

**(Effective until February 1, 2021)**

**WAC 51-11R-40530 Section R405.3—Performance-based compliance.**

**R405.3 Performance-based compliance.** Compliance based on simulated energy performance requires that a proposed residence (*proposed design*) be shown to have an annual energy consumption based on carbon emissions of the fuels and energy use in the proposed building. Carbon emissions for both the standard reference design and the proposed design shall be calculated using Table R405.3. Energy use derived from simulation analysis shall be expressed in pounds of carbon and per square foot of *conditioned floor area* as follows:

1. For structures less than 1,500 square feet of conditioned floor area, the annual carbon emissions shall be less than or equal to 73 percent of the annual carbon emissions of the *standard reference design*.

2. For structures 1,500 to 5,000 square feet of conditioned floor area, the annual carbon emissions shall be no more than 56 percent of the *standard reference design*.

3. For structures over 5,000 square feet of conditioned floor area, the annual carbon emissions shall be no more than 50 percent of the *standard reference design*.

4. For structures serving Group R-2 occupancies, the annual carbon emissions shall be less than or equal to 70 percent of the annual energy consumption of the *standard reference design*.

**TABLE R405.3  
CARBON EMISSIONS FACTORS**

Type	CO2e (lb/unit)	Unit
Electricity	0.80	kWh
Natural gas	11.7	Therm
Oil	19.2	Gallon
Propane	10.5	Gallon
Other <sup>a</sup>	195.00	mmBtu
On-site renewable energy	0.00	

<sup>a</sup> District energy systems may use alternative emission factors supported by calculations *approved by the code official*.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40530, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40530, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40530, filed 2/1/13, effective 7/1/13.]

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[Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-40530, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40530, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40530, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40530, filed 2/1/13, effective 7/1/13.]