced by the principal heating equipment recorded in Items 78 and 84. This equipment must operate independently of the principal heating equipment.

Example 1 (supplementary heating in a house): a forced air furnace is used to keep a particular house comfortable in the wintertime but in the springtime, the same house uses only a wood stove or the woodstove is also used in the winter time to supplement the main heating system during very cold days. The principal heating equipment recorded in Item 84 would be the furnace with hot air vents; in Item 97 the wood stove would be marked as the supplementary heating equipment.

Example 2: Electric baseboards in the basement and closed in veranda while the rest of the house is heated with an oil furnace with hot air vents.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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**Exclude** dual-fuel or combination furnaces which can operate on more than one type of fuel. (e.g. wood-electric). These would have been included in Item 84. Also exclude fireplaces and heat pumps.

Be sure to read the categories and the questions attached when there is a positive response:

*A) wood stove?*

- i) How old is it?*
- ii) What area is it heating?*
- iii) On average, how often do you use it during the heating season? Is it...*
  - ...more than 4 hours per day?*
  - ...between 1 and 4 hours per day?*
  - ...less than 1 hour per day but more than 1 hour per week?*
  - ...less than 1 hour per week?*

*B) electric baseboards?*

- i) Where area is it (are they) heating?*

*C) portable heaters?*

- i) Where area is it (are they) heating?*
- ii) What fuel is used?*

*D) any other supplementary heating?*

- i) Where area is it (are they) heating?*
- ii) What fuel is used?*

Mark all that apply.

If more than one wood stove is used for supplementary heating, ask about the one used most often.

Some examples of portable heaters are portable convection and fan assisted units that plug into electrical outlets or gas space heaters.

In "other" include cabinet model convection heaters and wall insert heaters usually located in confined areas such as hallways, bathrooms, etc. Also include drop-in or floor insert units usually in front of stairs, floor-level windows or sliding glass doors, electric and gas fireplaces, and any response that does not fit into the other categories.

The supplementary systems can be used to heat all areas of the home or just certain designated areas such as the attic, basement or sunroom. The electric baseboards can be installed in every

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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room to supplement the main heating system, such as a central wood or wood-oil combination furnace, or can be used only in areas that the main heating system does not provide heat such as the basement.

**NOTE:** **ASK ALL TYPES OF SUPPLEMENTARY HEATING (A, B, C AND D)** before continuing to the next question. That is, if respondents answer "Yes" to the woodstove questions and then answer the sub-questions about the woodstove, you must continue asking about baseboards and its sub-question, portable heaters and so on. Because respondents answer yes to one type of supplementary heating, does not mean that it is the only type they have.

**98. INTERVIEWER CHECK ITEM**

If "NO" or "don't know" in supplementary heating in Q. 97 A, B, C and D  
go to 100  
Otherwise continue

**ALL** of Item 97 must be marked "No" or "Don't know" to skip the next question on the amount of time the supplementary heating equipment is used. Check carefully.

The next question (Item 99) is only for those who use some form of supplementary heating.

**99.** *During the last heating season, would you say you used your supplementary heating system...*

*less than 25% of the time?*  
*25% - 75% of the time?*  
*more than 75% of the time?*  
*don't know*

The response depends entirely upon respondents perception. Estimates are expected since it is a difficult question. Advise respondents having difficulty to take into consideration the amount of time it is on as compared to the total amount of time the principal heating system is on.

There may be circumstances where the respondent indicates that the supplementary heating is on all the time (e.g. woodstove is used as main heating system and baseboards are on to augment heat). If this occurs, probe the respondent to determine that the baseboards are indeed the supplementary system. If the baseboards are heating the whole house and are on all or most of

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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the time and the woodstove is on only occasionally, the baseboards are probably the main heating system.

##### 100. INTERVIEWER CHECK ITEM

*If 85 is "wood"  
or 91 is "yes" (wood fireplace)  
or 97A is "yes" (supplementary wood stove) .. continue*

*Otherwise --> go to 103*

Items 85, 91, and 97A have been highlighted with three tree symbols to help you identify them quickly while interviewing.

Those who use wood for primary or secondary heating or for a fireplace are asked Items 101 and 102. All others are skipped to Item 103.

##### 101. How many cords of wood do you use in an average year?

*less than 1  
1 - 3  
4 - 6  
more than 6*

##### 102. What type of cord was it?

*stove or face cord (less than 4ft X 8ft)  
full (bush) cord (4ft X 4ft X 8ft)  
other*

Where respondents do not know whether they purchase full chords or face cords, the region, size and price may offer some clues.

In the Maritimes and in some rural areas across Canada wood volume is sold and advertised in full cords (also referred to as bush chords). In other areas, e.g. cities, wood is commonly sold by the face or stove cord. Bush or full cords are 3 times the volume of a face or stove cord as we know it. Although the two types are the same in stacked height and length, the width is 4ft or 48 inches for bush cords as opposed to 12-18 inches for face or stove chords.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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Although a full cord is sold or quoted for purchase in volume of pieces 4 ft. long - they can be delivered to any specified length (e.g. 18 inches long), usually for a higher price than if the purchaser cut it themselves.

The prices vary across the country and between regions, but a full chord is typically higher in price e.g. ranging from \$60 to \$120 (the higher range being more common if precut to smaller lengths) where a stove or face chord is typically from \$45 - \$80 price range.

If respondents cut their own wood from bush lots, ask them to estimate the volume in full or face cords, whichever they are more familiar with.

103. *At what temperature do you usually maintain most of your home during the heating season?*

The respondent has the choice of responding in Fahrenheit or Celsius. Note that "during the evening" refers to hours when respondents are awake while "overnight" refers to the time when they are sleeping.

Often with an electrical heating system there are thermostats in each room, so that potentially each room can be maintained at a different temperature. Respondents may turn up the temperature only when the room is in use. For example, when a room is not occupied the thermostat registers 15 degrees, when occupied 20 degrees. In this case, record the temperature of when the room is used, i.e., 20 degrees. Another example is when most rooms are kept at 18 degrees but the baby's room is kept at 21 degrees. Since the majority of the rooms are set at 18, record 18 degrees. Sometimes baseboard heaters have a switch/dial on them rather than a separate thermostat.

If there is no specific temperature setting on the thermostat (e.g. low, medium, high) ask respondents if they know the typical temperature maintained in the home. They may have a weather thermometer in the home to help them be more precise.



4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE F:** This exercise will help you understand the concepts in Section B. House Heating.

1. For fifteen years, Barbara Bruce heated her home with a forced hot air furnace that used oil. In 1975, the heating system was converted to use piped gas.

a) What is her principal heating equipment?

\_\_\_\_\_

b) What fuel or fuels does it use?

\_\_\_\_\_

c) What is the probable efficiency rating of her heating equipment?

- i) standard
- ii) medium
- iii) high
- iv) the example does not provide a clue.

d) How old is the heating equipment?

- i) 15 years old
- ii) 17 years old
- iii) 32 years old
- iv) none of the above

2. Adams family usually heat their home with a heat pump. It has a back-up forced air oil furnace used for very cold days. They also have recently closed in their front porch and installed baseboard heaters to use when the new sunroom is occupied.

a) What is the supplementary heating equipment?

- i) furnace with forced air vents
- ii) heat pump
- iii) baseboard heaters
- iv) none of the above
- v) all of the above



4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE F (Continued)**

2.    b)    When following the correct path on the questionnaire for the Adams' house, in Section B you.....
- i)    will complete the "Principal Heating" subsection.
  - ii)   will ask the fuel of the supplementary heating system uses
  - iii)   both i) and ii)
  - iv)    neither i) nor ii)

3.    Describe a "programmable thermostat" for a respondent who asks you, "What's that?"

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## 4. INSTRUCTIONS FOR COMPLETING THE F08

**EXERCISE F (Continued)**

4. For practice with the Check Item 98, complete it for each situation that follows:

- a) Bill Noogan has answered "Don't know" to each category in supplementary heating, that is, wood stove, baseboards, portable heaters, and other categories.

**98. INTERVIEWER CHECK ITEM:**

If "no" or "don't know"  
in supplementary heating in  
Q.97 A, B, C and D ..... <sup>1</sup> ☐ ► Go to 100  
Otherwise continue ..... <sup>2</sup> ☐

- b) The Brown family have baseboard heating in their family room addition, but a gas furnace heats the rest of the house.

**98. INTERVIEWER CHECK ITEM:**

If "no" or "don't know"  
in supplementary heating in  
Q.97 A, B, C and D ..... <sup>1</sup> ☐ ► Go to 100  
Otherwise continue ..... <sup>2</sup> ☐

- c) The McCormick's have no woodstove, but do have baseboard heating in a closed in veranda, a portable heater in the recreation room in the finished basement but the respondent answering for them (the babysitter) doesn't know whether they have any other type of supplementary heating.

**98. INTERVIEWER CHECK ITEM:**

If "no" or "don't know"  
in supplementary heating in  
Q.97 A, B, C and D ..... <sup>1</sup> ☐ ► Go to 100  
Otherwise continue ..... <sup>2</sup> ☐

4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE F (Continued)**

5. In the following situations at Check Item 100, respondents would continue on to be asked about cords of wood when they have indicated that ... (Circle the best answer)
- a) they use wood in their main heating equipment only.
  - b) they have a fireplace.
  - c) they use wood in their main heating equipment OR their supplementary heating equipment.
  - d) they only use a wood stove in Item 97.
  - e) they use wood in their main heating equipment, they have a fireplace, AND they use a wood stove in supplementary heating.
  - f) they use wood in any combination of main heating, supplementary heating and wood burning fireplace.
  - g) all of the above.

REFER TO APPENDIX D FOR THE CORRECT RESPONSES

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4. INSTRUCTIONS FOR COMPLETING THE F08

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**4.5 House Features and Condition (Items 104 to 142)**

104. *How many storeys, excluding the basement, does your house have?*

*one storey*  
*one and one half storeys*  
*two storeys*  
*two and one half storeys*  
*three storeys*  
*split level*  
*bi-level (split entry)*  
*other*

Exclude the basement and attic as a storey regardless whether they are considered livable space.

Houses with "half storeys" are ones where the top floor is smaller than the floor(s) below. Often this type of house has an open concept design or dormer windows.

A "split level" house does not have one main staircase but a smaller number of stairs (from two to five steps) between floor levels in main part of house.

A "bi-level" house or house with a split entry has stairs up and down at entrance only.

Include in "other" stacked townhouses and any cases where respondents do not know to which category their homes apply.

Consider mobile homes as one storey.

Exterior (Items 105 to 109)

105. *What is most of the exterior walls of your house made of?*

*aluminum/steel siding*  
*brick*  
*stucco*  
*vinyl siding*  
*stone/concrete*  
*wood*  
*log*  
*asbestos shingles*  
*other*

106. *What other material, if any, is used on the exterior walls?*

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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In the first question, respondents are to provide the main material that covers most of the exterior surfaces of their house, and in the second, the material that is secondary.

For example, a tudor style house may be brick and stucco with wood trim. In this case, record whichever material the respondent perceives to cover the most, say, brick. In the second question, the respondent should answer "stucco".

We do not expect all respondents to have more than one exterior surface and so have provided a "none" category in the second question.

Where any material has been covered by aluminum or vinyl siding, record the siding as the surface. Do not count the material that has been covered.

107. *To your knowledge, have any improvements been made to the insulation of the walls, excluding siding?*

*a) was the insulation added to the outside or put inside the wall?*

*b) When? Was it...*

*... '77 or earlier*

*... '78 - '83*

*... '84 or later*

108. *To your knowledge, have any improvements been made to the insulation of the roof or attic, excluding replacement of roof?*

*When? Was it...*

*... '77 or earlier*

*... '78 - '83*

*... '84 or later*

Walls can account for 10% to 30% of house heat loss. Insulation additions to walls can be made either to the exterior walls (between outside frame and the siding) or inside the exterior walls.

Except in the case of adding loose fill (blown in insulation), adding or upgrading interior or exterior wall insulation is usually done in conjunction with other renovations or major repair jobs such as adding new exterior siding or adding on rooms or extensions to the home.

Adding or replacing exterior siding should not be counted as an insulation improvement. This is considered a renovation.

Types of wall and attic insulation materials are:

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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- loose fill that are blown in the interior or exterior (most common type of attics insulation)
- batt or blanket insulation (interior or exterior)
- rigid or semi-rigid board insulation (exterior)

Be sure to read the year range categories to make it simpler for respondents.

109. *Approximately, what is the total **HEATED** living area of your house, excluding basement and garage?*

Note the variety of ways the respondent can choose to answer the question. We anticipate that square footage will be the most popular but if the respondent knows the area in square meters this is also perfectly acceptable.

When respondents do not know the total area but know the **INSIDE** dimensions of main floor of their dwelling, record them in either feet or meters as the respondent gives them to you.

The least accurate measurement is total heated rooms. Try to obtain this information as a last resort. **Include:**

- all rooms used or suitable for continuous use throughout the year, **including bedrooms.**
- a kitchenette as a room providing it contains an installed sink or tub and cooking equipment such as a range or stove.
- rooms divided by wall units, bookcases, a screen, an arch, etc., as separate rooms if the respondent considers them as such.
- any rooms in the dwelling that are rented out to boarders where boarders use a common entrance.
- rooms in the attic, if heated.

However, **exclude**

- any rented rooms where the boarder uses a separate entrance.
- rooms unsuitable for year-round use.
- clothes closets, halls, bathrooms, powder rooms, laundry rooms, storage rooms or rooms used solely for business purposes.
- basement rooms (basement size is asked separately in Item 111).

**NOTE:** Square footage is preferable to other measurements.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Basement (Items 110 to 117)

110. Does this house have a ...

full basement?  
crawl space?  
partial basement?  
no basement?

A "crawl space" is a shallow area under floor space which, in older homes, is usually not excavated and usually has a dirt floor. The height of the space does not allow an average adult to stand up. Examples: Foundations dug to only partial depth, create a crawl space under the house.

Some older homes are built on posts and piers where the space below is usually open to the outside, although this can be blocked off.

Crawl spaces are typically used for storage.

A "partial basement" is one that is not the full length and width of the house. It may be either part full basement, part crawl space or combination of both.

A "full basement" has a full foundation (full or partly built underground) that may or may not be finished. It can be made of many different materials, for example:

- poured concrete or block foundations are the most common.
- preserved wood foundations that are more common in warmer climates in western Canada
- rubble, brick or stone which are more commonly found in older homes.

"No basement" is "slab on grade", that is a house built directly on cement slab. Mobile homes fall into this category.

111. What is the square footage of your basement or crawl space?

An estimate is acceptable. Record answers given in metric in the space provided.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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112. *Are the basement walls (foundation) insulated on the inside?*

Basements can account for 20 to 35% of the total heat loss from the home because of the large uninsulated surface area both above and below the ground surface.

Basement walls can be insulated on the interior or the exterior. In case you need to discuss insulation with respondents, some examples of basement insulation materials are:

- Exterior and interior insulation materials: rigid glass fibre boards  
rigid polystyrene, polyisocyanurate or phenolic  
spray on polyurethane foam
- Interior insulation materials only: batt or blanket insulation  
loose fill that is blown in (cellulose fibre, glass fibre, mineral wool)

When respondents simply answer "yes" you must probe to find out if the basements are fully or partly insulated. Partly may mean that the all walls are partly insulated (from ceiling to just below ground level according to building codes in some areas) or part of the basement is fully insulated.

113. *To your knowledge, have any improvements been made to the insulation of the basement walls?*

*When? Was it...*  
... '77 or earlier?  
... '78 - '83?  
... '84 or later?

NOTE: The purpose of asking about existing insulation and insulation improvements is firstly to assess the original thermal performance of the home and compare it to the present thermal performance.

Improvements to foundation or basement walls include weatherproofing with silicon water sealing on the cracks and joints outside or inside walls and insulation that is added when finishing a basement as mentioned in Item 112.

Read categories to make it simpler for respondents.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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114. *Not including carpeting or flooring, is the basement floor insulated?*
115. *To your knowledge, have any improvements been made to the insulation of the basement floor?*
- When? Was it...*
- ... '77 or earlier?*
- ... '78 - '83?*
- ... '84 or later?*

Typically insulation improvements are not made to basement floors because they are not areas of great heat loss, therefore not cost-effective. Adding floor insulation is usually only done when other retrofits are made to the basement floor such as adding a sub-floor on top of the concrete slab or when replacing or adding a new slab to a dirt floor. However, note that adding of a sub-floor or new slab, flooring or carpeting, or any combination of these are not considered insulation.

If there is a sub-floor, it is possible that insulation material is there, but most homeowners may not know if they have it unless they installed the sub-floor themselves. Types of basement insulation are rigid polystyrene or rigid polyurethane/polyisocyanurate insulation (blue styrofoam common in 1980's) that is usually placed under the plywood sub-floor above the basement slab.

For crawl spaces, polyethylene can be installed under the sub-floor as a vapour/air barrier over batt insulation.

116. *Is the basement usually heated?*
117. *How much of the basement area is heated...*
- the whole basement?*
- more than one half?*
- about one half?*
- less than half?*

The basement must be heated with vents, radiators, baseboards, heating stove, etc. to be counted as heated rather than an inefficient furnace that throws off heat as it sends it to other parts of the house.

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Garage (Items 118 to 121)

118. *Do you have a heated garage solely for the use of your household?*

Where there is any heating at all, the principal heating system or supplementary heating system that is included in household fuel bill, indicate "Yes".

Exclude any garages outside of the dwelling property boundaries.

119. *Is your garage attached to your house?*

120. *Is your garage under a heated room?*

121. *Does it have an insulated door?*

These questions help to determine the energy consumption. For example a heated garage attached to the dwelling would require less energy to heat; similarly, a garage under a heated room and a garage with an insulated door.

##### Attic (Item 122)

122. *Do you have...*

*a finished attic?*

*an unfinished attic?*

*a crawl space? (not enough room to stand)*

*no attic?*

An attic is the space between the ceiling and the roof. It can be any size--full attic (furnished or unfinished), that is livable space, or a crawl space where you cannot stand up.

When respondents answer "a crawl space", confirm that they are referring to the attic area.

Where double or row houses share attics, treat them as a single detached unit. For example, when a rowhouse has an attic above the ceiling which runs across to other units, count this as an attic for this unit.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Solarium/Sunroom (Item 123)

123. *Do you have a heated solarium or sunroom?*

A heated room with a wall of windows.

##### Doors (Items 124 to 127)

124. *Moving on to doors that lead to outside or unheated areas, do you have any...*

- |                                 |  |
|---------------------------------|--|
| <i>a) wood doors?</i>           | <i>How many with storm doors? Without storm doors?</i> |
| <i>b) metal doors?</i>          | <i>How many with storm doors? Without storm doors?</i> |
| <i>c) patio doors?</i>          | <i>How many?</i>                                       |
| <i>d) other exterior doors?</i> | <i>How many?</i>                                       |

Count each pair of patio doors as one door. Include doors to unheated garage, but not to heated garages.

Should respondents ask how you can tell if the door is metal (and not fibreglass), suggest they use a magnet. If it sticks, it is metal.

125. *Do you feel there are any air leaks or drafts around your doors?*

*Do they all leak?*

The escape of warm air and the infiltration of cold air through small cracks and holes can account for up to 40% of the heat loss from a home. Not only does this add significantly to your fuel bill, it is also the source of uncomfortable drafts and cold spots. As well, moist air that passes from heated living areas into insulation can reduce the thermal resistance value of the insulation and also cause condensation problems.

Respondents can check for air leakage around doors with the back of their hand or with a tissue, preferably on a cold and windy day.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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126. *Were any of your exterior doors replaced?*

*When? Was it...*

*... '77 or earlier?*

*... '78 - '83?*

*... '84 or later?*

Include doors to unheated garage, but not to heated garages. Read year categories to make it simpler for respondents to answer positively.

127. *To your knowledge have any improvements been made to the weatherstripping or caulking of the doors?*

*a) When?*

*... '77 or earlier?*

*... '78 - '83?*

*... '84 or later?*

*b) Was it done by a professional?*

Weatherstripping makes the door airtight but does not prevent the door from being easily opened or closed. Depending on the door, it may be applied to the base (sweep-style seal) and/or the perimeter.

Include caulking, sliding seal for patio doors or pressure seal for hinged seal. Caulking for residential use is semi-liquid (tube or cartridge applicator), solid form (rope or cord in packages) and spray foam (aerosol spray can). It is applied on fixed joints around a door or window but not between moving parts.

Read year ranges to make it simpler for respondents.

"By a professional" means the work was done by someone who had formal training in weatherstripping. In most cases, this will be a person from a business that the respondent has hired.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Windows (Items 128 to 133)

128. *Do you have any skylights?*

*How many are...*  
*triple pane?*  
*double pane?*  
*single pane?*

"Skylights" are windows in the roof.

Panes refer to glazing or the glass part of the window. Glazing type affects insulation value.

If you or respondents have difficulty determining the number of glazings (panes) in a window, hold a light next to the glass and count the reflections. They will match the number of glazings.

129. *In the heated part of your house, do you have any of the following?*

- a) triple pane windows?*
- b) double pane windows?*
- c) single pane windows with storm windows?*
- d) single pane windows without storm windows?*

*How many are...*  
*...picture windows (oversized)?*  
*...other size?*

Count:

- windows in basements, attics, garages, porches, etc., only if these areas are HEATED.
- double hung slider windows as one window.

Exclude:

- windows in doors.
- patio doors as windows.

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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Storm windows can be on interior or exterior of window. Some less common types to include:

- 1) rigid acrylic, magnetically sealed or mechanically fastened to window frame.
- 2) Flexible plastic
  - . thin plastic sheets attached with double sided tape and heat shrunk into place.
  - . heavier plastic held in place with channel and spine

Ensure that respondents are not counting any storm windows as glazing.

"Picture windows" include all bay windows and large size windows which are about twice as big or more than standard windows. Often windows in living rooms and family rooms are larger than average. It is important to differentiate between windows that take up a large amount of space (larger than average) and those standard sizes to determine the solar gain and degree of air leakage.

"Other sizes" include all other standard window sizes typically found in bedrooms and basements bathrooms kitchens, etc. where these areas are heated.

130. *Excluding storm windows, what are most of your window frames made of?*

The frame material affects the window insulation value, strength and longevity.

The different types of window frame materials are:

- solid wood (requires painting or staining)
- clad wood with aluminum or vinyl covering (no painting needed).
- aluminum.

Note that painting provides a clue to the type of window frame material.

When respondents describe their window as wood with a vinyl or metal covering/cladding, record this as "wood".

Ensure that respondents are not counting the frame type of the storm window.

131. *Do you feel there are any air leaks or drafts around your windows?*

*Do they ALL leak?*

Refer to Item 125 for more information.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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132. *Have any of your windows been replaced?*

*When?*

*... '77 or earlier*

*... '78 - '83*

*... '84 or later*

*... don't know*

Refer to Item 126 for more information.

Include renovation windows (window trim package) and replacement windows that can be installed in existing window frames.

133. *Have any improvements been made to the caulking or weatherstripping of the windows?*

*a) When?*

*... '77 or earlier*

*... '78 - '83*

*... '84 or later*

*... don't know*

*b) Was it done by a professional?*

Refer to Item 127 for more information.

Read year ranges to make it simpler for respondents.

Exclude replacement of windows. It is not considered an improvement to insulation for this question.

4. INSTRUCTIONS FOR COMPLETING THE F08

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134. Do you have a central ventilation system, also known as an air exchanger, which provides fresh air for the entire house?

Does it have heat recovery? (heat exchanger)

When is it used?

all year

winter only

summer only

occasionally

never

This device is also known as a "central ventilation system". It is a unit installed inside the house to improve air quality (eliminating excessive humidity) by exhausting stale air out and drawing in fresh clean air.

Respondents should not include forced air or other such ventilation.

"Heat recovery" or "heat exchanger" means that the system recovers heat contained in the stale air before it is exhausted and transfers it to fresh air drawn in from the exterior in winter (reverse process in summer).

135. Do you use a ...

central vacuum cleaner?

sump pump?

water softener?

A vacuum cleaner is an electrical device for cleaning rugs, carpets, etc. by suction. A central system is built-in, it is a permanently installed (non-portable) vacuum system in the walls of the dwelling.

**Exclude**

- central systems that were "roughed in" when the dwelling was built or renovated but do not have the vacuum unit installed.
- canister and upright portable vacuum cleaners that can be moved from room to room.
- electric brooms.
- carpet sweepers such as "Bissels".
- mini-vacuums such as "Dustbusters".

A **sump pump** is used to pump water out of a basement.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Swimming Pool (Items 136 to 140)

136. *Do you have a swimming pool solely for the use of your household?*

A swimming pool refers to a privately owned pool and not a facility shared with members from other dwellings. Do not include any type of wading pool.

Include above ground as well as in ground pools.

137. *Do you use a pool heater?*

Solar blankets that lay on top of the water and absorb the sun's rays to heat the water, are not counted as pool heaters. A pool heater requires that the water circulate out of the pool through the heater, which is above ground and may be powered by one of a number of different fuels, before being piped back to the pool.

138. *What kind of pool heater do you use?*

139. *Do you use a timer with your pool heater?*

140. *Do you use a solar blanket?*

The above questions are asked of respondents who indicate that they USE a pool heater. A timer allows the pool heater to run for a set amount of time, determined by the user, before shutting off.

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#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Hot Tubs and Saunas (Items 141 and 142)

141. *Do you have a hot tub/jacuzzi/whirlpool?*

*How many ...*

*indoor?*

*outdoor?*

A jacuzzi and whirlpool are bathtubs for one or two persons that have jets for circulating water. They are found indoors only and the water is drained after each use. On the other hand, a hot tub is large (for four or more people), may be placed outdoors or indoors, and water is chemically treated and heated so that it may be retained for the next use.

142. *Do you have a sauna?*

A sauna is a Finnish style steam bath.

**NOTE: HOUSE DWELLERS SKIP SECTION D**



4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE G:** This exercise will familiarize you with the concepts of the Section on the House Features and Condition. Circle the best answer.

1. A respondent has covered all of the exterior of his house with vinyl siding . The original material under the siding is asbestos shingle with wood trim. Therefore, most of the exterior of the house is ....
  - a) vinyl siding
  - b) asbestos shingle
  - c) wood
  - d) none of the above
  - e) all of the above
  
2. When providing information on the size of the house, the respondent ....
  - a) should exclude the basement and garage
  - b) may report in square meters
  - c) when counting rooms should exclude bathrooms and storage rooms
  - d) may report the inside measurements of the main floor instead
  - e) none of the above
  - f) all of the above
  
3. A dwelling originally purchased as a three-bedroom bungalow is presently furnished in the following manner: a living room, a dining room, a bedroom, a den, a kitchen, and a bathroom. This year, a family room and adjoining bathroom, were built in the basement. The family room is now rented as a furnished sitting-room. There is no separate entrance.

In this case the respondent, Mr. Brown does not know the measurements of his dwelling. What is the total number of rooms?

\_\_\_\_\_ rooms

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4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE G (continued)**

4. Respondents who have a crawl space and a partial basement should report ...
- a) the crawl space only
  - b) the partial basement only
  - c) both the crawl space and the partial basement
  - d) a full basement
  - e) no basement
5. Which of the following are considered a heated garage? A garage that...
- a) has vents from the main system but the vents are always closed
  - b) is heated with supplementary heating
  - c) is any garage that is rented and the heat paid for through the rent regardless of the location.
  - d) has all of the above
  - e) has a) and b) only
  - f) has none of the above
6. Which of the following is considered an attic?
- a) space between the ceiling and the roof that is heated livable space.
  - b) space between the ceiling and the roof that is a crawl space.
  - c) open space between the ceiling and the roof that is shared with other rowhouses
  - d) all of the above
  - e) a) and b) only
7. Which of the following statements about exterior doors is correct?
- a) count patio doors as one door
  - b) include doors to heated garages
  - c) exclude doors to unheated garages
  - d) none of the above

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### EXERCISE G (continued)

8. Which of the following statements about windows is correct?
- a) count double hung slider as two windows
  - b) include windows in doors
  - c) exclude windows in unheated areas
  - d) none of the above
9. Which of the following statements about swimming pools is correct?
- a) privately owned and shared pools are included
  - b) solar blankets are considered heaters
  - c) above ground pools and inground pools are included
  - d) wading pools are included
  - e) a), b) and c) only
  - f) none of the above

REFER TO APPENDIX D FOR THE CORRECT RESPONSES

#### 4.6 Apartment Heating and Size (Items 143 to 159)

143. Approximately, what is the total heated living area of your apartment?

Refer to Item 109 for more information.

**NOTE:** In the personal visit portion, where respondents do not know the square feet of their apartments and you are unable to estimate it, you may call on the superintendent to obtain it. While we recommend you do not spend a lot of time and effort to get the information, square footage is preferable to the number of rooms.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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Principal Heating Equipment (Items 143 to 147)

144. *What is the heating equipment that heats most of your apartment? Is it...*

- ... hot air vents?*
- ... hot water radiators?*
- ... baseboards?*
- ... wood stove?*
- ... other?*

Refer to Item 84 for more information. Note that the word "furnace" has been dropped in some of the response categories.

145. *What fuel or fuels does it use?*

Refer to Item 85 for more information.

146. *Do you have control over the temperature in your apartment? (Exclude opening windows.)*

To have control, persons living in apartments would have at least one working thermostat in the dwelling. Sometimes baseboard heaters have a switch/dial on them rather than a separate thermostat. When the only way to control the temperature is to open the windows when it gets hot, the response is "no".

147. *At what temperature do you usually maintain your home during the heating season...*

- A) during the daytime (6 am - 6 pm)*
- B) during the evening (6 pm - 10 pm)*
- C) overnight (10 pm - 6 am)*

Refer to Item 103 for more information.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### Fireplaces (Items 148 to 153)

148. Do you have any woodburning fireplaces in your apartment? How many?
149. Does it have glass doors?
150. Does it have a fireplace insert?
151. How old is it?
152. About how often do you use the fireplace during the heating season? Is it...
- never?
- not every week?
- 1 - 3 times per week?
- more than 3 times per week?
153. Do you have a gas burning fireplace in your apartment? How many?

Refer to Items 91 to 96 in the House Heating Section for more information.

4. INSTRUCTIONS FOR COMPLETING THE F08

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Supplementary Heating (Items 154 to 159)

154. *type(s) of supplementary heating system(s), if any, do you use?*

*wood stove...*

a) *How old is it?*

b) *On average, how often do you use your wood stove during the heating season? Is it...*

*...more than 4 hours per day*

*...between 1 and 4 hours per day*

*...less than 1 hour per day but more than 1 hour per week*

*...less than 1 hour per week*

*electric baseboards*

*portable heaters*

*...What fuel(s) does it use?*

*other?*

*...What fuel does it use?*

Be sure to ask ALL types of supplementary heating and to mark all that apply.

Refer to Item 97 for more information.

For example, in winter, hot air vents are used throughout the apartment, except for the bathroom where there is an electric baseboard heater used in addition to hot air vents. In Item 144 the principal heating equipment is hot air vents and the electric baseboard would be indicated as the supplementary heating equipment.

155. *INTERVIEWER CHECK ITEM*

*If "NO" or "don't know"*  
*in supplementary heating in*  
*Q.154 A, B, C and D*

*go to 157*

*Otherwise continue*

Refer to Item 98 for more information.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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156. *During the last heating season, would you say you use your supplementary heating system...*

*..less than 25% of the time?*

*..25% to 75% of the time?*

*..all the time?*

Refer to Item 99 for more information.

157. *INTERVIEWER CHECK ITEM*

*If 145 is "wood"*

*or 148 is "yes" (wood fireplace)*

*or 154A is "yes" (supplementary wood stove) .... go to 160*

*Otherwise continue*

Refer to Item 100 for more information.

158. *How many cords of wood do you use in an average year?*

*less than 1*

*1 - 3*

*4 - 6*

*more than 6*

159. *What type of cord was it?*

*stove or face cord (less than 4ft X 8ft X 1ft)*

*full (bush) cord (4ft X 4ft X 8ft)*

*other*

Refer to Items 101 and 102 for more information.

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**4. INSTRUCTIONS FOR COMPLETING THE F08**

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**EXERCISE H:** This exercise will help you become familiar with the respondents who complete Section D.

1. Mobile homes for the purpose of this survey are considered...
  - a) apartments
  - b) houses
  - c) excluded
  - d) apartments or houses depending on whether they are owned or rented.
  
2. Duplexes for the purpose of this survey are considered ...
  - a) apartments
  - b) houses
  - c) excluded
  - d) houses or apartments depending on whether they are owned or rented.
  
3. According to the instructions on the questionnaire and in the manual, to complete this section, the respondent's label should read:
  - a) "RENT" in Item 5
  - b) blank in Item 10
  - c) "D" in Item 10
  - d) "RENT" in Item 5 and "D" in Item 10
  - e) "RENT" in Item 5 and blank in Item 10

REFER TO APPENDIX D FOR THE CORRECT RESPONSES.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### 4.7 Air Conditioning (Items 160 to 172)

An air conditioner is used to supply cool air to all or part of the dwelling occupied by the household.

##### Central Air Conditioning (Items 160 to 165)

160. *Do you have central air conditioning?*

161. *Do you use central air-conditioning in your house?*

There are two questions to avoid a check item. The first question is for apartment dwellers; the second for house dwellers.

**Include** in this category a central unit designed to cool the air in the entire dwelling. This central unit may be located either inside or outside the building and may be used to cool more than one dwelling, as in the case of an apartment building.

**Exclude** ecologizers and ionizers in this item as they do not cool the air.

162. *INTERVIEWER CHECK ITEM*

*If "yes" (heat pump) in 78 go to 165*

*Otherwise continue*

Respondents with heat pumps have already answered questions on size and age because a heat pump is capable of heating and cooling. These are skipped to frequency of use.

163. *What is its cooling capacity?*

Responses may be in BTU's or tonnes. Refer to Item 81 for more information.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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164. *How old is it?*

Refer to Item 23 for more information.

165. *How often did you use it last summer? Was it...*

*..never?*

*..only a few days?*

*..less than half of the summer?*

*..about half of the summer?*

*..more than half of the summer?*

Note that the question asks for usage "last summer", that is, the summer of 1992. (In some parts of the country, "summer" may be rather loose term to describe the weather!) Even if they usually use it more or less than this past summer, record the response that best describes "last summer".

Even running the air conditioner as little as one hour a day counts as one day.

Window or Room Air Conditioners (Items 166 to 170)

166. *Do you use window or room air conditioners? How many?*

**Include** units installed in a window or through a wall (room air conditioner), which usually cool only one room.

167. *What is the cooling capacity of your (first/second/third) window or room unit(s)?*

As with the appliances, ask these questions three times if respondents have three air conditioners or more, two times if only two, once for one air conditioner, putting in or leaving out "first/second/third" as appropriate. The "first" air conditioner is the one used most often, the "second" less often than the first, and "third", the least of the three. If respondents have more than three collect information on the three used most frequently.

Refer to Item 81 for more information.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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168. *What are the make and model of your (first/second/third) unit?*

Refer to Item 22 for more information. A typical location for the model number is inside the front cover.

169. *How old is your (first/second/third) window or room unit?*

Refer to Item 23 for more information.

170. *How often did you use your window or room air conditioner last summer?*

- ..never?*
- ..only a few days?*
- ..less than half of the summer?*
- ..about half of the summer?*
- ..most of the summer?*

Refer to Item 165 for more information. If respondents have more than one window or room air conditioner, ask about the first one, the one used most often.

#### Fans (Items 171 & 172)

171. *Do you use ceiling fans? How many?*

Ceiling fans are permanently installed on the ceiling of a room. They may also be combined with a light fixture.

172. *Do you use portable electric fans? How many?*

Portable electric fans come in all shapes and sizes--some fit in windows, others sit on the floor or table.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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## 4.8 Hot Water (Items 173 to 180)

173. *What fuel is used to heat the running water?*

Make an effort to obtain the **principal** type of fuel used to heat water for the dwelling.

"Running water" refers to water available inside the dwelling by turning on a tap. The water can be piped into the dwelling directly from the community water main system, from a well, tank or by some other method.

An example of an "other" response that might fall in this category is "wood". Another is "solar energy"; that is the water heater collects sunlight by flat plates outdoors and converted to heat energy which is transferred by circulating fluids to a storage tank until needed.

174. *Does the water heater serve your dwelling only or is it shared with other dwellings?*

Typically, apartment dwellers will have shared water heaters but not always. Condominiums and some highrise apartment buildings often have their own water heater, and almost always, single detached homes will have their own.

175. *Do you use a hot water tank? How many?*

In cases where water is heated by a coil in the furnace, mark "No".

We ask the number of tanks used because more than one water tank is sometimes used, especially in the Maritime provinces.

Include rented water tanks in this item and all subsequent items on water heaters.

176. *What are the make and model of the hot water heater?*

Refer to Item 22 for more information. Like the furnace, the make and model number almost always appear on the manufacturer's label or CSA label on the front or side of the water heater.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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177. *How old is your water heater?*

Refer to Item 23 for more information.

178. *What size is the hot water tank?*

Respondents who have completed their guide will know the size of their hot water tank. For these respondents, read the sizes in gallons (gal.) and litres (L.). The size of the tank is usually clearly marked on the water heater.

179. *Does your hot water system have ...*

*..an add-on insulation blanket around the outside of the hot water tank?*

This is extra insulation added over and above the internal insulation that a hot water tank has when it is purchased. Respondents may have purchased a special "jacket" designed for this purpose or have added fibre glass batts around the tank.

*..insulation around pipes?*

Pipe insulation makes sure that hot water does not run out of steam once the taps are off. Hot water systems have pipe insulation when tape wrap or foam pipe tubing (typical insulation) have been added to:

- the first two to four feet (.6 to 1.2 meters) out of the water heater
- other sections that pass through cold or unheated areas.

180. *Are any of the following used in your (house/apartment)?*

*..low flow shower head? ---> How many?*

A low-flow shower head is designed to reduce water flow and, therefore, save water and water heating costs.

---

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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Include in-line flow constrictors (basically a washer put in the pipe before the shower head is installed).

Include shower massage heads as they also restrict the water flow.

*..an attachment on hot water faucet to restrict water flow? --→ How many?*

A small removable device that fits on the end of the hot water tap, often called "aerators" or "regulators".

#### 4.9 Lighting (Items 181 to 183)

*Now I'd like to ask about type and number of light bulbs used in your (house/apartment).  
Please count all the light bulbs in fixtures.*

In the lighting section:

- exclude all appliance lights--those in the appliance and on the exterior of the appliance--for example, panel light on a stove.
- count each light bulb in a fixture. For example, a dining room has one chandelier which has six candle bulbs. The correct response for total light bulbs in the dining room should be six.
- count lamps as well as permanently installed fixtures.
- count lights in ceiling fans
- count lights in rooms never used; for example, bedrooms of children who have left home.
- lights inside the garage are considered indoors.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

---

181. *Do you use any halogen light bulbs indoors or outdoors?*

--→ *How many...*

*... indoors?*

*... outdoors?*

"Halogen" light bulbs are a new type of light bulb on the market. A type of incandescent (yellow) light, they tend to be smaller, and emit more intense illumination.

We start with "halogen" light bulbs because these are the most infrequent type, and therefore, easiest for respondents to answer.

Some study lamps and outdoor flood lights are halogen.

182. *Do you use any fluorescent light bulbs indoors or outdoors? --→ How many?*

Fluorescent lights are brighter and commonly shaped in long thin tubes and until recently would only fit into lamps and fixtures made for this type of bulb. Recently, however, fluorescent bulbs with sockets that fit into regular lamps and fixtures are available. Indeed, they are often promoted by hydro companies because they use less energy.

When respondents answer with a high number of this type, probe to find out if they have replaced regular bulbs with the new efficient fluorescent type. If not, perhaps they have confused fluorescent with incandescent or ordinary lights.

## 4. INSTRUCTIONS FOR COMPLETING THE F08

*To arrive at the total number of ordinary (incandescent) light bulbs used, I'll ask about each room separately.*

183. *How many ordinary (incandescent) light bulbs do you have in your...*

*kitchen? Enter "0" if not applicable*

*living/dining area?*

*bedrooms/closets?*

*family room?*

*bathrooms?*

*hallways?*

*basement? (if applicable)*

*attic? (if applicable)*

*other areas inside the house?*

*garage? (if applicable)*

*outdoors? (include spot lights)*

As most respondents will be counting these most frequent types in their head, we have broken the question into manageable chunks.

If you happen to remember that the respondent lives in an apartment, you enter zero and skip over reading basement, attic and garage.

"Other areas in the home" includes storage rooms and closets, solariums, closed-in verandas, and any type of area not covered by the other response categories.

Exclude Christmas lights.



**"If you leave them up just one more week,  
Daddy, we could turn them on for Easter!"**

4. INSTRUCTIONS FOR COMPLETING THE F08

---

**EXERCISE I:** This exercise will provide practice for the new concepts introduced in Sections E, F, and G as well as review concepts from Section B, C, and D.

For each of the terms in Column A, find the expression that best describes it in Column B and mark the corresponding LETTER beside each term in Column A.

Note: There are more expressions than terms. You can only use a letter (of an expression) **once** in the matching exercise.

COLUMN A

1. principal heating system \_\_\_\_
2. overnight \_\_\_\_
3. face cord \_\_\_\_
4. heat pump \_\_\_\_
5. heat recovery \_\_\_\_
6. supplementary heating system \_\_\_\_
7. solar blanket \_\_\_\_
8. shower massage \_\_\_\_
9. water heater blanket \_\_\_\_
10. air conditioner \_\_\_\_
11. solarium \_\_\_\_
12. halogen lights \_\_\_\_
13. bush cord \_\_\_\_
14. caulking \_\_\_\_
15. ordinary standard lights \_\_\_\_

---

4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE I** (continued)**COLUMN B**

- a. new type of incandescent light bulb
- b. most common type of heat pump
- c. pool heater
- d. capacity measured in kWh
- e. hot water restrictor
- f. more expensive wood purchase
- g. commonly used in study lamps and flood lights
- h. absorbs sun's rays
- i. a type of weatherstripping
- j. cools and heats dwelling
- k. oil or gas furnace installed before 1978
- l. sealing drafts and air leaks
- m. insulated add on to hot water tank
- n. 10pm to 6am.
- o. ventilation system that saves heat
- p. portable heater
- q. capacity measured in BTUh
- r. smaller amount of wood
- s. heats most the house
- t. has wall of windows
- u. 6pm to 10pm

REFER TO APPENDIX D FOR CORRECT RESPONSES



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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##### 4.10 Dwelling and Household (Items 184 to 190)

184. *In what year was your dwelling built?*

Ask for the original period of construction even if the building has since been remodelled or converted to apartment dwellings.

Example: A single house built in 1935 and converted in 1965 to form two self-contained dwellings would be marked in the "Before 1941" category.

**NOTE:** For the personal visit portion, when the respondent does not know, the superintendent may be helpful. See "NOTE" in Item 143.

185. *In what year did you or your household move in?*

This information will be used to better understand the responses given by respondents to other questions. For example, if they have just moved in, their answers may not be as complete or as accurate as those of households who have lived in the same dwelling for years. For billing records that we hope to obtain from utility companies, it will determine the period to cover. For example, if a respondent has just moved in a few months ago, we will know only to look at those few months rather than the usual period, say a year.

Consider **the year of the actual move** and not the year the dwelling was purchased or leased. Thus, if the household bought a house in October 1982 but did not move in until March 1983, you would mark the "1983-1991" circle. Similarly, if a person rented a dwelling as of December 1, 1991, but actually moved in two months later, early in February 1992, you would mark the "1992" circle and indicate the month as "02".

If at any time, the household moved from one floor to another in a duplex, triplex, or in an apartment building, it is considered to be a move.

**Exclude** moves that occurred when a dwelling was converted from single to multiple units. In these cases the household still occupies part of the original dwelling.

##### SPECIAL CASE

In families where spouses moved in on different dates, the **earliest** move determines the applicable category.

Treat roommates similarly. For example, Mary K. moved into an apartment in July 1992. Her roommate Susan Dee moved in during September 1992. Her other roommate Louise Mays

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4. INSTRUCTIONS FOR COMPLETING THE F08

---

moved in November 1992. In this case, you would mark the "1992" circle and indicate the month as "07".

186. *To better understand the energy use in your home, please tell me how many of the people living here are usually at home during the day, on an average weekday? Please include children.*

This question refers to household members; exclude others that spend the day in the dwelling, for example, children that are babysat by an adult member of the household.

Consider the question as referring to most of the past 12 months. Count those usually home on average over the year. For example students, who are at home during summer months only, would not be included in the count.

"During the day" refers to the daylight hours. "Usually" means under normal circumstances. If someone is usually working during the day but is now recuperating from an operation at home, do not count them. "An average weekday" is Monday to Friday. People who are home only part days should be included or excluded depending on their perception of whether they are there more than half the day or less than half.

Some respondents may be reluctant to respond when no one is home during the day. They may feel that this is an elaborate way of casing the house/apartment for a robbery. Stress with them the oath you are under and Statistics Canada's mandate to maintain confidentiality at all times.

Although it may seem like an odd question to ask a person living alone, you cannot know all aspects of their daily schedules and so must ask the question. However, if you know they live alone you may re-phrase the question slightly, e.g., "To better understand the energy use in your home, please tell me, are you usually home during the day?"

187. *Do you own and use a vacation home (cottage, chalet, trailer home) in Canada?*

Owning and using a vacation home is an indicator of energy use.

A vacation home refers to a cottage, cabin, chalet or mobile home permanently located on a site and maintained mainly for personal use by members of the household.

**Exclude** trailers, motor homes, cabin cruisers, or homes that are partially owned as in "time sharing agreements".

If a student living away from home answers "my parents do", mark the "No" response.

If "No", follow the instructions and go to Item 190.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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188. *How often do you usually heat it during the heating season?*

*never?*

*only a few days?*

*less than half the season?*

*about half of the season?*

*most of the season?*

"Usually" refers to the frequency of visits and the weather as they have been over the past few years.

For example, a family usually goes to their vacation home once or twice for a weekend during the heating season but because of unusual circumstances did not this past year. In this case the respondent would answer "only a few days".

However if the respondent goes regularly during the fall when it is the heating season but only was required occasionally to turn the heat on because of the unusually mild weather, indicate "only a few days".

Even running the heat as little as one hour a day counts as a one day.

189. *Do you use a refrigerator there?*

"Use" means any time in the year.

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4. INSTRUCTIONS FOR COMPLETING THE F08

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190. What is your best estimate of the total income of all household members from all sources in 1992 before taxes and deductions? Was the total household income ...

less than \$10,000  
\$10,000 to under \$15,000  
\$15,000 to under \$20,000  
\$20,000 to under \$25,000  
\$25,000 to under \$30,000  
\$30,000 to under \$35,000  
\$35,000 to under \$40,000  
\$40,000 to under \$50,000  
\$50,000 to under \$60,000  
\$60,000 to under \$80,000  
\$80,000 or more  
don't know

Income should be reported **before all deductions** for pensions, hospital insurance, income tax. Include income from all jobs (part-time and full-time), pensions, self-employment, investments, roomers and boarders, rental income, family allowance, social allowance, alimony, support payments, etc.

Exclude value of free room and board as well as money advanced on expense accounts for travelling and other business purposes, inheritances and winfall gains.

Estimates are welcome here!

#### 4.11 General Energy Information (Items 191 to 196)

191. Can you please tell me if you pay bills for the following utilities?

electricity  
heating oil  
natural gas

Respondents must pay directly and it includes paying through the bank automatic instalments or otherwise. Note that when respondents tell you that a utility such as hydro or electricity is included in the rent or their household doesn't pay it, you mark the response category "No".

Note too that there is the possibility that a particular utility may be included in the rent but not all. For example, hydro may be included in the rent but oil or gas is not.

#### 4. INSTRUCTIONS FOR COMPLETING THE F08

---

192. *If "No" for all provinces except Nfld., P.E.I., N.S. and N.B.:*

*Is natural gas available in your neighbourhood?*

Natural gas is not available anywhere in the Atlantic Provinces. Therefore, interviewers in Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick do not ask respondents this question.

Note that the question is only asking if natural gas is **available**, not whether it is hooked up to the respondent's dwelling.

193. *INTERVIEWER CHECK ITEM:*

*If "NO" to the three utilities in 191 ... go to 196*

*Otherwise continue*

Ensure that ALL of circles 2, 4, and 6 ("NO" circles) are marked in Item 191 before skipping respondents over Items 194 and 195. Obviously there is no point in collecting permission to contact energy suppliers nor will respondents know their names and addresses.

194. *May we have your permission to ask your energy supplier(s) about how much energy was used by this household in the past year? This information will be used for statistical purposes only. Energy use of individual households will not be disclosed to any person or agency.*

Information from the utility companies about the energy used by the dwelling and its contents will be used to evaluate the information provided by the respondent so that accurate projections can be made of future energy demands. We will not disclose respondent names or any information about them to the utilities. Utilities will provide us with the list of their clients' consumption data. Once they are matched to our household files, we will strip name and address from the files so that individual households cannot be identified.



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4. INSTRUCTIONS FOR COMPLETING THE F08

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195. Please ask the name (and location) only of the utilities for which "yes" was marked in Item 191.

Ask about only the utilities that respondents pay for. For example, when respondents pay for only electricity, ask A), "What is the name of your hydro company?" and skip over B) and C) which ask about natural gas and oil suppliers.

For example, a respondent's electricity is included in the rent. Oil is used but not included in the rent. The respondent would not provide us with the name of the electric company but would give us the name of the oil supplier.

A) What is the name of your *HYDRO* company?

We assume that the location of the electric company will be in its name and therefore do not ask the location.

B) What is the name and location of your *NATURAL GAS* supplier?

C) What is the name and location of your *OIL* supplier?

Normally the name of the city or town will be sufficient to find most suppliers. When you suspect there is more than one location in the city or town or there is some other problem locating the supplier, record additional information in the NOTES Section.

196. END TIME \_\_\_\_\_

Use the 24 hour clock.

THANK YOU VERY MUCH FOR YOUR PARTICIPATION IN THIS SURVEY.



#### 4. INSTRUCTIONS FOR COMPLETING THE F08

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**EXERCISE J:** On the same blank questionnaire you used to complete Exercise D (Section A. Appliances) complete Section B to J for your own household. Use the same care you would take when interviewing.

This exercise will familiarize you with the questions on the questionnaire and help you to give advice to respondents experiencing difficulty.

VERIFY YOUR ANSWERS WITH ANOTHER MEMBER OF YOUR HOUSEHOLD OR  
YOUR SUPERVISOR



## **5. QUESTIONS AND ANSWERS**

To maintain a high response rate, interviewers must be prepared to answer respondents' questions.

The following questions and answers are designed to provide you with consistent and accurate answers to some of the questions commonly asked by respondents. Become familiar with all of the answers, so you can reply comfortably to similar questions you are asked while conducting the interview.

**1. WE HAD A SIMILAR QUESTIONNAIRE NOT LONG AGO. WHY CAN'T YOU USE THAT INFORMATION?**

As a national survey, our survey collects data in a uniform manner from all provinces. The content of this survey is more extensive and we collect information by telephone aiming to obtain the best quality data or in person.

**2. WHY DO YOU ASK ABOUT SO MANY HOUSEHOLD ITEMS? ARE ALL OF THESE QUESTIONS NECESSARY?**

Each item counts when looking at our energy consumption. The more governments and the private sector know, the more their long-range plans and policies will help consumers to buy more energy efficient appliances, equipment, and homes, as well as reduce greenhouse gas emissions which contribute to global warming.

**3. WHY DON'T YOU GET THIS INFORMATION FROM STORES OR MANUFACTURERS?**

Stores and manufacturers can only tell us how many items they sell or produce. We also need to know the types, numbers and characteristics of equipment actually used, where they are used and the characteristics of households that use them.

**4. WHY DO YOU WANT TO KNOW HOW MANY REFRIGERATORS I HAVE? WHY DO YOU WANT TO KNOW IF I HAVE A MICROWAVE OVEN (WASHING MACHINE, DRYER, DISHWASHER, HOME FREEZER, ETC.) BUT NOT ASK ABOUT HAIR DRYERS OR FRYING PANS?**

The appliances included in the survey meet an average energy use criteria, that is, high enough to have an impact on demand for energy. Information on major appliances and heating and cooling equipment will be used to determine policy for setting minimum standards. These standards encourage production of more energy efficient equipment.

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## 5. QUESTIONS AND ANSWERS

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### 5. WHY ARE YOU ASKING ABOUT HEATING EQUIPMENT?

Over the past decade, types of heating equipment have changed rapidly. Rising fuel prices and anticipated oil shortages have influenced many households to convert from oil to other fuels.

Answers to this question keep us up-to-date about the kinds of heating equipment used and the types and amount of fuel used.

Also, heating uses a lot of energy. When describing household energy needs, it is necessary to include it.

### 6. WHY NOT GET THE INFORMATION FROM CONTRACTORS AND DISTRIBUTORS OF BUILDING SUPPLY MATERIALS?

While these sources can provide total sales or loan information for their own activities, they cannot provide an overall picture of householders' energy use. Only the individual households can provide detailed and accurate information about energy use. Further, only with data from individual households can we tell how consumption varies for a cross-section of Canadian households, and this is important for a number of the uses which will be made of the data.

### 7. AM I OBLIGATED TO TAKE PART IN THE SURVEY?

While your participation is voluntary, your dwelling has selected to represent a number of other dwellings. To ensure that all dwellings in Canada are represented, it is necessary that we interview you. Therefore, your participation is very important.

### 8. THE GOVERNMENT HAS TOO MUCH INFORMATION ALREADY!

There is no reliable national information available on this topic. Canadian society is dynamic and there are constant changes in our way of life, attitudes, economic conditions, etc. It is important to monitor these changes so that the government can react accordingly.

### 9. HOW WILL I KNOW IF ALL THIS WILL BE KEPT CONFIDENTIAL?

The Statistics Act guarantees that any information you may give us remains strictly confidential. All employees of Statistics Canada are under oath and are liable to persecution and to severe penalties if they do not safeguard that confidentiality.

## **6. QUESTIONS AND ANSWERS**

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Statistics Canada goes to extraordinary lengths to protect the confidentiality of the information it gathers. Once completed, the questionnaires are considered confidential, and no authorized person outside of Statistics Canada will ever be permitted to see them.

### **10. WHO WILL HAVE ACCESS TO THIS INFORMATION?**

Energy, Mines and Resources Canada will receive the survey results but no identification of the individual or household will be possible. For example, identification such as name, address and telephone number will be removed from the files before release to Energy, Mines and Resources Canada. Provincial governments, utilities and researchers will be able to use the overall results.

### **11. WHY DO YOU NEED TO GO TO MY ENERGY SUPPLIERS FOR MY ENERGY CONSUMPTION INSTEAD OF ASKING ME?**

We feel that the survey is long and difficult as it is. To ask respondents to go through their energy bills would be an undue burden and many would not agree to it. Utilities have the exact amount of energy used available in a way that is easy and practical for us to access it.





## 6. AUGMENTED SAMPLE

NOTE: APPLIES ONLY TO INTERVIEWERS IN P.E.I., N.S., N.B., MAN., AND SASK.

### 6.1 General

In the provinces of Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba and Saskatchewan, provincial governments have sponsored additional dwellings are to be included. This ensures that reliable data can be produced at the provincial level.

The augmented sample will consist of dwellings that rotated out of the Labour Force Survey sample. These households will have been part of the LFS within the last two months.

PROVINCE AUGMENTED SAMPLE	ROTATE-OUT ROTATIONS	MONTH ROTATED OUT OF LFS
Prince Edward Island	1, 2	Dec. 1992 and Jan. 1993
Nova Scotia	2	Jan. 1993
New Brunswick	2	Jan. 1993
Manitoba	2	Jan. 1993
Saskatchewan	2	Jan. 1993

The dwellings in this augmented sample will be interviewed for this month only and only to complete the F08.

### 6.2 Collection Period

Collection will take place the week after LFS Survey Week. Once your LFS assignment is completed, you may begin the augmented sample collection. The collection period ends March 5, 1993.

### 6.3 Supplies

You will receive supplies similar to those outlined in Section 2.2, however:

- \* the letter is slightly different. An example follows in Section 6.6.
- \* the LFS F03 has the word "\*\*\*\*AUGMENTED\*\*\*\*" sprayed on the top of the page. The F03 is reference only; it is not to be updated.

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## 6. AUGMENTED SAMPLE

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- \* separate assignment control report (F07) identified by "Aug". See Section 6.7 for an example.
- \* labels are identified by "Aug" and you must match the docket numbers on the labels with those on the "Augmented" F03.

When shipping questionnaires to the R.O. separate the augmented sample from the main sample. Arrange the F03's in one pile and the F08 questionnaires in another. Both piles should be in the same order as the Augmented F07. Bind the two piles together with the Augmented F07 on top. Shipment date is the same as the main sample.

### 6.4 Training

See MAIN SAMPLE instructions, Section 2.4.

### 6.5 Interviewing Procedures

Interviewing procedures including the rules concerning collection method and number of callbacks are similar to the preceding LFS main sample except that

#### Telephone Interviews

1. Use the F03 to determine the best time to call, to familiarize yourself with the household composition, the response code last time they were in the LFS, and any unusual situations noted on the form.

NOTE: IT IS NOT NECESSARY TO UPDATE THE F03.

2. Confirm that the telephone number (if available) belongs to the dwelling address in Item 6 of the F08.

IF NOT THE SAME LISTING ADDRESS, consider the unit as excluded and mark circle 1 of Item 12 on the F08 "LFS Non-interview".

## 6. AUGMENTED SAMPLE

---

3. Introduce the Household Energy Use Survey modifying the introduction: For those who remind you that they were finished with surveys, emphasize that you are not collecting the Labour Force Survey as follows:

*"This time not collecting the Labour Force Survey I would like to ask you about the Energy Use Survey. Did you receive the guide?"*

4. Complete the F08 as per instructions in the main sample.

### Personal Interviews

Personal interviews will be conducted when:

- there is a "P" in Item 8 on the label (as in the main sample)
- there is no telephone number provided in Item 43 on the F03 or Item 9 of the F08.
- when a personal interview would normally be required for the regular LFS.
- when a respondent is reluctant or refuses to answer the Household Energy Use Survey over the telephone.

Arrange for a convenient time to interview the respondent at home following usual LFS procedures.

## 6. AUGMENTED SAMPLE

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### 6.6 Introductory Letter to Respondent in Augmented Sample - English

February 1993

Dear Respondent:

We are asking you to participate in a survey on energy use at home during the first week of March.

The wise use of energy is important to us all and survey results will assist Energy, Mines and Resources Canada to plan and to monitor energy conservation programs.

Please consult the attached guide for more information about the Survey of Household Energy Use.

A Statistics Canada interviewer will be contacting you by telephone within (the next two weeks). We would ask that you take notes in the guide prior to the interviews because this will result in a shorter interview and more accurate information.

Finally, let me remind you that, as planned, your participation in the Labour Force Survey has ended and I would like to thank you for your cooperation in assisting Statistics Canada.

If you have any questions, please call at ....

Sincerely,

Regional Director

## 6. AUGMENTED SAMPLE

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### Introductory Letter - Augmented Sample - French

Madame,  
Monsieur,

Nous aimerions, par la présente, vous demander de participer à l'Enquête sur l'utilisation de l'énergie par les ménages, qui sera menée pendant la première semaine de mars.

Il est important de bien utiliser l'énergie, et les résultats de cette enquête permettront au ministère de l'Énergie, des Mines et des Ressources de planifier et de contrôler les programmes de conservation de l'énergie.

Pour avoir plus de renseignements sur cette enquête, veuillez consulter le guide ci-joint. Un intervieweur de Statistique Canada communiquera avec vous par téléphone au cours (des prochaines deux semaines). Afin que l'interview soit moins longue et que l'information donnée soit plus précise, nous vous encourageons à vous préparer en prenant des notes dans le guide avant que l'intervieweur vous téléphone.

Nous aimerions vous rappeler que votre participation à l'Enquête sur la population active est terminée. Nous tenons à vous remercier de l'aide que vous avez apporté à Statistique Canada.

Pour toute question relative à l'Enquête sur l'utilisation de l'énergie par les ménages, veuillez composer le .

Nous vous remercions à l'avance de votre collaboration.

Veuillez agréer, Madame, Monsieur, l'expression de nos sentiments les meilleurs.

Le directeur régional,

(Nom du directeur)

## 6. AUGMENTED SAMPLE

## 6.7 Example of Assignment Control Report for Augmented Sample

F07 (AUG)

1993 HOUSEHOLD ENERGY USE SURVEY

PAGE 2

## ASSIGNMENT CONTROL REPORT - RAPPORT DE CONTRÔLE DE LA TÂCHE

DATE: 93/01/28  
 R.D./H.R.: 14  
 SURVEY/ENQUÊTE: 0293  
 ASSIGNMENT/TÂCHE: 41103 E

DOCKET/DOSSIER - SEQ	P/L	COLLECT	STATUS CODES/CHIFFRES D'ÉTAT					COMMENTS/COMMENTAIRES
			(1)	(2)	(3)	(4)	(5)	
112901 - 003	11		( )	( )	( )	( )	( )	
097824 - 004	11		( )	( )	( )	( )	( )	
097857 - 005	12		( )	( )	( )	( )	( )	
097881 - 006	12		( )	( )	( )	( )	( )	
097907 - 007	11	P	( )	( )	( )	( )	( )	
097915 - 008	11		( )	( )	( )	( )	( )	
097923 - 009	11		( )	( )	( )	( )	( )	
097949 - 010	11		( )	( )	( )	( )	( )	
100308 - 011	12		( )	( )	( )	( )	( )	
097840 - 012	11		( )	( )	( )	( )	( )	
TOTAL			( )	( )	( )	( )	( )	
TOTAL PAGES-LINES PRINTED -			10					
TOTAL PAGES-LIGNES IMPRIMÉES -								



**APPENDIX A : INTRODUCTORY LETTER**



**Introductory Letter--LFS Respondent--English**

February 1993

Dear Respondent:

This month, as a supplement to the Labour Force Survey, we are conducting a survey on energy use for Energy, Mines and Resources Canada. The results will assist in the planning of new programs to encourage conservation of energy.

You will find information about this survey in the attached Guide.

We would ask that prior to the interview you take notes in the guide as this preparation will result in a shorter interview and better data.

A Statistics Canada interviewer will be contacting you within the (next two weeks). Please keep the guide and have your answers ready at that time.

Please call us at ..... if you have any questions.

Thank you in advance for your cooperation.

Sincerely,

Regional Director

### Introductory Letter--LFS Respondent--French

Février 1993

Monsieur, Madame,

Ce mois-ci, en guise de supplément à l'Enquête sur la population active, nous faisons une enquête sur l'utilisation de l'énergie pour Énergi, Mines et Ressources Canada. Les résultats aideront à planifier les nouveaux programmes visant à encourager les économies d'énergie.

Pour avoir plus de renseignements sur cette enquête, veuillez consulter le guide ci-joint.

Afin que l'interview soit moins longue et que l'information donnée soit plus précise, nous vous encourageons à vous préparer en prenant des notes dans le guide avant que l'intervieweur vous téléphone.

L'intervieweur de Statistique Canada vous contactera au cours (des prochaines deux semaines). Prière de ne pas nous renvoyer le guide et de garder vos réponses à la portée de votre main pour l'interview.

Si vous avez des questions, vous êtes prié de nous appeler au numéro suivant:

Merci d'avance de votre coopération.

Veuillez agréer, Monsieur, Madame, l'expression de mes sentiments les meilleurs.

Le directeur régional

**APPENDIX B : INTERVIEWER'S CODE SHEET**







HOUSEHOLD ENERGY USE SURVEY  
ENQUÊTE SUR L'UTILISATION DE L'ÉNERGIE PAR LES MÉNAGES

MAKES OF APPLIANCES AND EQUIPMENT  
MARQUES DE L'ÉLECTROMÉNAGERS ET DE L'ÉQUIPEMENT

MAKE/MARQUE	CODE	MAKE/MARQUE	CODE	MAKE/MARQUE	CODE
ACME	001	CLIMATROL	060	FRIGIDAIRE	118
ACRO ENVIRONMENTAL	002	COLDPOINT	061	FURNASMAN	119
ADMIRAL	003	COLDSPOT	062	FUTURA	120
AEG	004	COLEMAN (Coleman-Evcon)	063		
AERCO	005	COMFORT-AIR	064	GAGGENAU	121
AERO	006	COMFORTMAKER	065	GARWOOD	122
AIRCO	007	CONQUEST	066	GE (General Electric)	123
AIREASE	008	CONROY	067	GENERAL FREEZER	124
AIRTEMP	009	CONTESSA	068	GIANT	125
ALADDIN	010	CONTINENTAL	069	GIBSON	126
ALLIED	011	CONTINUE-FLO	070	GILBARCO	127
ALPHA FREE FLOW	012	COOKRAM	071	GILBERT & BARKER	128
AMANA	013	COOKTOP	072	GILSON	129
AMERICAN STANDARD	014	COOLERATOR	073	GLASS JACKET	130
ANTHES	015	CORONET	074	GOLDSTAR	131
ARCHER	016	CRANE	075	GOOD CHEER	132
ARCO (flame)	017	CREDA	076	GREENCO	133
ARCOAIRE	018	CREST	077	GRIMSBY	134
ARMSTRONG	019	CROSLEY	078	GSW WATER	135
ARTICAIRE	020	CUNARD	079	GULF	136
ASHLEY	021	CUSTOMAIRE	080	GURNEY	137
ASKO	022	CYCLOS	081		
ATLAS	023			HACO	138
		DANBY	082	HALE CO	139
B.E. CHANDLER	024	DAOOR	083	HALOGEN PLUS	140
BA SENTINEL	025	DEFIANCE	084	HAMPTON BAY	141
BARD MFG	026	DELUXE	085	HART	142
BARRIERE	027	DEMCO	086	HARVARD	143
BARTACO	028	DETTSON	087	HARWICK	144
BEACH	029	DIPLOMAT	088	HB SMITH	145
BEAUMARK (BAY/LE BAI)	030	DMO INDUSTRIES	089	HEAVY DUTY	146
BEAUMONT	031	DUOMATIC (Olsen)	090	HEIL	147
BECKETT	032	DYNOFLAME	091	HERITAGE	148
BELANGER	033			HEVAC	149
BELKO	034	EARTHSTOVE	092	HICO HEAT	150
BELLWOOD	035	EATONS	093	HITACHI	151
BEMCO	036	EBURN	094	HOMART	152
BNH	037	ECON-O-WASH	095	HOOVER	153
BRENTWOOD	038	ECONOIRE	096	HOT POINT	154
BROAN	039	ECONOJET	097	HOUGH	155
BROCK	040	EDWARDS	098	HOWARD	156
BRYAN STEAM	041	ELCO	099	HUNTER	157
BUILDER	042	ELITE	100	HUNTER COMFORT BREEZE	158
BULLOCKS	043	ELMIRA81	101	HUPP	159
		EMCO	102	HYDROTHERM	160
CALORIC	044	EMERSON	103		
CALORITECH	045	ENTREPRISE	104	ICG	161
CANADA FOUNDARIES	046	ESSO	105	IDEALCO	162
CARRIER	047	ESTATE	106	IMPERIAL	163
CARSWELL	048	EUROFLAIR	107	INGLIS	164
CASCADE	049	EXCELSIOR	108	INTERCITY	165
CELEBRITY	050			INTERTHERM	166
CERAM	051	FAIRBANKS	109	IRON FIREMAN	167
CHAMPLAIN	052	FASCINATION	110	IRVING	168
CHATCO	053	FAWCETT	111	ISE	169
CHINOOK	054	FEDDERS	112		
CHRYSLER	055	FESS	113	JANITROL	170
CITIZEN	056	FINDLAY	114	JC PENNY	171
CLARE	057	FLAMIDOR	115	JENN-AIR	172
CLASSIC	058	FRECO	116	JOHN WOOD	173
CLIMATE MASTER	059	FRIEDRICH AIR	117	JOTUL	174

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HOUSEHOLD ENERGY USE SURVEY  
ENQUÊTE SUR L'UTILISATION DE L'ÉNERGIE PAR LES MÉNAGES

MAKES OF APPLIANCES AND EQUIPMENT  
MARQUES DE L'ÉLECTROMÉNAGERS ET DE L'ÉQUIPEMENT

MAKE/MARQUE	CODE	MAKE/MARQUE	CODE	MAKE/MARQUE	CODE
KALAR .....	175	PAK-o-MATIC .....	231	TEKNIKA .....	288
KEBEC .....	176	PEASE .....	232	TELEDYNE-LAARS .....	289
KEEPRITE .....	177	PENDELL .....	233	TEMPRITE .....	290
KELVINATOR .....	178	PETRO (Heat) .....	234	TERRY .....	291
KENMORE (Sears) .....	179	PHILCO .....	235	THERMODOR .....	292
KENT .....	180	POLARIS .....	236	THERMOLEC .....	293
KERR .....	181	POWERMATIC .....	237	THERMORADIANT .....	294
KILMER ENVIRONMENTAL .....	182	PRESTOHEAT .....	238	THORNES .....	295
KITCHEN AID .....	183	PRESTON .....	239	TIMKEN .....	296
KRESNO .....	184	PYRECO .....	240	TOLHURST .....	297
KUMFORT .....	185			TORIDHEAT .....	298
		QUASAR .....	241	TOSHIBA .....	299
LAKEWOOD .....	186	QUICKFREZ .....	242	TRAULSEN .....	300
LEE ENG .....	187			TRENT METALS .....	301
LELAND .....	188	RACAN .....	243	TURBOTUBE .....	302
LENNOX .....	189	RADIANTAIRE .....	244		
LINCOLN .....	190	RAPID CLEAN .....	245	U LINE .....	303
LISLET .....	191	RAY ELECTRIC .....	246	ULTIMATIC .....	304
LOPI .....	192	RCA .....	247	ULTRA DRY .....	305
LUNENBURG .....	193	REGENCY .....	248	ULTRAMAR .....	306
		REVAC .....	249		
MAGIC CHEF .....	194	REZNOR .....	250	VALLEY COMFORT .....	307
MARTO AMERICA .....	195	RHEEM AIR .....	251	VALUMATIC .....	308
MASTERPIECE .....	196	RIELLO .....	252	VERMONT CASTING .....	309
MAYTAG .....	197	ROBINSON .....	253	VIKING .....	310
McCLARY .....	198	ROBYMETAL .....	254	VOLCANO .....	311
MERCURY .....	199	ROPER .....	255	VULCAN .....	312
METROHEAT .....	200	ROY .....	256		
METROPOLITAN .....	201	ROYAL .....	257	WARDEN KING .....	313
MX .....	202	RUUD .....	258	WATERFURNACE .....	314
MICROSONIC .....	203			WAYNE .....	315
MIELE .....	204	SAACO .....	259	WEATHERKING .....	316
MODERN MAID .....	205	SAMSUNG .....	260	WEATHERWISE .....	317
MOFFAT .....	206	SAVAR DAVIDSON .....	261	WEIL McLEAN .....	318
MONARCH .....	207	SEARS .....	262	WEISMANN .....	319
MONGEAU .....	208	SECURITY .....	263	WHIRLPOOL .....	320
MONRO .....	209	SELKIRK .....	264	WHITE WESTINGHOUSE .....	321
MOR-FLO .....	210	SEVERN .....	265	WOLF STEEL .....	322
MUSKETEER .....	211	SHARP .....	266	WOODS .....	323
		SHELL .....	267	WOODWARDS .....	324
NEW IDEA .....	212	SHERWOOD .....	268		
NEW YORKER .....	213	SIEMENS .....	269	YORK .....	325
NEWKING .....	214	SIGNATURE 2000 .....	270		
NEWMAC .....	215	SILENT-FLAME (Heat) .....	271	ZENITH .....	326
NFURNO .....	216	SIMPLICITY .....	272	ZONEAIRE .....	327
NIAGARA .....	217	SLANT FIN .....	273		
NORDIC AIR .....	218	SMART (s) .....	274	DON'T KNOW .....	999
NORFROST .....	219	SMEG .....	275		
NORGE .....	220	SPEED QUEEN .....	276		
NORSEMAN .....	221	STANDARD DOMINION .....	277		
NORTENAIR .....	222	STATE COURRIER .....	278		
NU-TEC .....	223	STERLING .....	279		
		SUB-ZERO .....	280		
OAKWOOD .....	224	SUBURBAN .....	281		
OIL-o-MATIC .....	225	SUMMIT .....	282		
OLIVER-MACLEOD .....	226	SUNNYDAY .....	283		
OLSEN .....	227	SUNRAY .....	284		
OSBURN .....	228				
OYMPIA .....	229	TAMPER .....	285		
		TAPPAN .....	286		
PACIFIC ENERGY .....	230	TECO .....	287		

**APPENDIX C : ASSIGNMENT CONTROL REPORT**



## ASSIGNMENT CONTROL REPORT - RAPPORT DE CONTRÔLE DE LA TÂCHE

DATE: 93/01/28

R.O./B.R.: 14

SURVEY/ENQUÊTE: 0293

ASSIGNMENT/TÂCHE: 41106 F

BUCKET/BOISSIER	SER	P/L	COLLECT	STATUS	CODES/CHIFFRES D'ÉTAT	COMMENTS/COMMENTAIRES			
				(1)	(2)	(3)	(4)	(5)	

100446	013	11	P	( )	( )	( )	( )	( )	
--------	-----	----	---	-----	-----	-----	-----	-----	--

TOTAL				( )	( )	( )	( )	( )	
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TOTAL PAGE-LINES PRINTED - 1

TOTAL PAGES-LIGNES IMPRIMÉES -





**APPENDIX D : ANSWER KEY**



**EXERCISE A:** To test your knowledge of what you have read to so far, complete the following question.

1. **The Household Energy Use Survey collection involves collecting data...**

(Circle as many correct answers as apply.)

- a) **from dwellings that are rented.**
- b) **from households that were absent last month.**
- c) from collective dwellings.  
(Collective dwellings are excluded.)
- d) **from dwellings that are occupied by its owners.**
- e) from dwellings that have temporary docket numbers. (Temporary dockets are excluded).
- f) from respondents that completed the Guide only.  
(Interviewers should try to collect from all respondents regardless if they completed the Guide.)

2. Name two policies or programs in which Energy Mines and Resources will use the data.

- **developing regulations to ensure efficiency standards for energy-using equipment;**
- **calculating the impact of various programs towards increasing the efficiency of energy-use, decreasing energy demand and reducing greenhouse gas emissions.**

**EXERCISE A (Continued)****3. What does a "P" in Item 8 mean?**

- a) the collection method is by personal visit (Fill in the blank.)
- b) the adult respondents in the household must meet two conditions, they:  
(Circle two answers)
  - i) **are renters**
  - ii) are owners and renters
  - iii) are all over 65 years of age
  - iv) have a maximum education of grade 8
  - v) **are 65 years of age and over OR are any age but have maximum of grade 8 education**
  - vi) are 65 years of age and over AND have a maximum of grade 8 education.

**4. Where the LFS normal collection method is**

- a) by telephone and F08s that have a P in Item 8 should be collected by  
personal visit
- b) by personal visit and F08s that have no P in Item 8 should be collected by  
personal visit. (Personal visit is always preferable)

**5. How many times do you call or call back? (Fill in the blanks)**

- a) Where both the F08 and the LFS collection method is by telephone you can make a maximum of 2 call back(s) by telephone.
- b) Where both the F08 and the LFS collection is by personal visit you can make a maximum of 2 visit(s).
- c) Where the F08 collection is by personal visit but the LFS collection is by telephone you can make a maximum of 2 call(s) or call-back(s) by personal visit and 1 call(s) or call-back(s) by telephone.

**6. What do you do to the label when Item 8 tells you that**

- a) the collection method should be by personal visit but the respondent insists on a telephone interview?  
cross of the P to Item using a red pen or pencil.
- b) the collection method should be by telephone but the respondent has no telephone?

**EXERCISE B:**

1. Apply the concepts of use and location in the following statements to determine if the appliance should be included or excluded on the questionnaire.

- a) an extra stove that has been stored in the basement for two years.

Included \_\_\_\_ Excluded **\_X\_ (unused in the last year)**

- b) a refrigerator used at a cottage owned by the household.

Included \_\_\_\_ Excluded **\_X\_ (not in the dwelling)**

- c) a dishwasher that is usually used but has broken and expected to be repaired.

Included **\_X\_** Excluded \_\_\_\_  
**(appliances usually in working order over the last 12 month period are counted)**

- d) a dryer that is plugged in, is in working order but not turned on during the past year because the family hangs their clothes out to dry.

Included \_\_\_\_ Excluded **\_X\_ (not used in the last year)**

- e) a freezer in the garage, detached from the farmhouse

Included **\_X\_** Excluded \_\_\_\_  
**(within the boundaries of the dwelling if part of dwelling \_\_\_\_\_ bill)**

- f) a teenager has taken the family's extra fridge to his apartment where he stays in another city while going to university.

Included \_\_\_\_ Excluded **\_X\_ (outside the boundaries of the dwelling)**

2. What age would you consider a furnace to be when a respondent tells you, "Its about 15 or 20 years old."

**20 years old-- always take the oldest timeframe.**



**EXERCISE C:**

1. To practice using your Code Sheet, find the codes on your F10 for the following makes.
  - a) Kenmore 145
  - b) Roy 206
  - c) Inglis 134
  - d) Jenn-Air 140
  - e) Woods 256
  - f) Frigidaire 096
  - g) White Westinghouse 254



**EXERCISE D:** This exercise will familiarize you with the refrigerator codes and help you to give advice to respondents experiencing difficulty.

1. Using your Code Sheet, record the make of your own (main/second) refrigerator(s).

Main: \_ \_ (There are no correct responses available for this question but you may ask someone to check it for you.)

Second: \_ \_

2. Try to find the Model Number on your refrigerators.

Main: \_ \_ \_ \_ \_ (There are no correct responses available for this question but you may ask someone to check it for you.)

Second: \_ \_ \_ \_ \_

3. Why is the make and model number important for this survey?

**This data provides the most accurate indicator of energy consumption.**

**EXERCISE E:** On a blank questionnaire, complete Section A. Appliances starting with question 23 to 78 for your own household. You begin after the Energuide label rating of your refrigerator because you have already completed Items 19, 21 and 22 in Exercise B. Use the same care you would take when interviewing.

This exercise will familiarize you with the questions on the questionnaire and help you to give advice to respondents experiencing difficulty.

**THERE ARE NO CORRECT RESPONSES AVAILABLE FOR THIS EXERCISE BUT YOU MAY ASK SOMEONE TO CHECK IT FOR YOU.**

**EXERCISE F:** This exercise will help you understand the concepts in Section B.  
House Heating

1. For fifteen years, Barbara Bruce heated her home with a forced hot air furnace that used oil. In 1975, the heating system was converted to use piped gas.

a) What is her principal heating equipment?

furnace with hot air vents

b) What fuel or fuels does it use?

natural gas

c) What is the probable efficiency rating of her heating equipment?

i) **standard** (furnaces built before 1978 were

ii) medium **standard efficiency**)

iii) high

iv) the example does not provide a clue.

d) How old is the heating equipment?

i) 15 years old

**ii) 17 years old**

iii) 32 years old

iv) none of the above

**EXERCISE F (continued)**

2. Adams family usually heat their home with a heat pump. It has a back-up forced air oil furnace used for very cold days. They also have recently closed in their front porch and installed baseboard heaters to use when the new sunroom is occupied.

a) What is the supplementary heating equipment?

i) furnace with forced air vents

ii) heat pump

**iii) baseboard heaters (i and ii heat most of the house)**

iv) none of the above

v) all of the above

b) When following the correct path on the questionnaire for the Adams' house, in Section B you....

i) will ask the sub-section on "Principal Heating"

ii) will ask the fuel of the supplementary heating system uses

iii) both i) and ii)

**iv) neither i) nor ii)**

**While heat pump and furnace are in reality parts of the respondent's principal heating equipment, the respondent is skipped over the "Principal Heating" sub-section because all questions would be repetitious.**

3. Describe a "programmable thermostat" for a respondent who asks you, "What's that?"

**A programmable thermostat is either an electronic or mechanical device that is pre-set by the user ahead of time to move the temperature up or down automatically, e.g. set temperatures for different periods of day and night in advance. The device is intended to reduce energy consumption when people are not in the house or at night.**

### EXERCISE F (Continued)

4. For practice with the Check Item 98, complete it for each situation that follows:

- a) Bill Noogan has answered "Don't know" to each category in supplementary heating, that is, wood stove, baseboards, portable heaters, and other categories.

98. INTERVIEWER CHECK ITEM:

If "no" or "don't know"  
in supplementary heating in  
Q.97 A, B, C and D ..... 1 ☒ ► Go to 100

Otherwise continue ..... 2 ☐

He is skipped over Item 99 because he would not know the answer and so is considered to have no supplementary heating.

- b) The Brown family have baseboard heating in their family room addition, but a gas furnace heats the rest of the house.

98. INTERVIEWER CHECK ITEM:

If "no" or "don't know"  
in supplementary heating in  
Q.97 A, B, C and D ..... 1 ☐ ► Go to 100

Otherwise continue ..... 2 ☒

B) is marked "yes" therefore the respondent needs to continue and complete Item 99.



**EXERCISE F (continued)**

- c) The McCormick's have no woodstove, but do have baseboard heating in a closed in veranda, a portable heater in the recreation room in the finished basement but the respondent answering for them (the babysitter) doesn't know whether they have any other type of supplementary heating.

**99. INTERVIEWER CHECK ITEM:**

If "no" or "don't know"  
in supplementary heating in  
Q.97 A, B, C and D ..... 1 ☐ ► Go to 100  
Otherwise continue ..... 2 ☒

**B) and C) are marked "yes" therefore the respondent needs to continue and complete Item 99.**

5. In the following situations at Check Item 100, respondents would continue on to be asked about cords of wood when they have indicated that ... (Circle the best answer).
- a) they use wood in their main heating equipment only.
  - b) they have a fireplace.
  - c) they use wood in their main heating equipment OR their supplementary heating equipment.
  - d) they only use a wood stove in Item 97.
  - e) they use wood in their main heating equipment, they have a fireplace, AND they use a wood stove in supplementary heating.
  - f) they use wood in any combination of main heating, supplementary heating and wood burning fireplace.
  - g) **all of the above. (The main point is that respondents who use wood in any instance would be asked about the amount and type of cords they use.)**



**EXERCISE G:** This exercise will familiarize you with the concepts of the Section on the House Features and Condition. Circle the best answer.

1. A respondent has covered all of the exterior of his house with vinyl siding. The original material under the siding is asbestos shingle with wood trim. Therefore, most of the exterior of the house is ....

- |    |                     |   |
|----|---------------------|---|
| a) | <b>vinyl siding</b> | <b>What is seen on the direct exterior.</b> |
| b) | asbestos shingle    | <b>Asbestos and wood are covered.</b>       |
| c) | wood                |   |
| d) | none of the above   |   |
| e) | all of the above    |   |

2. When providing information on the size of the house, the respondent ....

- a) should exclude the basement and garage
- b) may report in square meters
- c) when counting rooms should exclude bathrooms and storage rooms
- d) may report the inside measurements of the main floor instead
- e) none of the above
- f) **all of the above**

3. A dwelling originally purchased as a three-bedroom bungalow is presently furnished in the following manner: a living room, a dining room, a bedroom, a den, a kitchen, and a bathroom. This year, a family room and adjoining bathroom, were built in the basement. The family room is now rented as a furnished sitting-room. There is no separate entrance.

In this case the respondent, Mr. Brown does not know the measurements of his dwelling. What is the total number of rooms?

  5   rooms

**(Exclude bathrooms and heated rooms in basements)**

**EXERCISE G (Continued)**

4. Respondents who have a crawl space and a partial basement should report ...
- a) the crawl space only
  - b) the partial basement only
  - c) **both the crawl space and the partial basement (Mark all that apply)**
  - d) a full basement
  - e) no basement
5. Which of the following are considered a heated garage? A garage that...
- a) has vents from the main system but the vents are closed (**vents closed means unheated**)
  - b) **is heated with supplementary heating (any heating counts)**
  - c) is any garage that is rented and the heat paid for through the rent regardless of the location. (**must be within dwelling property boundary**)
  - d) has all of the above
  - e) has a) and b) only
  - f) has none of the above
6. Which of the following is considered an attic?
- a) space between the ceiling and the roof that is heated livable space.
  - b) space between the ceiling and the roof that is a crawl space.
  - c) open space between the ceiling and the roof that is shared with other rowhouses
  - d) **all of the above**
  - e) a) and b) only
7. Which of the following statements about exterior doors is correct?
- a) **count patio doors as one door**
  - b) include doors to heated garages
  - c) exclude doors to unheated garages
  - d) none of the above

**EXERCISE G (Continued)**

8. Which of the following statements about windows is correct?
- a) count double hung slider as two windows
  - b) include windows in doors
  - c) **exclude windows in unheated areas**
  - d) none of the above
9. Which of the following statements about swimming pools is correct?
- a) privately owned and shared pools are included
  - b) solar blankets are considered heaters
  - c) **above ground pools and inground pools are included**
  - c) wading pools are included
  - d) a), b) and c) only
  - e) none of the above

**(Pools cannot be shared, solar blankets are excluded because they do not require energy, and wading pools are excluded.)**

**EXERCISE H:** This exercise will help you become familiar with the respondents who complete Section D.

1. Mobile homes for the purpose of this survey are considered...
  - a) apartments
  - b) **houses Included because of the respondents knowledge**
  - c) excluded
  - d) apartments or houses depending on whether they are owned or rented.
2. Duplexes for the purpose of this survey are considered ...
  - a) apartments
  - b) houses
  - c) excluded
  - d) **apartments or houses depending on whether they are owned or rented.**

**We feel that owners of duplexes would probably be knowledgeable about their whole house and that renters would be knowledgeable about their unit only.**

3. According to the instructions on the questionnaire and in the manual, to complete this section, the respondent's label should read:
  - a) "RENT" in Item 5
  - b) blank in Item 10
  - c) **"D" in Item 10**
  - d) "RENT" in Item 5 and "D" in Item 10
  - e) "RENT" in Item 5 and blank in Item 10

**EXERCISE I:** This exercise will provide practice for the new concepts introduced in Sections E, F, and G as well as review concepts from Section B, C, and D.

For each of the terms in Column A, find the expression that best describes it in Column B and mark the corresponding LETTER beside each term in Column A.

Note: There are more expressions than terms. You can only use a letter (of an expression) **once** in the matching exercise.

**COLUMN A**

1. principal heating system   s
2. overnight   n
3. face chord   r
4. heat pump   j
5. heat recovery   o
6. supplementary heating system   p
7. solar blanket   h
8. shower massage   e
9. water heater blanket   m
10. air conditioner   q
11. solarium   t
12. halogen lights   a
13. bush chord   f
14. caulking   i
15. ordinary standard lights   g



**EXERCISE I (Continued)****COLUMN B**

- a. new type of incandescent light bulb
- b. most common type of heat pump
- c. pool heater
- d. capacity measured in kWh
- e. hot water restrictor
- f. more expensive wood purchase
- g. commonly used in study lamps and flood lights
- h. absorbs sun's rays
- i. a type of weatherstripping
- j. cools and heats dwelling
- k. oil or gas furnace installed before 1978
- l. sealing drafts and air leaks
- m. insulated add on to hot water tank
- n. 10pm to 6am
- o. ventilation system that saves heat
- p. portable heater
- q. capacity measured in BTUh
- r. smaller amount of wood
- s. heats most the house
- t. has wall of windows
- u. 6pm to 10pm



**EXERCISE J:** On the same blank questionnaire you used to complete Exercise E (Section A. Appliances) complete Section B to J for your own household. Use the same care you would take when interviewing.

This exercise will familiarize you with the questions on the questionnaire and help you to give advice to respondents experiencing difficulty.

**THERE ARE NO CORRECT RESPONSES AVAILABLE FOR THIS  
EXERCISE BUT YOU MAY ASK SOMEONE TO CHECK IT FOR YOU**



## **APPENDIX E: DEFINITIONS**



**AIR CONDITIONING:** Central unit: designed to cool the air in the entire dwelling. May be located either inside or outside the building and may be used to cool more than one dwelling, as in the case of an apartment building.

Window or room units: installed in a window or through a wall (room air conditioner), which usually cool only one room.

Exclude ecologizers and ionizers in this item as they do not cool the air.

**ATTIC:** Space between the ceiling and the roof. It can be any size--full attic (finished or unfinished) that is livable space or a crawl space where you cannot stand up.

**BASEMENT:** Crawl space: a shallow area under floor space which, in older homes, is usually not excavated and usually has a dirt floor. The height of the space does not allow an average adult to stand up.

Full basement: Has a full foundation (full or partly built underground) that may or may not be finished.

Partial basement: Not the full length and width of the house. It may be either part full basement, part crawl space or combination of both.

**BOILER WITH HOT WATER RADIATOR:** Hot water central heating distributed through radiators located throughout the house and connected by pressure pipes.

**BTU:** British thermal unit per hour: measures the heat output of a heating system. One BTU is the amount of heat energy given off by a typical birthday candle. This heat energy released over one hour, equals one BTUh. It works in reverse for cooling systems.

**CAR BLOCK HEATER:** Installed permanently in the car's engine so that when plugged in cold weather, keeps the engine warm.

**CD PLAYER:** CD stands for compact disk, a pre-recorded audio disks about 5 inches in diameter that require a special player, which may or may not be portable. Include single units, part of a component or built in (as in a stereo unit). Exclude machines that are used exclusively in vehicles.

**CENTRAL VACUUM CLEANER:** Built-in, permanently installed (non-portable) vacuum system in the walls of the dwelling. **Exclude** central systems that were "roughed in" when the dwelling was built or renovated but do not have the vacuum unit installed, canister and upright portable vacuum cleaners that can be moved from room to room, electric brooms, carpet sweepers such as "Bissels", mini-vacuums such as "Dustbusters".

**CENTRAL VENTILATION**

**SYSTEM:** A unit installed inside the house to improve air quality (eliminate excessive humidity) by exhausting stale air out and drawing in fresh clean air. Exclude forced air or other such ventilation.

Heat recovery or heat exchanger: the system recovers heat contained in the stale air before it is exhausted and transfers it to fresh air drawn in from the exterior in winter (reverse process in summer).

**CLOTHES DRYER:** Manual timer: an adjustable timer pre-set by user to shut dryer off. The user estimates the length of time he/she thinks it will take to dry the load.

Automatic shut-off or Auto-Dry: the dryer is equipped with a sensor which monitors the amount of moisture in the clothes and shuts the dryer off automatically as soon as the clothes are dry.

Cool down or permapress setting: no heat is supplied for the last few minutes of the cycle so that cool air is blown through the tumbling clothes.

**COMPUTER:** Must have a keyboard (i.e. be programmable by user) and be located in the dwelling. The system may include its own display screen or use the picture screen of a TV set. **Exclude:** Nintendo machines and other similar machine used only to play video games, computers that are used only occasionally (e.g. brought home from work once in a while), and programmable hand calculators.

**CORDS OF WOOD:** Full (bush): 4 feet high, 8 feet long and 48 inches wide. Sold mainly in rural areas.

Stove: 4 feet high by 8 feet long and 12-18 inches wide, sold mainly in the cities.

**DEHUMIDIFIER/  
HUMIDIFIER:**

A dehumidifier takes moisture out of the air and a humidifier puts it in.

Portable: dehumidifier are used in damp places, often in the basement, whereas humidifiers are used in dry places. Exclude vaporizers.

Central: are attached to the principal heating equipment and work in conjunction with it.

**DUAL FUEL SYSTEM:** Heating system that uses two fuels (e.g. oil and electricity) that switch automatically (with the change in temperature) or manually by the user.

**DISHWASHER:** A machine designed to wash dishes that operates with an electric motor and is controlled by timed cycles.

Built-In: Permanently connected to the household water and electric supply, and is permanently installed or located under the kitchen work surface or countertop.

Portable: not permanently connected to the household water and electric supply. It is usually mounted on wheels and of sufficiently light weight to be easily moved from one place to another.



Heat on: all dishwashers dry with heat except some older models which have with no heating element.

Heat off: only dishwashers that have air-dry/heat on-off/cool-dry, etc. option to turn heat off.

**ELECTRIC BLANKET:** Similar to regular blankets except that they have a plug and one or two controls to regulate the heat. Count blankets, not controls.

**ELECTRIC BASEBOARDS:** Includes permanently installed baseboard electric heating in all or most rooms, which are considered the principal heating system.

**ELECTRIC RADIANT HEATING:** Cables mounted in ceilings or beneath floor surface.

**EXHAUST FANS:** Circulate the air and remove the moisture through a vent to the outdoors.

Charcoal filters: The fan draws the steam through the charcoal to remove odour and grease and then the air is recirculated back into the room as opposed to the outdoors.

Range hoods: Are usually above the burners or cook-top.

**FIREPLACE INSERT:** A space heater or small wood stove installed in the fireplace cavity, especially masonry types, and must have a direct connection with the existing fireplace chimney. Do not count fireplace forms (shells used as liners) inserted into fireplace and zero clearance fireplaces.

**FREEZER:** A separate appliance that is not part of a refrigerator or combination freezer/refrigerator.

Upright: looks like and opens like a fridge at the front. Some models are available with an auto defrost feature.

Chest: opens from the top, are most popular, and almost always have manual defrost because they only require defrosting about once a year.

**HEAT PUMP:** An electrical device that acts much like a refrigeration system. Most heat pumps remove heat from the air and expel it outside much like a conventional air conditioner in the summer and in winter operate in reverse, removing heat from the cold outside air (air source) or heat from ground water (ground source or earth energy system) and depositing it within the house.

Air source: Operate directly between the air inside and outside the home. Located outdoors.

Ground source: (earth energy system) uses the earth or ground water as a source of heat in the winter and as a sink for heat removed from the home in the summer. Located indoors.

- HOT AIR VENTS:** Hot air distributed by a motor-driven fan through vents located throughout the dwelling. (This is the most common system of central heating.) Also include hot air distributed by convection (natural) flow of hot air through vents located throughout the house. Include gravity furnaces in this category.
- HOT TUB:** Large tub, for four or more people, placed outdoors or indoors, with water that is chemically treated and heated so that it may be retained for the next use.
- HOT WATER--  
INSULATION:** Blanket: Extra insulation added over and above the internal insulation that a hot water tank has when it is purchased. Respondents may have purchased a special "jacket" designed for this purpose or have added fibre glass batts around the tank.
- Insulated Pipes: Makes sure that hot water does not run out of steam once the taps are off. When tape wrap or foam pipe tubing (typical insulation) have been added to the first two to four feet (.6 to 1.2 meters) out of the water heater or other sections that pass through cold or unheated areas.
- HOT WATER--  
REGULATORS:** To reduce water flow.
- Aerators: A small removable device that fits on the end of the hot water tap.
- Low-flow shower head: Include in-line flow constrictors (basically a washer put in the pipe before the shower head is installed) and shower massage heads that restrict the water flow.
- INCOME:** Before all deductions for pensions, hospital insurance, income tax. Include income from all jobs (part-time and full-time), pensions, self-employment, investments, roomers and boarders, rental income, family allowance, social allowance, alimony, support payments, etc. Exclude value of free room and board as well as money advanced on expense accounts for travelling and other business purposes, inheritances and windfall gains.
- INTERIOR CAR  
WARMER:** Warms the interior of the car so that it is pleasant inside in cold weather without having to wait for the car's engine to warm up.
- LIGHTS:** Halogen: A type of incandescent (yellow) light, they tend to be smaller, and emit more intense illumination.
- Fluorescent: Are brighter and commonly shaped in long thin tubes and until recently, would only fit into lamps and fixtures made for this type of bulb. Now some have sockets that fit into regular lamps and fixtures.
- MAKE:** Brand name usually displayed prominently in a logo on the door.
- MICROWAVE:** Include counter top and built-in microwave ovens as well as combination microwave/convection ovens.
- Cooking: All or part of meals prepared, baking, etc.
- Defrosting: Used for defrosting frozen foods.

Reheating: Heating up foods already cooked such as leftovers or meals prepared in advance, the preparation of snacks.

**MODEL NUMBER:** Appears on a factory applied rectangular metal or plastic plate (about 3" X 2") that is attached with rivets or adhesive to the unit. The plate has "model" (or "mod" followed by a series of digits (numbers only, or letters and numbers combined).

**OVEN:** Built-in: Separated from cook top permanently installed in the wall or cupboard space/cabinet.

Convection: Works by circulating hot air inside the unit. Only available on electric ovens.

Self-cleaning: The user locks the oven door and sets an automatic control, which generates a high heat for a few hours. Only available on electric ovens.

**PORTABLE HEATERS:** Some examples: portable convection and fan assisted units that plug into electrical outlets or gas space heaters.

**PRINCIPAL HEATING:** System that heats most of the dwelling or is used most of the time.

**PROGRAMMABLE THERMOSTAT:** An electronic device that is **pre-set** by the user ahead of time to move the temperature up or down automatically, i.e., set temperatures for different periods of day and night in advance (eg. when a person is not home during the day).

**REFRIGERATOR:** Refrigerator/freezer combinations and small bar refrigerators. Exclude ice box or ice house with storage space for perishable food, a well cooler, an open spring, a window box in the winter, etc.

Frost-free: Has two or more doors, a fan runs every time the door of the freezer compartment is opened, and two separate controls for freezer and fridge compartments.

Semi-automatic: A combination refrigerator/freezer with automatic defrost section for fresh food section, but manual defrost for freezer section.

Ice-maker: Makes ice automatically, by a push of a lever or button, e.g., "through the door ice server".

**SAUNA:** A Finnish style steam bath.

**SOLARIUM/  
SUNROOM:** A heated room with a wall of windows.

**SEPARATE STEREO SYSTEMS:** May be made up of various components or enclosed into one unit. Any stereo system that was not counted as part of the CD player. Do not count portable ghetto blasters or walkmans even if they are used plugged in because they use little energy. Exclude stereo television sets.

- STOREYS:** Half storeys: where the top floor is smaller than the floor(s) below. Often this type of house has an open concept design or dormer windows.
- Split level: Does not have one main staircase but a smaller number of stairs (from two to five steps) between floor levels in main part of house.
- Bi-level: house with a split entry. Has stairs up and down at entrance only.
- STOVE (RANGE):** A standard combined oven with four-burner cook top.
- SWIMMING POOL:** A privately owned pool and not a facility shared with members from other dwellings. Do not include any type of wading pool. Include above ground as well as in ground pools.
- Pool heater: the water circulate out of the pool through the heater, which is above ground and may be powered by one of a number of different fuels, before being piped back to the pool. Exclude solar blankets.
- SUMP PUMP:** Used to pump water out of a basement.
- SUPPLEMENTARY HEATING:** Any separate piece of heating equipment used to supplement heat produced by the principal heating equipment. Must operate independently of the principal heating equipment. **Exclude** dual-fuel or combination furnaces which can operate on more than one type of fuel, fireplaces and heat pumps. Can be used to heat all areas of the home or just certain designated areas such as the attic, basement or sunroom.
- TEMPERATURE:** Control: At least one working thermostat in the dwelling, including baseboard heaters that have a switch/dial on them.
- During the evening: hours when respondents are awake.
- Overnight: the time when respondents are sleeping.
- TONNE:** 12,000 BTUh or 3.5kW.
- TV:** Include television sets owned or leased by members of the household, portable and stationary televisions that combine the television with other audio-visual components and projection televisions (giant screen television).
- USE:** The item has been used at least once in the last twelve months, is usually in working order ( or temporarily in need of repair), can be used for a business, is used by the household members only (exclude shared appliances in laundry rooms). May be owned, rented or borrowed but, part of the household on a regular basis. Exclude occasional borrowing and renting.
- VACATION HOME:** A cottage, cabin, chalet or mobile home permanently located on a site and maintained mainly for personal use by members of the household. Exclude trailers, motor homes, cabin cruisers, or homes that are partially owned as in "time sharing agreements".



**VCR:** Play video tape cassettes when attached to a television or monitor and are able to record and play back television broadcasts. Include VHS, BETA and 8 millimetre-format equipments as well as video disk machines that play only pre-recorded disks.

**WASHING MACHINE:** Are located inside the dwelling for the exclusive use of household members. **Exclude** washing machines located outside the dwelling and jointly used by other households (for example, laundry rooms in the basement of an apartment building).

Automatic: Has WASH, RINSE, DRAIN & SPIN functions and can be either front or top loaded. Fully automatic is directly connected or permanently connected to separate hot and cold water lines. Semi-automatic is faucet connected water and must be adjusted manually from external water valves. Include the automatic apartment size washer, known as washer-spin dryers.

Combination washer/dryer machines: sold in a set (one unit) with dryer on stand over the washing machine in cabinet/frame.

Wringer washer: A washing machine with an attached wringer through which each piece of laundry must be passed manually.

Water level: An option which allows the user to regulate the water fill level. This can be used to limit water use for doing small loads.

**WATER COOLER:** A device used to cool large containers of water.

**WATERBED HEATER:** Waterbed heaters heat the water that forms the mattress of the waterbed.

**WEATHERSTRIPPING:** Makes the door/window airtight but does not prevent the door from being easily opened or closed. Applied to the base (sweep-style seal) and/or the perimeter. Include caulking, sliding seal for patio doors or pressure seal for hinged seal, applied on fixed joints around a door or window but not between moving parts.

By a professional: the work was done by someone who had formal training in weatherstripping. In most cases, this will be a person from a business that the respondent has hired.

**WINDOWS:** Panes: glazing or the glass part of the window.

Picture windows: all bay windows and large size windows which are about twice as big or more than standard windows. Often windows in living rooms and family rooms.

Skylights: windows in the roof.

Storm windows: can be on interior or exterior of window.

**WOOD STOVE:** Free-standing devices attached to a vertical chimney or flue pipe. Localized heating with no central distribution system to other parts of the house.





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