APPENDIX 1 TO MAIN REPORT

STUDY OF APPLE HILL
ENERGY EFFICIENT HOMES

TASK A + B - NEGOTIATIONS AND INSPECTIONS

Prepared for:

The Policy Development and Research Sector of

CANADA MORTGAGE AND HOUSING CORPORATION

ВҮ

COGENERATION ASSOCIATES LIMITED
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1.0 INTRODUCTION

As the cost of energy in Canada has been increasing, the demand for energy efficient houses has also been rising. In order to develop such houses, various levels of government have provided researchers with funds to:

- a) research factors which determine energy use in houses,
- b) design energy efficient homes using readily available materials,
- c) demonstrate the technology involved and skills required in constructing such homes
- d) develop standards and techniques to evaluate these energy efficient houses

This phase of the activity is on going, and several houses in Saskatchewan, P.E.I., and elsewhere in Canada have been built under the close scrutiny of researchers and energy experts. The next phase is to introduce the new techniques used in an energy saving package to contractors of homes. After such houses are built, it is important to record the actual amount of energy used and to compare it to the values of the demonstration homes in Saskatchewan.

The opportunity to make such a comparison with a commercial builder existed in homes built by Douglas MacDonald Homes Limited in the Ottawa area, in a subdivision known as Apple Hill. The designs of the houses include the following special features;

- double wall system with an insulation value of RSI 7.04;
- ceiling insulation value of RSI 10.56;

- basement insulation value of RSI 3.52;
- continuous air vapour barrier (0.15mm polyethelyne);
- insulated furnace room with outside air intake;
- insulated metal doors with weather stripping and aluminum threshold;
- double glazed wood slider or casement windows.

If installed properly, the above features could save a good deal of energy for the homeowners. Further, the recording of the actual performance of these homes would give the designers and contractors, as well as the owners, the needed correlation between the additional cost of the energy saving package when buying a home, and the saving on fuel to heat the house.

This task deals with the preliminary work required prior to monitoring and testing. This includes:

- contact and sign agreements with homeowners;
- review building design, location, and specifications;
- inspect houses for workmanship;
- determine home owner lifestyle;
- identify energy consuming appliances;
- test the furnace efficiency.

2.0 OBJECTIVES

- To obtain approval from homeowners to conduct the proposed testing in their homes.
- To inspect the houses to determine compliance of construction with specifications.
- To survey the household and provide some background data concerning lifestyle, and energy consuming appliances.
- To test the operating efficiency of the heating system.

3.0 METHODOLOGY:

An introductory letter was sent to the homeowners of the Apple Hill subdivision, followed by visits to the homeowner's houses to discuss the project in more detail. If the homeowners were interested in taking part in the study they received an information package and an agreement form which was to be signed and returned. Copies of the introductory letter, information package, and agreement form are shown in Appendix A.

Approval to test unoccupied houses was obtained through discussions with the builder.

The inspection, appliance survey and furnace efficiency tests were conducted at the same time as the air tightness test and the thermographic scans. The appliance survey, shown in Figure 3.1, was used to record data on electrical appliances and heating systems.

A Rab Dedesco digital furnace efficiency meter was used to measure the draft, CO2, and stack Temperature for gas furnaces in the test houses. The testing probe was inserted under the bonnet, directly into the heat exchanger ports. Separate readings were taken for each of the three ports. The initial test results show that significant discrepancies are common.

A review of pertinent design details was undertaken. These include:
- Air/Vapour barriers;

- Insulation;
- Construction materials;
- Orientation;
- Heating Systems;

All this information was required in order to compare actual energy use to theoretical energy use using the CMHC2 computer program.

FIGURE 3.1

APPLIANCE SURVEY

		44	fuel used in your water heater	67	supplementary equipment
		1	electricity 2 gas 3 oil		in addition do you use number in use
		4	other or none 5 Odon't know	A	central air conditioning
22	vour kitchen	45	if you have a swimming pool heater, is it	В	electronic air cleaner
-		1	electric 2 oil or gas	C	electric power humidifier on furnace
,	electric range with	3	total solar 4 Solar and electric	D	electric blanket
Ž	continuous clean	46	 	E	window air conditioner
3	self-cleaning	70		F	humidifier (plug-in)
	no built-in cleaning features	1	oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know	G	dehumidifier (plug-in)
4	gas stove or range, any type	. 4	☐ wood 5 ☐ coal 6 ☐ solar 7 ☐ don't know	78	other electric appliances
5	other cooking stove or range		number	Α	black and white television
٠.	(describe)	47	if you have space heater/stove, check below in use	В	colour television
6	without cooking stove or range	A	🗆 oil 🗀	C	ar block heater
27	Number of refrigerators in use	В	□ gas □	D	in-car heater
A	2 or 3-door combination is it frost free		wood	E	swimming pool filter
_	refrigerator-freezer C yes n		if electric check type	F	electric sauna
В	other electric refrigerator D ves n	2	D plug-in baseboard(s)		do you live in a
33			E ☐ built-in baseboard(s)	88	_ · ````
A	automatic electric dishwasher number in us	_	F ceiling cable	1	single-family house (detached or attached)
В	home food 'deep' freezer		G heat pump	2	apartment or flat (including duplex or triplex, etc.)
C	microwave oven	59	other heating equipment	3	mobile home
D	Li counter-top broiler oven]	wood or gas fireplace	4	other (describe)
10	your own laundry equipment	2	other (describe)	89	do you 1 own? 2 rent?
	(Do not include coin-operated or any other laundry	60	Have you participated in the Canadian Home	90	when was your dwelling unit built?
5	equipment used outside your home.)	100	Insulation Program (CHIP)?		Before 1956 1956-60 1961-65
6	other electric washer	1	□ ves □ no		4 🛛 5 🗍 6 🗍
0	(wringer, spin-dry, etc.)	61	Since January 1, 1979, have you		1966-70 1971-75 After 1975
7	combination washer-dryer (one unit)	- 1	added insulation to the attic?		7 🗍 8 🗎 9 🗒
8	-	2	added institute to the attic:	91	total number of rooms in your dwelling?
8	electric clothes dryer	-	changed your method of space heating?		(Do not include bathrooms,
3	□ gas clothes dryer		from 3 Oil 4 Oas 5 Delectric		halls and unfinished rooms)
			6 Other	92	number of persons living your household?
			changed your method of water heating?		
			from 7 oil 8 gas 9 electric		

4.0 Findings

Negotiations with the homeowners and the builder resulted in a sample of 33 houses from the Apple Hill subdivision. At the start of testing in January 1982, twenty-four of these homes were occupied; six were model homes; and three were completed, but unoccupied. A list of the homes in the sample are shown in Table 4.1. Figure 4.1 indicates the location of the houses in the study.

The response to the study by homeowner's was very encouraging. Approximately 95 percent of the homes contacted agreed to participate. This good response is attributed to the high level of awareness of the homeowners in Apple Hill, and their desire for more information on their homes. In addition, it is felt that the introductory letter, followed up by the homeowner interviews, added to this high success rate.

Three additional houses, not in Apple Hill were included in the study. These houses were constructed by Urbandale Homes Ltd. Two houses have electric furnaces, and an air-to-air heat exchanger; one has a conventional gas furnace and hot water tank. All three houses have excellent air/vapour barriers resulting in homes that equal, or exceed, the Apple Hill models in airtightness.

There are eight different models in the Apple Hill subdivision.

The distribution of these models in the study sample is:

MODEL	NUMBER
Baldwin	1
Willow	4
Cortland	6
Russet	9
Fireside	2
Regent	8
Westfield	1
York	2
Urbandale *	3
Total	36

*NOTE: Urbandale models are not located in the Apple Hill subdivision.

The promotional drawings and floor layouts for these models are shown in Appendix 1-B. The houses in the Apple Hill subdivision were built to the specifications shown in Table 4.2.

The inspection of the houses confirmed the homes were built to the specifications. However, the integrity of the air/vapour barrier is suspect in many houses due to the amount of air leakage detected. The appliance survey was conducted on all houses. And a summary is shown in Table 4.3, while data sheets are presented in Appendix 1-C.

Spot checks of houses under construction raised some questions about the viability of using conventional practices in the construction of energy efficient housing. These items are discussed in detail in the findings of the air tightness, and thermographic scans reports.

Inspection of houses, and discussions with the homeowners, revealed some major areas of concern. These included the safety, comfort, and efficiency in the design and operation of the enclosed furnance Homeowners have reported unusually low temperatures in these rooms, resulting in the formation of frost, frozen water tanks, and cold air from the hot air ducts. These low temperatures concerns about the possibility of introduce condensation and freezing of exhaust vapour in the flue. As a result of these concerns, a study was initiated to evaluate the design and operation of these enclosed furnance rooms: and make recommendations for their improvements, if required. The results of this study can be found in "The Study of Furnace Room Design and Operation in Apple Hill Homes" report.

A summary of the furnace efficiency data appears in Table 4.4. Of the 36 houses in the sample, 30 are heated with natural gas, and the remaining 6 are electrically heated. The average furnace efficiency was calculated as 73.5 percent; while the highest and lowest efficiencies were 78.9 and 68.8 percent, respectively.

TABLE 4,1

APPLE HILL PROJECT - KANATA UNTARIO LIST OF TEST HOUSES

		ž	MODEL	×			ENVELOPE		HEATING SYSTEM		OCCUPANCY	DATA		NO.	0F	OCCUPANT	
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ŧ ,	6	¥	REGENT	#	730	¥	360	¥	GAS		PRIOR MARCH					5	
	7	ž	REGENT	¥	738	×	360	¥	GAS		PRIOR MARCH					5	
	3	¥	REGENT	¥	730	¥	360	*	GAS	*	MAY 86/1		¥			4	
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1		*	RUSSET	*	625	*	315	*	6A5		PRIOR MARCH					2	
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1.		×	RUSSET	×	625	÷	315	¥	ELECTRIC		PRIOR MARCH					2	
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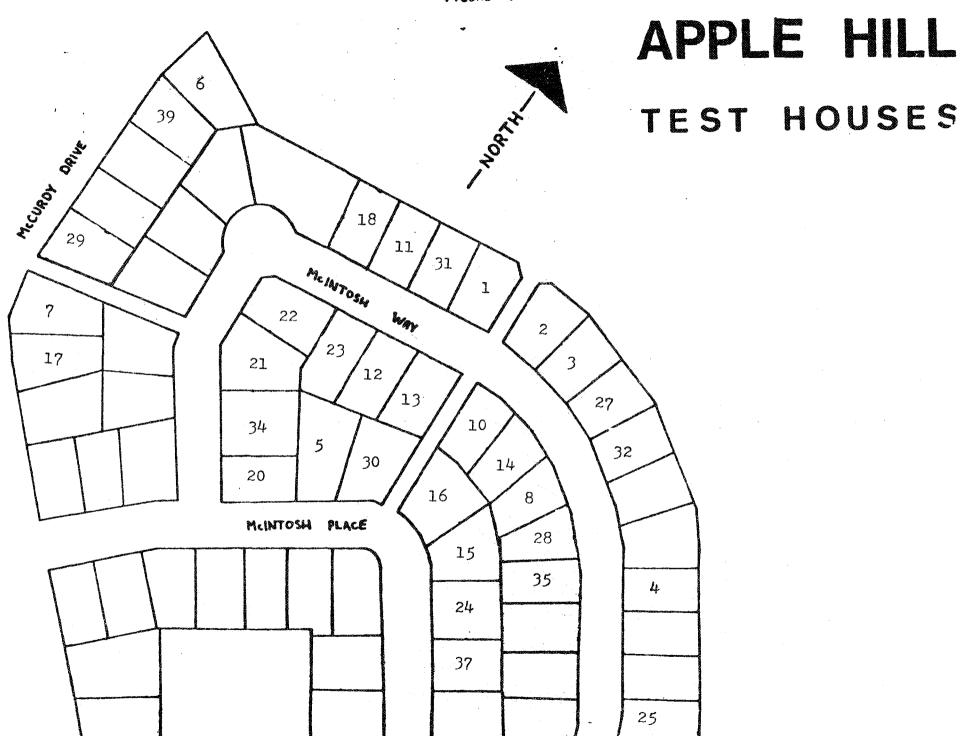


TABLE 4.2

APPLE HILL STUDY

SPECIFICATIONS

INSULATION & BASEMENT DRYWALL

RSI 3.52 FIBERGLASS INSULATION TO BASEMENT FLOOR

WALLS:

RSI 7.4 INSULATION AND 1.3

GYPSUM DRYWALL.

CEILING

RSI 10.56 FIBERGLASS INSULATION ROOF; 1.6 CM GYPSUM DRYWALL. STRIPPLE FINISH ON ALL CEILINGS EXCEPT KITCHEN & BATHROOMS.

GARAGE

1.3 GYPSUM DRYWALL TO GARAGE

CEILING AND WALL NEXT HOUSE.

VAPOUR

0.15NM POLYETHLYENE

BARRIER

EXTERIOR

FINISHES

BRICK ALUMINUM SIDING AND

ALUMINUM EAVES AS INDICATED ON DRAWINGS. COLORS TO BE SELECTED

BY ARCHITECT.

BASEMENTS

FOOTINGS:

175 KG/CM2 CONCRETE

FOUNDATION

REINFORCED 175 KG/CM2 CONCRETE

WALL:

20.3 THICK

PARGING:

CEMENT PARGING TO EXPOSED PORTIONS OF FOUNDATION WALL

EXTERNALLY.

BASEMENT

REINFORCED 10.2CM THICK 175

FLOOR:

KG/CM2 CONCRETE WITH TROWELLED

FINISH.

GARAGE

10.2CM THICK 280 KG/CM2 6% AIR

FOOR:

ENTRAINED CONCRETE ON 15.2CM

CRUSHED STONE.

WATERPROOFING: ASPHALT EMULSION.

DRAINAGE:

10.2 DRAINAGED PERIMETER

DRAINAGE SYSTEM.

BASEMENT

STEEL BEAM SUPPORT ON STEEL

BEAMS

TELEPOSTS (ARCHETECTURAL

DRAWINGS)

TABLE 4.2 CON'T

FRAMING

MATERIAL:

NO.1 SPRUCE

JOISTS:

5.1CM SPRUCE - DEPTH AND

SPACINGS AS SHOWN ON PLANS

SUB FLOOR

1.6 T&G PLYWOOD + 6.4 PLYWOOD

UNDERLAY FOR CUSHION FLOOR.

EXTERNAL

5CM X 15CM STUDS AT 60.0CM

WALLS:

CENTRES.

INTERNAL

5CM X 7.6CM STUDS AT 41CM

WALLS:

CENTRES OR 9.2 STEEL STUDS.

WALL

3.8CM GLASCLAD INSULATING

SHEATHING:

SHEATHING.

ROOF

PREFABRICATED ROOF TRUSES AT

CONSTRUCTION: 60CM CENTRES.

ROOF

1.0CM PLYWOOD SHEATHING WITH

SHEATHING:

"H" CLIPS.

FIREPLACES

OPTIONAL CUSTOM DESIGN.

TABLE 4.3

APPLE HILL STUDY
ENERGY APPLIANCE SURVEY SUMMARY

OUSE	*		K	I	T	С	Н	E	N			*	LAUN	IDR'	Y 	*	WATER	₹ Н	EATER	*	Fυ	RN	₩ A C	E		*	OTHE	ER AP	PLIAN	CES		¢	OCCUP	ANC	Ϋ́
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3	* X	*	Х	¥	Х	*	Х	*		×	+	*	X	*	X	*		¥	X	¥		¥	X	*	X	¥		¥	1	*	1	黃	9	*	4
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FURNACE EFFICIENCY SUMMARY

TABLE 4.4

•	* *	FURNACE CAPACITY		DRAFT	¥	CO 2 %	*	TEMP**	* COMBUSTIO * EFFICIENC * %	
HOUSE NO.	* DATE * **	BTUH*	* -*-	(PA)	* *	./e	**-	C	*	
	* FEB.23/82* *	120,000	*	12.5	*	6.7	*	306	* 71.3 *	
2	* *	120,000	*	Applie	₩	6.7	¥	348	* 68.8	
3	* * * MAR. 2/82*	120,000	*	10.0	*	7.6	*	338	* * 72.0	
4		120,000	*	-	*	9.9	¥	332	* * 75.9	
5	* * * MAR.11/82*	120,000	*	12.5	*	7.7	*	349	* * 71.7	
6	* * MAR. 2/82*	120,000	*	15.0	*	9.4	*	296	* * 77.0	
7	* * ** * MAR. 4/82*	120,000	*	5.0	*	6.4	*	342	* * 69.2	
11	* * FEB.25/82*	120,000	*	17.4	*	6.8	×	338	* * 70.5	
12	·	120,000	*	eas	*	8.8	*	324	* * 74.5	
13	* * MAR. 4/82*	120,000	*	12.5	*	9.6	*	348	* * 75.1	
14	* * MAR.11/82*	120,000	*	15.0	*	9.2	*	288	* * 77.0	
16	* * MAR. 3/82*	120,000	*	7.5	*	8.5	*	343	* * 73.6	
20	* * MAR.15/82*	•	*	12.5	*	7.6	*	324	* * 72.6	
21	* * * FEB.24/82*		*	10.0	*	7.2	*	295	* * 73.3	
22	* * FEB.24/82*	82,000	*	12.5	*	6.8	*	308	* * 71.5	
	* *	82,000	*	ces	*	6.3	*	304	* * 70.5	
	* * MAR.15/82*	120,000	*	15.0	*	8.9	*	316	* * 75.3	
29	* * MAR.23/82*	•		15.0	*	8.6	*	318	* * 74.7 *	
32	* * FEB.23/82*		*	11.2	*	7.3	*	319	* 73.0	
34		120,000	*	èm	*	9.2	*	314	* 76.0	
35	* * MAR. 4/82* 	120,000	*	10.0	*	8.6	*	327	* * 74.5	
	* * MAR.23/82*		*	15.0	¥	8.6	*	238	* * 78.9	

5.0 CONCLUSIONS

The following general observations can be made:

The houses are not as airtight as expected. The upper structures appear to be reasonably airtight, while the basements are fairly leaky. This observation was supported by the preliminary inspections, and air leakage checklist.

General construction quality is good. Some construction practices may require improvement in order to protect the integrity of the air/vapour barrier.

Some design details require evaluation, especially fireplaces, furnace rooms, sill plates, partition walls and windows.

Furnace efficiency was as expected, but this does not give a proper indication of the seasonal furnace operation. A more detailed study of the furnace room, and its design, is included in the Furnace Room Report.

6.0 RECOMMENDATIONS

There is a definite need to develop an air tightness training program for construction trades people. There is also a need to re-think some of the traditional construction practices.

A systematic tightening program of the Appple Hill homes would provide additional area, information concerning the contribution of each major leakage and the benefits achieved through sealing.

APPENDIX 1-A

INFORMATION PACKAGE



January 14, 1982

Dear Sir or Madame:

Apple Hill is one of several new subdivisions in Canada to offer a wide range of energy efficient homes. The increasing demand for these types of homes is a direct result of the incessant rise in the cost of energy.

To date, all activity has focused on the research and design of energy conserving houses. Consequently, very little information is available on the behaviour of these new designs when built commercially for the general public. It is for this reason that our company, Cogeneration Associates Ltd., is conducting a research study funded by the Federal government. We have selected the Apple Hill homes, built by Douglas MacDonald Homes Limited, to conduct such a study -- not only because of the climate and their location, but principally because of the energy consciousness of the builder and of yourselves, the occupants.

By developing new tests and measuring the characteristics of the Apple Hill subdivision from the energy point of view, we hope to provide researchers, designers, builders and most importantly, you, the homeowner, with valuable insight into the energy saving properties of your home.

As part of our study, we are relying on your co-operation to permit us to conduct a limited number of simple energy-related tests on your home. The results from certain conventional and acceptable tests will be made available to you and, as a further service, professional engineers will provide you with advice and answer any questions you may have to enable you to optimize the benefits of the energy saving features in your home.

This letter serves only as an introduction to our study. We are looking forward to meeting with you personally in the near future to discuss the details of the project and to answer any questions or concerns that you may have. One of our representatives will be contacting you shortly to arrange

a meeting at your convenience. Please note that this service is being provided at no cost to you. Also, no testing will be performed without your written authorization.

Since this subdivision is among the first of its kind in Canada, the residents of Apple Hill can be considered the pioneers of the new breed of energy-wise homeowners. It is only through your co-operation and involvement in this research project that a significant contribution to the development and improvement of energy efficient homes in Canada will be made.

Yours truly,

Alex Juchymenko, P.Eng.

President



February 5, 1982

Dear Homeowner:

Thank you for taking the time to meet with us and discuss the details of testing the energy efficient homes in Apple Hill.

As a follow up to our discussions, I have enclosed a description of the tests that we will be conducting as well as two copies of the agreement which requires your signature prior to starting the tests. Please sign both copies of the agreement, and our representative will contact you to collect them.

As indicated in the agreement, once your approval is received, the schedule of events will be as follows:

- 1) A walk-through inspection and appliance survey. This will require approximately 45 minutes to complete and will be scheduled as soon as possible after the signing of the agreement.
- 2) The installation of energy monitoring equipment for Test Set 1.

 An additional meter will be installed by Ottawa Gas Co. to measure the energy consumption of the hot water tank in houses with gas heating. For electrically heated houses, additional Kilowatt-hour meters will be installed to monitor both the furnaces and hot water tanks. Furnace timers and humidity indicators will be installed in both types of houses.
- 3) Test Set 11 as described in the attached outline will be conducted during the last two weeks of February and the month of March, 1982. This set of tests will require access to your house for a period of about 4 hours. The study also requires that this set of tests be repeated during June 1982, October 1982, and February 1983.
- 4) Test Set III as described will also be conducted during the last two weeks in February and the month of March, 1982 and is to be repeated in June 1982, October 1982, and February 1983. These tests will require about 2 hours to complete.

All testing will be arranged in advance by our representative in Ottawa, Mr. Warren Seton. He will also be responsible for taking meter readings, and will be contacting you once a month, by telephone, to obtain readings of meters within your house. If you have any questions, comments or problems concerning the study, he can be contacted at: 234-3280 Most of the field testing will be done by Retrospectors Inc. of 176 Bronson Ave., Ottawa.

We greatly appreciate your interest and co-operation, and look forward to working with you on this important energy project.

Yours truly,

Peter Rowles, P.Eng. Project Engineer



STUDY OF APPLE HILL ENERGY EFFICIENT HOUSES

AGREEMENT

FOR ELECTRICALLY HEATED HOMES

Our company, Cogeneration Associates Limited, is conducting a Federally funded project to study 'energy efficient' houses. The main objectives of the study are to monitor the energy consumption of houses which are designed to be energy efficient, and to evaluate new test procedures which are being developed to rate energy efficient homes. The agreement outlined below formally recognizes the understanding between Cogeneration Associates Limited and you, the homeowner, regarding your participation in this study.

le:	and	
agree to allow Cogeneration A	ssociates Limited to con	duct tests in our residence
	AMPRASARATES CONSISSION PROGRAMMENT PROGRAMMENT AND	

subject to the following terms and conditions:

- From the period commencing January 1982 to January 1984, Cogeneration Associates Limited will conduct various tests in your home as part of this study. The test dates for your home will be arranged by appointment.
- Cogeneration Associates Limited will conduct one walk-through inspection of construction details and an appliance survey of your home. This will be arranged by appointment after the signing of this agreement.
- 3. At some time during the period of January 1982 to March 1982, a reputable Contractor, selected by Cogeneration Associates Limited, will install energy monitoring equipment in your house at no cost to you. This equipment will include an additional meter to monitor the energy consumption of your furnace, hot water tank, and a timer to record the operation of your furnace.
- 4. On four separate occasions during the course of the study period, Cogeneration Associates Limited will conduct a series of tests in your house. These tests can be conducted while you are at home. They will include the following:
 - . Air Tightness Test
 - . Air Quality Test
 - . Neutral Pressure Plane Test
 - . Thermographic Scan
 - Air Change Measurements
 - . Other tests, similar in nature, to be specified at a later date.

- 5. During the course of the study, monthly readings of your house, furnace and hot water tank Kilowatt-hour meter, and furnace timer are required, as well as a check of indoor humidity levels. A representative of Cogeneration Associates Limited will visit your home or telephone once a month to collect this data.
 - 5.1 You agree to allow visits which will be scheduled on a regular monthly basis between the hours of 8:30 a.m. and 5:00 p.m., Monday to Friday.
 - 5.2 You agree to notify Cogeneration Associates Limited and provide an alternative means of access in the event that you are unable to be present during the above periods.
 - 5.3 You agree to notify Cogeneration Associates Limited as soon as possible should there be a change in ownership.
- 6. In recognition of your willingness to participate in this important energy study, you will receive the following information:
 - 6.1 A copy and explanation of the results of the following tests on your home:
 - a) Monthly record of electricity use
 - b) Air Tightness Readings
 - c) Neutral Pressure Plane Test
 - d) Air Change Rate

The first set of results are expected in April 1982, and the second set in April 1983.

- 6.2 Advice from professional energy consultants to help you to obtain the maximum benefits from the energy saving features of your home.
- 7. This is a Research and Development project with emphasis on the evolution of new testing procedures for energy efficient houses. The results of any of the tests performed as part of this study cannot be viewed as conclusive and shall not be used to hold recourse against Douglas MacDonald Homes Limited, its officers, employees or agents.
- 8. The terms of this agreement are for the period January 1982 to January 1984.

 If at any time you or Cogeneration Associates Limited wishes to terminate this agreement, sixty days' notice will be required.
- Any equipment left on your property for the purpose of this study shall be returned to Cogeneration Associates Limited in good condition.

President	Homeowner
Cogeneration Associates Limited	Date:

STUDY OF ENERGY EFFICIENT HOMES

TEST DESCRIPTIONS

TEST SET 1

Energy Monitoring

Energy use is to be monitored for the duration of the study. This will require the installation of additional meters to track the use of electricity and natural gas. The major areas of interest are the use of energy by the furnace, the hot water tank and the general household appliances.

In homes heated with natural gas, an additional meter will be installed on the hot water tank. By subtracting this reading from that of the outside meter, we can determine the amount of energy used by the furnace.

In electrically heated homes, additional Kilowatt-hour meters will be installed on both the hot water tank and the furnace.

In all houses the furnaces will be equipped with timers to record their operation. Meter readings will be taken once a month. Outdoor meters will be read directly by our representative who will also contact homeowners by phone to record readings of indoor meters. This information will be tabulated and presented to homeowners periodically throughout the study.

TEST SET 11

Air Tightness

The test is designed to determine the effectiveness of the air/vapour barrier and the general tightness of construction associated with the design and installation of windows, doors, vapour barriers, exhaust ducts, chimneys, etc. The study team will use a portable door fan to test for air leakage rates and to assist in the locating of specific air leakage sites. The door fans are designed to induce negative pressures within the house and to measure the corresponding air flow. The operating principles of this test are illustrated in Figure 1.

Four air tightness tests will be conducted over the course of the study. The presentation of test results will be expressed in terms of Equivalent Leakage Area (ELA), i.e., the size of the hole that would be created by gathering all leaks in the house into one place.

Thermographic Scan

This test will be performed to establish the heat loss distribution for the house. Thermography involves the use of a very sensitive infra-red camera to identify areas of heat loss.

TEST SET 111

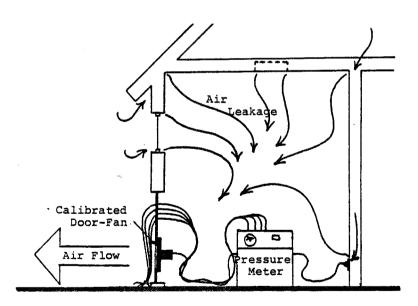
Air Change Rate

A standard scientific technique will be used to measure the rate of air change within the house. The air change rate is defined as the number of times within an hour that the volume of air contained within the house is replaced by outside air.

Air Quality

This test is designed to measure the quality of air in the house during normal occupancy. Periodic measurements will be taken to determine the levels of some carbon and nitrogen compounds as well as suspended particles.

The results of these tests will be presented to the homeowners periodically throughout the study. These reports will include the data which was collected along with an explanation of the test results.



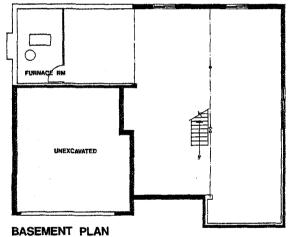
Airtightness Test Apparatus

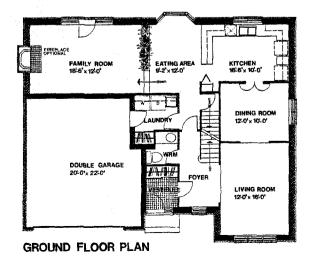
Figure 1

APPENDIX 1-B

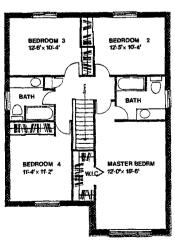
HOUSE MODELS





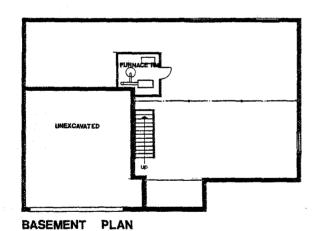


THE REGENT

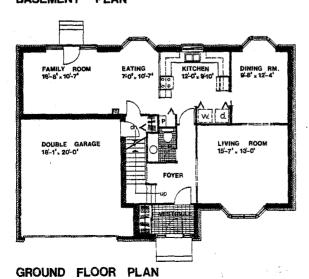


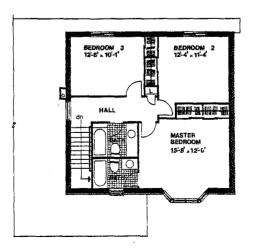
SECOND FLOOR PLAN





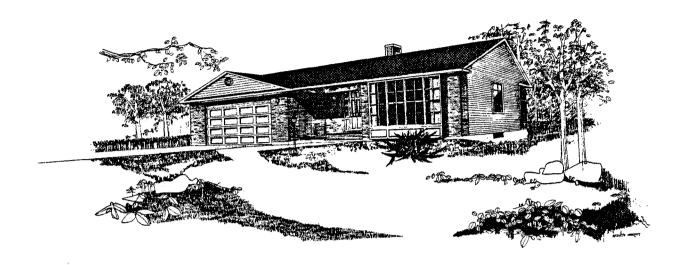
RUSSET



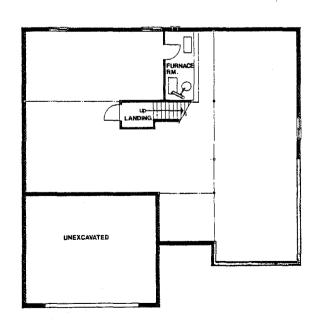


SECOND FLOOR PLAN

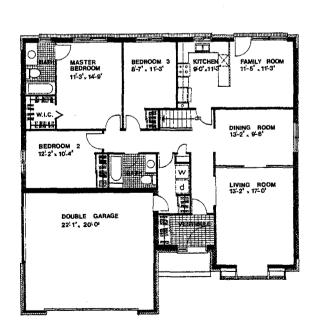
THESE PLANS ARE FOR DISPLAY ONLY, ACTUAL DIMENSIONS MAY VARY SLIGHTLY.



CORTLAND

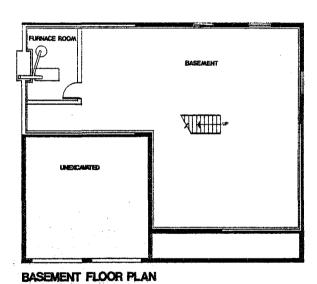




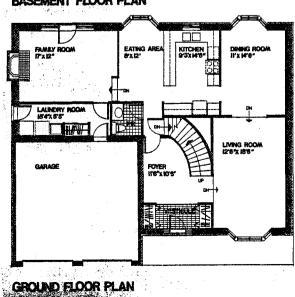


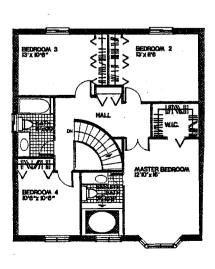
GROUND FLOOR PLAN



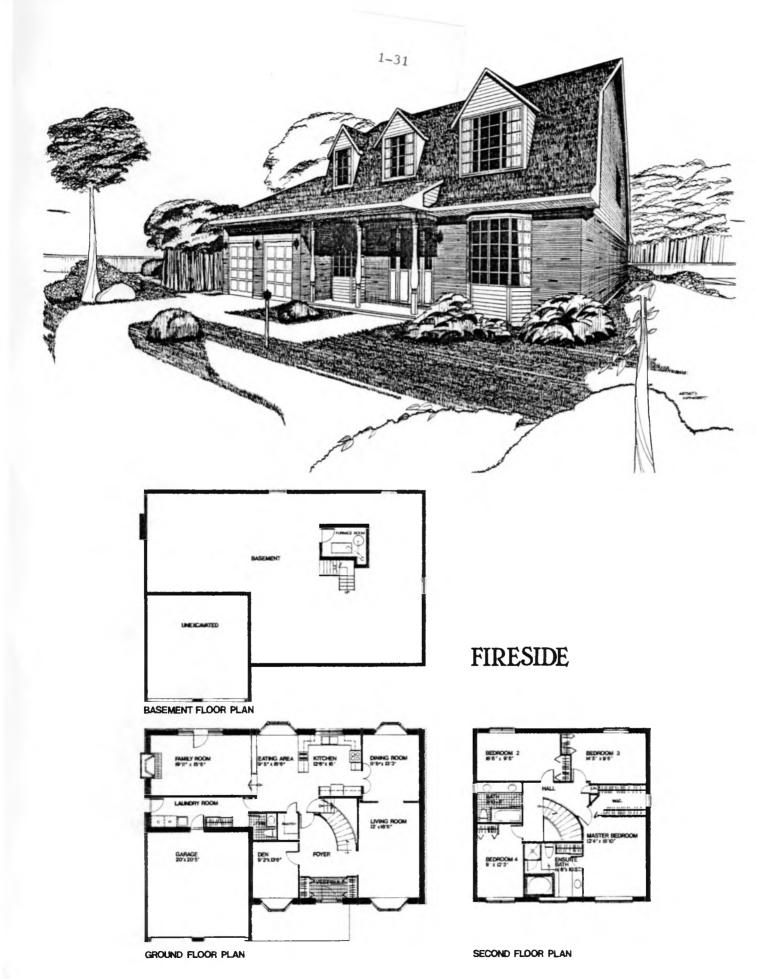


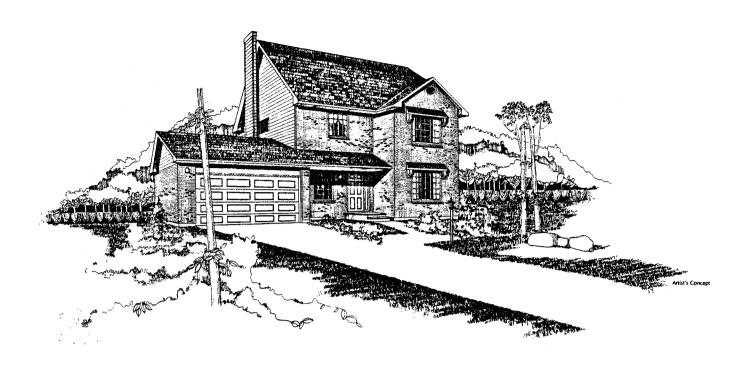
WILLOW

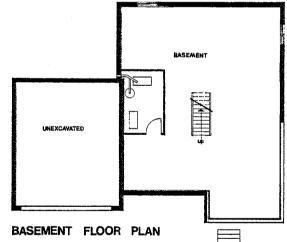




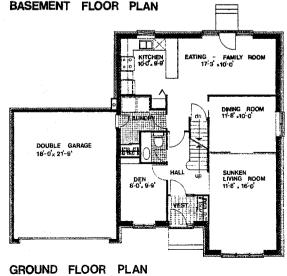
SECOND FLOOR PLAN







WESTFIELD



BEDROOM 4

BEDROOM 2

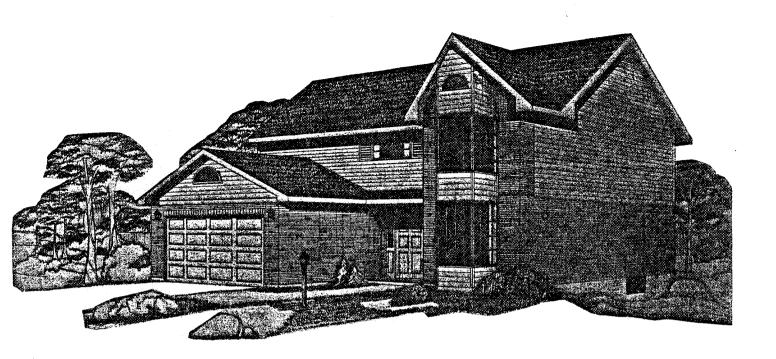
11-6-, 11-7

BEDROOM 2

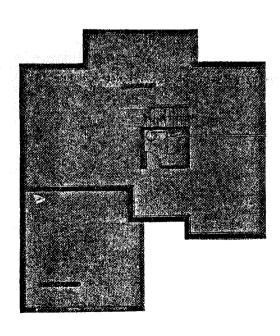
11-6-, 11-7

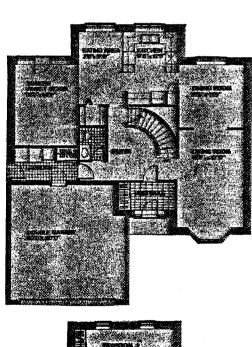
BEDROOM 12-0-, 16-6

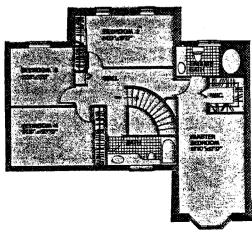
SECOND FLOOR PLAN



BALDWIN







APPENDIX 1-C

APPLIANCE SURVEY

		44	fuel used in your water heater	67	supplementary equipment
		1	electricity 2 🕅 gas 3 🗍 oil	۸	in addition do you use number in use central air conditioning
			other or none 5 don't know	B	l electronic air cleaner
22	ygur kitchen	45	if you have a swimming pool heater, is it	č	electric power humidifier on furnace
1	Relectric range with	1	electric 2 oil or gas	Ď	electric blanket
2	continuous clean	3	[] total solar 4 [] solar and electric	Ē	window air conditioner
3	self-cleaning			F	[] humidifier (plug in)
	no built-in cleaning features	1		Ğ	dehumidifier (plug-in)
4	gas stove or range, any type	4	wood 5 coal 6 solar 7 don't know	78	other electric appliances
5	i other cooking stove or range		number	Α	black and white television
_	(describe)	47	if you have space heater/stove, check below in use	В	Scolour television
6	without cooking stove or range	Α	□ oit	С	car block heater
27	Number of refrigerators in use :: is it trost free?	8	[] gas	D	[] in car heater
Α	2 or 3-door combination refrigerator-freezer C X yes no		□ wood □	Ε	Swimming pool filter
D	other electric refrigerator D yes no		if electric check type	F	electric sauna
33	Li other electric reingerator D Li yes Li yes		D 🔲 plug-in baseboard(s)	88	do you live in a
A	automatic electric dishwasher number in use		E built-in baseboard(s)	30	single-family house (detached or attached)
B	Nome food 'deep' freezer		F 🔲 ceiling cable	2	apartment or flat (including duplex or triplex, etc.)
Č	microwave oven		G Lij heat pump	3	mobile home
Ď	Counter-top broiler oven	59	other heating equipment	3	other (describe)
40	your own laundry equipment	1	wood or gas fireplace	89	do you 1 own? 2 rent?
••	(Do not include coin-operated or any other laundry	2	other (describe)	90	when was your dwelling unit built?
	equipment used outside your home.)	60	Have you participated in the Canadian Home	20	Before 1956 1956-60 1961-65
5	automatic washer		Insulation Program (CHIP)?		4 🗍 5 🗎 6 🗎
6	other electric washer	- 1	Li yes Li no		1966-70 1971-75 After 1975
7	(wringer, spin-dry, etc.)	וס	Since January 1, 1979, have you		7 [] 8 D 9 D
7	combination washer-dryer (one unit)	1	added insulation to the attic?	01	total number of rooms in your dwelling?
8	alectric clothes dryer	2	added solar heating equipment?	31	(Do not include bathrooms,
9	LJ gas ciothes dryer		changed your method of space heating?		halls and unfinished rooms)
			from 3 ☐ oil 4 ☐ gas 5 ☐ electric 6 ☐ other	92	number of persons living your household?
					5 + housetteeper
			changed your method of water heating?		a de de de la compa
1	est house (1)		from 7 ☐ oil 8 ☐ gas 9 ☐ electric A ☐ other		
	C2		A LI ome		
		44	fuel used in your water heater	67	supplementary equipment
		44	fuel used in your water heater	67	supplementary equipment in addition do you use number in use
		44 1 4	electricity 2 🐧 gas 3 🗐 oil	A	in addition do you use number in use central air conditioning
	vour kitchen	1 4		A B	in addition do you use number in use central air conditioning electronic air cleaner
22	your kitchen	1 4	Gelectricity 2 K gas 3 Goi other or none 5 G don't know if you have a swimming pool heater, is it	A B C	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace
22	delectric range with	1 4 45	Gelectricity 2 A gas 3 Goil Gother or none 5 Godon't know if you have a swimming pool heater, is it Gelectric 2 God or gas	A B C D	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket
22	electric range with Continuous clean	1 4 45 1 3	Gelectricity 2 A gas 3 Goil Gother or none 5 Godon't know if you have a swimming pool heater, is it Gelectric 2 God or gas Total solar 4 Gosofar and electric	A B C D E	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner
22	Melectric range with Sil continuous clean Lil self-cleaning	1 4 45 1 3	Gelectricity 2 A gas 3 Goil Gother or none 5 Godon't know if you have a swimming pool heater, is it Gelectric 2 Goil or gas Gotal solar 4 Gosofar and electric fuel used in your central furnace	A B C D E F	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-ln)
22	electric range with Continuous clean	1 4 45 1 3 46	electricity 2 A gas 3 loi: other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 A gas 3 electricity	A B C D E F G	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in)
222 1 2 3	Vi electric range with Vi continuous clean U self-cleaning U no built-in cleaning features Vi continuous cleaning features Vi con	1 45 1 3 46	electricity 2 A gas 3 ori other or none 5 don't know if you have a swimming pool heater, is it electric 2 ori orgas total solar 4 solar and electric fuel used in your central furnace oil 2 a gas 3 electricity wood 5 coal 6 solar 7 don't know	A B C D E F G 78	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances
222 1 2 3	Melectric range with Sild continuous clean Self-cleaning Continuous clean description selections and the self-cleaning features description selections and type	1 45 1 3 46 1 4	electricity 2 gas 3 oi other or none 5 don't know electric 2 oil or gas total solar 4 solar and electric total solar 4 solar and electric total solar 5 gas 3 electricity wood 5 coal 6 solar 7 don't know number	ABCDEFG8A	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television
222 1 2 3	Melectric range with Continuous clean Self-cleaning Do built-in cleaning features Gas stove or range, any type other cooking stove or range (describe) without cooking stove or range	1 45 1 3 46 1 4	Gelectricity 2 A gas 3 Goi Gother or none 5 Gon't know if you have a swimming pool heater, is it Gelectric 2 Goil or gas Gottotal solar 4 Gosdar and electric fuel used in your central furnace Goil 2 A gas 3 Gelectricity Good 6 Gool on't know number flyou have space heater/stove, check below number in use	ABCDEFG8AB	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television
222 1 2 3	Melectric range with Continuous clean Self-cleaning Continuous clean Self-cleaning Continuous cleaning features Gass stove or range, any type Cother cooking stove or range (describe) Without cooking stove or range Number of refrigerators in use	1 45 1 3 46 1 4 47 A	electricity 2 A gas 3 or or other or none 5 of don't know if you have a swimming pool heater, is it electric 2 or or gas or total solar 4 or osolar and electric fuel used in your central furnace or	ABCDEFG8ABC	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television coiour television car block heater
222 1 2 3 4 5	Melectric range with Continuous clean Setf-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use Consideration	1 4 45 1 3 46 1 4 47 A B	electricity 2 A gas 3 or or other or none 5 of don't know if you have a swimming pool heater, is it electric 2 or or gas total solar 4 or osolar and electric fuel used in your central furnace or 2 A gas 3 electricity wood 5 coal 6 solar 7 don't know flyou have space heater/stove, check below number in use oil	ABCDEFG8AB	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehomidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater
222 1 22 3 45 5 627 A	electric range with	1 45 1 3 46 1 4 47 A B C	electricity 2 gas 3 oi other or none 5 don't know f you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know number in use oil gas	ABCDEFG78ABCD	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter
22 1 2 3 4 5 6 27 A B	Melectric range with Continuous clean Setf-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use Consideration	1 45 1 3 46 1 4 47 A B C	electricity 2 gas 3 oi other or none 5 don't know f you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know number in use oil gas	ABCDEFG78ABCDEF	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna
22 1 2 3 4 5 6 27 A B	Melectric range with Continuous clean Self-cleaning Continuous clean Self-cleaning Continuous clean Self-cleaning Continuous clean Continuous	1 4 45 1 3 46 1 4 47 A B C	electricity 2 gas 3 oi other or none 5 don't knew electric 2 oil or gas total solar 4 solar and electric other or none 5 don't knew oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't knew oil	ABCDEFG78ABCDE	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a
222 1 2 3 3 4 5 5 6 27 A B 33 A	electric range with	1 4 45 1 3 46 1 4 47 A B C	electricity 2 A gas 3 or or other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 A gas 3 electricity wood 5 coal 6 solar 7 don't know number in use oil oil coal 6 solar 7 don't know number in use oil gas butten baseboard(s) E butten baseboard(s) E ceiling cable	ABCDEFG78ABCDEF	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a
222 1 2 2 3 4 4 5 6 27 A B 33 A B	electric range with	1 4 45 1 3 46 1 4 47 A B C	electricity 2	ABCDEFG88CDEF8812	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television color television car block heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.)
22 1 2 3 4 5 6 27 A B 33 A B C	electric range with Scontinuous clean Self-cleaning Se	1 4 45 1 3 46 1 4 47 A B C	electricity 2 gas 3 oi other or none 5 don't know don't	ABCDEFG78ABCDEF	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television color television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home
222 1 2 3 4 5 6 27 A B 33 A B C D	electric range with	1 4 45 1 3 46 1 4 47 A B C C 59 1	electricity 2 gas 3 oi other or none 5 don't know don't	ABCDEFG88CDEF881234	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe)
222 1 2 3 4 5 6 27 A B 33 A B C D	electric range with	1 4 45 1 3 46 1 4 47 A B C 59 1 2	electricity 2 gas 3 oi other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know number in use oil	ABCDEFG78BCDEF8812349	maddition do you use number in use central air conditioning electric power humidifier on furnace electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 own? 2 rent?
222 1 2 3 4 5 6 27 A B 333 A B B C D 40	electric range with Scontinuous clean Self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range without cooking stove or range six trost free? visual cooking stove or range six trost free? visual cooking stove or range six trost free? visual cooking stove or range v	1 4 45 1 3 46 1 4 47 A B C C 59 1	electricity 2	ABCDEFG78BCDEF8812349	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe)
222 1 22 3 4 5 6 27 A B 33 A B C D 40	electric range with	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60	electricity 2 gas 3 oi other or none 5 don't know don't	ABCDEFG78BCDEF8812349	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 own? 2 rent?
222 1 2 3 4 5 6 27 A B 333 A B B C D 40	electric range with	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1	electricity 2 gas 3 oi other or none 5 don't know don't	ABCDEFG78BCDEF8812349	in addition do you use number in use central air conditioning electric power humidifier on furnace electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna ssingle-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 own? 2 rent? rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6
222 3 4 5 6 277 A B 333 A B C D 400 5 6	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe). Without cooking stove or range without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer C yes no other electric refrigerator D yes no include coin-operated or any other laundry equipment used outside your home.) Automatic electric dishwasher number in use nicrowave oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) Automatic washer twister washer twinger, spin-dry, etc.)	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60	electricity 2 gas 3 oi other or none 5 don't know electric 2 oil or gas total solar 4 solar and electric total solar 4 solar and electric total solar 5 don't know oil gas oil gas oil gas wood if electric check type D plug in baseboard(s) E built in baseboard(s) F ceiling cable G heat pump other heating equipment wood or gas fireplace other (describe) Have you participated in the Canadian Home Insulation Program (CHIP)? yes no Since January 1, 1979, have you	ABCDEFG78BCDEF8812349	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket curve window air conditioner humidifier (plug-in) conditioner condition
222 1 2 3 4 5 6 27 A B 333 A B C D 40 5 6 6 7	electric range with	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1 1 61 1	electricity 2 A gas 3 or or other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 dos 3 electricity wood 5 coal 6 solar 7 don't know number in use oil oil oil electric check type D plug in baseboard(s) E built in baseboard(s) E ceiling cable G heat pump other heating equipment W wood or gas fireplace other (describe) Have you participated in the Canadian Home Insulation Program (CHIP)? yes on o Since January 1, 1979, have you added insulation to the attic?	ABCDEFG78BCDEF881234990	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 your 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 1966-70 1971-75 After 1975
222 1 22 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8	electric range with Scontinuous clean Self-cleaning Se	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1	electricity 2 A gas 3 or or other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 a gas 3 electricity wood 5 coal 6 solar 7 don't know " "" "" "" "" "" "" "" "" "	ABCDEFG78BCDEF881234990	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 x own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 7 8 9 9 x total number of rooms in your dwelling? (Do not include bathrooms.
222 1 2 3 4 5 6 27 A B 333 A B C D 40 5 6 6 7	electric range with	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1 1 61 1	electricity 2	ABCDEFG88 1 2 3 4 8 9 9 9 1	maddition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 yown? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 1966-70 1971-75 After 1975 7 8 9 3 total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms)
222 1 22 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8	electric range with Scontinuous clean Self-cleaning Se	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1 1 61 1	electricity 2 A gas 3 or or other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 a gas 3 electricity wood 5 coal 6 solar 7 don't know " "" "" "" "" "" "" "" "" "	ABCDEFG88 1 2 3 4 8 9 9 9 1	in addition do you use number in use central air conditioning electric power humidifier on furnace electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 x own? 2 rent? rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 7 8 9 x total number of rooms in your dwelling? {Oo not include bathrooms.}
22 1 2 3 4 5 6 27 A B 33 A B C D 0 40 5 6 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	electric range with	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1 1 61 1	electricity 2 gas 3 oi other or none 5 don't know number in use number numb	ABCDEFG88 1 2 3 4 8 9 9 9 1	maddition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 yown? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 1966-70 1971-75 After 1975 7 8 9 3 total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms)
22 1 2 3 4 5 6 27 A B 33 A B C D 0 40 5 6 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	electric range with Scontinuous clean Self-cleaning Se	1 4 45 1 3 46 1 4 47 A B C C 59 1 2 60 1 1 61 1	electricity 2 gas 3 oi other or none 5 don't know number in use number in use don't know number in use number in	ABCDEFG88 1 2 3 4 8 9 9 9 1	maddition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 yown? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 1966-70 1971-75 After 1975 7 8 9 3 total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms)

22 1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	your kitchen electric range with	1 3 46 1 4 4 47 A B C 59 1 2 60 1	other or none	central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket. window air conditioner humidifier (plug in) dehumidifier (plug in) doulder television car black and white television car black and white television car black and white television deluctric sauna de you live in a de yo
1 2 3 3 4 5 6 27 A B 33 3 A B C C D 40 5 6 7 8 9	veur kitchen electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range without cooking stove or range is it frost free? without cooking stove or range without cooking stove or range	1 4 45 1 3 466 1 4 47 A B C C 59 1 2 60 1	fuel used in your water heater electricity 2	supplementary equipment in addition do you use number in us central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket. window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or fiat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 1 total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms) number of persons living your household?

		44	fuel used in your water heater	67	supplementary equipment
		1	electricity 2 gas 3 oil		in addition do you use number in use
		4	Other or none 5 Odon't know	A	central air conditioning
-	120.0	AE	If you have a swimming pool heeter, is it	В	electronic air cleaner
22	your kitchen	73		С	electric power humidifier on furnace
- 1	electric range with	_ !	electric 2 ail or gas	D	electric blanket
2	continuous clean	3	total solar 4 Solar and electric		window air conditioner
3	self-cleaning	46	fuel used in your central furnece	Ē	humidifier (plug-in)
	no built in cleaning features	1	Oil 2 Sugas 3 Delectricity	Ġ	dehumidifier (plug-in)
4	gas stove or range any type	4	wood 5 coal 6 solar 7 don't know	78	other electric appliances
5	other cooking stove or range			/6	
•	(describe)	47	if you have space heater/stove, check below in use	_ A	black and white television
	without cooking stove or range	47	ir you have space neater/stove check below in use	В	colour television
27	Number of refrigerators in use 1	A	날에 보	C	Car block heater
47		В	☐ gas	D	in-car heater
A	refrigerator-freezer C ves no	C	□ wood	E	swimming pool filter
			if electric check type	F	electric sauna
Б	other electric refrigerator D U yes U no		D plug in baseboard(s)		do you live in a
33	w ·		E ☐ built-in baseboard(s)	40	and '
A	automatic electric dishwasher number in use		F ceiling cable	1	Single-family house (detached or attached)
B	Ahome food 'deep' freezer		G heat pump	2	apartment or flat (including duplex or triplex, etc.)
C	microwave oven	59	other heating equipment	3	mobile home
D	Counter top broiler oven			4	Other (describe)
40	your awn laundry equipment		wood or gas fireplace	89	do you 1 🔀 own? 2 🔲 rent?
	Do not include coin-operated or any other laundry	~	other (describe)	90	when was your dwelling unit built?
	equipment used outside your home)	60	Have you participated in the Canadian Home		Before 1956 1956 60 1961-65
5	automatic washer		Insulation Program (CHIP)?		4 0 5 0 6 0
6	other electric washer				1966 70 1971 75 After 1975
_	(wringer spin-dry etc.)	ΨĬ	Since Jenuery 1, 1979, have you		7 1 8 1 9 5
7	combination washer dryer (one unit)	- 1	added insulation to the attic?		total number of rooms in your dwelling?
8	electric clothes dryer	2	added solar heating equipment?	#1	Do not include bathrooms.
9	gas clothes dryer		changed your method of space heating?		halls and unfinished rooms
			from 3 oil 4 gas 5 electric	92	
	Test house (4)		6 other		
	1674 Janse A		changed your method of water heating?		3-5
			from 7 Ooil 8 Ogas 9 Oelectric		
			A Dans		

1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8 9	Z or 3 door combination refrigerator-freezer	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78 78 ABCDEF 88 1 2 3 4 89 90	supplementary equipment in addition do you use
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8 9	your kitchen	1 4 45 1 3 46 1 4	if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric		supplementary equipment in addition do you use number in us central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 wow? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 9 total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms) number of persons living your household?

SANGER STATE	electric range with continuous clean. self-cleaning no built-in cleaning features gas stove or range, any type describe without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer contended to the following stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer contended to the following stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer contended to the following stove or range nother electric dishwasher microwave oven counter top broiler oven your own laundry equipment iDo not include coin-operated or any other laundry equipment used outside your home.) Selectric disthes diver combination washer (wringer, spin-dry etc.) combination washer-dryer lone unit) electric clothes diver	oil 2 A gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below oil gas wood if electric check type D plug in baseboard(s) E built-in baseboard(s) F ceiling cable G heat pump	67 A B C D E F G 78 A B C D E F 88 1 2 3 4 8 9 0 9 1 92	auppiementary equipment In addition do you use Central air conditioning electric power humidifier on furnace electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) d
	Test house (8)		\$2	number of persons living your household?

		44	fuel used in your water heater	67	supplementary equipment
		1	electricity 2 Agas 3 Doil		in addition do you use number in use
		À	ather or none 5 don't know	A	Central air conditioning
42.7	and the standards	45	if you have a swimming pool heater, is it	B	electronic air cleaner
LL	your kitchen	40	electric 2 olf or gas	C	electric power humidifier on furnace
1	electric range with	,	□ electric & □ oli or gas	Ð	Rejectric blanket
2	continuous clean	3	total solar 4 Solar and electric	E	window air conditioner
3	& self-cleaning	46	fuel used in your central furnace	Ē	humidifier (plug-in)
	no built in cleaning features	9	Oil 2 Agas 3 Delectricity	6	D dehumidifier (plug-in)
æ	gas stove or range, any type	4	wood \$ coal & solar 7 don't know	30	other electric appliances
6	other cooking stove or range			70	man .
•	(describe)	87	number	A	black and white television
	without cooking stove or range	47	if you have space heater/stove, check below in use	8	🔀 colour television 🔟
9		A	[] oil	C	Car block heater
27	Number of refrigerators in use is it frost free?	8	gas	D	in-car heater
А	125 2 01 3 0001 C011101181011		wood	E	swimming pool filter
_			if electric check type	F	electric sauna
В	other electric refrigerator D ves no		D plug-in baseboard(s)		do you live in a
33			€ ☐ built-in baseboard(s)	88	
Α	automatic electric dishwasher number in use		F Ceiling cable	1	single-family house (detached or attached)
8	home food 'deep' freezer			2	apartment or flat (including duplex or triplex, etc.)
C	microwave oven			3	☐ mobile home
D	Counter top broiler oven	59	other heating equipment	Ā	Other (describe)
40	your own laundry equipment	1	wood or gas fireplace	80	do you 1 🙎 own? 2 🔲 rent?
	Do not include coin-operated or any other laundry	2	Other (describe)	80	when was your dwelling unit built?
	equipment used outside your home.)	60	Have you participated in the Canadian Home	100	Before 1956 1956-60 1961-65
5	W automatic washer		Insulation Program (CHIP)?		
6	Other electric washer	1	∐ yes ⊠ no		4 🗆 5 🗀 6 🖸
-	(wringer, spin-dry etc.)	61	Since Jenuary 1, 1979, have you		1966:70 1971:75 After 1975
7	combination washer-dryer (one unit)	1	added insulation to the attic?		7 🖯 8 🖯 9 🖏
2	electric clothes dryer	2	added solar heating equipment?	91	
ā	gas clothes dryer	-	changed your method of space heating?		(Do not include bathrooms,
47	un gas ciotnes dryer		from 3 oil 4 gas 5 electric		halls and unfinished rooms
			6 Other	92	number of persons living your household?
	Test house (10)				4
	1001		changed your method of water heating?		
			from 7 oil 8 gas 9 electric		
			A Other		

1 2 3 3 4 5 6 6 27 A B 33 3 A B C D D 40 5 6 6 7 7 8 9	your kitchen continuous clean continuous cooking stove or range continuous cooking refrigerators in use continuous cooking refrigerators continuous cooking r	1 4 45 1 3	fuel used in your water heater electricity 2	ABCDEFG78 ABCDEF 888 1 2 3 4 89 90	supplementary equipment in addition do you use in addition do you use	
222 123 3 44 5 6 277 A B 333 A B B C D D 400 5 6 6 7 8 9	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3 door combination refrigerator freezer cother electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter-top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry, etc.) combination washer-dryer (one unit)	1 4 45 1 3 466 1 4 47 A B C C 59 1 2 60 1	fuel used in your water heater electricity 2		Stack and white television Car block heater In car heater In car heater In car heater Swimming poof filter efectric sauna do you live in a Single-family house (detached or attached) apartment or flat (including duplex or triplex, or mobile home other (describe) do you 1 A own? 2 rent?	etc.)

		44	tuel used in your water nester	6/	anbbiemeurerA admitment
		1	electricity 2 🔀 gas 3 🗌 oil		in addition do you use number in use
		4	ather or none 5 and don't know	A	Central air conditioning
40-73		AS	if you have a swimming pool heater, is it	8	electronic air cleaner
22	your kitchen	45	electric 2 oil or gas	С	electric power humidifier on furnace
7	electric range with	_ :		D	electric blanket
2	continuous clean	3	total solar 4 Solar and electric	F	window air conditioner
3	self-cleaning	46		Ē	Dhumidifier (plug-in)
	no built in cleaning features	9	oil 2 pas 3 electricity	Ġ	dehumidifier (plug-in)
4	gas stove or range, any type	4	wood 5 coal 6 solar 7 don't know	78	other electric appliances
95	other cooking stove or range			76	
•	(describe)	47	number	A	black and white television
æ	without cooking stove or range	4/	if you have space heater/stove, check below in use	В	colour television
	Number of refrigerators in use	A	□ oi	C	car block heater
21		B	🔲 gas 🕡	D	in-car heater
A	2 di 3 diddi combination		wood	E	swimming pool filter
			if electric check type	F	electric sauna
15	Other electric refrigerator D D yes D no		D plug in baseboard(s)		do you live in a
33	·		■ D built-in baseboard(s)	55	•
A	automatic electric dishwasher number in use		F Ceiling cable	1	single-family house (detached or attached)
8	home food 'deep' freezer		G heat pump	2	apartment or flat (including duplex or triplex, etc.)
C	microwave oven	59	other heating equipment	3	i mobile home
D	Counter top broiler oven	38			Other (describe)
40	your own laundry equipment	1	wood or gas fireplace	29	da you 1 🛣 own? 2 🔲 rent?
	Do not include coin-operated or any other laundry	Z	Other (describe)	80	when was your dwelling unit built?
	aguipment used outside your home.)	80	Have you participated in the Canadian Home	-	Before 1956 1956-60 1961-65
5	🔭 actomatic washer	_	Insulation Program (CHIP)?		4 🗆 5 🗆 8 🗇
6	Other electric washer	4	i ves 🎉 no		
	weringer spin bry etc.	61	Since January 1, 1979, have you		1500 10
7	Ligeon bination washer driver tone unit-	4	added insulation to the attic?	_	7 🗇 🔰 🖇 🖰 📜 🥦 🎉
8	Electric clothes dryer	2	added solar heating equipment?	91	total number of rooms in your dwelling?
9	as dothes dryer		changed your method of space heating?		(Do not include bathrooms, halls and unfinished rooms)
_	Same Same and a residence of the		from 3 Doil 4 Dgas & Delectric	-	
	·		6 C other	92	number of persons living your household?
	Test house (12)		changed your method of water heating?		7
	1621 Nouse (17)				- Color and Colo
			from 7 oil 8 gas 9 electric		
			A 🖸 other		

refrigerator-freezer C yes B other electric refrigerator D yes	47 A B C C no 559 1 1 2 60	electricity 2 A gas 3 oit other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 A gas 3 electricity wood 5 coal 6 solar 7 don't know number if you have space heater/stove, check below number in use oil gas wood if electric check type D plug-in baseboard(s) E built in baseboard(s) F celling cable G heat pump other heating equipment Awood or gas fireplace other (describe) Have you participated in the Canadian Home Insulation Program (CHIP)? yes no Since January 1, 1979, have you added insulation to the attic? added solar heating equipment? changed your method of space heating? from 3 oil 4 gas 5 electric 6 other changed your method of water heating? from 7 oil 8 gas 9 electric A other	in addition do you use
refrigerator-freezer C yes B other electric refrigerator D yes	1 4 45 1 3 466 1 4 47 A A B C C no	fuel used in your water heater	supplementary equipment in addition do you use number in us central air conditioning delectronic air cleaner electric power humidifier on furnace electric blanket window ar conditioner humidifier (piug-in) dehumidifier (piug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 2 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1 1966-70 1971-75 After 1975 7 8 9 1 total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms) number of persons living your household?

2	range with itinuous clean cleaning built in cleaning features live or range, any type cooking stove or range be) t cooking stove or range for refrigerators in use cleaning for combination rator-freezer C	1 4 45 1 3 46 1 4 47 A B C	delectricity 2	A B C D E F G 78 A B C D E F 88 1 2 3 4 89 90 91	supplementary equipment in addition do you use
2 con 3 self self gas sto 5 other c (descri 6 withou 27 Number A 2 or 3-c refriger B 33 A autom B home f C microw D counte 40 your own (Do not ince equipment) 5 autom 6 other e 1 wringe 7 combin 8 electric 9 gas do	range with tinuous clean -cleaning puilt-in cleaning features ve or range, any type cooking stove or range be)	1 4 45 1 3 46 1 4	fuel used in your water heater	ABCDEFG78 78 ABCDEF 88 1 2 3 4 89 90	supplementary equipment in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug in) dehumidifier (plug in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 1 total number of rooms in your dwelling? (Do not include bathrooms, halfs and unfinished rooms) number of persons living your household?

		1	electricity 2 💆 gas 3 🗌 oil		in addition do you use number in use
		à	other or none \$ 0 don't know	A	Central air conditioning
•	A to A	AE	If you have a swimming pool heater, is it	8	electronic air cleaner
22		453	tt you nave a swimming poor neater, is it	C	electric power humidifier on furnace.
1	Lelectric range with	7	electric 2 Oil or gas	Ď	Bowenessma water bod heafer []
2	Continuous clean	3	total solar 4 solar and electric	2	window air conditioner
3	self-cleaning	46	fuel used in your central furnace	E	
-	Culnobust in gleaning features	1	Oil 2 Agas 3 Dejectricity	<u> </u>	humidifier (plug-in)
a	Colgas shove or lange lany type	A	wood 5 Coal 6 Solar 7 don't know	G	dehumidifier (plug-in
- 4:	The track of stoke or table	~		78	other electric appliances
a)	thesione Convection over		number	A	olack and white television .
		47	if you have space heater (stove, check below in use	8	Colour television
- 6	Li wandat cooking stove or range	Α	C) oil	C	Car block heater
27	Number of refrigerators in use	8	□ gas □	D	In car beater
A	2 or 3 door combination is it frost free?	c	wood	Ē	swimming pool filter
	refrigerator freezer C ves uno	•	if electric check type	Ē	electric sauna
В	Diother electric refrigerator Dig yes Uno		D K plug in baseboard(s)	•	
33			E built in baseboardis)	88	do you live in a
A	automatic electric dishwasher number in use			1	single-family house (detached or attached)
8	Khame food 'deep freezer		F Li ceiling cable	2	apartment or flat (including duplex or trip) excepts:
C	C. inicrowave oven	**	G Li heat pump	3	mobile home
Ð	Dispunter top broiler oven	59	other heating equipment	4	Other (describe)
60	your own laundry equipment	1	wood or gas freplace	80	do you 1 K own? 2 rent?
	Do not include coin-operated or any other laundry	2	U other (describe)	90	when was your dwelling unit built?
	equipment used outside your home :	60	Have you participated in the Canadian Home	3/0	,
5	automatic washer		Insulation Program (CHIP)?		
6	Other electric washer	9	Li yes 📜 no		4 🗆 🦻 6 🗇
	(wringer spin dry etc.)	61	Since January 1, 1979, have you		1966 70 1971 75 After 1979
7	combination washer-dryer (one unit)	1	added insulation to the attic?		7 🗀 8 🗀 🤋 💥
8	alectric clothes dryer	2	added solar heating equipment?	91	total number of rooms in your dwelling?"
9	gas clothes dryer	_	changed your method of space heating?		(Do not include bathrooms,
•	C ges ciothes diver		from 3 Doil 4 Dgas 5 Delectric		halls and unfinished rooms)
			6 Oother	\$2	number of persons living your household?
	Test house (18)		changed your method of water heating?		3
	1031 200				anger — and a second se
	•		from 7 Oil 8 Ogas 9 Oelectric		
			A Dother		

44 fuel used in your water heater

67 supplementary equipment

		44	fuel used in your water heater	67	supplementary equipment
		1	🗌 electricity 2 🛣 gas 3 🗍 oil	_	in addition do you use number in use
		4		Ā	central air conditioning
22	your kitchen	45	if you have a swimming pool heater, is it	В	J electronic air cleaner
1	X electric range with	1	☐ electric 2 ☐ oil or gas	C	electric power humidifier on furnace
2	acontinuous clean	3	total solar 4 🗍 solar and electric	Ď	electric blanket
3	X self-cleaning	46	fuel used in your central furnace	E	window air conditioner
	no built-in cleaning features	1	oil 2 X gas 3 electricity	F	humidifier (plug-in)
4	gas stove or range, any type	4	wood 5 coal 6 solar 7 don't know	G	L) dehumidifier (plug-in)
5	other cooking stove or range			78	other electric appliances
	(describe)	47	if you have space heater/stove, check below in use	Α	K black and white television
6	without cooking stove or range		1.3	В	🔀 colour television 🗓
27	Number of refrigerators in use	A	- 블레스 및	c	ar block heater
Α	2 or 3-door combination is it frost free?	8	[] gas	D	in-car heater
	refrigerator-freezer C yes no	С	wood	E	swimming pool filter
В	other electric refrigerator D yes no		if electric check type	F	electric sauna
33			D plug-in baseboard(s)	88	do you live in a
Α	automatic electric dishwasher number in use		E built in baseboard(s)	1	x single family house (detached or attached)
8	[] home food 'deep' freezer		F C ceiling cable	2	apartment or flat (including duplex or triplex, etc.)
С	K microwave oven		G L. heat pump	3	☐ mobile home
D	Counter top broiler oven	59	other heating equipment	4	Other (describe)
40	your own laundry equipment	1	🔊 wood or gas fireplace	89	do you 1 N own? 2 rent?
	Do not include coin-operated or any other laundry	2	other (describe)	90	when was your dwelling unit built?
_	equipment used outside your home.)	60	Have you participated in the Canadian Home	30	Before 1956 1956-60 1961-65
5	automatic washer		Insulation Program (CHIP)?		
6	1 3 other electric washer	- 1	Liyes Lino		4 🗇 5 🗎 6 🗒
~	(wringer, spin-dry, etc.)	61	, ,		1966-70 1971-75 After 1975
7	L combination washer-dryer (one unit)	1	added insulation to the attic?	~-	7
8	electric clothes dryer	2	□ added solar heating equipment?	91	total number of rooms in your dwelling? (Do not include bathrooms,
9	Lui gas clothes dryer		changed your method of space heating?		halls and unfinished rooms)
			from 3 Doil 4 Dgas 5 Defectric	92	number of persons living your household?
			6 Dother		3 1
****	The second second		changed your method of water heating?		<u> </u>
	est house (20)		from 7 🗌 oil 8 🔲 gas 9 🔲 electric		
16					
le			A ☐ other		
le			A : J other		
16			fuel used in your water heater	67	supplementary equipment in addition do you use number in use
le		1	fuel used in your water heater ☐ electricity 2 🏂 gas 3 ☐ oil	67 A	in addition do you use number in use
le		1 4	fuel used in your water heater ☐ electricity 2	A	in addition do you use number in use
22	ypur kitchen	1 4 45	fuel used in your water heater ☐ electricity 2	A B	in addition do you use number in use contral air conditioning celectronic air cleaner
	ypur kitchen	1 4 45 1	fuel used in your water heater ☐ electricity 2	A B C	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace
22	your kitchen ☑ electric range with ☐ continuous clean	1 4 45 1 3	fuel used in your water heater electricity 2	A B C	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanker.
22 1	your kitchen ⚠ electric range with ☐ continuous clean ☒ self-cleaning	1 4 45 1 3 46	fuel used in your water heater electricity 2	A B C	in addition do you use number in use central air conditioning electric power humidifier on furnace electric blanket
22 1 2	your kitchen ⚠ electric range with	1 4 45 1 3	fuel used in your water heater lelectricity 2	A B C	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket.
22 1 2 3	your kitchen electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type	1 4 45 1 3 46	fuel used in your water heater electricity 2	A B C D E F	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances
22 1 2	your kitchen electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range	1 4 45 1 3 46 1 4	fuel used in your water heater lelectricity 2	A B C D E F G	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances
22 1 2 3 4 5	your kitchen All electric range with	1 4 45 1 3 46 1 4	fuel used in your water heater electricity 2 A gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 N gas 3 electricity wood 5 coal 6 solar 7 don't know	A B C D E F G 78	in addition do you use number in use central air conditioning electric air cleaner electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television
22 1 2 3 4 5	your kitchen electric range with	1 4 45 1 3 46 1 4	fuel used in your water heater electricity 2	A B C D E F G 78 A	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater
22 1 2 3 4 5 6 27	your kitchen electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use	1 4 45 1 3 46 1 4	fuel used in your water heater electricity 2	A B C D E F G 78 A B	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater
22 1 2 3 4 5	your kitchen A electric range with	1 4 45 1 3 46 1 4 47 A	fuel used in your water heater electricity 2	A B C D E F G 78 A B C	in addition do you use number in use central air conditioning electric air cleaner electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television
22 1 2 3 4 5 6 27 A	your kitchen	1 4 45 1 3 46 1 4 47 AB	fuel used in your water heater electricity 2	A B C D E F G 78 A B C D	in addition do you use number in use central air conditioning electronic air cleaner electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater in-car heater
22 1 2 3 4 5 6 27 A	your kitchen A electric range with	1 4 45 1 3 46 1 4 47 AB	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television clour television in car block heater in car heater swimming pool filter electric sauna
22 1 2 3 4 5 6 27 A 8 33	your kitchen	1 4 45 1 3 46 1 4 47 AB	fuel used in your water heater electricity 2	ABCDEFG78ABCDE	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in car heater swimming pool filter electric sauna do you live in a
22 1 2 3 4 5 6 27 A B 33 A	your kitchen ⚠ electric range with	1 4 45 1 3 46 1 4 47 AB	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF	in addition do you use number in use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket
22 1 2 3 4 5 6 27 A 8 33 A B	your kitchen A electric range with	1 4 45 1 3 46 1 4 47 AB	fuel used in your water heater electricity 2 A gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 M gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below if you have space heater/stove, check below fit you have space heater/stove, check below if you have space heater/stove, check below fit you have space heater/stove, check below if you have space heater/stove, check below fit you have space heater/s	A B C D E F G 78 A B C D E F 88 1 2	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket
22 1 2 3 4 5 6 27 A B 33 A B C	your kitchen	1 4 45 1 3 46 1 4 47 AB	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF	in addition do you use central air conditioning celectronic air cleaner electric power humidifier on furnace electric blanket.
222 1 2 3 3 4 5 6 27 A B 33 A B C D	vour kitchen electric range with continuous clean self-cleaning gas stove or range, any type other cooking stove or range (describe) without cooking stove or range vumber of refrigerators in use is it frost free? refrigerator-freezer c yes no other electric refrigerator number in use number of deep' freezer number of deep' freezer number in use number of deep' freezer number of deep' freezer number in use number of deep' freezer number of	1 4 45 1 3 466 1 4 47 A B C	fuel used in your water heater electricity 2	ABCDEFG88CDEF881234	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket. window air conditioner humidifier (plug-in) other electric appliances black and white television car block heater in car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home
22 1 2 3 4 5 6 27 A B 33 A B C	your kitchen ⚠ electric range with	1 4 45 1 3 466 1 4 47 A B C 59	fuel used in your water heater electricity 2	ABCDEFG88CDEF8812349	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket. window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 A own? 2
222 1 2 3 3 4 5 6 27 A B 33 A B C D	vour kitchen electric range with continuous clean self-cleaning gas stove or range, any type other cooking stove or range (describe) without cooking stove or range vumber of refrigerators in use is it frost free? refrigerator-freezer c yes no other electric refrigerator number in use number of deep' freezer number of deep' freezer number in use number of deep' freezer number of deep' freezer number in use number of deep' freezer number of	1 4 45 1 3 46 1 4 47 A B C 59 1	fuel used in your water heater electricity 2	ABCDEFG88CDEF881234	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket. window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television in car heater in car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
222 1 2 3 3 4 5 6 27 A B 33 A B C D	your kitchen A electric range with	1 4 45 1 3 46 1 4 47 A B C 59 1 2	fuel used in your water heater electricity 2	ABCDEFG88CDEF8812349	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket.
22 1 2 3 4 5 6 27 A B 33 A B C D	your kitchen electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range vescribes 2 or 3-door combination refrigerator-freezer	1 4 45 1 3 466 1 4 47 A B C C 59 1 2 60 1	fuel used in your water heater electricity 2	ABCDEFG88CDEF8812349	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace eiectric blanket
22 1 2 3 4 5 6 277 A 8 333 A B C D 40 5 6	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C C 59 1 2 60 1	fuel used in your water heater electricity 2	ABCDEFG88CDEF8812349	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket.
22 1 2 3 4 5 6 27 A B 33 A B C D 40	your kitchen electric range with continuous clean self-cleaning continuous clean self-cleaning continuous clean self-cleaning continuous clean self-cleaning continuous cleaning continuous cooking stove or range continuous continuous continuous continuous cooking stove or range continuous continuous cooking stove or range co	1 4 45 1 3 466 1 4 47 A B C C 59 1 2 60 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 0	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket. window air conditioner humidifier (plug-in) other electric appliances black and white television car block heater in car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
22 1 2 3 4 5 6 277 A 8 333 A B C D 40 5 6	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 0	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanker.
22 1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 0	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket
22 1 2 3 4 5 6 27 A B C D 40 5 6	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 9 1	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanker.
22 1 2 3 4 5 6 27 A B C D 40 5 6	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 9 1	in addition do you use
22 1 2 3 4 5 6 27 A B C D 40 5 6	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 9 1	in addition do you use
22 1 2 3 4 5 6 27 A B C D 40 5 6 7 8 9	your kitchen A electric range with	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	fuel used in your water heater electricity 2	ABCDEFG78ABCDEF 88 1 2 3 4 8 9 9 9 1	in addition do you use

22 your kitchen 1	del used in your water heater	supplementary equipment in addition do you use number in use central air conditioning clectronic air cleaner clectric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) black and white television black and white television colour television colour television car block heater in-car heater electric sauna swimming pool filter electric sauna swingle-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you I own? 2 rent? sefore 1956 1956-60 1961-65 1966-70 1971-75 After 1975 1966-70 1971-75 After 1975 1960-70 1971-75 After 1975 20 10 10 10 10 10 10 10
22 your kitchen 1	44 fuel used in your water heater 1	67 supplementary equipment in addition do you use number in use A

22 voor kitchen 1	44 1 4 45 1 3 46 1 4 47 A B C 59 1 2 60 1 1 2	electric 2	ABCDEFG88 1 2 3 4 8 9 9 9 9 1	supplementary equipment in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket.
22 your kitchen 1	1 4	other or none 5 don't know if you have a swimming pool heater, is it electric 2 old or gas total solar 4 solar and electric fuel used in your central furnace oil 2 lugas 3 electricity wood 5 coal 6 solar 7 don't know	ABCDEFG88BCDEF88123499091	supplementary equipment in addition do you use number in use central air conditioning electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 youn? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 5 1966-70 1971-75 After 1975 7 8 9 5 total number of rooms in your dwelling? (Do not include bathrooms) halls and unfinished rooms) number of persons living your household?

22 1 2 3 3 4 5 6 27 A B 333 A B C D 40 5 6 7 8 9	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range any type other cooking stove or range (describe) without cooking stove or range (describe) without cooking stove or range (describe) 2 or 3 door combination refrigerator freezer other electric refrigerator number in use nome food deep freezer microwave oven counter top broiler oven your own laundry equipment Do not include coin-operated or any other laundry equipment used outside your home other electric washer (wringer spin-dry etc.) combination washer-dryer (one unit) electric clothes dryer gas clothes dryer	1 3 46 1 4 47 A B	fuel used in your water heater electricity 2	67 A B C D E F F G 78 A B C D E F F 68 1 2 2 3 4 4 89 90	supplementary aquipment in addition do you use number in us central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) cother electric appliances black and white television corburt elevision corburt elevision car block heater in car heater swimming pool filter electric sauna do you live in a Raingle family house (detached or attached) spartment or flat (including duplex or triplex etc mobile home other (describe) do you 1
	Test house (5)		from 3 oil 4 gas 5 electric	92	

22 1 2 3 4 5 67 A B 33 A B C D	your kitchen electric range with	1 3 46 1 4 47 A B C		ABCDEFG78ABCDEF 88 1 2 3 4	in addition do you use
40	your own laundry equipment Do not include coin-operated or any other laundry	2	wood or gas fireplace other (describe)	89	do you 1 📡 own? 2 🔲 rent? when was your dwelling unit built?
5	equipment used outside your home.) Automatic washer	60	Have you participated in the Canadian Home Insulation Program (CHIP)?	200	Before 1956 1956 60 1961 65
5	other electric washer (wringer spin dry etc.)	1 61	Since January 1, 1979, have you		1966 70 1971 75 After 1975
7	Combination washer dryer (one unit)	1	added insulation to the attic?	••	7 🗆 8 🗎 🤋 🕱
8 9	Alectric crothes dryer as glass of others dryer	2	added solar heating equipment? changed your method of space heating?	91	total number of rooms in your dwelling? Do not include bathrooms.
æ	Test house (28)		from 3 Oil 4 gas 5 electric 6 other changed your method of water heating? from 7 oil 8 gas 9 electric A other	92	halls and untinished rooms inumber of persons living your household?

22 1 2 3 4 5 6 27 A 8 33 A B C D 40 5 8 9	your kitchen electric range with	44 1 45 1 3 45 1 4 47 ABC 59 1 2 60 1 1 2	electricity 2	87 ABCDEFGBABCDEF 88 1 2 3 4 8 9 9 9 9 1 82	supplementary equipment In eddition do you use Inumber in usi Central air conditioning Electric power humidifier on furnace Electric blanket Inumidifier (plug-in) Electric blanket Inumidifier (plug-in) Electric blanket Inumidifier (plug-in) Electric appliances Electric appliances Electric appliances Electric appliances Electric sampliances Ele
			from 7 oil 8 gas 9 electric		

		~	electricity 2 % gas 3 Oul	•••	in addition do you use number in use
		- 1	Other or none 5 Odon't know	A	Central air conditioning
		42	if you have a swimming pool heater, is it	13	electronic air cleaner
22	your kitchen	42		Č	Belectric power humidifier on furnace
1	Rejectric range with	7	electric 2 oil or gas	Ď	electric blanket
2	Continuous clean	3	total solar 4 Solar and electric	E	window air conditioner
3	self-cleaning	46	fuel used in your central furnace	Ē	Anumidifier (plug-in) .
	no built-in cleaning features	1	Oil 2 X gas 3 Delectricity	Ġ	dehumidifier (plug-in)
4	as stove or range, any type	4	wood 5 Coal 6 Solar 7 don't know	72	other electric appliances
5	Other cooking stove or range			76	
•	(describe)	47	if you have space heater/stove, check below in use	A	black and white television
6	without cooking stove or range	٠,		8	Colour television
27	Number of refrigerators in use	A		C	Car block heater
φ,,		В		D	☐ in-car heater
A	Z ar 3-door combination retrigerator-freezer C yes no	C	wood	Æ	swimming pool filter
8	Other electric refrigerator D ves Ono		if electric check type	F	electric sauna
33	C) other electric remigerator		D 🔲 plug-in baseboard(s)	60	do you live in a
33	•		€ □ built-in baseboard(s)	86	single-family house (detached or attached)
A	automatic electric dishwasher number in use		F Ceiling cable	7	apartment or flat (including duplex or triplex etc.)
B	Ahome food 'deep' freezer		G ☐ heat pump	2	impole home
C	Minicrowave oven	59	other heating equipment	3	Other (describe)
D	counter top broiler oven	1	wood or gas fireplace	4	
40	your own laundry equipment	9	Other (describe)	89	do you 1 🛣 own? 2 🔲 rent?
	(Do not include coin-operated or any other laundry equipment used outside your home.)	an.	Have you participated in the Canadian Home	90	when was your dwelling unit built?
œ	not be a second of the second	60	Insulation Program (CHIP)?		Before 1956 1956-60 1961-65
5	automatic washer	1	ves kno		4 🗍 5 🗍 8 🗍
6	Uniter electric washer (wringer spin-dry etc.)	81	Since January 1, 1979, have you		1965-70 1971-75 After 1975
7	Combination washer-dryer (one unit)	•	added insulation to the attic?		7 🗆 8 🗆 9 🕱
		9	added solar heating equipment?	91	total number of rooms in your dwelling?
	The present a title driver	4	State of the state	•	(Do not include bathrooms.
59	L_i gas district byes		changed your method of space heating?		halls and unlinished rooms
			from 3 Coil 4 Ogas 5 Oelectric	92	number of persons living your household?
	Test house (30)		6 Dother		4.
	1031 1000		changed your method of water heating?		adequately product of the control of
			from 7 Doil 8 Digas 9 Delectric		
			A Cather		

1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 6 7 8 9	continuous clean self-cleaning self-clea	1 4 45 1 3	fuel used in your water heater	_	in addition do you use
1 2 3 4 5 6 27 A B 33 A A B C D 40 5 6 7 8 9	continuous clean self-cleaning as stove or range, any type other cooking stove or range (describe) without cooking stove or range (describe) without cooking stove or range logical cookin	1 4 45 1 3 466 1 4 4 47 A B C 59 1 2 60 1	fuel used in your water heater electricity 2		supplementary equipment in addition do you use number in use central air conditioning celectric power humidifier on furnace celectric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television car block heater in-car heater swimming pool filter celectric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 7 8 9 4 Total number of rooms in your dwelling? (Do not include bathrooms, halls and unfinished rooms) number of persons living your household?

		44		67	supplementary equipment
		1		Α	in addition do you use number in us
22	vava kitakan	4 45	other or none 5 📋 don't know if you have a swimming pool heater, is it	B	Central air conditioning electronic air cleaner
1	your kitchen \[\tilde{\chi} \] electric range with	1		C	all electric power humidifier on furnace
2	W continuous clean	3	=	D	electric blanket
3	self-cleaning	46		E	window air conditioner
	I no built-in cleaning features	1		F	humidifier (plug in)
4 5	gas stove or range, any type dother cooking stove or range	4	wood 5 Coal 6 Solar 7 don't know	G 78	dehumidifier (plug-in)
3	(describe)	47	number	A	black and white television
6	without cooking stove or range	47	· · · · · · · · · · · · · · · · · · ·	В	Colour television
27	Number of refrigerators in use $ T $	A B	l oil []	C	L car block heater
Α	2 or 3 door combination is it frost free? C yes no	Č	wood	D E	Lin-car heater Liswimming pool filter
8	refrigerator freezer On the relectric refrigerator C N yes On no D yes On no	_	13 if electric check type	F	1.3 swellining poor inter 1.1 electric sauna
33	L.3 other electric reinigerator D () yes (,) no		D	88	do you live in a
A	automatic electric dishwasher number in use		E built-in baseboard(s)	86	isingle-family house (detached or attached)
В	home food 'deep' freezer		F ceiling cable	2	apartment or flat (including duplex or triplex, etc.
С	microwave oven	59	G heat pump other heating equipment	3	☐ mobile home
D	☐ counter-top broiler oven ☐	1	wood or gas fireplace	4	Other (describe)
40	your own laundry equipment	2	other (describe)	89	do you 1 🕅 own? 2 🗍 rent?
	(Do not include coin-operated or any other laundry equipment used outside your home.)	60	Have you participated in the Canadian Home	90	when was your dwelling unit built?
5	automatic washer		Insulation Program (CHIP)?		Before 1956 1956-60 1961-65
6	ther electric washer	1	yes no		4 🗆 5 🗎 6 🗎
7	(wringer, spin-dry, etc.) Combination washer-dryer (one unit)	61	Since January 1, 1979, have you		1966-70 1971-75 After 1975
, g	electric clothes dryer	1 2	added insulation to the attic?	Q1	7 🗀 8 🗀 9 🛱 total number of rooms in your dwelling?
9	gas clothes dryer	2	L added solar heating equipment? changed your method of space heating?	31	(Do not include bathrooms,
	guo dones dive:		from 3 oil 4 gas 5 electric		halls and unfinished rooms)
	and the same of th		6 Dother	92	number of persons living your household?
	Test house (34)		changed your method of water heating?		5
	Francisco P.		from 7 □ oil 8 □ gas 9 □ electric A □ other		
	•				
		44	fuel used in your water heater	67	Տաբր.ementary equipment
		1	electricity 2 🖟 gas 3 🗌 oil		in addition do you use number in use
		1 4	electricity 2		in addition do you use number in use central air conditioning
	ygur kitchen	1 4 45	electricity 2	A B	in addition do you use number in use central air conditioning pelectronic air cleaner delectric power humidifier on furnace
1	🗶 electric range with	1 4	electricity 2	A B C D	in addition do you use number in use central air conditioning jelectronic air cleaner Relectric power humidifier on furnace
1 2	electric range with	1 4 45 1 3	electricity 2	A B C D E	in addition do you use number in use central air conditioning lelectronic air cleaner delectric power humidifier on furnace electric blanket window air conditioner
1	🗶 electric range with	1 4 45 1 3	electricity 2 A gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 A gas 3 electricity	A B C D E F	in addition do you use number in use central air conditioning pelectronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in)
1 2	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type	1 4 45 1 3 46	electricity 2	A B C D E F G	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances
1 2	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range	1 4 45 1 3 46 1	electricity 2 A gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 A gas 3 electricity wood 5 coal 6 solar 7 don't know number	A B C D E F G	in addition do you use central air conditioning delectronic air cleaner delectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances hard white television
1 2 3 4 5	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe)	1 4 45 1 3 46 1 4	electricity 2	A B C D E F G 78 A B	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television
1 2 3 4 5	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range	1 4 45 1 3 46 1 4	electricity 2	A B C D E F G 78 A B C	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car biock heater
1 2 3 4 5	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use A2 or 3-door combination is it frost free?	1 4 45 1 3 46 1 4 47 A B	electricity 2	ABCDEFG78ABCD	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater
1 2 3 4 5 6 27 A	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use is it frost free? refrigerator-freezer C yes on no	1 4 45 1 3 46 1 4	electricity 2	ABCDEFG78ABCDE	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter
1 2 3 4 5 6 27 A B	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use A2 or 3-door combination is it frost free?	1 4 45 1 3 46 1 4 47 A B	electricity 2	ABCDEFG78ABCDEF	in addition do you use central air conditioning yelectronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna
1 2 3 4 5 6 27 A B 33	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use is it frost free? refrigerator-freezer of yes no	1 4 45 1 3 46 1 4 47 A B	electricity 2	A B C D E F G 78 A B C D E F	in addition do you use central air conditioning celectronic air cleaner delectric power humidifier on furnace celectric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter celectric sauna doyyou live in a
1 2 3 4 5 6 27 A B 33 A	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use refrigerator-freezer other cooking stove or range number of refrigerators in use is it frost free? yes no	1 4 45 1 3 46 1 4 47 A B	electricity 2	ABCDEFG88CDEF881	in addition do you use central air conditioning yelectronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna
1 2 3 4 5 6 27 A B 33	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use for a 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer	1 4 45 1 3 46 1 4 47 A B C	electricity 2	ABCDEFG78 78 88 1 2	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached)
1 2 3 4 5 6 27 A B 33 A B	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use refrigerator-freezer other cooking stove or range number of refrigerators in use is it frost free? yes no	1 4 45 1 3 466 1 4 47 A B C 59	electricity 2	ABCDEFG78ABCDEF881234	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming poof filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe)
1 2 3 4 5 6 27 A B 33 A B C	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer	1 4 45 1 3 46 1 4 47 A B C 59 1	electricity 2	ABCDEFG78ABCDEF881234	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television clour television clour television clour television electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.
1 2 3 4 5 6 27 A B 33 A B C D	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use for a 3-door combination refrigerator freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter-top broiler oven your own laundry equipment Do not include coin-operated or any other laundry	1 4 45 1 3 46 1 4 47 A B C 59 1 2	electricity 2	ABCDEFG78ABCDEF88123489	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming poof filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built?
1 2 3 4 5 6 27 A B 33 A B C D 40	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator home food 'deep' freezer home food 'deep' freezer home food 'deep' freezer choice without cooking stove or range number in use	1 4 45 1 3 46 1 4 47 A B C 59 1	electricity 2	ABCDEFG78ABCDEF88123489	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65
1 2 3 4 5 6 27 A B 33 A B C D 40 5	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator home food 'deep' freezer home food 'deep' freezer wincrowave oven counter-top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.)	1 4 45 1 3 46 1 4 47 A B C 59 1 2	electricity 2	ABCDEFG78ABCDEF88123489	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6
1 2 3 4 5 6 27 A B 33 A B C D 40	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator home food 'deep' freezer home food 'deep' freezer home food 'deep' freezer choice without cooking stove or range number in use	1 4 45 1 3 46 1 4 47 A B C 59 1 2 60	electricity 2	ABCDEFG78ABCDEF88123489	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1 1966-70 1971-75 After 1975
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use for a 3-door combination refrigerator-freezer for effigerator in use automatic electric dishwasher home food 'deep' freezer microwave oven counter-top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer other electric washer	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	electricity 2	ABCDEFG78ABCDEF881234990	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer combinatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter-top broiler oven your own laundry equipment 100 not include coin-operated or any other laundry equipment used outside your home.} automatic washer other electric washer (wringer, spin-dry, etc.) combination washer-dryer (one unit)	1 4 45 1 3 46 1 4 47 A B C 59 1 2 60 161	electricity 2	ABCDEFG78ABCDEF881234990	in addition do you use central air conditioning celectronic air cleaner celectric power humidifier on furnace celectric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming poof filter celectric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 1 total number of rooms in your dwelling?
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use for a 3-door combination refrigerator freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer home food 'deep' freezer microwave oven counter-top broiler oven your own laundry equipment too not include coin-operated or any other laundry equipment used outside your home.} automatic washer other electric washer (wringer, spin-dry, etc.) combination washer-dryer (one unit)	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	electricity 2	ABCDEFG78 78 88 1 2 3 4 89 90	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater n-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 total number of rooms in your dwelling? (Do not include bathrooms, Lalls and unfinished rooms)
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer combinatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter-top broiler oven your own laundry equipment 100 not include coin-operated or any other laundry equipment used outside your home.} automatic washer other electric washer (wringer, spin-dry, etc.) combination washer-dryer (one unit)	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	electricity 2	ABCDEFG78 78 88 1 2 3 4 89 90	in addition do you use central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) other electric appliances black and white television colour television car biock heater in-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 1 total number of rooms in your dwelling? (Oo not include bathrooms,
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer combinatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter-top broiler oven your own laundry equipment 100 not include coin-operated or any other laundry equipment used outside your home.} automatic washer other electric washer (wringer, spin-dry, etc.) combination washer-dryer (one unit)	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	electricity 2	ABCDEFG78 78 88 1 2 3 4 89 90	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater n-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 total number of rooms in your dwelling? (Do not include bathrooms, Lalls and unfinished rooms)
1 2 3 4 5 6 27 A B 33 A B C D 40 5 6 7 8	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer combinatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter-top broiler oven your own laundry equipment 100 not include coin-operated or any other laundry equipment used outside your home.} automatic washer other electric washer (wringer, spin-dry, etc.) combination washer-dryer (one unit)	1 4 45 1 3 466 1 4 47 A B C 59 1 2 60 1 61 1	electricity 2	ABCDEFG78 78 88 1 2 3 4 89 90	in addition do you use central air conditioning pelectronic air cleaner Relectric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) other electric appliances black and white television colour television car block heater n-car heater swimming pool filter electric sauna doyou live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc. mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1956-60 1961-65 4 5 6 1966-70 1971-75 After 1975 7 8 9 total number of rooms in your dwelling? (Do not include bathrooms, Lalls and unfinished rooms)

Test house (37)

		44	fuel used in your water heater	67	supplementary equipment	
		1	electricity 2 🔀 gas 3 🔲 oil		in addition do you use	number in use
		- 4	Dather or none 5 don't know	A	central air conditioning	-
-	L'Astron	45	if you have a swimming pool heater, is it	8	electronic air cleaner	4
22		7.		C	electric power humidifier on furn	ace 🐠
1	alectric range with	- 1	Relectric 2 Doil or gas	D	electric blanket	
2	continuous clean	3	total solar 4 🔲 solar and electric	- 6	window air conditioner	
3	self-cleaning	46	fuel used in your central furnace		humidifier (plug-in)	
	no built-in cleaning features	1	Oil 2 🕅 gas 3 🗍 electricity			H
4	gas stove or range, any type	4	wood 5 Coal 6 Solar 7 don't know	G	dehumidifier (plug in:	
	other cooking stove or range	•		78	other electric appliances	6
			number	A	black and white television	
_	(describe)	47	if you have space heater/stove, check below in use	8	colour television	4
- 6	without cooking stove or range	A	□ o₁l	C	ar block heater	
27		8	□ gas	D	n-car heater	
A	2 or 3 door combination is it frost free?		□ wood	F	swimming pool filter	
	refrigerator-freezer C yes ono	•	if electric check type		electric sauna	
0	nther electric refrigerator D L yes L no			r		
33		,	D Uplug in baseboard(s)	88	do you live in a	
A	automatic electric dishwasher number in use		■ built in baseboard(s)	1	single family house (detached or	attached1
В	Shome food deep freezer		F	,	apartment or flat (including dup)	ex or triplex etc.
C	Microwave oven		G heat pump		mobile home	
D	counter top broiler oven	59	other heating equipment	3	other (describe)	
40	your own laundry equipment	1	wood or gas fireplace	4	do you 1 Xown? 2 rent?	
40	Do not include coin-operated or any other laundry	2	other (describe)	- 83		
	equipment used outside your home)	60	Have you participated in the Canadian Home	20	when was your dwelling unit b	
6.	automatic washer		Insulation Program (CHIP)?		Before 1956 1956_60	1961-65
	other electric washer	1	yes 🕱 no		4 📙 5 🗍	6
	(wringer spin dry etc.)	61	Since January 1, 1979, have you		1966 70 1971 75	After 1975
7	combination washer dryer (one unit)	4	added insulation to the attic?		7 🗆 8 🖽	9 X
-	e A	,		91	total number of rooms in your	dwelling?
8	electric clothes dryer	2	added solar heating equipment?	٠.	Do not include bathrooms.	10
9	🚅 gas clothes dryer		changed your method of space heating?		halls and unfinished roums	10
			from 3 🔲 oil 4 🗎 gas 5 🛄 electric	92	number of persons living your	household?
	111 (2-)		6 🔲 other		1	
	Test house (35)		changed your method of water heating?			
			from 7 oil 6 as 9 electric		•	
			a D and the			

			Tour date in your water moster	•	
		1	□ electricity 2 🕱 gas 3 🔲 oil		in addition do you use number in use
		a	Dother cringne 5 Didon't know	A	central air conditioning
		A 75	if you have a swimming pool heater, is it	8	electronic air cleaner
22	your kitchen	45	it And usas a saturning hoot negret' is it	Č	Relectronic air cleaner Relectric power humidifie: on furnace
9	Meretir is tempe with	1	□ electric 2 □ orlorgas	Š	Fig.
7	C. Jicontingous glean	3	total solar 4 Solar and electric	U	electric blanket
3		48	fuel used in your central furnace	E	window air conditione-
3	self-cleaning			F	Li humidifier (plug-in)
	no built in cleaning features	- 1	Oil 2 Qas 3 electricity	G	dehumidifier (plug-in:
4	gas slove or range any type	4	wood 5 coal 6 solar 7 don't know	78	other electric appliances
5	other cooking stove or range				La transfer to the second seco
	(describe)	47	if you have space heater/stove, check below in use	A	
6	Without cooking stove or range	٦,		В	Scolour television
		A	Llou .	С	Li car block heater
27	Number of refrigerators in use 🔑	В	□ gas □	D	n-car heater
A	2 or 3 door combination is it trost free?	C	□ wood	F	swimming pool filter
	refrigerator-freezer C Ayes ono	-	I if electric check type	Ē	electric sauna
8	Cother electric refrigerator Di Dilyes Dino			r	
33			D plug in baseboard(s)	28	do you live in a
A	automatic electric dishwasher number in use		€ ☐ built in baseboard(s)		single family house (detached or attached:
	Walter than the same of the sa		F □ ceiling cable	•	apartment or flat fincluding duplex or triplex etc.
B	- j home food deep freezer - 니		G D heat pump	2	<u>~</u>
С	i i microwave oven	59	other heating equipment	3	mobile home
D	Counter top broiler oven			4	other.(describe)
40	your own laundry equipment	,	wood or gas fireplace	29	da yau 1 🔲 own? 2 💢 rent?
	Do not include coin-operated or any other laundry	2	other (describe)	80	when was your dwelling unit built?
	equipment used outside your name.)	60	Have you participated in the Canadian Home	90	
5	automatic washer		Insulation Program (CHIP)?		Before 1956 1956-60 1961-65
•	Other electric washer	1	yes 🛣 no		4 🗍 5 🖟 6 🖟
ø	(Wringer spin-dry etc.)	61	Since January 1, 1979, have you		1966 70 1971 75 After 1975
*9	combination washer-dryer (one unit)				7 🖂 8 🗎 9 🔀
,	to ·	1	added insulation to the attic?	91	total number of rooms in your dwelling?
8	Belectric clothes dryer	Z	added solar heating equipment?	gi i	(Do not include bathrooms.
9	gas clothes dryer		changed your method of space heating?		halls and unfinished rooms
			from 3 Oil 4 Ogas 5 Oelectric	922	number of persons living your household?
			6 □ other	#2	unimation basous namb Aon nonzanom:
	Tost house (39)		changed your method of water heating?		4
	1-2,				
			from_7 🔲 oil 8 🔲 gas 🤋 🔲 electric		
			A Other		

22 1 2 3 4 5 6 27 A B 3 A B C D 40 5 6 7 8 8	electric range with continuous clean self-cleaning no built-in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven	C	oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know If you have space heater/stove, check below oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s) F ceiling cable G heat pump other heating equipment wood or gas fireplace other (describe) Have you participated in the Canadian Home Insulation Program (CHIP)? yes no Sinos January 1, 1379, have you added insulation to the attic? added solar heating equipment? changed your method of space heating?	67 A B C D E F G 78 A B C D E F 88 1 2 3 4 89 80 91	(Do not include bathrooms,
9	combination washer-dryer (one unit) electric clothes dryer	1 2	added solar heating equipment?	91 92	total number of rooms in your dwalling?

		44	fuel used in your water heater	67	supplementary equipment
		1	electricity 2 🕅 gas 3 🗌 oil		in addition do you use number in use
		4	other or none 5 Odon't know	A	central air conditioning
72	vour kitchen	45	if you have a swimming pool heater, is it	8	electronic air cleaner
•	electric range with	9	electric 2 oil or gas	C	electric power humidifier on furnace
,	Continuous clean	3	total solar 4 Solar and electric	D	electric blanket
3	address.	46		E	window air conditioner
۳	self-cleaning	~~	ige asec in April cautist intusca	F	humidifier (plug-in)
	no built-in cleaning features	:	Oil 2 A gas 3 Delectricity	G	dehumidifier (plug-in:
A.	gas stove or range, any type	4	wood 5 coal 6 solar 7 don't know	78	other electric appliances
Ü	cther cooking stove or range		number	A	black and white television
	(describe)	47	if you have space heater/stove, check below in use	A	Colour television
£	without cooking stove or range	A		č	Car block heater
27	Number of refrigerators in use 🗓	A	o gas	6	n-car heater
A	2 7 or 3 door combination is it frost free?		wood	2	swimming pool filter
	refrigerator-freezer C yes And		if electric check type	E .	electric sauna
13	Cother electric refrigerator D D yes no		D plug-in baseboard(s)	r	
9.3		ļ	E Sort in the second (S)	88	do you live in a
Å	Sautomatic electric dishwasher number in use		E built-in baseboard(s)	1	single-family house (detached or attached)
H	home food deep freezer		ceiling cable	9	apartment or flat (including duplex or triplex, etc.)
\mathbf{C}	microwave oven		G ☐ heat pump	3	mobile home
0	Counter top broder oven	59	other heating equipment	.3	Other (describe)
147	your own laundry equipment	1	wood or gas fireplace	29	do you 1 Sown? 2 rent?
	(Do not include coin-operated or any other laundry	2	other (describe)	-	when was your dwelling unit built?
	equipment used outside your home.)	60	Have you participated in the Canadian Home	20	•
6	automatic washer		Insulation Program (CHIP)?		
41	other electric washer	1	U yes 🔀 no		4 🗍 5 📙 6 🗎
	[wringer, spin-dry_etc.]	61	Since January 1, 1979, have you		1966_70 1971_75 After 1975
7	combination washer-dryer (one unit)	1	added insulation to the attic?		7 🗆 8 🗆 9 🔀
8	electric clothes dryer	2	added solar heating equipment?	91	
9	gas clothes dryer		changed your method of space heating?		(Do not include bathrooms,
			from 3 Ooil 4 Ogas 5 Oelectric		halls and unfinished rooms
			5 Other	92	number of persons living your household?
	Testhouse (51)		changed your method of water heating?		2
			· ·		
			from 7 Oil 8 Ogas 9 Oelectric		

		44	Tues used in your water heater	67	supplementary equipment
		1	Delectricity 2 Digas 3 Digit	ω,	in addition do kon nee un worden in se
	to a few and an	4	Other or none 5 don't know	A	Central air conditioning
	invitikitchen	45	if you have a swimming pool heater, is it	B	electronic air cleaner
	COM TO CONTRACTOR	1	Defectric 2 Down gas	C	electric power humidilier on furnace
	senta lus dan	3	Litotal solar 4 Display and electric	D	Li electric blanket
	, seliceaning	46	fuel used in your central furnace	E	window air conditione:
	that it cleaning features	1	Con 2 Digas 3 Delectrons	F	humidifier (plug in)
î	des slove or range, any type	4	Dwood 5 Coal 6 Csolar 7 Ddonsknow	G	dehumidifier (plug in
	The riddening stove or range			78	other electric appliances
	ons the	47	if you have space heater/stove, check below in use	A	Dack and white television
	with at chicking stoke or range	A	Dos T	8	Colour television
	Sumber of refrigerators in use	. 8	i gas	C	Car block heater
	etraperator freezer combination is it frost free?	_	Docw D	D	in car healer
	other electric refrigerator D ves no		Tilf electric check type	£	swimming pool fifter
r	See C. Ves Lino		D plug in baseboard(s)	F	electric sauna
	Apitomatic electric dishwasher number in use		E Duilt in baseboard(s)	88	do you live in a
:	reme four deep freezer		F Ceiling cable	8	single family house idetached or attached
	13 Colivare oven		G D heat pump	,	apartment or flat including duplex or triplex etc
	content op broder oven	59	other heating equipment	3	i mobile home
	vour own laundry equipment	1	wood or gas fireplace	Ā	Other (describe)
	Ic f. no ode coin-operated or any other laundry	2	Other (describe)	89	do you 1 Down? 2 Drent
	EQUIDMENT used outside your home!		Have you participated in the Canadian Home	90	when was your dwelling unit built?
	rutematic washer		Insulation Program (CHIP ₁)	-	Before 1956 1956 60 1961 65
١.	thei electric washer	1	U yes □ no		4 🗆 5 🗀 6 👸
	Aringer Spin dry et.	61	Since January 1, 1979, have you		1966 70 1971 75 After 1975
	Lipinbination washer dryer tone soitt	1	added insulation to the attic?		7 D 8 D 9 D
:	rition Cothes dryer	2	added solar heating equipment?	21	total number of rooms in your dwelling?
	as thathes driver		changed your method of space heating?		(Do not include bathrooms
			from 3 Lori & Gas & Delectric		halis and unfinished rooms:
			6 U other	82	number of persons living your household?
			changed your method of water heating?		
	•		from 7 On 8 Oas 9 Delector		
			A C other		
		44 1	fuel used in your water heater	6 7	supplementary equipment in addition do you use number in use
		44	electricity 2 as 3 oil	67	in addition do you use number in use
.9	unur bitchen	44 1 4 45	delectricity 2 as 3 oil other or none 5 don't know if you have a swimming pool heater, is it	67 A 8	in addition do you use number in use central air conditioning electronic air cleaner
	your kitchen	44 1 4 45	delectricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it	67 A B C	in addition do you use number in use
1	electric range with	1 -4 45	delectricity 2 as 3 oil other or none 5 don't know if you have a swimming pool heater, is it	-	central air conditioning electric power humidifier on furnace electric power humidifier on furnace
1 2	electric range with	4 45 1	delectricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace	-	contral air conditioning electric power humidiler on furnace electric blanket window air conditioner
1	electric range with continuous clean self-cleaning	4 45 1 3	detectricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it otal solar 4 solar and electric fuel used in your central furnace out 2 pas 3 detectricity	-	central air conditioning
1 2 3	electric range with continuous clean self-cleaning no built in cleaning features	1 4 45 1 3 46	delectricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace	D E F	central air conditioning electronic air cleaner electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in)
2 3	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type	1 4 45 1 3 46	delectricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 delectricity wood 5 coal 6 solar 7 don't know	D E F G	central air conditioning
1 2 3	electric range with continuous clean set-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range	1 4 45 1 3 46	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know	D E F G 78	central air conditioning
1 2 3 4 5	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe)	1 4 45 1 3 46	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know number in use	D E F G 78	in addition do you use central air conditioning electric power humidilier on furnace electric blanket window air conditioner dehumidilier (plug-in) dehumidilier (plug-in) other electric appliances
1 2 3 4 5 6	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range	1 4 45 1 3 46 1 4 47 A	electricity 2	D F G 78 A B	contral air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) other electric appliances black and white felevision colour television
1 2 3 4 5 6 27	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use	1 45 1 3 46 1 4 47 A	detectricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know flyou have space heater/stove, check below number if you have space heater/stove, check below gas	D E F G 78 A B C	central air conditioning electronic air cleaner electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) ther electric appliances black and white relevision corour television car block heater
1 2 3 4 5 6 27	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer C yes one	1 4 45 1 3 46 47 A B C	electricity 2	D E F G 78 A B C	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) other electric appliances black and white television cor block heater in-car heater
1 2 3 4 5 6 27	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer c sis it frost free yes one	1 4 45 1 3 46 47 A B C	electricity 2	DEFG78ABCDE	contral air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) cher electric appliances black and white felevision colour television car block heater in-car heater swimming pool filter electric sauna do you live in a
123 45 67A B	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator other electric refrigerator	1 4 45 1 3 46 47 A B C	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below number in use oil gas wood if electric check type p plug-in baseboard(s)	DEFG78ABCDE	in addition do you use central air conditioning central air conditioning celectronic air cleaner celectric blanket window air conditioner humiditier (plug-in) dehumiditier (plug-in) dehumiditier (plug-in) cother electric appliances black and white felevision car block heater in-car heater swimming pool filter celectric sauna do you live in 8 single-family house (detached or attached)
123 45 67A B	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Numbar of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator D ves no	1 4 45 1 3 45 1 4 47 A B C	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below number in use oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s)	DEFG78ABCDE	in addition do you use central air conditioning central air conditioning celectronic air cleaner celectric blanket window air conditioner humiditier (plug-in) dehumiditier (plug-in) dehumiditier (plug-in) cother electric appliances black and white felevision car block heater in-car heater swimming pool filter celectric sauna do you live in 8 single-family house (detached or attached)
1 2 3 4 5 6 7 A B 3 3	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Numbar of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher number in use	1 4 45 1 3 45 1 4 47 A B C	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below number in use oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s)	DEFG78ABCDEF	central air conditioning electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) cother electric appliances black and white felevision colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.)
123 45 67A B3A	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven	1 4 45 1 3 45 1 4 47 A B C	electricity 2	DEFG78ABCDE	central air conditioning electric power humidifier on furnace electric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) cother electric appliances black and white felevision colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.)
123 45 617A B3AB	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven	1 4 45 1 3 46 1 4 47 A B C	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below number oil oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s) E ceiling cable G heat pump other heating equipment	DEFG 78 ABCDEF 88 1 2 3 4	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) dehumidilier (plug-in) other electric appliances black and white felevision colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven	1 4 45 1 3 46 1 4 47 A B C 59 1	electricity 2	DEFG78ABCDEF	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) dehumidilier (plug-in) other electric appliances black and white felevision colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry	1 4 45 1 3 46 1 4 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	electricity 2	DEFG 78 ABCDEF 88 1 2 3 4	central air conditioning central air conditioning central air conditioning celectric power humidilier on furnace celectric blanket celectric appliances celectric sauna celectric blanket celectr
123 45 67A B3ABCD6	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.)	1 4 45 1 3 46 1 4 47 A B C 59 1 2	electricity 2	DEFG 78 ABCDEF 88 1 2 3 4	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) dehumidilier (plug-in) cother electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 one other (describe) do you 1 one when was your dwelling unit built? Before 1956 1956-60 1961-65
123 45 67A B3ABCD4 5	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.)	1 4 45 1 3 46 1 4 47 A B C 59 1 2 60 1 1	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know number if you have space heater/stove, check below if you have space heater/stove, check below number in use oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s) F ceiling cable G heat pump other heating equipment wood or gas fireplace other (describe) Have you participated in the Canadian Home insulation Program (CHIP)? yes Ano	DEFG 78 ABCDEF 88 1 2 3 4	central air conditioning electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house Idetached or attached apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1 own? 2 rent? when was your dwelling unit built? Before 1956 1966-70 1971-75 After 1975
123 45 67A B3ABCD6	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic electric washer (wringer, spin-dry, etc.)	1 4 45 1 3 46 1 4 47 A B C 59 1 2	electricity 2	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) dehumidilier (plug-in) dehumidilier (plug-in) colour television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD4 5	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.)	1 4 45 1 3 46 1 4 47 A B C 59 2 60 1 61 1	electricity 2	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier (plug-in) dehumidilier (plug-in) dehumidilier (plug-in) cother electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD4 56	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other leundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.) combination washer-dryer (one unit)	1 4 45 1 3 46 1 4 47 A B C 59 1 2 2 60 11 61	electricity 2	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning celectric power humidilier on furnace celectric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) colour television devou in-car blater swimming pool filter celectric sauna do you live in 8 single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD6 58 78	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter top broiler oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.) combination washer-dryer (one unit)	1 4 45 1 3 46 1 4 47 A B C 59 2 60 1 61 1	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know number if you have space heater/stove, check below if you have space heater/stove, check below number in use oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s) F ceiling cable G heat pump other heating equipment wood or gas fireplace other (describe) Have you participated in the Canadian Home Insulation Program (CHIP)? yes Ano Since January 1, 1979, have you added insulation to the attic? added solar heating equipment? changed your method of space heating?	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier [plug-in] dehumidilier [plug-in] other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD6 58 78	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter top broiler oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.) combination washer-dryer (one unit)	1 4 45 1 3 46 1 4 47 A B C 59 2 60 1 61 1	electricity 2 gas 3 oil other or none 5 don't know if you have a swimming pool heater, is it electric 2 oil or gas total solar 4 solar and electric fuel used in your central furnace oil 2 gas 3 electricity wood 5 coal 6 solar 7 don't know if you have space heater/stove, check below if you have space heater/stove, check below if you have space heater/stove, check below oil gas wood if electric check type D plug-in baseboard(s) E built-in baseboard(s) F ceiling cable G heat pump other heating equipment wood or gas fireplace other (describe) Have you participated in the Canadian Home insulation Program (CHIP)? yes no Since January 1, 1979, have you added insulation to the attic? added solar heating equipment? changed your method of space heating? from 3 oil 4 gas 6 electric	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning celectric power humidilier on furnace celectric blanket window air conditioner humidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) dehumidifier (plug-in) colour television devou in-car blater swimming pool filter celectric sauna do you live in 8 single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD6 58 78	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.) combination washer-dryer (one unit) electric clothes dryer gas clothes dryer	1 4 45 1 3 46 1 4 47 A B C 59 2 60 1 61 1	electricity 2	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier [plug-in] dehumidilier [plug-in] other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A B3ABCD6 58 78	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer home food 'deep' freezer counter top broiler oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.) combination washer-dryer (one unit)	1 4 45 1 3 46 1 4 47 A B C 59 2 60 1 61 1	electricity 2	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier [plug-in] dehumidilier [plug-in] other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1
123 45 67A BBABCD6 56 78	electric range with continuous clean self-cleaning no built in cleaning features gas stove or range, any type other cooking stove or range (describe) without cooking stove or range Number of refrigerators in use 2 or 3-door combination refrigerator-freezer other electric refrigerator automatic electric dishwasher home food 'deep' freezer microwave oven counter top broiler oven your own laundry equipment (Do not include coin-operated or any other laundry equipment used outside your home.) automatic washer (wringer, spin-dry etc.) combination washer-dryer (one unit) electric clothes dryer gas clothes dryer	1 4 45 1 3 46 1 4 47 A B C 59 2 60 1 61 1	electricity 2	D E F G 78 A B C D E F 88 1 2 2 3 4 89 90	central air conditioning electronic air cleaner electric power humidilier on furnace electric blanket window air conditioner humidilier [plug-in] dehumidilier [plug-in] other electric appliances black and white television colour television car block heater in-car heater swimming pool filter electric sauna do you live in a single-family house (detached or attached) apartment or flat (including duplex or triplex, etc.) mobile home other (describe) do you 1