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Survey of Household Energy Use 2007

The 2007 edition of the Survey of Household Energy Use (SHEU-2007) collected data on the energy consumption of households in homes and residential buildings in Canada. The survey was conducted by Statistics Canada for the Office of Energy Efficiency (OEE) of Natural Resources Canada.

The OEE is analyzing the survey results and will publish a detailed statistical report as well as a summary report in the spring of 2010.

The detailed statistical report will provide data tables of survey results, a description of the survey methodology and the survey questionnaire.

The summary report will provide highlights of dwelling characteristics and the stock and use of heating and cooling equipment, appliances, electronics and other energy-consuming products. In addition, the report will present valuable insights on the energy efficiency characteristics and the energy consumption of households and their trends over time. Data tables for SHEU-2007 are currently available on the OEE's Web site (oee.nrcan.gc.ca/statistics).

Overview of Canadian households in 2007

- Canada's 12.9 million households used more than 1369 petajoules of energy, which includes electricity, natural gas, heating oil, propane and wood use.
- In 2007, the energy consumed per household was 105.9 gigajoules.
- The majority of households used natural gas (44 percent) or electricity (38 percent) as their main heating energy source.
- The average-sized dwelling occupied by a household was 128 square metres (1377 square feet).
- Single detached houses represented 59 percent of dwellings and were the largest in size (see Charts 1 and 2).

Chart 1. Type of dwellings, 2007

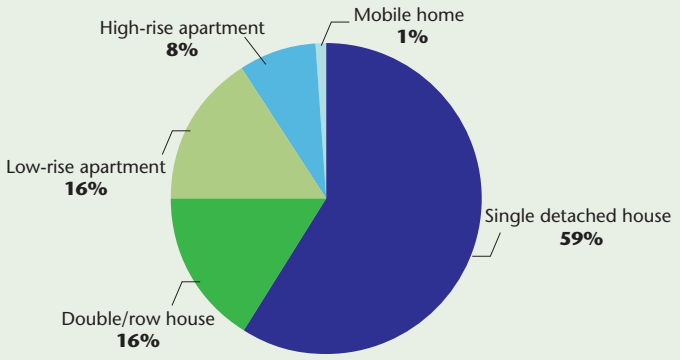
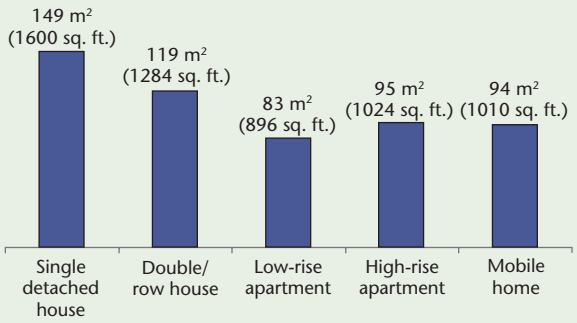


Chart 2. Average dwelling size by type of dwelling, 2007



Energy consumption per household

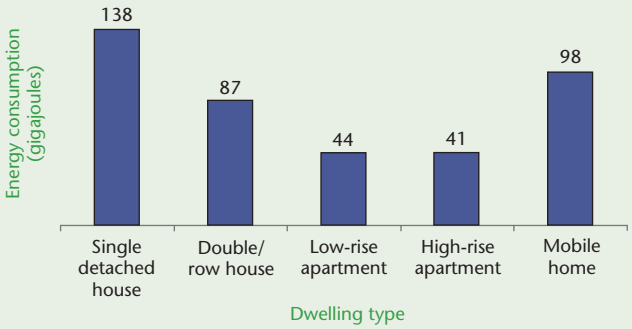
The SHEU-2007 reports will provide data and analysis on energy consumption per household by such variables as type of dwelling and region.

Energy consumption per household in 2007 appeared to be influenced by the type of dwelling occupied by households (see Chart 3). The least energy intensive dwelling types

Canada

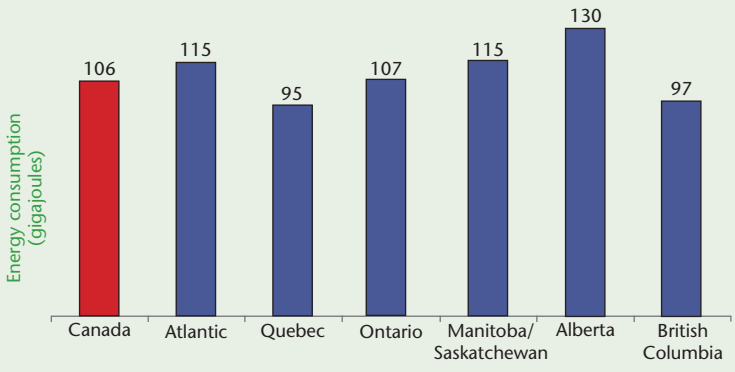
were low- and high-rise apartments, which typically have a smaller heated area and share at least one common wall. A common wall between dwellings reduces exposure to both cold and hot outside air, which reduces a dwelling's heating and cooling requirements. Double/row houses, which also share at least one common wall, consumed less energy than mobile homes despite having a larger average heated area. Single detached houses have the largest heated area, share no common walls and consumed the most energy per dwelling.

Chart 3. Energy consumption per household (gigajoules) by dwelling type, 2007



Similarly, energy consumption per household varied by region (see Chart 4). Quebec had the lowest energy consumption per household followed by British Columbia while households in Alberta had the highest energy consumption per household, followed by Atlantic Canada and Manitoba/Saskatchewan. Although there are many possible reasons for these differences, two of the main factors are the climate of each region and the composition of households by dwelling type. Additional factors include the energy sources used, the different heating systems that are predominant in each region and the occurrence and use of major appliances and electronics. The summary report will discuss some of these factors in further detail.

Chart 4. Energy consumption per household (gigajoules) by region, 2007



Additional results

- The average heated area of a Canadian dwelling has increased in each edition of the SHEU.
- For dwellings constructed since 1946, the general trend is that the newer the dwelling is, the larger it is and the more energy it consumed. In contrast, on average, the larger the dwelling is, the less energy it consumed per square metre.
- Dwellings that have at least one common wall, such as low- and high-rise apartments and double/row houses, consumed less energy per square metre than stand-alone dwellings, such as single detached and mobile homes.
- The type of energy used by households for space and water heating was based primarily on the location of the household within the country. The majority of households located west of Quebec used natural gas, while the majority of households in Quebec used electricity. Households in Atlantic Canada used either electricity or oil.
- The penetration rate of high efficiency furnaces was 33 percent among dwellings with a furnace that were constructed between 2000 and 2007.
- The penetration rate for an air-conditioning system was 52 percent. Ontario households used 57 percent of the air-conditioning systems in Canada in 2007.
- In 2007, 27 percent of households used both a main and a secondary refrigerator.
- The SHEU-2007 showed that 26 percent of Canadian households used three or more television sets.
- In 2007, 52 percent of the light bulbs used by the average Canadian household were energy-efficient light bulbs, such as halogen light bulbs, fluorescent tubes and compact fluorescent lamps.
- Personal computers, including laptops, were present in 80 percent of households in 2007.

Data tables are currently available on the OEE Web site: **oee.nrcan.gc.ca/statistics**. The full summary and detailed statistical reports of the Survey of Household Energy Use will be released on the Web site in the spring of 2010.

For more information or special tabulations on the survey or for information on the services of the OEE, send an e-mail to **euc.cec@nrcan-rncan.gc.ca**.

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