

Proposed Building Code Amendments Question/Issue and Responses

1. There are several new requirements of the SBR program for both commercial and residential buildings. As explained by staff these requirements were added to bring the SBR in line with the 2021 IECC. It is important to note that the 2021 IECC is not currently adopted by the Town, but the proposed SBR revisions appear to reference the 2021 IECC which may present a timing problem if the SBR is adopted prior to adopting the IECC.

[Response: The Town will proceed with adoption of the 2021 IECC in conjunction with the proposed Code amendments.](#)

2. The revised SBR (Section 4.04 Vestibule requirement) is in conflict with the 2021 IECC. The 2021 IECC allows for an air curtain to be installed as an alternative to a vestibule which seems appropriate given floor area constraints in our valley. The revised SBR REQUIRES a lobby whereas the 2021 IECC provides for alternative solutions. It is suggested that if the lobby solution is preferred, that a point be given for utilizing that solution, but that the option to solve the problem with an alternative, listed in the IECC, also be allowed.

[Response: The Code amendments do not preclude the use of an air curtain as an allowed alternative to a vestibule. An air curtain is a recognized exemption to a vestibule and can be implemented.](#)

3. With regard to existing utilities serving developed parcels with as yet un-built residential/commercial buildings. We are seeing a potential doubling of service requirements which affects not only the transformer sizing, but also downstream conductor sizing in order to allow for voltage drop. A classic example would be Willits Block 11 North, where the decision to move to an all-electric building without being able to have a transformer installed closer to the building required the use of copper service conductors and special consideration as to conductor sizing (Holy Cross standards limit maximum service conductor sizes).

Response: The Team has conferred with Holy Cross Electric and other agencies and have determined that the solar can be metered, and then split into submeters for each separate unit with the building.

Part 5, a, item 5.01 is noted as “mandatory” and requires that car charging spaces be installed above and beyond the parking space requirements. The prescribed solution does not give credit for the individual car chargers and requires additional parking with dedicated car charging stations. We believe deference to the private automobile is not the best path forward for sustainability and livability. More parking means more pavement and heat islands and less open space. We think that there are alternative solutions that may serve the desired goal better such as what has been proposed and approved in the Parcel 5 PUD.

Response: The proposed Code language regarding parking has been amended so that the EV spaces will be included within the mix of Code-required parking spaces, and not in addition to those spaces.

4. We reviewed the future solar zone loading requirement with our structural engineer and they expressed that while many installers suggest an additional roof load of 5psf throughout is sufficient, the structural engineers find the actual solution is not so simple. The majority of ballasted rack systems consist of concentrated point loads which exceed 5psf and these vary by system thus the uniform load does not reflect what happens in the field and the actual additional load on the structure.

Response: The amount of required solar will need to be calculated early in the project, and the Engineer will need to accommodate for the load. All buildings must be designed to accommodate solar, so the decision on a solar package would be a step that would be moved up in the building design process. The solar requirement will be added to the Building Permit Checklist to help keep this requirement in mind.

5. We are concerned that projects that don't have access to solar are subject to costs without the benefits of solar production which seems punitive based only on location.

Response: There has been some confusion about the way properties which are not good solar receiver sites are handled. There is not penalty to that property owner for not being a solar receiver site. They would fulfill their solar off-set through the Holy Cross pURE program at no additional amount. We will clarify this at the next meeting and in a memo to Council. Fortunately, there are very few sites within the Town that would not be amenable to solar.

6. Another example that needs further investigation is the recently approved, Affordable Housing buildings in Parcel 5 where the Floor area, unit design, counts, and size have all been approved by the Town Council. Does the area for the “battery ready space” need to be included in the Floor area calculations or not?

Response: Areas designated for battery ready space would be included within the exemption for floor area as mechanical space.

7. It is unclear if heated garages require a REMP fee mitigation payment. Please clarify.

Response: Heated garages are subject to REMP fees unless they meet the conditions listed.

8. In Part (f) Exterior energy Uses item (6) heated garages (page 6), are required to offset the energy used via REMP Fees, however, Item (6) Heated Garages (page 8) states that free-standing units are “free allowed” and not subject to REMP Fees, provided conditions 6b and 6c are met. The REMP calculator also has an entry for Heated Garages.

Response: The proposed Code amendments are not intended to supersede the conditions.

9. The commentary in the SBR for Item D Page 6 Education Requirements, notes that the intent of the education requirements coincides with the Contractor license renewal period. The BEST Card needs to be renewed every three years, not every 18 months as listed in the proposed regulations. Given that the proposed hourly education requirement has been increased from two to

five hours, we suggest that the SBR education requirement coincide with the three- year BEST Card renewal timeline.

Response: The intent is to not combine the BEST Card test and the continuing education requirement. The SBR continuing ed requirement is job specific and can be renewed at any time without penalty. The requirements are fairly minimal, and there are many opportunities for free training sessions to get the needed credits.

10. In Sitewater conservation, item C, why eliminate non-potable water for irrigation as an option to obtain points

Response: this was an error and has been corrected. Thank you for bringing attention to that item.

11. In Item 5.02 the Required solar offset is 3 watts per sf of conditioned space which equates to 9000 watts for a 3000sf house and approximately 27 solar panels. This may be a bit difficult to achieve based on rooflines and solar exposure on some sites. Additionally, a shortfall in the HERS rating system can be “bought down” by adding PV, however, there may be limited opportunities for PV depending on the design and site of the house. As an alternative, we would suggest that 1 watt per sf be the mandatory threshold and that additional incremental points be given for 2 watts per square foot and 3 watts per sf. This incentivizes the larger array without potentially penalizing the other projects. It also affords the opportunity to the building team to choose how best to meet the overall energy efficiency requirements.

Response: Changes have been made to the residential requirement bringing it down to 2 watts per sf of conditions space and 1.5 watts per conditioned space for a residential project that is all-electric.

12. The Type 1 SBR is broken into 6 Sections with varying point thresholds required for each section. If you have a shortfall in any section, you are required to pay a penalty that equals to the SF of the house x number of points x .05. For instance, if you are 2 points short in any section, on a 3000sf house, your penalty fee is \$300. The penalty fee is required regardless of whether the required point total for the project is met or exceeded. We don't

think that there should be a penalty per section if the overall point total is met. Especially since the point total for the same 3000sf house has been raised 10 points from the current SBR to the proposed SBR. Additionally, the Existing Type II SBR did not penalize the project for point shortfalls in any specific section, unfortunately, the proposed Type II SBR includes a penalty for point total shortfalls in each section.

Response: I believe you are referring in your second to last paragraph to Type II construction rather than Type I. Type I just requires a total, whereas Type II has point requirements within several categories to be met. The intention behind that is for a building's design to be considered holistically rather than have one or two areas that are truly operating at a high level and other areas at lesser levels. The goal is to have an end product that is highly efficient across the board.

13. Has there been an analysis done that proves that the 25% solar off-set requirement can be achieved on-site, particularly on smaller projects?

Response: The Green Codes Committee has performed an analysis for a 2,000 square foot single family home and have found the solar panels have adequate space to be accommodated on-site with room to spare.