**A Meeting of the**

**Illinois Energy Conservation Advisory Council**

**Commercial Subcommittee**

**is being held April 8, 2025, 12:00 p.m. – 12:30 p.m.**

**Via Webex (login info below)**

1. Call to Order
	1. Roll Call of Members
	2. Confirmation of a Quorum
	3. Webex recording
2. Updates
3. Base Code Topics (Proposals are attached at the end of this agenda)
	1. Approval of 3/25/25 meeting minutes.
	2. Robert Coslow will present Proposal #6 for Residential Building definition. Possible motion to approve.
	3. Michelle Sablack will present Proposal #5 for Limited Electric Readiness. Possible motion to approve.
	4. Possible motion to approve the Commercial Provisions of the 2024 Illinois Energy Conservation Code Draft 3-27-25 incorporating approved proposals from this meeting.
4. Stretch Code Topics
	1. None.
5. Public comment
6. Motion to Adjourn

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###### **Proposal #6: Residential Building Definition**

Proposal to revise the definition in the Commercial provisions to match the Residential Provisions.

**RESIDENTIAL BUILDING.** A detached one-family or two-family dwelling or any building that is three stories or less in height above grade that contains multiple dwelling units, in which the occupants reside on a primarily permanent basis, such as a townhouse, a row house, an apartment house, a convent, a monastery, a rectory, a fraternity or sorority house, a dormitory, and a rooming house; provided, however, that when applied to a building located within the boundaries of a municipality having a population of 1,000,000 or more, the term “RESIDENTIAL BUILDING” means a building containing one or more dwelling units, not exceeding four stories above grade, where occupants are primarily permanent.  ~~For this code, includes detached one- and two-family dwellings and multiple single-family dwellings (town- houses) and~~ *~~Group R~~*~~-2, R-3 and R-4 buildings three stories or less in height above grade plane.~~

###### **Proposal #5: Limited Electric Readiness.**

*Add new section C105.2.2, reflecting mandatory provisions from the Illinois 2023 Commercial Stretch Energy Code.*

**C105.2.2 Electrification system.** The construction documents shall provide details for additional electric infrastructure, including branch circuits, raceway capacity, pre-wiring, panel capacity, and electrical service capacity, as well as interior and exterior spaces designated for future electric equipment, in compliance with the provisions of this code.

*Add new definitions to C202.*

**COMMERCIAL COOKING APPLIANCES.** Commercial cooking appliances used in a commercial food service establishment for heating or cooking food and which produce grease vapors, steam, fumes, smoke or odors that are required to be removed through a local exhaust ventilation system. Such appliances include deep fat fryers, upright broilers, griddles, broilers, steam-jacketed kettles, hot-top ranges, under-fired broilers (charbroilers), ovens, barbecues, rotisseries and similar appliances.

**COMMERCIAL CLOTHES DRYING APPLIANCES.** Clothes drying appliances meeting the International Fuel Gas Code definition of a Type 2 appliance, or tested in accordance with UL 2158 or UL 1240 and installed in a commercial laundry establishment.

*Add new section C405.17, reflecting mandatory provisions from the Illinois 2023 Commercial Stretch Energy Code.*

***Notes***

1. *The entire section below is noted as new text. However, compared to the Illinois 2023 stretch code text, there are the following differences:*
	1. *In addition to R-2, occupancy groups A-1, A-2, A-3, B, E, M, and additional R occupancies are covered. This follows discussion between Ryan Siegel at SEDAC and interested council members regarding occupancy groups for which these provisions may be feasible. Because only low-capacity systems are covered, the below provisions may be considered applicable to “residential-sized” units when they are used in such occupancy groups, most likely in small buildings.*
	2. *High-capacity space and water heating systems are not covered. This follows input from multiple council members indicating concern regarding the cost of designing alternative high-capacity systems and the loss of utility from foregoing the design process.*
	3. *Commercial clothes drying is not covered. This follows council members’ expressions of concern that, for commercial clothes drying facilities, electric ready infrastructure could be a proportionately large addition to construction cost.*
	4. *Certain recent changes were recommended following the advice of ILECAC member and electrical engineer Ryan Nation and Ryan Siegal at SEDAC:*
		1. *To ensure only simple space heating cases are covered:*
			1. *The maximum capacity covered for space heating systems has been reduced to 5 tons/65,000 Btu/hr. Both split systems and RTUs up to this capacity are covered.*
			2. *Separate wiring is prescribed for future electric resistance backup at air handling units and increased capacity needs at condensing units.*
		2. *Raceway is allowed or prescribed in lieu of full branch circuits in certain situations to minimize the risk of mis-sized and unusable circuits.*
		3. *Physical space for future branch circuits on the main panel is required.*

**C405.17 Electric infrastructure.** New group A-1, A-2, A-3, B, E, M, and R occupancies that use fossil fuels for low-capacity space heating, low-capacity service water heating, non-commercial cooking, or non-commercial clothes drying shall install electric infrastructure in accordance with Sections C405.17.1 through C405.17.5 and C105.2.2.

**C405.17.1 Low-capacity space heating.** Locations of fossil fuel warm-air heating systems with air handling or roof top units packaged with or connected to exterior condensing units with capacity less than 65,000 Btu/hr shall be provided with all of the following:

1. Infrastructure for a future air source heat pump with auxiliary electric resistive heating shall be provided in accordance with all of the following:
	1. Space and capacity shall be reserved on the electrical panel for a future 15kW load.
	2. A raceway sized to serve the future load shall begin at the electrical panel and terminate within 6 ft (2 m) of the location of the air handler and shall be in a location with ready access.
2. Infrastructure sized for a future air source heat pump shall be provided to the exterior condensing unit or packaged roof top unit in accordance with all of the following:
	1. The electrical panel shall reserve 6 kW of spare capacity to accommodate a future air source heat pump.
	2. The wire size used in the branch circuit serving the exterior condensing unit shall be increased 2 sizes between the electrical panel and the equipment disconnecting means according to NEC Table 310.16 to ensure compatibility with a future air source heat pump condenser sized in accordance with the requirements of Section C403.1.1.

**Exception to C405.17.1 part 2:** Where a branch circuit exists for space cooling equipment with the capacity to serve heat pump space heating equipment sized in accordance with the requirements of Section C403.1.1.

**C405.17.2 Low-capacity water heating.** Locations of fossil fuel water heaters with an input rating of less than 300,000 Btu/hr (88kW) shall comply with C405.17.2.1 or C405.17.2.2.

**C405.17.2.1 Unit sized water heaters.** Locations of fossil fuel water heaters with an input rating of not more than 50,000 Btu/hr shall comply with all of the following:

1. An individual 30 ampere, 208/240-volt branch circuit shall be provided and terminate within 6 ft (2 m) of the water heater and shall be in a location with ready access.

2. The branch circuit overcurrent protection device and the termination of the branch circuit shall be labeled "For future electric water heater".

3. The space for containing the future water heater shall have a height of not less than 7 ft (2 m), a width of not less than 3 ft (1 m), a depth of not less than 3ft (1 m) and with a volume of not less than 700 ft3 (20 m3).

**Exception:** Where the space containing the water heater provides for air circulation sufficient for the operation of a heat pump water heater, the minimum room volume shall not be required.

**C405.17.2.2 Other water heaters.** Locations of fossil fuel water heaters with an input rating above 50,000 Btu/hr but not greater than 300,000 Btu/hr shall be provided with 4” raceway terminating within 6 ft (2 m) of the water heater in a location with ready access. Space for an appropriately sized future breaker shall be reserved on the electrical panel.

**C405.17.3 Non-commercial cooking.** Locations of fossil fuel ranges, cooktops and ovens that are not commercial cooking appliances shall be provided with a dedicated individual branch circuit in accordance with all of the following:

1. The branch circuit shall be rated for 208/240-volts and not less than 50 amps.

2. The branch circuit shall terminate within 3 ft (1 m) of the appliance and shall be in a location with ready access.

3. The point of origin and termination of the branch circuit shall be labeled “For future electric cooking appliance”.

**C405.17.4 Non-commercial clothes drying.** Locations of fossil fuel clothes drying appliances that are not commercial clothes drying appliances shall be provided with a dedicated individual branch circuit in accordance with all of the following:

1. The branch circuit shall be rated for 208/240-volts and not less than 30 amps.

2. The branch circuit shall terminate within 3 ft (1 m) of the appliance and shall be in a location with ready access.

3. The point of origin and termination of the branch circuit shall be labeled “For future electric clothes drying appliance”.

**C405.17.5 Onsite Transformers.** Enclosed spaces and underground vaults containing onsite electric transformers on the building side of the electric utility meter shall have sufficient space to accommodate transformers sized to serve the additional electric loads identified in C405.17.1, C405.17.2, C405.17.3 and C405.17.4.