

ENGINEERING AND

US Army Corps CONSTRUCTION BULLETIN

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SUBJECT: Electrification, Decarbonization, and Executive Order 14057.

CATEGORY: Directive and Policy.

1. References:

a. Implementing Instructions for Executive Order (EO) 14057 Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, August 2022 <u>https://wbdg.org/ffc/dod/tri-services-sustainability-program/policy-mandates</u>

b. Electrification of Standard Building Operations Department of Defense (DoD) Memo, 29 March 2023 https://wbdg.org/ffc/dod/tri-services-sustainability-program/policy-mandates

c. Army Electrification Guidance for Military Construction (MILCON) and Restoration and

Modernization (R&M) Projects, 18 May 2023 https://wbdg.org/ffc/dod/tri-services-sustainability-program/policy-mandates

d. Metrics and Standards for Energy Resilience at Military Installations, 20 May 2021 https://www.acq.osd.mil/eie/Downloads/IE/Metrics%20and%20Standards%20for%20Energy%2 0Resilience%2020%20May%202021.pdf

e. US Army Corps of Engineers (USACE) Engineering and Construction Bulletin (ECB) 2021-5 (Revision 1) Interpretation Of Unified Facilities Criteria (UFC) 1-200-01, Delegation Of Building Official/Authority Having Jurisdiction (BO/AHJ) Responsibilities, And Waiver/Exemption/Equivalency Approvals -- Category: Directive And Policy, 03 August 2023 https://wbdg.org/ffc/dod/engineering-and-construction-bulletins-ecb/usace-ecb-2021-5

f. Whole Building Design Guide DoD Unified Facilities Program Website https://wbdg.org/ffc/dod

2. **Purpose.** This ECB provides information on EO 14057 Catalyzing Clean Energy Industries and Jobs through Federal Sustainability (ref a), the Electrification of Standard Building Operations DoD Memo (ref b), and Army Electrification Guidance for MILCON Projects (ref c).

3. **Applicability.** This ECB applies to all Military Army projects FY26 and beyond, all projects as detailed in Attachment A (FY24 and FY25 Projects, Electrification Implementation) and all R&M projects that were not yet under design or had not issued a design build RFP as of 18 May 2023, and all Sustainment projects that were not yet under design or had not issued a design-build RFP as of 05 Feb 2024. In accordance with Reference b, this guidance does not apply to:

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a. Systems and equipment where host nation requirements or agreements prohibit compliance.

b. Systems and equipment used for unique research, or manufacturing, industrial or process loads for which all-electric technology is not available or its use would increase the risk to mission.

c. Emergency use generators provided they are not utilized for non-emergency load shedding or peak demand shaving.

d. Fuel-based fire water pumps and other equipment used strictly for emergencies.

4. Background.

a. Reference (c) states: "Incorporate building design techniques, building features, and proven efficiency technologies to ensure energy and water conservation and resilience in accordance with Army sustainable design guidance."

b. Reference (b) states:

(1) "Effective immediately, DoD Components must incorporate into building design, construction, repair, and operations, requirements that maximize the use of all-electric technologies to leverage the Department's growing investment in microgrid technology to support mission assurance."

(2) "For new military construction and major renovation projects that has not yet reached schematic design phase (up to 15 percent design), DoD Components will include in building designs the use of all-electric technologies for system components, including for space conditioning, water heating, cooking, and laundry, where market ready technologies exist."

(3) "For existing buildings, DoD Components will implement the use of all-electric technologies where market ready technologies exist, for building system components, including space conditioning, water heating, cooking, and laundry systems, upon a system's expected end of useful life, unexpected system failure, or when buildings will undergo major renovation where various system components will be replaced as part of facility restoration and modernization."

5. Policy.

a. All AE-contracted projects in Attachment A not designated in the "past the point of implementation" column must immediately initiate any necessary contract modification to incorporate the requirements of this ECB.

b. All projects in Attachment A designated "incorporate all electric technologies," all FY26 and later projects, and all R&M projects must incorporate into design all-electric technologies for system components including space conditioning, water heating, cooking, and laundry, and remove all fossil fuel producing equipment from design.

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c. All projects in Attachment A designated "design to enable future electrification" must be designed with the necessary infrastructure to enable future electrification of building systems for space conditioning, water heating, cooking, and laundry. Examples include increasing sizing of conduit runs, utility chases, electrical panels, and other design features that enable a building to convert to electric equipment with minimal disturbance to the physical building envelope.

d. All R&M projects that had not started design as of 29 Mar 2023 and have an in-scope requirement to replace fossil fuel burning space conditioning, water heating, cooking, and laundry systems, must incorporate all electric technologies, where electric market ready systems exist.

e. For all R&M projects already in design as of the 18 May 2023, issuance project proponents shall evaluate reasonable changes to planning and design to maximize compliance with the intent of this guidance, unless such changes would delay project acquisition beyond established deadlines.

f. For all R&M projects that were not yet under design or have not issued a design build RFP as of 18 May 2023, if full compliance results in costs or mission risks that jeopardize the execution of the project, project proponents may modify the degree to which complete electrification is accomplished, provided all other requirements of applicable laws or policies are followed. Rationale for any such modification shall be documented in Basis of Design in accordance with Reference (d). Additionally, the Garrison Commander or designee must provide a memorandum that justifies and documents the decision to the Design and Construction Agent and to the DASA (IH&P). Project proponents should help with justification memorandum and documentation but shall proceed with electrification of projects until a garrison commander signed justification memories produced.

g. For all Sustainment projects that were not yet under design or had not issued a designbuild RFP as of 5 Feb 2024, include all-electric technologies, where market-ready technologies exist, for building system components including, but not limited to, space conditioning, water heating, cooking, and laundry systems, upon a system's expected end of useful life, unexpected system failure, or where various systems or major components will be replaced as part of the work.

h. For all Sustainment projects that were not yet under design or had not issued a designbuild RFP as of 5 Feb 2024, if full compliance results in costs or mission risks that jeopardize the execution of the project, project proponents may modify the degree to which complete electrification is accomplished. Rationale for any such modification shall be documented by the Garrison Commander or designee in memorandum for the project record that justifies and documents the decision.

i. For buildings connected to a DoD-owned, non-electric powered district plant utility, DoD Components may continue to use the plant through the end of its useful life or until replacement becomes cost effective or advantageous to the Government. Components will not refit existing nonelectric powered district plants to extend their useful life or increase their capacity. All new district plants are subject to the same electrification requirements stated above for military construction projects.

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j. Consider impact of building electrification on utility systems in project planning. Notify appropriate stakeholders and utility providers of electrical power requirements and any known utility deficiencies so that remediations may be included in the project scope or the scope of future infrastructure projects.

k. HQUSACE is aware there are potential criteria conflicts; designers should do their best to accomplish this electrification policy in the context of existing criteria. The UFCs and UFGSs will be updated as needed. If this policy is in direct and unavoidable conflict with UFCs and UFGSs, please submit an exemption request to USACE Headquarters E&C per reference (e) and a Criteria Change Request on reference (f) website to the impacted document. UFC 1-200-02 High Performance Sustainable Buildings will be updated to included criteria from reference (b).

6. Policy Exceptions.

Exceptions to this guidance will be adjudicated by the Assistant Secretary of the Army for Installations, Energy and Environment, or as delegated, when a bona fide need to waive one or more of the above objectives has been identified by the Design and Construction Agent, and after it has been vetted by the Garrison Commander or equivalent and higher Headquarters. For example, exceptions to this guidance may be granted in climate zones where all-electric technologies are not currently practicable.

7. Date of Applicability. This ECB is effective immediately.

8. **Points of Contact.** HQUSACE point of contact for this ECB is Edward Citzler, CECW-EC, (817) 876-2294.

//S// PETE G. PEREZ, P.E. Chief, Engineering and Construction U.S. Army Corps of Engineers

Encl.

Attachment A – FY24 and FY25 Project Electrification Implementation Attachment B – Army Electrification Guidance for Military Construction (MILCON) and Sustainment, Restoration and Modernization (SRM) Projects, 05 FEB 2024