

**Introduction to
Burlington's Residential Rental Housing
Time of Sale Energy Efficiency Ordinance (TOS)**

Q. What is the Time of Sale Energy Ordinance?

A. The comfort and energy efficiency of many rental units in the City of Burlington can be improved by increasing insulation levels, reducing air infiltration and addressing other thermal performance issues. The purpose of TOS is to promote the wise and efficient use of energy in rental dwellings by mandating cost-effective minimum energy efficiency standards enforced when buildings are sold. Technical assistance and incentive packages may be available to help property owners meet these requirements.

Q. Does the Ordinance apply to all residential rental properties?

A. No. The ordinance only applies to apartments where the tenants are responsible for directly paying the heating costs.

Q. Do I have to do everything in the Ordinance?

A. No. There are cost caps in place. The total cost of the required improvements must not exceed 3% of the sale price as listed on the property transfer tax return or \$1,300 per rental unit whichever is less. After this, the Ordinance only mandates the installation of measures that have a simple payback of seven years or less. Simple payback is the cost of doing the measure divided by the calculated yearly energy savings. For example, the Ordinance does not require additional insulation of an attic with R-15 insulation (about 4.5 inches of cellulose) because the simple payback would be well above seven years in most cases at current fuel costs.

Q. What kind of work must be done to the building?

A. See below:

Exterior walls: If a wall is uninsulated, the empty space must be filled with insulation. Typically, cellulose insulation is blown into the walls. If there were less than a 2-inch space available, insulation would not be cost-effective and, therefore, is not required.

Open attics/ceilings/roofs: If the insulation level of an open attic floor is less than R-15, it must be increased to R-40. If the attic has floorboards and is uninsulated, the empty space must be filled. Sloped roof cavities and knee-walls must be treated the same as exterior walls. Horizontal attic hatches must be insulated to R-20 and vertical hatches to R-10.

Insulation of other areas: Box sills (where the building sits on the foundation) must be insulated on either the inside or the outside to a minimum effective R-10 level (about 3.5 inches of fiberglass or 2 inches of foam). Floors over unheated basements, crawl spaces or outside spaces must be insulated to a minimum effective R-19 level unless R-11 already exists (unheated refers to spaces that approximate outdoor temperatures). If the floor assembly is enclosed, it will be treated the same as an exterior wall. If the area is unvented, an acceptable option is to insulate the perimeter of the foundation above grade and at least 2 feet below grade, to a minimum effective R-10 level.

Electric water heaters: Need to be insulated to a minimum R-10 level. BED's Neighbor\$ave program will do this and insulate the required section of domestic water pipes for *free*.

Accessible heating and cooling ducts and hot water piping: Ducts in basements and crawl spaces with insulated ceilings and ducts in attics must be insulated to R-10 unless they are already insulated to a minimum of R-5. Before insulating, any visible leaks in the ducts must be sealed with proper duct mastic. Duct tape is not acceptable. Heating system piping in basements and crawl spaces with insulated ceilings, or in attics must be insulated to R-4 unless already insulated with to at least R-2. Domestic hot water piping, both hot and cold, within 9 feet of the tank must be insulated to R-4 unless already insulated to at least R-2.

Windows and doors: All windows shall be multiple-glazed or provided with storm windows during the heating season and must be equipped with effective latches. All doors and access hatches opening to the outdoors or to unheated spaces (such as attics and knee walls) must have functional weather-stripping and effective latches.

General air leakage: Large gaps and holes that allow heated air to easily escape or cold air to easily enter the building

must be effectively sealed. Typically, these gaps and holes are found in attics and around foundations. Usually, the certified energy inspector will use a blower door air leakage tester to locate and measure these types of air leaks.

Strongly recommended but not required

Heating and hot water appliances and equipment: All heating appliances and equipment should be professionally inspected for operational safety within 12 months of title transfer. All related health, safety and performance issues should be corrected. The heating system(s) must heat all living spaces as required and defined by the City of Burlington's minimum housing code.

Q. How much is the work expected to cost?

A. The average cost is estimated to be about \$650–750 per apartment. The actual cost will vary greatly depending on the existing condition of the building.

Q. Who pays for any required work?

A. This is negotiated by the seller and the buyer. However, once the sale is final then the buyer becomes responsible for TSEEO compliance.

Q. Who pays for the energy inspection of the building?

A. Typically, the seller pays the inspection and administrative fees but the parties can negotiate this. Certified energy inspectors through BED provide the inspections. Depending on the size and condition of the building, the costs are approximately \$100 per unit. An inspection may not be required if a building has participated in BED's Heat Exchange program, the Vermont Gas weatherization program, the Low-Income Weatherization Assistance Program, the Home Energy Loan Program or if it was built after August 1, 1991 when Burlington's energy efficiency construction code was in-acted.

Q. Are there any other costs beyond the inspection and the actual work?

A. Yes. There will be a \$30 administration fee for each building.

Q. Is there anything else I need to know?

A. Yes. This informational sheet serves as a simplified overview and introduction to the Ordinance. The official Ordinance document contains full details including compliance, applicability, definitions, waivers, stipulations, appeals and enforcement and penalties. The full Ordinance document is available upon request from BED and can also be found at www.burlingtonelectric.com. For a list of qualified weatherization contractors able to perform the air sealing and insulating tasks outlined in the Ordinance, contact Ginny Thiels at 865-7342 or gthiels@burlingtonelectric.com. Ginny can help you with any questions that you have about the ordinance.

Some buildings offer substantial energy savings if work is done beyond the minimum ordinance requirements. BED offers optional technical assistance and financing packages that help property owners take advantage of these additional savings. For more information, contact Ginny Thiels at 865-7342 or gthiels@burlingtonelectric.com.