



Diane Glenn

The Honorable Peter DeVries, Chair
Council Members
Washington State Building Code Council
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Chair and Council Members:

The building industry recognizes that we must continually improve on energy efficiencies in buildings to move toward energy savings. Many of the amendments proposed for the Washington State Energy Code are supported in general. However, there are a few that should be thoroughly reviewed before being considered to move forward.

As a consultant for many builders across the State of Washington, I have reviewed many of the building practices of builders from entry level to high end building. The following comments address the concerns of a few amendments that will most impact the industry. Please keep in mind that the proposed amendments will affect every builder in the State of Washington.

Chapter 9 can and should be treated as a stand alone document outside of the other amendments and not as an integral part of the code. This chapter should be eliminated in whole. It is presented as a menu of items, when in fact:

It is limiting in nature. There are only 5 basic categories of choice as one has a punitive element and one (renewable) is very limited by area and cost.

It excludes some methods of construction. It is very difficult and costly to obtain the necessary points if the home is built with electric or hydronic heating.

It has some parts that are vague or will be a challenge to enforce. See footnote 1 for example.

Some items are contrary to good construction practices or can be practicable to accomplish. See option 3c for example.

It is costly for any building to achieve the required points and can range from \$4,000 to \$10,000.00+.

Additional notes include:

Option 3C is not viable as the exterior insulation requirement will not work with most cladding systems and all other exterior elements become difficult if not impossible for installation.

Option 2 for the distribution system assumes a ducted system and would require major plan design changes to install all ducts and equipment in the heated space and also not installed at any exterior walls (to avoid costly testing). See footnote 1. This is costly and not practical in many homes.

The options for air leakage do not give enough credits by themselves and there is an issue of enforcement since this test is conducted at the completion of construction. The test result language is not one that builders are familiar with and is not clear to the path to accomplish compliance. These options also require the installation of a heat recovery ventilator at great cost and not practical in many homes, especially those with electric heating.

Option 1B is very limited and can add a cost of up to \$77,000.00.

Option 6 and 7 are not options, but results of developments. The energy code requirements would certainly not drive the size of homes in a development.

Option 8 for renewable energy is also very limiting. Not all homes will accommodate solar and certainly not wind power as this is still a controversial issue and is not allowed in some areas. The amount of solar kWh needed to obtain credits is very high.

Option 5 for water heating also requires water conservation in reduced flow of faucets. The rating limits the style of faucets that can be used and some manufacturers would not be able to provide their product in Washington.

Table 6-1 Prescriptive Requirements

Intermediate framing – note 7 – requires R-10 insulation in the headers. This is not always possible with the framing requirements as there is not always the necessary available space for insulation.

503.4.1

Log 09-135 Direct Induction Fan

Making this a requirement would exclude some manufacturers and would add considerable cost to heating systems.

503.10.2

Log 09-081 Duct Testing

While this is accepted as providing results for improved energy efficiency, there are currently limited resources for testing and will add substantial cost. A consideration of sampling should be made.

503.10.1

Log 09-081 No Displacement of Insulation Material

If taken literally, this cannot be accomplished without building extra walls and will add substantial cost.

502.4.5

Log 09-134 Air Leakage Testing

There are currently very limited resources and this will add substantial cost. As a benchmark, the Energy Star Program which demonstrates a 30% improvement of energy efficiency over the model energy code does not require testing as they determined that Washington was sufficiently sealing homes to meet the requirements without testing.

505.1

Log 09-139 High Efficiency Lighting

Homebuyers are not satisfied with the current selection of CFL's and other high efficiency lighting is very costly at this time.

Thank you for your consideration of the points.

Sincerely,

Diane Glenn, owner
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Energy Star Verifier
Built Green Verifier
Building Consultant/Inspector
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