

Representative Mike Schultz proposes the following substitute bill:

UNIFORM BUILDING CODE COMMISSION AMENDMENTS

2021 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Curtis S. Bramble

House Sponsor: Mike Schultz

LONG TITLE

General Description:

This bill amends provisions in Title 15A, State Construction and Fire Codes Act.

Highlighted Provisions:

This bill:

- ▶ adopts the 2020 edition of the National Electrical Code;
- ▶ adopts Appendix C of the International Building Code;
- ▶ amends statewide amendments to the International Building Code and the International Residential Code to reference the 2020 edition of the National Electrical Code;
- ▶ amends provisions of the International Residential Code regarding:
 - energy storage systems; and
 - receptacles mounted below the countertop;
- ▶ amends provisions of the National Electrical Code regarding:
 - ground-fault circuit-interrupter protection for personnel;
 - surge protection;
 - bathtub and shower space;
- ▶ amends provisions related to an ordinance of a political subdivision being more restrictive than the State Fire Code;



- 26 ▶ amends statewide amendments to the National Electrical Code to update the
- 27 reference of a deleted section; and
- 28 ▶ makes technical and conforming changes.

29 **Money Appropriated in this Bill:**

30 None

31 **Other Special Clauses:**

32 This bill provides a special effective date.

33 **Utah Code Sections Affected:**

34 AMENDS:

- 35 **15A-1-403**, as last amended by Laws of Utah 2017, Chapters 18 and 341
- 36 **15A-2-103**, as last amended by Laws of Utah 2020, Chapter 441
- 37 **15A-3-113**, as last amended by Laws of Utah 2019, Chapter 20
- 38 **15A-3-202**, as last amended by Laws of Utah 2020, Chapter 441
- 39 **15A-3-206**, as last amended by Laws of Utah 2018, Chapter 186
- 40 **15A-3-601**, as last amended by Laws of Utah 2018, Chapter 186



42 *Be it enacted by the Legislature of the state of Utah:*

43 Section 1. Section **15A-1-403** is amended to read:

44 **15A-1-403. Adoption of State Fire Code.**

45 (1) (a) The State Fire Code is:

- 46 (i) a code promulgated by a nationally recognized code authority that is adopted by the
- 47 Legislature under this section with any modifications; and
- 48 (ii) a code to which cities, counties, fire protection districts, and the state shall adhere
- 49 in safeguarding life and property from the hazards of fire and explosion.

50 (b) On and after July 1, 2010, the State Fire Code is the State Fire Code in effect on
51 July 1, 2010, until in accordance with this section:

- 52 (i) a new State Fire Code is adopted; or
- 53 (ii) one or more provisions of the State Fire Code are amended or repealed in
- 54 accordance with this section.

55 (c) A provision of the State Fire Code may be applicable:

- 56 (i) to the entire state; or

57 (ii) within a city, county, or fire protection district.

58 (2) (a) The Legislature shall adopt a State Fire Code by enacting legislation that adopts
59 a nationally recognized fire code with any modifications.

60 (b) Legislation described in Subsection (2)(a) shall state that the legislation takes effect
61 on the July 1 after the day on which the legislation is enacted, unless otherwise stated in the
62 legislation.

63 (c) Subject to Subsection (6), a State Fire Code adopted by the Legislature is the State
64 Fire Code until in accordance with this section the Legislature adopts a new State Fire Code by:

65 (i) adopting a new State Fire Code in its entirety; or

66 (ii) amending or repealing one or more provisions of the State Fire Code.

67 (3) (a) Except as provided in Subsection (3)(b), for each update of a nationally
68 recognized fire code, the board shall prepare a report described in Subsection (4).

69 (b) For the provisions of a nationally recognized fire code that apply only to detached
70 one- and two-family dwellings and townhouses not more than three stories above grade plane
71 in height with separate means of egress and their accessory structures, the board shall:

72 (i) prepare a report described in Subsection (4) in 2021 and, thereafter, for every
73 second update of the nationally recognized fire code; and

74 (ii) not prepare a report described in Subsection (4) in 2018.

75 (4) (a) In accordance with Subsection (3), on or before September 1 of the same year as
76 the year designated in the title of an update of a nationally recognized fire code, the board shall
77 prepare and submit, in accordance with Section 68-3-14, a written report to the Business and
78 Labor Interim Committee that:

79 (i) states whether the board recommends the Legislature adopt the update with any
80 modifications; and

81 (ii) describes the costs and benefits of each recommended change in the update or in
82 any modification.

83 (b) After the Business and Labor Interim Committee receives the report described in
84 Subsection (4)(a), the Business and Labor Interim Committee shall:

85 (i) study the recommendations; and

86 (ii) if the Business and Labor Interim Committee decides to recommend legislative
87 action to the Legislature, prepare legislation for consideration by the Legislature in the next

88 general session.

89 (5) (a) (i) The board shall, by no later than September 1 of each year in which the board
90 is not required to submit a report described in Subsection (4), submit, in accordance with
91 Section 68-3-14, a written report to the Business and Labor Interim Committee recommending
92 whether the Legislature should amend or repeal one or more provisions of the State Fire Code.

93 (ii) As part of a recommendation described in Subsection (5)(a)(i), the board shall
94 describe the costs and benefits of each proposed amendment or repeal.

95 (b) The board may recommend legislative action related to the State Fire Code:

96 (i) on its own initiative; or

97 (ii) upon the receipt of a request by a city, county, or fire protection district that the
98 board recommend legislative action related to the State Fire Code.

99 (c) Within 45 days after the day on which the board receives a request under
100 Subsection (5)(b), the board shall direct the division to convene an informal hearing concerning
101 the request.

102 (d) The board shall conduct a hearing under this section in accordance with the rules of
103 the board.

104 (e) The board shall decide whether to include the request in the report described in
105 Subsection (5)(a).

106 (f) (i) Within 15 days after the day on which the board conducts a hearing, the board
107 shall direct the division to notify the entity that made the request of the board's decision
108 regarding the request.

109 (ii) The division shall provide the notice:

110 (A) in writing; and

111 (B) in a form prescribed by the board.

112 (g) If the Business and Labor Interim Committee decides to recommend legislative
113 action to the Legislature, the Business and Labor Interim Committee shall prepare legislation
114 for consideration by the Legislature in the next general session that, if passed by the
115 Legislature, would amend or repeal one or more provisions of the State Fire Code.

116 (6) (a) Notwithstanding the provisions of this section, the board may, in accordance
117 with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, amend a State Fire Code if
118 the board determines that waiting for legislative action in the next general legislative session

119 would:

120 (i) cause an imminent peril to the public health, safety, or welfare; or

121 (ii) place a person in violation of federal or other state law.

122 (b) If the board amends a State Fire Code in accordance with this Subsection (6), the

123 board shall:

124 (i) publish the State Fire Code with the amendment; and

125 (ii) prepare and submit, in accordance with Section 68-3-14, written notice to the

126 Business and Labor Interim Committee of the adoption, including a copy of an analysis by the

127 board identifying specific reasons and justifications for its findings.

128 (c) If not formally adopted by the Legislature at the next annual general session, an

129 amendment to a State Fire Code adopted under this Subsection (6) is repealed on the July 1

130 immediately following the next annual general session that follows the adoption of the

131 amendment.

132 (7) (a) Except as provided in Subsection (7)(b), a legislative body of a political

133 subdivision may enact an ordinance in the political subdivision's fire code that is more

134 restrictive than the State Fire Code:

135 (i) in order to meet a public safety need of the political subdivision; and

136 (ii) subject to the requirements of Subsection (7)(c).

137 (b) Except as provided in Subsections (7)(c), (10), and (11), or as expressly provided in

138 state law, a political subdivision may not, after December 1, 2016, enact or enforce a rule or

139 ordinance that applies to a structure built in accordance with the International Residential

140 Code, as adopted in the State Construction Code, that is more restrictive than the State Fire

141 Code.

142 (c) (i) Except as provided in Subsection (7)(c)(ii), a political subdivision may adopt:

143 (A) the appendices of the International Fire Code; and

144 (B) a fire sprinkler ordinance in accordance with Section 15A-5-203.

145 (ii) If a political subdivision adopts International Fire Code Appendix B, the political

146 subdivision may not require:

147 (A) a subdivision of structures built in accordance with the International Residential

148 Code to have a fire flow rate that is greater than 2000 gallons per minute;

149 (B) an individual structure built in accordance with the International Residential Code

150 to have a fire flow rate ~~[greater than that required under Subsection 15A-5-203(1)(a)]~~ that is
151 greater than 2000 gallons per minute; or

152 (C) a one- or two-family dwelling or a town home to have a fire sprinkler system,
153 except in accordance with Section 15A-5-203.

154 ~~[(d) A legislative body of a political subdivision that enacts an ordinance under~~
155 ~~Subsection (7)(a) shall:]~~

156 ~~[(i) notify the board in writing at least 30 days before the day on which the legislative~~
157 ~~body enacts the ordinance and include in the notice a statement as to the proposed subject~~
158 ~~matter of the ordinance; and]~~

159 ~~[(ii) after the legislative body enacts the ordinance, report to the board before the board~~
160 ~~makes the report required under Subsection (7)(e), including providing the board:]~~

161 ~~[(A) a copy of the ordinance enacted under this Subsection (7); and]~~

162 ~~[(B) a description of the public safety need that is the basis of enacting the ordinance.]~~

163 ~~[(e)]~~ (d) The board shall submit, in accordance with Section 68-3-14, to the Business
164 and Labor Interim Committee each year with the recommendations submitted in accordance
165 with Subsection (4)~~[(i) a list of the ordinances enacted under this Subsection (7) during the~~
166 ~~fiscal year immediately preceding the report; and (ii)]~~ recommendations, if any, for legislative
167 action related to an ordinance enacted under this Subsection (7).

168 ~~[(f) (i) The state fire marshal shall keep an indexed copy of an ordinance enacted under~~
169 ~~this Subsection (7).]~~

170 ~~[(ii) The state fire marshal shall make a copy of an ordinance enacted under this~~
171 ~~Subsection (7) available on request.]~~

172 ~~[(g) The board may make rules in accordance with Title 63G, Chapter 3, Utah~~
173 ~~Administrative Rulemaking Act, to establish procedures for a legislative body of a political~~
174 ~~subdivision to follow to provide the notice and report required under this Subsection (7).]~~

175 (8) Except as provided in Subsections (9), (10), and (11), or as expressly provided in
176 state law, a state executive branch entity may not, after December 1, 2016, adopt or enforce a
177 rule or requirement that:

178 (a) is more restrictive than the State Fire Code; and

179 (b) applies to detached one- and two-family dwellings and townhouses not more than
180 three stories above grade plane in height with a separate means of egress and their accessory

181 structures.

182 (9) A state government entity may adopt a rule or requirement regarding a residential
183 occupancy that is regulated by:

- 184 (a) the State Fire Prevention Board;
- 185 (b) the Department of Health; or
- 186 (c) the Department of Human Services.

187 (10) A state executive branch entity or political subdivision of the state may:

- 188 (a) enforce a federal law or regulation;
- 189 (b) adopt or enforce a rule, ordinance, or requirement if the rule, ordinance, or
190 requirement applies only to a facility or construction owned or used by a state entity or a
191 political subdivision of the state; or

192 (c) enforce a rule, ordinance, or requirement:

193 (i) that the state executive branch entity or political subdivision adopted or made
194 effective before July 1, 2015; and

195 (ii) for which the state executive branch entity or political subdivision can demonstrate,
196 with substantial evidence, that the rule, ordinance, or requirement is necessary to protect an
197 individual from a condition likely to cause imminent injury or death.

198 (11) The Department of Health or the Department of Environmental Quality may
199 enforce a rule or requirement adopted before January 1, 2015.

200 Section 2. Section **15A-2-103** is amended to read:

201 **15A-2-103. Specific editions adopted of construction code of a nationally**
202 **recognized code authority.**

203 (1) Subject to the other provisions of this part, the following construction codes are
204 incorporated by reference, and together with the amendments specified in Chapter 3, Statewide
205 Amendments Incorporated as Part of State Construction Code, and Chapter 4, Local
206 Amendments Incorporated as Part of State Construction Code, are the construction standards to
207 be applied to building construction, alteration, remodeling, and repair, and in the regulation of
208 building construction, alteration, remodeling, and repair in the state:

209 (a) the 2018 edition of the International Building Code, including [~~Appendix~~]
210 Appendices C and J, issued by the International Code Council;

211 (b) the 2015 edition of the International Residential Code, issued by the International

212 Code Council;

213 (c) Appendix Q of the 2018 edition of the International Residential Code, issued by the
214 International Code Council;

215 (d) the 2018 edition of the International Plumbing Code, issued by the International
216 Code Council;

217 (e) the 2018 edition of the International Mechanical Code, issued by the International
218 Code Council;

219 (f) the 2018 edition of the International Fuel Gas Code, issued by the International
220 Code Council;

221 (g) the ~~[2017]~~ 2020 edition of the National Electrical Code, issued by the National Fire
222 Protection Association;

223 (h) the residential provisions of the 2015 edition of the International Energy
224 Conservation Code, issued by the International Code Council;

225 (i) the commercial provisions of the 2018 edition of the International Energy
226 Conservation Code, issued by the International Code Council;

227 (j) the 2018 edition of the International Existing Building Code, issued by the
228 International Code Council;

229 (k) subject to Subsection 15A-2-104(2), the HUD Code;

230 (l) subject to Subsection 15A-2-104(1), Appendix E of the 2015 edition of the
231 International Residential Code, issued by the International Code Council;

232 (m) subject to Subsection 15A-2-104(1), the 2005 edition of the NFPA 225 Model
233 Manufactured Home Installation Standard, issued by the National Fire Protection Association;

234 (n) subject to Subsection (3), for standards and guidelines pertaining to plaster on a
235 historic property, as defined in Section 9-8-302, the U.S. Department of the Interior Secretary's
236 Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; and

237 (o) the residential provisions of the 2018 edition of the International Swimming Pool
238 and Spa Code, issued by the International Code Council.

239 (2) Consistent with Title 65A, Chapter 8, Management of Forest Lands and Fire
240 Control, the Legislature adopts the 2006 edition of the Utah Wildland Urban Interface Code,
241 issued by the International Code Council, with the alternatives or amendments approved by the
242 Utah Division of Forestry, as a construction code that may be adopted by a local compliance

243 agency by local ordinance or other similar action as a local amendment to the codes listed in
244 this section.

245 (3) The standards and guidelines described in Subsection (1)(n) apply only if:

246 (a) the owner of the historic property receives a government tax subsidy based on the
247 property's status as a historic property;

248 (b) the historic property is wholly or partially funded by public money; or

249 (c) the historic property is owned by a government entity.

250 Section 3. Section **15A-3-113** is amended to read:

251 **15A-3-113. Amendments to Chapters 32 through 35 of IBC.**

252 (1) In IBC, Chapter 35, the referenced standard for NFPA 70-17 is deleted and replaced
253 with NFPA 70-20.

254 (2) In IBC, Chapter 35, the referenced standard ICCA117.1-09, Section 606.2,

255 Exception 1 is modified to include the following sentence at the end of the exception:

256 "The minimum clear floor space shall be centered on the sink assembly."

257 Section 4. Section **15A-3-202** is amended to read:

258 **15A-3-202. Amendments to Chapters 1 through 5 of IRC.**

259 (1) In IRC, Section R102, a new Section R102.7.2 is added as follows: "R102.7.2

260 Physical change for bedroom window egress. A structure whose egress window in an existing

261 bedroom is smaller than required by this code, and that complied with the construction code in

262 effect at the time that the bedroom was finished, is not required to undergo a physical change to

263 conform to this code if the change would compromise the structural integrity of the structure or

264 could not be completed in accordance with other applicable requirements of this code,

265 including setback and window well requirements."

266 (2) In IRC, Section R108.3, the following sentence is added at the end of the section:

267 "The building official shall not request proprietary information."

268 (3) In IRC, Section 109:

269 (a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant

270 exterior wall envelope inspections. An inspection shall be made of the weather-resistant

271 exterior wall envelope as required by Section R703.1 and flashings as required by Section

272 R703.8 to prevent water from entering the weather-resistive barrier."

273 (b) The remaining sections are renumbered as follows: R109.1.6 Other inspections;

274 R109.1.6.1 Fire- and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced
275 masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection;
276 and R109.1.7 Final inspection.

277 (4) IRC, Section R114.1, is deleted and replaced with the following: "R114.1 Notice to
278 owner. Upon notice from the building official that work on any building or structure is being
279 prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an
280 unsafe and dangerous manner, such work shall be immediately stopped. The stop work order
281 shall be in writing and shall be given to the owner of the property involved, or to the owner's
282 agent or to the person doing the work; and shall state the conditions under which work will be
283 permitted to resume."

284 (5) In IRC, Section R202, the following definition is added: "CERTIFIED
285 BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to
286 test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction
287 under Utah Code, Subsection 19-4-104(4)."

288 (6) In IRC, Section R202, the definition of "Cross Connection" is deleted and replaced
289 with the following: "CROSS CONNECTION. Any physical connection or potential
290 connection or arrangement between two otherwise separate piping systems, one of which
291 contains potable water and the other either water of unknown or questionable safety or steam,
292 gas, or chemical, whereby there exists the possibility for flow from one system to the other,
293 with the direction of flow depending on the pressure differential between the two systems (see
294 "Backflow, Water Distribution")."

295 (7) In IRC, Section 202, the following definition is added: "ENERGY STORAGE
296 SYSTEM (ESS). One or more devices, assembled together, that are capable of storing energy
297 for supplying electrical energy at a future time."

298 [(7)] (8) In IRC, Section 202, in the definition for gray water a comma is inserted after
299 the word "washers"; the word "and" is deleted; and the following is added to the end: "and
300 clear water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible;
301 without objectionable odors; non-highly pigmented; and will not interfere with the operation of
302 the sewer treatment facility."

303 [(8)] (9) In IRC, Section R202, the definition of "Potable Water" is deleted and
304 replaced with the following: "POTABLE WATER. Water free from impurities present in

305 amounts sufficient to cause disease or harmful physiological effects and conforming to the
 306 Utah Code, Title 19, Chapter 4, Safe Drinking Water Act, and Title 19, Chapter 5, Water
 307 Quality Act, and the regulations of the public health authority having jurisdiction."

308 [~~9~~] (10) IRC, Figure R301.2(5), is deleted and replaced with R301.2(5) as follows:

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"TABLE R301.2(5)

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GROUND SNOW LOADS FOR SELECTED LOCATIONS IN UTAH

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City/Town	County	Ground Snow Load (lb/ft ²)	Elevation (ft)
Beaver	Beaver	35	5886
Brigham City	Box Elder	42	4423
Castle Dale	Emery	32	5669
Coalville	Summit	57	5581
Duchesne	Duchesne	39	5508
Farmington	Davis	35	4318
Fillmore	Millard	30	5138
Heber City	Wasatch	60	5604
Junction	Piute	27	6030
Kanab	Kane	25	4964
Loa	Wayne	37	7060
Logan	Cache	43	4531
Manila	Daggett	26	6368
Manti	Sanpete	37	5620
Moab	Grand	21	4029
Monticello	San Juan	67	7064
Morgan	Morgan	52	5062
Nephi	Juab	39	5131
Ogden	Weber	37	4334
Panguitch	Garfield	41	6630
Parowan	Iron	32	6007
Price	Carbon	31	5558

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334	Provo	Utah	31	4541
335	Randolph	Rich	50	6286
336	Richfield	Sevier	27	5338
337	St. George	Washington	21	2585
338	Salt Lake City	Salt Lake	28	4239
339	Tooele	Tooele	35	5029
340	Vernal	Uintah	39	5384

Note: To convert lb/ft² to kN/m², multiply by 0.0479. To convert feet to meters, multiply by 0.3048.

1. Statutory requirements of the Authority Having Jurisdiction are not included in this state ground snow load table.

341 2. For locations where there is substantial change in altitude over the city/town, the load applies at and below the cited elevation, with a tolerance of 100 ft (30 m).

3. For other locations in Utah, see Bean, B., Maguire, M., Sun, Y. (2018), "The Utah Snow Load Study," Utah State University Civil and Environmental Engineering Faculty Publications, Paper 3589, <http://utahsnowload.usu.edu/>, for ground snow load values.

342 [~~(10)~~] (11) IRC, Section R301.6, is deleted and replaced with the following: "R301.6
 343 Utah Snow Loads. The snow loads specified in Table R301.2(5b) shall be used for the
 344 jurisdictions identified in that table. Otherwise, for other locations in Utah, see Bean, B.,
 345 Maguire, M., Sun, Y. (2018), "The Utah Snow Load Study," Utah State University Civil and
 346 Environmental Engineering Faculty Publications, Paper 3589, <http://utahsnowload.usu.edu/>, for
 347 ground snow load values."

348 [~~(11)~~] (12) In IRC, Section R302.2, the following sentence is added after the second
 349 sentence: "When an access/maintenance agreement or easement is in place, plumbing,
 350 mechanical ducting, schedule 40 steel gas pipe, and electric service conductors including
 351 feeders, are permitted to penetrate the common wall at grade, above grade, or below grade."

352 [~~(12)~~] (13) In IRC, Section R302.5.1, the words "self-closing device" are deleted and
 353 replaced with "self-latching hardware."

354 [~~(13)~~] (14) IRC, Section R302.13, is deleted.

355 [~~(14)~~] (15) In IRC, Section R303.4, the number "5" is changed to "3" in the first

356 sentence.

357 [~~(15)~~] (16) IRC, Sections R311.7.4 through R311.7.5.3, are deleted and replaced with
358 the following: "R311.7.4 Stair treads and risers. R311.7.5.1 Riser height. The maximum riser
359 height shall be 8 inches (203 mm). The riser shall be measured vertically between leading
360 edges of the adjacent treads. The greatest riser height within any flight of stairs shall not
361 exceed the smallest by more than 3/8 inch (9.5 mm).

362 R311.7.5.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread
363 depth shall be measured horizontally between the vertical planes of the foremost projection of
364 adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within
365 any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder
366 treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point
367 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a
368 minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the
369 greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by
370 more than 3/8 inch (9.5 mm).

371 R311.7.5.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater
372 than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4
373 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection
374 shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two
375 stories, including the nosing at the level of floors and landings. Beveling of nosing shall not
376 exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading
377 edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open
378 risers are permitted, provided that the opening between treads does not permit the passage of a
379 4-inch diameter (102 mm) sphere.

380 Exceptions.

- 381 1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).
382 2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches
383 (762 mm) or less."

384 [~~(16)~~] (17) IRC, Section R312.2, is deleted.

385 [~~(17)~~] (18) IRC, Sections R313.1 through R313.2.1, are deleted and replaced with the
386 following: "R313.1 Design and installation. When installed, automatic residential fire

387 sprinkler systems for townhouses or one- and two-family dwellings shall be designed and
388 installed in accordance with Section P2904 or NFPA 13D."

389 [~~(18)~~] (19) In IRC, Section 315.3, the following words are added to the first sentence
390 after the word "installed": "on each level of the dwelling unit and."

391 [~~(19)~~] (20) In IRC, Section R315.5, a new exception, 3, is added as follows:

392 "3. Hard wiring of carbon monoxide alarms in existing areas shall not be required where the
393 alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing
394 the structure, unless there is an attic, crawl space or basement available which could provide
395 access for hard wiring, without the removal of interior finishes."

396 [~~(20)~~] (21) A new IRC, Section R315.7, is added as follows: " R315.7 Interconnection.

397 Where more than one carbon monoxide alarm is required to be installed within an individual
398 dwelling unit in accordance with Section R315.1, the alarm devices shall be interconnected in
399 such a manner that the actuation of one alarm will activate all of the alarms in the individual
400 unit. Physical interconnection of smoke alarms shall not be required where listed wireless
401 alarms are installed and all alarms sound upon activation of one alarm.

402 Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required
403 where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing
404 the structure, unless there is an attic, crawl space or basement available which could provide
405 access for interconnection without the removal of interior finishes."

406 [~~(21)~~] (22) In IRC, Section R317.1.5, the period is deleted and the following language
407 is added to the end of the paragraph: "or treated with a moisture resistant coating."

408 [~~(22)~~] (23) In IRC, Section 326.1, the words "residential provisions of the" are added
409 after the words "pools and spas shall comply with".

410 (24) In IRC, Section R327.1 is deleted and replaced with the following: "327.1

411 General. Energy storage systems (ESS) shall comply with the provisions of this section.

412 Exceptions:

413 1. ESS listed and labeled in accordance with UL 9540 and marked "For use in residential
414 dwelling units", where installed in accordance with the manufacturer's instruction and NFPA
415 70.

416 2. ESS less than 1kWh (3.6 megajoules)."

417 (25) In IRC, Section R327.2 is deleted and replaced with the following: "327.2

418 Equipment listings. ESS shall be listed and labeled in accordance with UL 9540.

419 Exception: Where approved, repurposed unlisted battery systems from electric vehicle are
420 allowed to be installed outdoors or in detached sheds located not less than 5 feet (1524 mm)
421 from exterior walls, property lines and public ways."

422 (26) In IRC, Section R327.3 is deleted and replaced with the following: "327.3
423 Installation. ESS shall be installed in accordance with the manufacturer's instructions and their
424 listing."

425 (27) In IRC, Section R327, a new section 327.3.1 is added as follows: "327.3.1
426 Spacing. Individual units shall be separate from each other by not less than three feet (914 mm)
427 except where smaller separation distances are documented to be adequate based on large-scale
428 fire testing complying with Section 1206.2.3 of the adopted International Fire Code."

429 (28) In IRC, Section 327.4 is deleted and replaced with the following: "327.4

430 Locations. ESS shall be installed only in the following locations:

431 1. Detached garages and detached accessory structures.

432 2. Attached garages separated from the dwelling unit living space in accordance with
433 Section R302.6.

434 3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914
435 mm) from doors and windows directly entering the dwelling unit.

436 4. Enclosed utility closets, basements, storage or utility spaces within dwelling units
437 with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished
438 wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type X
439 gypsum wallboard.

440 ESS shall not be installed in sleeping rooms, or closets or spaces opening directly into
441 sleeping rooms."

442 (29) In IRC, Section 327.5 is deleted and replaced with the following: "327.5 Energy
443 ratings. Individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating of
444 the ESS shall not exceed:

445 1. 40 kWh within utility closets, basements, and storage or utility spaces.

446 2. 80 kWh in attached or detached garages and detached accessory structures.

447 3. 80 kWh on exterior walls.

448 4. 80 kWh outdoors on the ground.

449 ESS installations exceeding the permitted individual or aggregate ratings shall be
450 installed in accordance with Sections 1206.2.1 through 1206.2.12 of the adopted International
451 Fire Code."

452 (30) In IRC, Section 327.6 is deleted and replaced with the following: "327.6 Electrical
453 installation. ESS shall be installed in accordance with NFPA 70. Inverters shall be listed and
454 labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems
455 connected to the utility grid shall use inverters listed for utility interaction."

456 (31) In IRC, Section 327, a new section 327.7 is added as follows: "327.7 Fire
457 detection. Rooms and areas within dwelling units, basements, and attached garages in which
458 ESS are installed shall be protected by smoke alarms in accordance with Section R314. A heat
459 detector, listed and interconnected to the smoke alarms, shall be installed in locations within
460 dwelling units and attached garages where smoke alarms cannot be installed based on their
461 listing."

462 (32) In IRC, Section 327, a new section 327.8 is added as follows: "327.8 Protection
463 from impact. ESS installed in a location subject to vehicle damage shall be protected by
464 approved barriers."

465 (33) In IRC, Section 327, a new section 327.9 is added as follows: "327.9 Ventilation.
466 Indoor installations of ESS that include batteries that produce hydrogen or other flammable
467 gasses during charging shall be provided with mechanical ventilation in accordance with
468 Section M1307.4."

469 (34) In IRC, Section 327, a new section 327.10 is added as follows: "327.10 Electric
470 vehicle use. The temporary use of an owner or occupant's electric-powered vehicle to power a
471 dwelling unit while parked in an attached or detached garage or outdoors shall comply with the
472 vehicle manufacturer's instructions and NFPA 70."

473 (35) In IRC, Section 327, a new section 327.11 is added as follows: "327.11 Signage.
474 A sign located on the exterior of the dwelling shall be installed at a location approved by the
475 authority having jurisdiction which identifies the battery chemistry included in the ESS. This
476 sign shall be of sufficient durability to withstand the environment involved and shall not be
477 handwritten."

478 ~~[(23)]~~ (36) In IRC, Section R403.1.6, a new Exception 3 is added as follows: " 3.
479 When anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be

480 placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm)
481 from each end of each plate section at interior bearing walls, interior braced wall lines, and at
482 all exterior walls."

483 [~~(24)~~] (37) In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2
484 and Item 3 as follows: "Exception: When anchor bolt spacing does not exceed 32 inches (816
485 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located
486 not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls,
487 interior braced wall lines, and at all exterior walls."

488 [~~(25)~~] (38) In IRC, Section R404.1, a new exception is added as follows: "Exception:
489 As an alternative to complying with Sections R404.1 through R404.1.5.3, concrete and
490 masonry foundation walls may be designed in accordance with IBC Sections 1807.1.5 and
491 1807.1.6 as amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."

492 [~~(26)~~] (39) In IRC, Section R405.1, a new exception is added as follows: "Exception:
493 When a geotechnical report has been provided for the property, a drainage system is not
494 required unless the drainage system is required as a condition of the geotechnical report. The
495 geological report shall make a recommendation regarding a drainage system."

496 Section 5. Section **15A-3-206** is amended to read:

497 **15A-3-206. Amendments to Chapters 37, 39, and 44 and Appendix F of IRC.**

498 (1) In IRC, Section E3705.4.5, the following words are added after the word
499 "assemblies": "with ungrounded conductors 10 AWG and smaller".

500 (2) In IRC, Section E3901.4.5, the last sentence in the exception is deleted and
501 replaced with the following: "Receptacles mounted below the countertop in accordance with
502 this exception shall not be located more than 14 inches from the bottom leading edge of the
503 countertop."

504 [~~(2)~~] (3) In IRC, Section E3901.9, the following exception is added:

505 "Exception: Receptacles or other outlets adjacent to the exterior walls of the garage, outlets
506 adjacent to an exterior wall of the garage, or outlets in a storage room with entry from the
507 garage may be connected to the garage branch circuit."

508 [~~(3)~~] (4) IRC, Section E3902.16 is deleted.

509 [~~(4)~~] (5) In Section E3902.17:

510 (a) following the word "Exception" the number "1." is added; and

511 (b) at the end of the section, the following sentences are added:

512 "2. This section does not apply for a simple move or an extension of a branch circuit or an
 513 outlet which does not significantly increase the existing electrical load. This exception does
 514 not include changes involving remodeling or additions to a residence."

515 [~~5~~] (6) IRC, Chapter 44, is amended by adding the following reference standard:

"Standard reference number	Title	Referenced in code section number
USC-FCCCHR 10th Edition Manual of Cross Connection Control	Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531	Table P2902.3"

518 (7) In IRC, Chapter 44, is amended by adding the following reference standard: "UL
 519 9540-20: Energy storage Systems and Equipment; R327.1, R327.2 and R327.6."

520 [~~6~~] (8) (a) When passive radon controls or portions thereof are voluntarily installed,
 521 the voluntary installation shall comply with Appendix F of the IRC.

522 (b) An additional inspection of a voluntary installation described in Subsection [~~6~~]
 523 (8)(a) is not required.

524 Section 6. Section **15A-3-601** is amended to read:

525 **15A-3-601. General provisions.**

526 The following are adopted as amendments to the NEC to be applicable statewide:

527 (1) The IRC provisions are adopted as the residential electrical standards applicable to
 528 residential installations under the IRC. All other installations shall comply with the adopted
 529 NEC.

530 [~~(2) In NEC, Section 210.8(B), the words "and three phase receptacles rated 150 volts~~
 531 ~~to ground or less, 100 amperes or less" are deleted.]~~

532 (2) In NEC, Section 210.8(A), the words "through 250-volt" are deleted.

533 (3) In NEC, Section 210.8(A)(5), the word "Basements" is deleted and replaced with
 534 "Unfinished portions or areas of the basement not intended as habitable rooms."

535 (4) In NEC, Section 210.8(F), is deleted.

536 [~~3~~] (5) NEC, Section [210.7F] 210.65, is deleted.

537 [~~4~~] In NEC, Section 240.67, the words "January 1, 2020" are deleted and replaced

538 with "~~upon adoption of the 2020 NEC~~".]

539 (6) In NEC, Section 230.67, is deleted.

540 (7) In NEC, Section 406.9(C), is deleted and replaced with the following: "406.9(C)

541 Bathtub and Shower Space. Receptacles shall not be installed within or directly over a bathtub

542 or shower stall."

543 Section 7. **Effective date.**

544 This bill takes effect on July 1, 2021.