

Planning and Economic Development Committee

May 9, 2016

Should the City Council adopt Appendix 'U' of the 2015 International Residential Code (IRC)?

Every three years the State adopts the latest version of the building codes, including the IRC. Kirkland is required to enforce this code so the City Council adopts it along with the other codes the City is required to enforce. This year the IRC includes a new optional appendix 'U', which requires new homes with roofs that are exposed to the sun to be 'solar ready'.

1. What is solar ready? Solar ready means:
 - a. The house roof must have a 'solar zone' of at least 300 sq. ft. for solar panels (free from vents).
 - b. An electrical conduit must be installed from the 'solar zone' to the proximity of the electrical panel.
 - c. The electrical panel must have enough room to install a two pole circuit breaker.
2. What homes would be required to be solar ready? Any new home that:
 - a. Has a roof area of at least 600 sq. ft. that is orientated between 110 degrees and 270 degrees of true north.
 - b. A home with a roof that is not shaded more than 70% of the time during daylight hours annually.
3. What are the advantages of adopting Appendix 'U'?
 - a. Photovoltaic (PV) panels generate clean electricity from the sun.
 - b. More homes would be able to have photovoltaic (PV) panels installed because the roof would have a 'solar zone' that is free from vents, where many currently do not.
 - c. The installation of a PV system could be up to \$2,000 cheaper because the electrical conduit is already installed and no plumbing or other roof vents would need to be relocated to make room for the PV panels.
4. What are the disadvantages of adopting Appendix 'U'?
 - a. It is a mandatory requirement, as opposed to optional.
 - b. Making the house solar ready would add approximately \$250 to the cost of the house. The cost could be more if the design of the roof has to be revised.
 - c. The design of some roofs will need to be changed to accommodate a solar zone.
 - d. Permit applicants that believe their house is exempt from the solar ready requirements will need to provide documentation showing that their house is exempt. This may require hiring a certified professional to prepare the documentation.
 - e. Planning and Building staff will need to review the documentation provided above to ensure the house is not required to be solar ready. How much staff time this will take is dependent on the level of documentation the City requires. If the City requires the applicant to provide documentation from a certified professional, it may only take an additional 5 minutes, but the applicant will need to hire a certified professional. If the City does not require documentation from a certified professional, the plan review may take a few additional hours longer.