

2022 Denver Energy Code - Training Q&A

Residential Energy Code Compliance 5/25/2023



Question	Answer
<p>[DEC R403.5.4] If an existing basement has ceiling less than 7'-0" ceilings, can the water heater go in the basement? Is there an exception for older basements?</p>	<p><i>Answered Live (see recording)</i></p> <p>Follow up answer: DRC Section R305 outlines the minimum ceiling height requirements. Portions of basements with habitable space or hallways shall have a ceiling height of 7 feet. Basement build prior to 1990 and portions of basements that do not contain habitable space are permitted to have a minimum ceiling height of 6 feet 8 inches. Beams, girders, ducts, and other obstructions are permitted to have a ceiling height of not less than 6 feet 4 inches.</p> <p>DEC Chapter 5 outlines the requirements applicable to existing buildings. Alterations and additions to an existing building, building system, or portion thereof shall conform to the provisions of this code as those provisions relate to new construction without requiring the unaltered portion of the existing building or building system to comply with this code. So, if the room where the new service hot water system is located remains unaltered, then it will not be required to comply with the dimensional requirements outlined in DRC Section R403.5.4. This will allow hot water systems to be located in basement with ceiling heights less than 7 feet.</p>
<p>[DEC R403.5.4] Isn't, "With a grill to heated space and a duct for cool exhaust air" supposed to be for the 3x3x7 space?</p>	<p><i>Answered Live (see recording)</i></p> <p>Follow up answer: Spaces containing fossil fuel or electric resistance water heating equipment must meet all the requirements in R403.5.4. That is, the space must have minimum dimensions 3 ft by 3 ft by 7 ft high, AND must have: a minimum volume of 760 cubic feet OR the equivalent of one 16-inch by 24-inch grill to a heated space and one 8-inch duct of no more than 10 feet in length for cool air exhaust.</p>
<p>[DEC R404.5] Are gas fire places and out door gas grills required to have the electric infrastructure? What is the intent of the electrical infrastructure provided at fossil fuel appliances?</p>	<p><i>Answered Live (see recording)</i></p> <p>Follow up answer: Outdoor gas fireplaces, firepits, heaters and grills will not be required to meet the additional electric infrastructure provisions of DEC R404.5. We will be publishing a policy to clarify the requirements of this provision.</p>
<p>[DEC 404.7] Are there any zoning allowances for micro wind turbines?</p>	<p>There are not any setback exceptions or height exceptions for micro wind turbines in the Denver Zoning Code. All micro wind turbines will need to meet the dimensional requirements that are determined by the zone district and assigned building form.</p>
<p>From my experience with my house's PV system, when utilizing net-metering with the utility company, on-site battery storage is not allowed.</p>	<p>Residential customers are permitted to add storage, but they do need to go through the Xcel Energy's interconnection process and follow the various storage requirements as specified in tariff and in Xcel Energy's technical resources. Xcel has an interconnection page for developers, and under the "Technical Requirements and Documents" section, there are additional resources for energy storage systems, like a configuration selection tool and this guidance sheet. https://co.my.xcelenergy.com/s/renewable/developers/interconnection</p>
<p>[DEC R404.6] Is the optimal solar access area based on the current conditions or future zoning?</p>	<p>The solar ready zone is determined by the current shade conditions of the roof. It does not consider that future zoning may allow for a taller structure on an adjacent lot that could shade the roof in the future.</p>
<p>Can you confirm that R-2 and R-1 occupancies will follow the commercial provisions, regardless of the number of stories?</p>	<p>That is correct, under the 2022 Denver Energy Code, R-2 buildings are considered commercial buildings and must follow the commercial provisions of the energy code.</p> <p>The R-2 definition includes apartments. These multifamily buildings follow the commercial provisions of the energy code.</p> <p>IBC townhomes are the exception. They are a Group R-2 occupancy, but are defined as a Residential building in the amendments. They will be regulated by the residential provisions of the Denver Energy Code.</p> <p>R-1 occupancy includes hotels and motels and is under the commercial provisions of the energy code.</p>

Does the energy modeler need to sign the Denver Building Checklist for permit submittal? We have had mixed experiences with this.	We will cover more specific information on the requirements for the energy modeling based pathways in the upcoming trainings, but the signature requirements for the Residential Energy Code Compliance Checklists have been removed in the updated version. The 2022 DEC Checklists can be downloaded at Denvergov.org/BuildingCode
<i>[Air sealing details]</i> Are details required for every condition or is a copy of the air sealing code table on plans sufficient?	The 2022 DEC Residential Compliance Checklists outline the minimum submittal requirements for each component and are a great resource as you develop construction documents. For air sealing, the checklist requires a general note stating that air barriers and insulation shall be installed according to the manufacturer's instructions and the criteria in Table R402.4.1.1.
<i>[DEC R404.4]</i> LVL 1 vs. LVL 2 EV chargers?	Each EV Ready Space needs to be provided with infrastructure of sufficient size to accommodate a 240VAC 40Amp branch circuit (Level 2 charger).
Is an ADU considered a Dwelling Unit that requires it's own EV ready space?	An ADU (accessory dwelling unit) is a term used in the zoning code. In the building code, an ADU is just a one-family dwelling. So, yes, each ADU (dwelling unit) will require an EV-ready space where a garage, carport, or on-site parking space is provided.
<i>[DEC R404.7]</i> Is the renewable energy requirement based on conditioned floor area? Per SF of home or SF of roof?	Yes, the minimum energy output or panel size requirements in DEC Section R404.7 are per square foot of conditioned floor area of the dwelling unit. The requirements of DEC Section R404.7 are per square foot of conditioned floor area of the dwelling unit, not per square foot of roof area.
If we have to install active solar on all projects then no project will then be required to have a solar ready zone right? So what's the point of still having the language in the code?	DEC Section R404.7 includes a number of exceptions for projects that are not required to install on site renewables. These projects would still need to meet the solar ready requirements of R404.6.
If installing solar panels per DEC 404.7 do we need to submit panel documentation as a part of the permit documents? Or is that a separate permit? What do we show on the roof for the solar 'ready' area?	The Residential Compliance Checklists outline the minimum submittal requirements for each provision and are a great resource to reference as you develop construction documents for your project. The proposed renewable energy system will need to be declared on the construction documents as noted in the checklist, but renewable energy systems are subject to separate permitting requirements. Graphical requirements for the solar-ready zone are also outlined in the checklists.
How will course CEU certificates be distributed?	We will be uploading attendance to AIA and ICC. We will also send out certificates.
Does the 2019 Denver Green Code require additional or alternative requirements for design paths? We are trying to identify if an EUI must be calculated for the Denver Green Code.	<i>Answered Live (see recording)</i>
<i>[RE: Denver Green Code]</i> Is it planned on being mandatory for residential in the future?	<i>Answered Live (see recording)</i>