

## **Section 10.3. Greenhouse Gas Emissions**

### **10.3.1. General**

#### **10.3.1.1. Application**

- 1)** The requirements of this Section apply only to buildings that
  - a) contain any of the following major occupancies as described in Table 10.3.1.3.:
    - i) residential,
    - ii) business and personal service, or
    - iii) mercantile, and
  - b) are designed to Step 2, 3 or 4 in Tables 10.2.3.3.-G to 10.2.3.3.-J. (See also Sentence 10.2.3.2.(3)).

**2)** Modeling of greenhouse gas emissions shall conform to the City of Vancouver Energy Modeling Guidelines.

#### **10.3.1.2. Definitions and Attributions**

**1)** For the purposes of this Section, the term “greenhouse gas” shall have the same meaning as defined in the Climate Change Accountability Act, and is expressed with the abbreviation “GHG.”

**2)** For the purposes of this Section, the term “greenhouse gas intensity” shall mean the total greenhouse gas emissions, expressed as kgCO<sub>2e</sub> per square metre of floor area of conditioned space per year, associated with the energy used by the building's systems, and is expressed with the abbreviation “GHGI.”

**3)** For the purposes of this Section, the symbol “CO<sub>2e</sub>” shall mean carbon dioxide or carbon dioxide equivalent, with carbon dioxide equivalent meaning one or more greenhouse gases with a global warming potential equivalent to carbon dioxide.

**4)** For the purposes of this Section, the term “Emissions Level” shall mean an Emissions Level referred to in Table 10.3.1.3.

**5)** For the purposes of this Section, the term “measure only” shall mean that the GHGI and the total greenhouse gases are calculated and the values reported in accordance with Subsection 2.2.8. of Division C.

#### **10.3.1.3. Compliance Requirements**

**1)** Buildings conforming to the requirements of any of GHG Emission Levels EL-1 to EL-4 shall be designed and constructed to conform to Table 10.3.1.3. based on occupancy.

**Table 10.3.1.3.**  
**Greenhouse Gas Emissions**  
 Forming Part of Sentence 10.3.1.3.(1)

<u>GHG Emission Level</u>	<u>Maximum GHGI of the Building, Expressed in kgCO<sub>2e</sub>/m<sup>2</sup>/year</u>			
	<u>Residential Major Occupancy</u>		<u>Business and Personal Service and Mercantile Major Occupancies</u>	
	<u>Hotels and Motels</u>	<u>Other Residential Occupancies</u>	<u>Offices</u>	<u>Other Business and Personal Service and Mercantile Occupancies</u>
<u>EL-1</u>	<u>measure only</u>			
<u>EL-2</u>	<u>9.0</u>	<u>7.0</u>	<u>5.0</u>	<u>6.0</u>
<u>EL-3</u>	<u>4.0</u>	<u>3.0</u>	<u>3.0</u>	<u>3.0</u>
<u>EL-4</u>	<u>2.0</u>	<u>1.8</u>	<u>1.5</u>	<u>2.0</u>

2) The emissions factors associated with the use of energy utilities consumed by the *building's* systems shall be

- a) 0.011 kg CO<sub>2e</sub>/kWh for electricity, and
- b) 0.180 kg CO<sub>2e</sub>/kWh for natural gas.