Review of the Integrated Draft of the Sections Commercial Florida Building Code, Energy Conservation, 9th Edition (2026)

(Round II)

HVAC Equipment Efficiency Update Based on Federal Minimum Requirements

SUBCONTRACT for CONTRACT/PURCHASE ORDER C59DEE Between

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION and Building a Safer Florida, Inc.

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By

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The minimum efficiency requirements of the HVAC equipment have for some of the equipment types and sub-categories based on change in the federal minimum efficiency requirements. These changes must be incorporated into the 2026 FBC-EC as code modification or glitch session. The high level summary of the changes are summarized in Table *1*.

Table 1 HVAC Equipment Minimum Efficiency Changes Summary

Table Number	None	Small / Medium	Significant	NA
C403.2.3(3), C403.2.3(5), C403.2.3(7), C403.2.3(8), C403.2.3(9), C403.2.3(13), C403.2.3(14), C403.2.3(15), C403.2.3(16), C403.2.3(17)	X			
C403.2.3(1) C403.2.3(2), C403.2.3(4), C403.2.3(11)		X		
C403.2.3(12)			X	
C403.2.3(6), C403.2.3(10)				X

Table *2* provides the details of the minimum efficiency requirements changes for each HVAC product category by equipment type, capacity size, and other applicable sub-categories.

Table 2 Equipment Minimum Efficiency Changes Summary (2026 FBC-EC)

#	Code / Sub-code Section	Current Status	Proposed Solution
SECTION C403—BUILDING MECHANICAL SYSTEMS			
1	Table C403.2.3(1) Minimum Efficiency Requirements: Electrically Operated Unitary Air Conditioners AND Condensing Units	The federal minimum requirements have separate requirements for US residential and small commercial applications for air conditioners with capacity size less than 65 kBtu/h. Now, we have one entry for residential applications and another entry for small commercial application split systems and single-package systems for capacity size less than 65 kBtu/h. The minimum efficiency requirements of residential application air-conditioning products are grouped by cooling capacity: one set applies to units with less than 45 kBtu/h, and another set applies to units ranging from 45 kBtu/h up to, but not including, 65 kBtu/h. The minimum efficiency requirements for space constrained, and small duct high velocity air-cooled products manufactured prior to 1/1/2023 are missing. The minimum efficiency requirements for air-conditioning air-cooled equipment capacities ≥ 65 kBtu/h and products manufactured before 1/1/2029 are the same for 2023 FBC-EC, 2026 FBC-EC, 2024 IECC, 2022 ASHRAE 90.1, and federal minimum requirements. However, federal minimum efficiency requirements and efficiency metrics of the same capacity range and products manufactured on or after 1/1/2029 have changed. The efficiency metrics changed from IEER to IVEC. The minimum efficiency requirements must change in the 2026 FBC-EC to align it with the latest federal minimum requirements.	Air conditioners (air-cooled) residential application: For a split system, all heating types, and capacity < 45 kBtu/h the minimum efficiency must be SEER 14.0 before 1/1/2023 and SEER2 14.3 after 1/1/2023, which is the same as the 2023 FBC-EC and the latest federal minimum requirement for the southeast region. For a single-packaged system, all heating types, and capacity ≥ 45 kBtu/h and < 65 kBtu/h, the minimum efficiency must be SEER 14.0 before 1/1/2023 and SEER2 13.8 after 1/1/2023, which is the same as the 2023 FBC-EC and the latest federal minimum requirement for the southeast region. Air Conditioners (air-cooled) for small commercial application: For a split system, all heating types, and capacity < 65 kBtu/h the minimum efficiency must be SEER 13.0 before 1/1/2025 and SEER2 13.4 after 1/1/2025, per the latest federal minimum requirement. For a single-packaged system, all heating types, and capacity < 65 kBtu/h the minimum efficiency is SEER 14.0 before 1/1/2025 and SEER2 13.4 after 1/1/2025 per the latest federal minimum requirement. Space constrained, air cooled (cooling mode) minimum efficiencies:

#	Code / Sub-code Section	Current Status	Proposed Solution
		The minimum efficiency requirements for air-conditioning water-cooled and evaporatively-cooled equipment for all capacities range did not change and remains the same for 2023 FBC-EC, 2026 FBC-EC, 2024 IECC, 2022 ASHRAE 90.1, and federal minimum requirements. The minimum efficiency requirements of condensing units did not change.	For a split system, all heating types, and capacity ≤ 30 kBtu/h: SEER 12.0 before 1/1/2023 and SEER2 11.7 on or after 1/1/2023. For a single-packaged, all heating types, and capacity ≤ 30 kBtu/h: SEER 12.0 before 1/1/2023 and SEER2 11.7 on or after 1/1/2023 Small duct, high velocity, air cooled, minimum efficiency: For a split system, all heating types, and capacity < 65 kBtu/h: SEER 12.0 before 1/1/2023 and SEER2 12.0 on or after 1/1/2023
			Air conditioners, air cooled, and capacity ≥ 65 kBtu/h and < 135 kBtu/h: Heating Type: Electric Resistance (or None) IEER 14.8 before 1/1/2029 and IVEC 14.3 after 1/1/2029. Heating Type: All other IEER 14.6 before 1/1/2029 and IVEC 13.8 after 1/1/2029. Air conditioners, air cooled, and capacity ≥ 135 kBtu/h and < 240 kBtu/h: Heating Type: Electric Resistance (or None) IEER 14.2 before 1/1/2029 and IVEC 13.8 after 1/1/2029. Heating Type: All other IEER 14.0 before 1/1/2029 and IVEC 13.3 after 1/1/2029. Air conditioners, air cooled, and capacity ≥ 240 kBtu/h and < 760 kBtu/h: Heating Type: Electric Resistance (or None) IEER 13.2 before 1/1/2029 and IVEC 12.9 after 1/1/2029. Heating Type: All other IEER 13.0 before 1/1/2029 and IVEC 12.2 after 1/1/2029.

#	Code / Sub-code Section	Current Status	Proposed Solution
			Air conditioners, air cooled, and capacity ≥ 760 kBtu/h: Heating Type: Electric Resistance (or None) No change. Heating Type: All other No change.
2	Table C403.2.3(2) Minimum Efficiency Requirements: Electrically Operated Unitary AND Applied Heat Pumps	The federal minimum requirements have separate requirements for US residential and small commercial applications for heat pumps with capacity size less than 65 kBtu/h. The minimum efficiency requirements for heat pumps air-cooled equipment capacities ≥ 65 kBtu/h and products manufactured before 1/1/2029 are the same for 2023 FBC-EC, 2026 FBC-EC, 2024 IECC, 2022 ASHRAE 90.1, and federal minimum requirements. However, federal minimum efficiency requirements and efficiency metrics have changed for products capacity ≥ 65 kBtu/h range and manufactured on or after 1/1/2029. The cooling efficiency metrics changed from IEER to IVEC, and the heating efficiency metrics changed from COP_H to IVHE. The minimum efficiency requirements must change in the 2026 FBC-EC to align it with the latest federal minimum requirements. The minimum efficiency requirements for heat pumps at lower temperature rating (17°F db/15°F wb outdoor air) are no longer in the federal minimum requirements.	Air conditioners (air-cooled) residential application: For a split system, all heating types, and capacity < 65 kBtu/h the minimum efficiency must be SEER 14.0 and HSPF 8.2 before 1/1/2023 and SEER2 14.3 and HSPF2 7.5 on or after 1/1/2023, which is the same as the 2023 FBC-EC and the latest federal minimum requirement for the southeast region. For a single-packaged system, all heating types, and capacity < 65 kBtu/h, the minimum efficiency must be SEER 14.0 and HSPF 8.0 before 1/1/2023 and SEER2 13.4 and HSPF2 6.7 on or after 1/1/2023, which is the same as the 2023 FBC-EC and the latest federal minimum requirement for the southeast region. Heat Pumps (air-cooled) for small commercial application: For a split system, all heating types, and capacity < 65 kBtu/h the minimum efficiency must be SEER 14.0 and HSPF 8.2 before 1/1/2025 and SEER2 14.3 and HSPF2 7.5 on or after 1/1/2025 per the latest federal minimum requirement. For a single-packaged system, all heating types, and capacity < 65 kBtu/h the minimum efficiency is SEER 14.0 and HSPF 8.0 before 1/1/2025, and SEER2 13.4 and HSPF2 6.7 on or after 1/1/2025 per the latest federal minimum requirement.

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			Space constrained, air cooled (cooling and heating modes) minimum efficiencies: For a split system, all heating types, and capacity ≤ 30 kBtu/h: SEER 12.0 & HSPF 7.4 before 1/1/2023; and, SEER2 11.9 & HSPF2 6.3 on or after 1/1/2023. For a single-packaged, all heating types, and capacity ≤ 30 kBtu/h: SEER 12.0 & HSPF 7.4 before 1/1/2023; and, SEER2 11.9 & HSPF2 6.3 on or after 1/1/2023. Small duct, high velocity, air cooled (cooling and heating modes), minimum efficiency: For a split system, all heating types, and capacity < 65 kBtu/h: SEER 12.0 & HSPF 7.2 before 1/1/2023; and, SEER2 12.0 & HSPF2 6.1 on or after 1/1/2023

#	Code / Sub-code Section	Current Status	Proposed Solution
			Heat Pumps, air cooled (cooling and heating modes), and capacity ≥ 65 kBtu/h and < 135 kBtu/h**:** Heating Type: Electric Resistance (or None) IEER 14.1 & COP_H 3.4 before 1/1/2029; and, IVEC 13.4 & IVHE 6.2 after 1/1/2029. Heating Type: All other IEER 13.9 & COP_H 3.4 before 1/1/2029; and, IVEC 13.4 & IVHE 6.2 after 1/1/2029 Heat Pumps, air cooled (cooling and heating modes), and capacity ≥ 135 kBtu/h and < 240 kBtu/h: Heating Type: Electric Resistance (or None) IEER 13.5 & COP_H 3.3 before 1/1/2029; and, IVEC 13.1 & IVHE 6.0 after 1/1/2029. Heating Type: All other IEER 13.3 & COP_H 3.3 before 1/1/2029; and, IVEC 13.1 & IVHE 6.0 after 1/1/2029 Heat Pumps, air cooled (cooling and heating modes), and capacity ≥ 240 kBtu/h: Heating Type: Electric Resistance (or None) IEER 12.5 & COP_H 3.2 before 1/1/2029; and, IVEC 12.1 & IVHE 5.8 after 1/1/2029. Heating Type: All other IEER 12.3 & COP_H 3.2 before 1/1/2029; and, IVEC 12.1 & IVHE 5.8 after 1/1/2029.
3	Table C403.2.3(3) Minimum Efficiency	The minimum efficiency requirements of PTAC, PTHP, SPVAC, SPVHP and	No update needed.

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	Requirements: Electrically Operated Packaged Terminal Air Conditioners, Packaged Terminal Heat Pumps, Single-Package Vertical Air Conditioners, Single Vertical Heat Pumps, Room Air Conditioners and Room Air-Conditioner Heat Pumps	the room air condition in Table C403.2.3(3) are the same as those in the 2023 FBC-EC, the 2024 IECC and the federal minimum requirements for all capacity range and sub-categories.	

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4	Table C403.2.3(4) Warm Air Furnaces and Combination Warm Air Furnaces/Air-Conditioning Units, Warm Air Duct Furnaces and Unit Heaters, Minimum Efficiency Requirements	Warm-air furnace, US residential applications, heating capacity < 225,000 Btu/h, the minimum efficiency values for weatherized and non-weatherized gas and oil-fired products have cited "See Informative Appendix F, Table F-4[f]" as a reference, instead of populating the actual values. The footnote "f" reads as "Includes combination units with cooling capacity < 65,000 Btu/h. For US applications of federally covered < 225,000 Btu/h products, see Informative Appendix F, Table F-4." The text "Informative Appendix F, Table F-4" copied from the 2024 IECC without a proper citation. This text originates from the 2022 ASHRAE Standards 90.1. ASHRAE 90.1 has additional tables of minimum requirements in Appendix-F for residential applications. This text is incomplete without those tables in Appendix-F. It is best practice to provide the efficiency values from the federal minimum requirements and populate them in the table, instead of referencing them elsewhere. Mobile home gas and oil-fired warm-air furnace's minimum efficiency requirements are missing from the 2026 FBC-EC, but the 2023 FBC-EC had the minimum requirements for mobile home.	The minimum efficiencies changes and updates listed below are for single phase electric power, residential US application warm-air furnaces based on the federal minimum requirements. Remove the reference to the text "See Informative Appendix F, Table F-4[f]" from this table and replace it minimum efficiency requirements listed below. Warm-air furnace, US applications, < 225,000 Btu/h heating capacity, the minimum efficiency values are: Gas-fired, Warm-air furnaces: Manufactured before 12/18/2028: Weatherized 80.0 AFUE Non-weatherized 81.0 AFUE. Manufactured on or after 12/18/2028: Non-weatherized 95.0 AFUE. Mobile Homes: 80.0 AFUE for furnaces manufactured before 12/18/2028: 95.0 AFUE for furnaces manufactured on or after 12/18/2028. Oil-fired, Warm-air furnaces: Weatherized 78.0 AFUE Non-weatherized 83.0 AFUE. Mobile Homes: 75.0 AFUE
5	Table C403.2.3(5) Minimum Efficiency Requirements: Gas- And Oil-Fired Boilers	The current minimum efficiencies are the same as the federal minimum efficiency requirements.	No update is required.

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6	Table C403.2.3(7) Water Chilling Packages—Efficiency Requirements	Current minimum efficiency is the same as the federal minimum efficiency requirements.	No update needed.
7	Table C403.2.3(8) Performance Requirements for Heat Rejection Equipment — Minimum Efficiency Requirements	Current minimum efficiency is the same as the federal minimum efficiency requirements.	No update needed.
8	Table C403.2.3(9) Floor-Mounted Air Conditioners and Condensing Units Serving Computer Rooms—Minimum Efficiency Requirements	The minimum efficiencies of the 2023 FBC-EC, the 2024 IECC and the federal minimum requirements are the same and do not need update. Note the minimum efficiencies of the 2022 ASHRAE 90.1 are slightly higher.	No update needed.

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9	Table C403.2.3(11) Electronically Operated Variable Refrigerant Flow Air Conditioners—Minimum Efficiency Requirements	The minimum efficiency requirement for VRF air conditioners for capacity < 65 kBtu/h is SEER 13.0 in the 2023 FBC-EC, the 2024 IECC, and the 2022 ASHRAE 90.1. However, VRF multi-split systems air conditioners federal minimum efficiency requirements for capacity < 65 kBtu/h have changed and needs updating. Federal minimum efficiencies requirement for VRF air conditioners, capacity > 65,000 Btu/h size categories, have also changed. The efficiency metric for VRF air-conditioners is EER only for products manufactured prior to 01/01/2024 and IEER for products manufactured on or after 01/01/2024.	For VRF Air-Conditioners, capacity < 65 kBtu/h, must be SEER 15 before 1/1/25 and SEER2 = 13.4 on or after 1/1/25 per the federal minimum requirements in Table 18 and Table 19 of the DOE website: eCFR: 10 CFR Part 431 -- Energy Efficiency Program for Certain Commercial and Industrial Equipment. Below are the latest federal minimum efficiency requirements for VRF air-conditioners products with capacity ≥ 65 kBtu/h, organized by capacity size and heating type. For VRF air conditioners, electric resistance or none heating type, capacity ≥ 65 kBtu/h and < 135 kBtu/h 11.2 EER before 01/01/2024; and, 15.5 IEER on or after 01/01/2024. For VRF air conditioners, electric resistance or no heating type, capacity ≥ 135 kBtu/h and < 240 kBtu/h 11.0 EER before 01/01/2024; and, 14.9 IEER on or after 01/01/2024. For VRF air conditioners, electric resistance or none heating type, capacity ≥ 240 kBtu/h 10.0 EER before 01/01/2024; and 13.9 IEER on or after 01/01/2024.

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10	Table C403.2.3(12) Electronically Operated Variable Refrigerant Flow and Applied Heat Pumps—Minimum Efficiency Requirements	The minimum efficiency requirement for capacity < 65 kBtu/h is SEER 13.0. However, VRF multi-split heat pumps minimum efficiency requirements for capacity < 65 kBtu/h have changed and needs updating. The federal minimum efficiency requirements of VRF heat pumps for capacities > 65 kBtu/h have also changed. The efficiency metrics are now based on EER and COP_H for VRF heat pumps manufactured prior to 01/01/2024, and IEER and COP_H for VRF heat pumps manufactured on or after 01/01/2024. The change impacted only the air-cooled and water-source VRF heat pumps with and without heat recovery.	For VRF heat pumps, capacity < 65 kBtu/h, must be SEER 15 and HSPF 7.7 before 1/1/25 and SEER2 = 13.4 and HSPF2 7.75 on or after 1/1/25 per the federal minimum requirements in Table 18 and Table 19 of the DOE website: eCFR: 10 CFR Part 431 -- Energy Efficiency Program for Certain Commercial and Industrial Equipment. VRF heat pumps use EER and COP_H efficiency metrics for products manufactured prior to 01/01/2024, and IEER and COP_H metrics for products manufactured on or after 01/01/2024 per the latest federal minimum efficiency requirements. Below are the latest federal minimum efficiency requirements for VRF heat pump products with capacity ≥ 65 kBtu/h, organized by capacity size, heating type and other sub-categories. For VRF air cooled (cooling mode), electric resistance or no heating type, capacity ≥ 65 kBtu/h and < 135 kBtu/h VRF Heat Pump without Heat Recovery: 11.0 EER, 3.3 COP_H before 1/1/2024 14.6 IEER, 3.3 COP_H on or after 1/1/2024 VRF Heat Pump with Heat Recovery: 10.8 EER, 3.3 COP_H before 1/1/2024 14.4 IEER, 3.3 COP_H on or after 1/1/2024 For VRF air cooled (cooling mode), electric resistance or no heating type, capacity ≥ 135 kBtu/h and < 240 kBtu/h. VRF Heat Pump without Heat Recovery: 10.6 EER, 3.2 COP_H before 1/1/2024

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			13.9 IEER, 3.2 COP_H on or after 1/1/2024 VRF Heat Pump with Heat Recovery: 10.4 EER, 3.2 COP_H before 1/1/2024 13.7 IEER, 3.2 COP_H on or after 1/1/2024 For VRF air cooled (cooling mode), electric resistance or no heating type, capacity ≥ 240 kBtu/h VRF Heat Pump without Heat Recovery: 9.5 EER, 3.2 COP_H before 1/1/2024 12.7 IEER, 3.2 COP_H on or after 1/1/2024 VRF Heat Pump with Heat Recovery: 9.3 EER, 3.2 COP_H before 1/1/2024 12.5 IEER, 3.2 COP_H on or after 1/1/2024
			For VRF water source, electric resistance or no heating type, capacity < 17 kBtu/h VRF water source Without Heat Recovery: 12.0 EER, 4.2 COP_H before 1/1/2024 16.0 IEER, 4.3 COP_H on or after 1/1/2024 VRF water source With Heat Recovery: 11.8 EER, 4.2 COP_H before 1/1/2024 15.8 IEER, 4.3 COP_H on or after 1/1/2024 For VRF water source, electric resistance or no heating type, capacity ≥ 17 kBtu/h and < 65 kBtu/h VRF water source Without Heat Recovery: 12.0 EER, 4.2 COP_H before 1/1/2024 16.0 IEER, 4.3 COP_H on or after 1/1/2024

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			VRF water source With Heat Recovery: 12.0 EER, 4.2 COP_H before 1/1/2024 15.8 IEER, 4.3 COP_H on or after 1/1/2024 For VRF water source, electric resistance or no heating type, capacity ≥ 65 kBtu/h and < 135 kBtu/h VRF water source Without Heat Recovery: 12.0 EER, 4.2 COP_H before 1/1/2024 15.8 IEER, 4.3 COP_H on or after 1/1/2024 VRF water source With Heat Recovery: 12.0 EER, 4.2 COP_H before 1/1/2024 15.8 IEER, 4.3 COP_H on or after 1/1/2024 For VRF water source, electric resistance or no heating type, capacity ≥ 135 kBtu/h and < 240 kBtu/h VRF water source Without Heat Recovery: 10.0 EER, 3.9 COP_H before 1/1/2024 14.0 IEER, 4.0 COP_H on or after 1/1/2024 VRF water source With Heat Recovery: 10.0 EER, 3.9 COP_H before 1/1/2024 13.8 IEER, 4.0 COP_H on or after 1/1/2024 For VRF water source, electric resistance or no heating type, capacity ≥ 240 kBtu/h VRF water source Without Heat Recovery: 9.8 EER, 3.9 COP_H before 1/1/2024 12.0 IEER, 3.9 COP_H on or after 1/1/2024 VRF water source With Heat Recovery:

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			9.8 EER, 3.9 COP_H before 1/1/2024 11.8 IEER, 3.9 COP_H on or after 1/1/2024
11	Table C403.2.3(13) Vapor-Compression-based Indoor Pool Dehumidifier—Minimum Efficiency Requirements	The minimum efficiency requirements are the same for the 2023 FBC-EC, the 2024 IECC, and the 2022 ASHRAE 90.1. There is no federal minimum efficiency requirement source to verify.	No update needed.
12	Table C403.2.3(14) Electronically Operated DX-DOAS Units, Single-Package and Remote Condenser, without Energy Recovery—Minimum Efficiency Requirements	Current minimum efficiency is the same as the federal minimum efficiency requirements.	No update needed.
13	Table C403.2.3(15) Electronically Operated DX-DOAS Units, Single-Package and Remote Condenser, with Energy Recovery—Minimum Efficiency Requirements	Current minimum efficiency is the same as the federal minimum efficiency requirements.	No update needed.
14	Table C403.2.3(16) Electronically Operate Water-Source Heat Pumps—Minimum Efficiency Requirements	The minimum efficiency requirements are the same as the 2023 FBC-EC, the 2024 IECC, and the 2022 ASHRAE 90.1, and the federal minimum. The federal minimum requirements apply to Water-to-air, and water loop only.	No update needed.
15	Table C403.2.3(17) Ceiling-Mounted Computer-Room Air Conditioners—Minimum Efficiency Requirements	The federal minimum efficiency requirements are the same as the 2023 FBC-EC, the 2024 IECC, and the 2022 ASHRAE 90.1. No need to update the minimum efficiency values.	No update needed.