CE6-19 Part I

PART I — IECC: Part I: Section C101.3
IECC: Part II: Section R101.3(N1101.2)

PART II — IECC: R101.3 (IRC N1101.2)

Proponent: Darren Meyers, P.E., International Energy Conservation Consultants LLC, representing Self (dmeyers@ieccode.com)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IECC- COMMERCIAL COMMITTEE. PART II WILL BE HEARD BY THE IECC-RESIDENTIAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2018 International Energy Conservation Code

Revise as follows:

C101.3 Intent. This code shall regulate the design and construction of buildings for the effective use and conservation of energy primarily for human comfort over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

Proposal # 5400

CE6-19 Part II

IECC: R101.3 (IRC N1101.2)

Proponent: Darren Meyers, P.E., International Energy Conservation Consultants LLC, representing Self (dmeyers@ieccode.com)

2018 International Energy Conservation Code

Revise as follows:

R101.3 (IRC N1101.2) Intent. This code shall regulate the design and construction of *buildings* for the effective use and conservation of energy primarily for human comfort over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

Reason: Indeed, it remains the intent of the IECC to apply to energy using systems designed primarily for human occupancy (i.e., thermal comfort, visual comfort and service hot-water comfort), and -- unless specifically noted to otherwise -- does not apply to energy using systems designed for commercial, business, educational or industrial processes. This interpretation of the IECC, the Code Council has offered in the past remains the same.
While there remain some direct and indirect inferences to commercial, business, educational or industrial process energy uses throughout the IECC, there exist no "explicit" or "all-inclusive" delineations as to energy end uses designed primarily for humans to live, sleep, eat, work, and play in and around residential buildings and residential building sites. Some examples of the direct and indirect inferences to commercial, business, educational or industrial process energy uses, include:

1. C402.1.1 Greenhouses.

2. C402.1.2 [*telecommunications*] Equipment buildings.

3. C403.5 Economizers (Prescriptive), Exception 2; "... spaces designed to be humidified above 35°F (1.7°C) dewpoint temperature to satisfy "process needs."

4. C403.5.4.1 Design capacity; for:

- "Systems primarily serving computer rooms ...",
- "Systems where dehumidification requirements cannot be met using outdoor air temperatures of 50°F (10°C)
- dry bulb/45°F (7°C) wet bulb
- and where 100 percent of the expected system cooling load at 45°F (7°C) dry bulb/40°F (4°C) wet bulb is met with evaporative water economizers."

5. C403.7.1 Demand control ventilation (Mandatory), Exception 5; Ventilation provided only for "process loads."

6. C403.10.1 or C403.10.2 for Walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers.

7. C405.3.1 Total connected interior lighting power, Several exemptions:

- Lighting for photographic processes,
- Lighting for plant growth,
- Lighting for food warming, and
- Lighting in demonstration equipment for education,

8. C405.4.1 Total connected exterior lighting power, Several exemptions:

- Lighting associated with transportation,
- Temporary lighting, Industrial production, material handling and transportation lighting, and
- Theme element lighting in theme parks.

9. C406.7.1 Load fraction, Exception 2; "Waste heat recovery from ... building equipment, or process equipment."

10. C407.1 Scope; with reference to: "... receptacle loads and process loads," and energy used to recharge or refuel vehicles used for on-road and off-site transportation purposes.

Therefore, as was the case with the 2003 IECC, it is our opinion that neither the 2006 IECC nor it's 2009, 2012, 2015, 2018 or forthcoming 2021 editions are intended to require greenhouses (heated/cooled primarily to preserve the commodity - plants) to meet the envelope provisions of the code.

Section 101.3 the 2006 IECC (our opinion) was inadvertently truncated by the Department of Energy in an effort to improve the utility and enforceability of the IECC vis-a-vis a 'MONSTROUS' scoping and technical content change (see EC48-03/04).

So then, without the proposed language, and interpreted literally, the IECC could indeed be read as limiting the amount of energy put into a blast furnace at a foundry, energy dedicated to civilian booster pumping stations and wastewater treatment facilities keeping our civilian water supply clean, energy to operate fermenting casks at a distillery, energy to run a conveyor at a packaging plant, or even the energy to modulate cabinet temperatures within telecommunication shelters dedicated to switching and signal receiving. However, this is simply not pragmatic and not the case.

Bibliography: A copy of p.1 from the 2003 ICC International Energy Conservation Code.

SECTION 101
GENERAL

101.1 Title. These regulations shall be known as the *Energy Conservation Code* of [NAME OF JURISDICTION], and shall be cited as such. It is referred to herein as "this code."

101.2 Scope. This code establishes minimum prescriptive and performance-related regulations for the design of energy-efficient buildings and structures or portions thereof that provide facilities or shelter for public assembly, educational, business, mercantile, institutional, storage and residential occupancies, as well as those portions of factory and industrial occupancies designed primarily for human occupancy. This code thereby addresses the design of energy-efficient building envelopes and the selection and installation of energy-efficient mechanical, service water-heating, electrical distribution and illumination systems and equipment for the effective use of energy in these buildings and structures.

Exception: Energy conservation systems and components in existing buildings undergoing repair, alteration or additions, and change of occupancy, shall be permitted to comply with the *International Existing Building Code*.

101.2.1 Exempt buildings. Buildings and structures indicated in Sections 101.2.1.1 and 101.2.1.2 shall be exempt from the building envelope provisions of this code, but shall comply with the provisions for building, mechanical, service water heating and lighting systems.

101.2.1.1 Separated buildings. Buildings and structures, or portions thereof separated by building envelope assemblies from the remainder of the building, that have a peak design rate of energy usage less than 3.4 Btu/h per square foot (10.7 W/m^2) or 1.0 watt per square foot (10.7 W/m^2) of floor area for space conditioning purposes.

101.2.1.2 Unconditioned buildings. Buildings and structures or portions thereof which are neither heated nor cooled.

101.2.2 Applicability. The provisions of this code shall apply to all matters affecting or relating to structures and premises, as set forth in Section 101. Where, in a specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.

[EB] 101.2.2.1 Existing installations. Except as otherwise provided for in this chapter, a provision in this code shall not require the removal, alteration or abandonment of, nor prevent the continued utilization and maintenance of, an existing building envelope, mechanical, service water-heating, electrical distribution or illumination system lawfully in existence at the time of the adoption of this code.

[EB] 101.2.2.2 Additions, alterations or repairs. Additions, alterations, renovations or repairs to a building envelope, mechanical, service water-heating, electrical tribution or illumination system or portion thereof sl conform to the provisions of this code as they relat new construction without requiring the unaltered p tion(s) of the existing system to comply with all of the quirements of this code. Additions, alterations or rep shall not cause any one of the aforementioned and ex ing systems to become unsafe, hazardous or overloade

[EB] 101.2.2.3 Historic buildings. The provisions this code relating to the construction, alteration, rep enlargement, restoration, relocation or movement buildings or structures shall not be mandatory for ex ing buildings or structures specifically identified classified as historically significant by the state or lc jurisdiction, listed in *The National Register of Histo Places* or which have been determined to be eligible such listing.

[EB] 101.2.2.4 Change in occupancy. It shall be unla ful to make a change in the occupancy of any building structure which would result in an increase in demand either fossil fuel or electrical energy supply unless s building or structure is made to comply with the requi ments of this code or otherwise approved by the autho having jurisdiction. The code official shall certify t such building or structure meets the intent of the pro sions of law governing building construction for the p posed new occupancy and that such change of occupar does not result in any increase in demand for either fo fuel or electrical energy supply or any hazard to the p lic health, safety or welfare.

101.2.3 Mixed occupancy. When a building houses m than one occupancy, each portion of the building shall c form to the requirements for the occupancy housed there Where minor accessory uses do not occupy more than percent of the area of any floor of a building, the major shall be considered the building occupancy. Buildin other than detached one- and two-family dwellings townhouses, with a height of four or more stories abc grade shall be considered commercial buildings for p poses of this code, regardless of the number of floors that classified as residential occupancy.

101.3 Intent. The provisions of this code shall regulate the sign of building envelopes for adequate thermal resistance a low air leakage and the design and selection of mechanic electrical, service water-heating and illumination systems a equipment which will enable effective use of energy in n building construction. It is intended that these provisions p vide flexibility to permit the use of innovative approaches techniques to achieve effective utilization of energy. This c is not intended to abridge safety, health or environmental quirements under other applicable codes or ordinances.

Cost Impact: The code change proposal will not increase or decrease the cost of construction

There is no cost implication aligned with this proposal. Rather, it is an exercise steeped in clarification of the IECC Purpose and Scope. The resulting exclusions would mean the process energies assigned to domestic water pressure booster and sprinkler system pumping stations, wastewater treatment facilities, greenhouses

and telecommunication shelters on residential property would be "excluded" from the scope and applicability of the IECC, without the need for explicitly articulated lists or exceptions. No change to stringency is proposed.

Proposal # 5637

CE6-19 Part II