STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98504
(360) 407-9277 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

MECHANICAL, VENTILATION and ENERGY CODES COMMITTEE

SUMMARY MEETING MINUTES

LOCATION: DES Conference Center, Room 1161
1500 Jefferson St SE
Olympia WA 98501

MEETING DATE: July 19, 2019

Agenda Items	Committee Actions/Discussion
1. Welcome and Introductions	Meeting called to order at 1:00 p.m. by Eric Vander Mey. **Members in Attendance:** Eric Vander Mey, Chair; Andrew Klein, Vice Chair; Doug Orth; Kjell Anderson; Diane Glenn **Staff In Attendance**: Krista Braaksma **Visitors Present**: Robby Oylear, Jeanette McKague, Michelle Finley, Chuck Murray, Amy Wheeless, Louis Starr, Dave Baylon, Mike Fowler, Mike Kennedy, Duane Jonlin, Mike Lubliner, Lisa Rosenow
2. Review and Approve Agenda	The agenda was approved as written.
3. Review and Approve Minutes	The minutes of the June 13, 2019 meeting were approved as written.
4. Review of WSEC- Com Testimony	The Committee went through the specific comments summarized beginning on page 5 of the Testimony Summary. Eric noted it was not his intent to debate issues such as carbon emission numbers at this meeting. Once the Committee had reached the end of the specific comments on the spreadsheet, they began review of the modifications from Mike Kennedy that were not integrated into the spreadsheet. Please see the attached table for specific Committee action on individual items. The Committee will meet again on July 25 to finish review of the testimony presented. That meeting will begin at noon and run until 5 p.m.
5. Adjourn	Meeting was adjourned at 5:03 p.m.

Specific Modifications -- Actions from July 19, 2019

From	Section	Proposed Revision Summary	Language	Committee Recommendation
Mark Gardner	C101.4.1	Add exception that whole building may comply using commrcial provisions.	C101.4.1 Mixed residential and commercial buildings. Where a building includes both residential building and commercial building portions, each portion shall be separately considered and meet the applicable provisions of WSEC-Commercial Provisions or WSEC-Residential Provisions. **Exception: The whole building or whole systems are ruled to comply if the WSEC Commercial Provisions are met.**	Reject
Mark Gardner	C101.5	Changes scope to have all IRC buildings meet WSEC-Res; all others meet WSEC-Com	C101.5 Compliance. ~~Residential buildings~~ **Detached one and two-family dwelling and multiple single-family dwellings (townhouses)** shall meet the provisions of WSEC-Residential Provisions. Commercial buildings **and all other Residential Buildings** shall meet the provisions of WSEC-Commercial Provisions.	Reject
Mark Gardner	Ch 2	Add definition for renewable energy	**RENEWABLE ENERGY. Energy generated by infrastructure that uses water, wind, solar energy, or biogas from animal waste as fuel.**	Reject
Mark Gardner	Ch 2	Revise definition of Residential Building to delete Group R-2, R-3 and R-4 buildings	RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) ~~as well as Group R-2 and, R-3 and R-4 buildings three stories or less in height above grade plane.~~"	Reject
Mike Kennedy	C202	Typo - Computer Room		Editorial
Mike Kennedy	C202	Retrofit - Delete definition and revise C501.4.1 to replace term with additions and alterations	**C501.4.1 U-factor requirements for ~~retrofits~~ additions and alterations.** For existing building projects where an *addition* or *building envelope* ~~*retrofit*~~ alteration area is combined with existing-to-remain building areas to demonstrate compliance with this Code as a whole building, the U-factors applied to existing-to-remain envelope assemblies shall be in accordance with record documents. **Exception~~s~~**: 1. If accurate record documents are not available, U-factors for the existing envelope assemblies may be in accordance with the edition of the Washington State Energy Code that was in effect at the time the building was permitted~~.~~, or ~~U-factors for the existing envelope assemblies~~ as approved by the *code official.*	Approve
Mike Kennedy	C202	Space conditioning category-delete reference from lowest to highest	**space conditioning category.** Categories are based on the allowed peak space conditioning output capacity per square foot of conditioned floor area, or the design setpoint temperature, for a building or space. Space conditioning categories ~~from lowest to highest~~ include: low energy, semi-heated, conditioned, refrigerated walk-in and warehouse coolers, and refrigerated walk-in and warehouse freezers	Approve
Mike Kennedy	C202	Fenestration/Vertical fenestration - remove reference to glazed doors	vertical fenestration. Windows that are fixed or operable, glazed doors with more than 50 percent glazed area and, glazed block and combination opaque/glazed doors composed of glass or other transparent or translucent glazing materials and installed at a slope of not less than 60 degrees 991.05 rad) from horizontal. Opaque areas such as spandrel panels are not considered vertical fenestration.	Staff is okay with calling this editorial
Mike Kennedy	C402.1.1.2	Clarify requirements to add limitations from definition of semi-heated and specify cooling is not allowed	The total installed output capacity of ~~mechanical~~ space ~~conditioning~~heating systems serving a *semi-heated* building or *space* shall be no greater than 8 Btu/(h-ft^2) and mechanical cooling is not allowed in accordance~~comply~~ with Section C202	No motion

Lisa Rosenow	C402.1.1.2	Clarify requirements to add limitations from definition of semi-heated and specify cooling is not allowed	**C402.1.1.2 Semi-heated buildings and spaces.** The building envelope of semi-heated buildings, or portions thereof, shall comply with the same requirements as that for conditioned spaces in Section C402, except as modified by this section. The total installed output capacity of ~~mechanical space conditioning~~ space heating systems serving a *semi-heated* building or space shall be no greater than 8 Btu/(h-ft$_2$) and mechanical cooling is not allowed in accordance with Section C202....**EXCEPTION:** A *semi-heated* building or space may comply ~~as semi-heated~~ with this section when served by one or more of the following mechanical system alternatives provided the total installed heating output capacity does not exceed that which is allowed for *semi-heated*: 1. Electric infrared heating equipment for localized heating applications. 2. Heat pumps with cooling capacity permanently disabled, as pre-approved by the jurisdiction.	No motion
Mike Kennedy	C402.1.1.3	Bad section reference/missing table		change reference to C402.4.1.1.3
Mark Gardner	C402.1.5	Bad section reference		change reference to C402.4.1.1.3
Mark Gardner	C402.1.5.2	Bad section reference		change reference to C402.4.1.1.3
Mike Kennedy	C402.1.3	Missing italics		Italicize reference to *opaque door*
Mike Kennedy	C402.1.4	Add definition for garage door to differentiate between door, nonswinging	DOOR, GARAGE DOOR. Doors rated by standard ASMA 105 with a single panel or sectional panels. DOOR, NONSWINGING. Roll-up, tilt-up, metal coiling and sliding doors, access hatches, and all other doors that are not swinging doors or garage doors with ≤14% glazing.	Approve
Mike Kennedy	C402.2.4	Typo		C-factor should be U-factor
Mark Gardner	C402.4.1	Add text to exclude all interior partitions from window-to-wall ratio	...Interior partition ceiling, wall, fenestration, and floor areas that separate space conditioning areas shall not be applied to the window-to-wall ratio and skylight-to-roof ratio calculations. **Interior partitions between conditioned and unconditioned interior spaces, such as a parking garage, shall not be applied to the window-to-wall ratio and skylight-to-roof ratio calculations.**	Reject
Mark Gardner	C402.4.1.1	Delete sentence stating high performance alternates for glazing area are not permitted for total building performance	…When determining compliance using the component performance alterative in Section C402.1.5, the total building vertical fenestration area allowed in Equation 4-2 is 40 percent of the above grade wall area for buildings that comply with the vertical fenestration alternates described in this section. ~~These alternates are not permitted to be used for Total Building Performance compliance in Section C407.~~	Approve
Mike Kennedy	C402.4.1.1.1	Missing portion of the change approved in Env039 and add allowance for area weighting for VT	2. Visible transmittance (VT) of all *vertical fenestration* in the building is greater than or equal to 1.1 times the required solar heat gain coefficient (SHGC) in accordance with Section C402.4, or 0.50, whichever is greater. It shall be permitted to demonstrate compliance based on the area weighted average *VT* being greater than or equal to the area weighted average of the minimum VT requirements.	Approve

Robby Oyler	C402.5.1.2	Provide guidance for failed testing	C402.5.1.2 Building test. The completed building shall be tested and the air leakage rate of the building envelope shall not exceed 0.25 cfm/ft2 at a pressure differential of 0.3 inches water gauge (2.0 L/s x m2 at 75 Pa) at the upper 95 percent confidence interval in accordance with ASTM E 779 or an equivalent method approved by the code official. A report that includes the tested surface area, floor area, air by volume, stories above grade, and leakage rates shall be submitted to the building owner and the code official. If the tested rate exceeds that defined here by up to 0.15 cfm/ft2, a visual inspection of the air barrier shall be conducted and any leaks noted shall be sealed to the extent practicable. An additional report identifying the corrective actions taken to seal air leaks shall be submitted to the building owner and the Code Official and any further requirement to meet the leakage air rate will be waived. If the tested rate exceeds 0.40 cfm/ft2, corrective actions must be made and the test completed again. A test above 0.40 cfm/ft2 will not be accepted.	Approve
Mark Gardner	C403.1.1	Change exception 8 from "substantially replace" to "replace all energy-consuming components" the entire HVAC system.	8. Alterations to existing buildings that do not ~~substantially replace the~~ **replace all energy-consuming components of the** entire HVAC system	Reject
Mike Kennedy	C403.1.1	Clarify that software can be used in lieu of Appendix D to calculate TSPR	**C403.1.1 HVAC total system performance ratio (HVAC TSPR).** For systems serving office, retail, library, and education occupancies subject to the requirements of Section C403.3.5 without exceptions, the *HVAC total system performance ratio* (*HVAC TSPR*) of the *proposed design* HVAC system shall be more than or equal to the *HVAC TSPR* of the *standard reference design* as calculated according to Appendix D, Calculation of HVAC Total System Performance Ratio, or *approved* calculation software.	Reject
Mike Kennedy	C403.1.1	Clarify that the occupancy types for TSPR should be the same as for DOAS	**C403.1.1 HVAC total system performance ratio (HVAC TSPR).** For systems serving office, retail, library, and education occupancies and buildings, which are subject to the requirements of Section C403.3.5 without exceptions, the *HVAC total system performance ratio* (*HVAC TSPR*) of the *proposed design* HVAC system shall be more than or equal to the *HVAC TSPR* of the *standard reference design* as calculated according to Appendix D, Calculation of HVAC Total System Performance Ratio. **D101 Scope.** This appendix establishes criteria for demonstrating compliance using the HVAC total system performance ratio (HVAC TSPR) for systems serving office, retail, library and education occupancies and buildings, which are subject to the requirements of Section C403.3.5 without exceptions. ~~For t~~Those ~~occupancies~~, HVAC systems shall comply with Section C403 and this appendix as required by Section C403.1.1.	Doug, Diane moved approval as written. Motion carried.
Mark Gardner	C403.3.6/ C403.7.6	Add an exception for whole house ventilation systems to C403.3.6 and remove exception 10 in Section C403.7.6	C403.3.6 Ventilation for Group R-2 occupancy. For all Group R-2 dwelling and sleeping units **served by a central or local dedicated outside air system,** a ~~balanced ventilation system with~~ heat recovery system with minimum 60 percent sensible recovery effectiveness shall provide outdoor air directly to all habitable space**s,** The ventilation system shall allow for the design flow rates to be tested and verified at each habitable space as part of the commissioning process in accordance with Section C408.2.2. **Exception: Whole house supply systems are allowed per Washington State amendments to the International Mechanical Code section 403.8.5.2, when the dedicated outside air system delivers ventilation air to each habitable unit, and air is distributed to each habitable space by a supply or transfer fan.**	Reject

Mark Gardner	C403.7.6	Two additional language modifications offered in lieu of deletion of exception 10	C403.7.6 Exception 10: Systems serving Group R dwelling or sleeping units **which are ventilated by operable or permanent exterior openings per Washington State amendments to the International Mechanical Code section 403.8** ~~where the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate~~. OR Systems serving Group R dwelling or sleeping units **where environmental (not including kitchen or clothes dryer) exhaust terminates locally at the exterior of each dwelling or sleeping unit, without combining with the environmental exhaust of any other dwelling or sleeping unit** ~~the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate~~.	Tabled for research of any conflicts with Section C403.3.6
Mark Gardner	C403.5	Add a third requirement for the economizer exception 7 for chillers, for a COP of 7.0 when heating and cooling water simultaneously.	7. Equipment serving a space with year-round cooling loads from lights and equipment of 5 watts per square foot or greater complying with the following criteria: 7.2. The chilled water plant includes a condenser heat recovery system that meets the requirements of Section C403.9.5 or the building and water-cooled system meets the following requirements: 7.2.1 A minimum of 90% (capacity-weighted) of the building space heat is provided by hydronic heating water. 7.2.2 Chilled water plant includes a heat recovery chiller or water-to-water heat pump capable of rejecting heat from the chilled water system to the hydronic heating equipment capacity. **7.2.3 Heat recovery chillers shall have a minimum COP of 7.0 when providing heating and cooling water simultaneously.**	Approve
Mark Gardner	C403.5	Typo in exception 9		Change language to dedicated outdoor air systems
Eric Vander Mey	C403.5	Clarify ERV requirements for DOAS and mechanical cooling	**10.** Dedicated outdoor air systems that include energy recovery per C403.7.6 but that do not include mechanical cooling. **11.** Dedicated outdoor air systems not required to include energy recovery per C403.7.6 that modulate the supply airflow to provide only the minimum outdoor air required Section C403.2.2.1 for ventilation, exhaust air make-up, or other process air delivery.	Approve
Mark Gardner	C403.6.1.2	Relocate this section and subsections to new section in C403.4	? There is no section with this number--does he mean items 1 and 2?	Needs clarification, and if items are intended to move, new charging language is needed.
Mark Gardner	C403.7.2	Revise main section language to specify spaces larger than 500 sf or occupant load greater than…	**Spaces larger than 500 square feet of floor area that are either classified as** classrooms, gyms, auditoriums, or conference rooms, **or have** an occupant load greater than or equal to 25 people per 1000 square feet…shall have occupancy sensor control…	Reject

Mark Gardner	C403.7.2	Revise exception 2 to to restrict to specific space types or delete	No change offered - **C403.7.2 Occupancy sensors**. Classrooms, gyms, auditoriums, conference rooms, and other spaces with an occupant load greater than or equal to 25 people per 1000 square feet (93 m2) of floor area (as established in Table 403.3.1.1 of the International Mechanical Code) that are larger than 500 square feet of floor area shall have occupancy sensor control that will either close outside air dampers, close ventilation supply dampers or turn off ventilation equipment when the space is unoccupied except where equipped with another means to automatically reduce outside air intake below design rates when spaces are partially occupied. **Exceptions:** …2. When the space is unoccupied during occupied building hours a ventilation rate equal to or less than the zone outdoor airflow as defined in Section 403.3.1.1.1 of the International Mechanical Code with a zone population of zero.	Reject
Eric Vander Mey	C403.7.6	Clarify ERV requirements for DOAS and mechanical cooling	**C403.7.6 Energy recovery ventilation systems.** Any system with minimum outside air requirements at design conditions greater than 5,000 cfm or any system where the system's supply airflow rate exceeds the value listed in Tables C403.7.6(1) and C403.7.6(2), based on the climate zone and percentage of outdoor airflow rate at design conditions, shall include an energy recovery system. Table C403.7.6(1) shall be used for all ventilation systems that operate less than 8,000 hours per year, and Table C403.7.6(2) shall be used for all ventilation systems that operate 8,000 hours or more per year. The energy recovery system shall have the capability to provide a change in the enthalpy of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and return air enthalpies, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy recovery media for both the outdoor air and exhaust air or return air dampers and controls which permit operation of the air economizer as required by Section C403.5. Where a single room or space is supplied by multiple units, the aggregate ventilation (cfm) of those units shall be used in applying this requirement. The return/exhaust air stream temperature for heat recovery device selection shall be 70°F (21°C) at 30 percent relative humidity, or as calculated by the registered design professional.	Approve
Mark Gardner	C403.7.7.1.2	Replace Makeup air with Replacement air	…shall include heat recovery systems to preconditioned makeup replacement air from laboratory exhaust	Editorial
Mark Gardner	C403.8.4	Reformat table	If stating a minimum in two separate columns, consider condensing the columns into one, and stating a range for minimum CFM (i.e. "**10 < X < 90 Air flow Rate Minimum, 2.8 cfm/watt Minimum Efficacy**")	Reject
Mark Gardner	C403.9.3	Exempt replacement cooling towers to mitigate the effect of Section C403.9.1.2 on existing buildings	No language offered	Reject
Mark Gardner	C403.9.6/ C403.9.7/ C403.9.8.1	Include sizing criteria for heat recovery systems	No language offered	Reject
Mark Gardner	C403.9.8	Add exception for existing buildings with return water temperatures exceeding 120° and clarify application to hydronic systems	A condenser heat recovery system meeting the requirements of C403.9.8.1 through C403.9.8.4 shall be installed to serve **hydronic** heating systems in buildings meeting the following criteria: … Exception **1**: Systems complying with Section C403.3.5 Dedicated outdoor air systems (DOAS). **Exception 2: Existing building systems with return water temperatures exceeding 120°F.**	Reject

Mark Gardner	C403.9.8.2	This section seems to be requiring cooling coils and filters in all the exhaust ductwork which is an economically difficult solution	**C403.9.8.2 Exhaust heat recovery.** Heat shall be recovered by the ~~condenser~~ heat recovery **chiller** system from 90 percent of the total building exhaust airflow. The maximum leaving air temperature of exhaust air after heat recovery shall be 55°F dry-bulb when operating at full capacity.	Doug moved to modify by removing both condenser and chiller from the code language. Diane seconded. Motion carried.
Robby Oyler	C403.9.8.2	Add an exception for hazardous exhaust	**C403.9.8.2 Exhaust heat recovery**. Heat shall be recovered by the condenser heat recovery system from 90% of the total building exhaust airflow. The maximum leaving air temperature of exhaust air after heat recovery shall be 55F DB when operating at full capacity. **Exceptions:** 1. Where energy recovery systems are restricted by Section 514 of the International Mechanical Code to sensible energy, those systems shall not be included in the calculation of total building exhaust airflow. 2. Exhaust air systems handling contaminated airstreams that are regulated by applicable codes or accreditation standards and pose a health risk to maintenance personnel to maintain heat recovery devices, those systems shall not be included in the calculation of total building exhaust airflow.	Approve
Mark Gardner	C403.9.8.4	This section states, "The minimum total combined capacity of heat recovery chillers or water to water heat pumps shall match the total combined capacity of equipment meeting the requirements of Sections C403.9.8.2 and C403.9.8.3." The sections listed (C403.9.8.2 and C403.9.8.3) do not indicate the heat recovery chiller capacity		Table to check with Robby Oylear to see if any clarity needs to be provided.
Robby Oyler	C404.2.1	Do not adopt majority of change to this section	Keep only the added reference to "for other than Group R"	Tabled

Robby Oyler	C404.2.1	Option to previous modification	**C404.2.1 High input-rated service water heating systems.** All water-heating equipment installed in new buildings, for other than Group R-1 and R-2 occupancies, shall be in compliance with this section. ~~Where a singular piece of water-heating equipment serves the entire building and the input rating of the equipment is 1,000,000 Btu/h (293 kW) or greater, such equipment shall be a heat pump water heater or have no less than an Et or Ef of 90 percent as determined by the applicable test procedures in Table C404.2.~~ Where ~~multiple pieces of water-heating equipment serve the building and~~ the combined input rating of the water-heating equipment serving the building is 1,000,000 Btu/h (293 kW) or greater, the combined input-capacity-weighted-average shall be no less than the following for each water heating fuel source:…**Exception~~s~~:** 1. Where not less than 25 percent of the annual service water-heating requirement is provided from any of the following sources: a. Renewable energy generated on site that is not being used to satisfy another requirement of this code, or b. ~~Heat recovered on site from the building's wastewater, or from air that would otherwise be exhausted to the outdoors without heat recovery~~ Site-recovered energy, that is not being used to satisfy other requirements of this code. 2. Supplemental water heaters not meeting the above criteria that function as auxiliary heating only when the outdoor temperature is below 32°F (0°C) or when a defrost cycle is required. Such systems shall be sized and configured to lock out electric resistance or fossil fuel heating from operation when the outdoor temperature is above 32 °F (0°C) unless the system is in defrost operation.	Tabled -- Ask Oylear to revise language and ask Eric Makela for additional economic analysis for commercial grade equipment.
Eric Vander Mey	C404.2.2	Add exception for supplemental heat	**C404.2.2 High input-rated service water heating system for Group R-1 and R-2 occupancies.** In new construction with over 1,000,000 Btu/h installed service water heating capacity serving Group R-1 and R-2 occupancies, at least 25 percent of annual water heating energy shall be provided from any combination of the following water heating sources:…Exceptions:… 2. A rated COP of not less than 2.0. For air-source heat pump equipment the COP rating will be reported at the design leaving heat pump water temperature with an entering air temperature of 60°F (15.6°C) or less~~lower~~. Supplemental water heaters not meeting the above criteria that function as auxiliary heating only when the outdoor temperature is below 32°F (0°C) or when a defrost cycle is required. Such systems shall be sized and configured to lock out electric resistance or fossil fuel heating from operation when the outdoor temperature is above 32 °F (0°C) unless the system is in defrost operation.	Table
Eric Vander Mey	C404.2.2	Remove heat pump water heater from Exception 1 as there is no equipment that would meet this requirement	1. ~~A heat pump water heater or~~ An electric water heater with a rating of 125% of the rated efficiency of Table C404.2.	Table
Mark Gardner	C406.1	grammatical clarification		editorial

Robby Oyler	C406.1.1	Two fixes to the tenant improvement section of the additional credits section	**C406.1.1 Tenant spaces.** Initial tenant improvement shall comply with sufficient packages from Table C406.1 so as to achieve a minimum number of three credits from Section C406.2, C406.3, C406.4, C406.6, C406.7, C406.8 or C406.10, where applicable. In buildings with multiple tenant spaces, each tenant space is permitted to comply individually. Where an entire building complies with Section C406.5, C406.10 or C406.11, tenant spaces within the building shall be deemed ~~to comply with this section~~ qualify for the equivalent amount of credits associated with the applicable section and commercial building occupancy type. **Exceptions: 1.** Previously occupied tenant spaces in existing buildings that comply with this code in accordance with Section C501. 2. Tenant spaces in existing buildings that complied with this Code in accordance with Section C407.	Approve only the last sentence in the first paragraph; reject the second exception
Mark Gardner	C406.5	Bad section reference		Change reference to C406.8
Mark Gardner	C407.2	Add Seattle 's Appendix E for submittal requirements for total building performance		Reject
Mark Gardner	Table C407.2	Missing Section C411 from mandatory table		Editorial--Addressed in Burnham's testimony
Mark Gardner	C407.3.1	The intent of the proposal seems to be allowance of high performance glazing, which is disallowed in C402.4.1.1	The proposed total envelope UA of the proposed building shall be no more than 20 percent higher than the allowed total envelope UA as defined in Section C402.1.5 **inclusive of C402.4.1.1 high-performance alternates.**	Reject
Mark Gardner	C410.2.4	Limit the exception for walk-in cooler insulation to existing slab on grade only	Exception: Insulation is not required for the floor of a walk-in cooler that is mounted directly on a**n existing** slab on grade.	Reject
Mark Gardner	C410.2.9	Typo		Editorial
Mark Gardner	C501.4.2	Bad section reference		Correct reference to C403.1.2
Mark Gardner	F101.2	Change outcome based evaluations to three year cycle rather than five	Buildings that exceed the energy budget by more than 20 percent **during the first three years after occupancy** shall, using a posted performance bond or financial security, offset the excess amount over 20 percent by installing renewable energy or with an energy retrofit. **Buildings that exceed the energy budget by more than 20 percent after the first three years of occupancy shall offset the excess amount over 20 percent through a green power purchase agreement.**	Reject
Mark Gardner	F101.2	Add allowance for fossil fuels for emergency & standby power, usage in kitchens and other specialized equipment		Reject
Mark Gardner	F101.3.1	Remove applicability to vehicle recharging	All secondary spaces and services (examples: exterior building and site lighting, surface parking, garages, **and** exterior swimming pools~~, and vehicle recharging stations~~) ~~associated with the building~~ **within the permitted site boundary** shall be included in the overall energy use total.	Approve only the striking of "and vehicle recharging stations"
Mark Gardner	F101.4.1/ 101.4.2	Remove reference to occupancy level	Eliminate Section F101.4.1 in its entirety and amend Section F101.4.2 as follows: "If an area within the building changes from one occupancy use to another with a different target EUI energy budget or ~~if the building occupancy level drops below 85%,~~ the target EUI energy budget shall be recalculated to become the new energy budget against which the building energy use shall be compared for compliance.	Reject proposed modification, but change the current language to "drops below 50%"

Mark Gardner	F101.4.5	Eliminate Section F101.4.5	~~**F101.4.5 Energy budget liability.** A member of the design or construction team may not be held liable for the failure of a building to meet the energy budget requirement established for the project provided the design or construction team made a good faith attempt to achieve the energy budget requirement set for the building~~.	Approve
Mark Gardner	F101.6	Eliminate reference to cost of PV system installation.	The bond or security shall have a value equal to ~~the cost of installing a photovoltaic (PV) system with a generating capacity equal to 20 percent of the energy budget or~~ $4.00 per square foot of gross conditioned floor area~~, whichever is lower~~.	Approve
Mark Gardner	T F101.3.2	Remove envelope portion of this table or provide requirements that reference the table.		Reject
Mike Kennedy	F101.3.3	Need to clarify envelope maximum values for EUI	Split envelope tables into their own section	Reject