Exception Case Scenarios

The following case scenarios are examples of exceptions to the Department of the Air Force (DAF) electrification policy that would or would not be eligible for SAF/IEE consideration. Please note that <u>this is not an exhaustive list of example exception case scenarios</u>. This document is for informational purposes only and does not indicate nor imply final SAF/IEE disposition. The interim exception process is subject to modification as pilot programs mature and policy is updated.

Exceptions may be considered for the following projects, scenarios, or circumstances:

Mission Impact

- The use of all-electric technologies does not safeguard facilities, mission and/or personnel.
- For example, an installation has a mission operation with a strict timeline. Increased operational lead time on a transformer could delay the mission if its timeline cannot be mitigated.

Geographic Location

• Use of all-electric technologies might not be currently practicable for installations located in climate zones 7 (Very Cold) or 8 (Subarctic).^{1,2} Below freezing temperatures may introduce significant heat loads or inefficiencies with all-electric technologies, impacting operational readiness.

Grid Capacity

• The capacity of on-site distribution and/or capacity of feeders servicing the installation is approaching maximum capacity and/or is currently at its maximum capacity. Introducing all-electric technologies requires significant upgrades to commercial lines and substations and impedes the installation's near-term ability to deliver power and execute its missions.

Privatized Utilities

• An installation's utility system is owned, operated, maintained, and repaired by a private utility provider and requires modification to address system-wide upgrades that may be required because of electrification (additional to contractual increases already planned for and addressed in IEPs).

Exceptions will not be considered for the following projects, scenarios, or circumstances:

Available Alternatives

• A fossil fuel-powered piece of equipment either breaks or reaches the end of useful life and all-electric alternatives are market ready and commercially available. Higher

¹ U.S. Energy Information Administration. "Climate Zones - DOE Building America Program." 14 August, 2020. https://atlas.eia.gov/datasets/eia::climate-zones-doe-building-america-program/about

² Pacific Northwest National Laboratory researchers developed the International Energy Conservation Code (IECC) climate zone map that is used by the U.S. Department of Energy Building America Program.

operating costs that could come with using all-electric technologies is not suitable for an exception to the DAF electrification policy.

Within Scope to Electrify

• Installations requesting exceptions for space conditioning, water heating, cooking, and laundry systems will not be considered as these systems or components fall within the scope to electrify specified in the DAF memorandum.

Geographic Location

• An installation is not located in climate zones 7 or 8. The use of all-electric technologies in climate zones 1 through 6 is practicable as temperatures do not drop below freezing for extended periods of time.³

District Plants

• If a Department of Defense-owned, non-electric powered district plant reaches the end of its useful life and or needs to be repaired, it cannot be refit with fossil fuel-powered equipment to extend its useful life or increase capacity. New district plants are subject to the same electrification requirements as Military Construction projects.

Exception FAQs

Who coordinates/signs out an exception request that flows to AFCEC?

• The lead technical advisor at the installation (e.g., Base Civil Engineer) will prepare the exception request, collaborating with AFCEC as needed to prepare the justification package. The request will be formally coordinated through the Installation/Garrison Commander and submitted to the AFCEC workflow. The interim exception process follows a functional approach, wherein AFCEC will take technical lead in initially reviewing each exception request with the installation. See Attachment 3 – Interim Exception Process Instructions for more details.

What documentation is required for an exception request package?

- AF/A4C, AFIMSC, and AFCEC are tasked with developing and issuing implementing guidance, business rules, playbooks, compliance tracking, or other template materials to implement the DAF electrification policy, which will include additional information on required documentation. At a minimum, all exception requests will include the following:
 - Documentation that all practical electrification of covered systems has been implemented.
 - A written analysis of alternatives assessed for any system for which an exception is requested, which includes an analytical comparison of the operational effectiveness, suitability, and life-cycle cost of alternatives that satisfy established capability needs.

³ The breakdown of climate zones 1 through 4 is the following: Hot-humid encompasses climate zones 1, 2, and 3; hot-dry is climate zones 2 and 3; mixed-humid and marine are climate zones 3 and 4; and mixed-dry is climate zone 4.

- Identification of the design stage (e.g., 35% design), type, acquisition strategy, and timeline.
- An unclassified or CUI overview of any negative impacts of electrification of covered systems to mission assurance and why mitigating measures would better safeguard facilities, missions, and/or personnel.

What is the timeline for reviewing, adjudicating, and making final decisions on exception requests?

• There is no set timeframe. Each installation likely faces its own unique challenges due to factors such as geographic location and existing grid capacity. A uniform, estimated timeline for reviewing and reaching a final decision regarding an installation's exception request is therefore difficult to provide prior to trialing the exception request process. Depending on the nature of the exception request, it might take several weeks to several months for a final decision to be made. Installations should start a dialogue with AFCEC sooner rather than later for the particular circumstance.

Will installations be informed of the status of submitted exception requests?

• If the exception request is routed up to AF/A4C and/or SAF/IEE for review and adjudication and a decision is made to deny or approve it, that decision will then be passed down through AFCEC to the installation.

Can installations resubmit an exception request if it is denied?

• Yes, but only if there has been a material change in mission impact and/or a significant increase in cost since the exception request was initially submitted. An installation may choose to request clarification or additional information regarding why the final decision was made.

How does this impact currently programmed projects (FY26)? Is OSD/DAF funding this mandate?

Projects currently in advanced design (beyond 35%) or in the construction phase are exempt from this policy. If a currently programmed project has not yet reached 35% design, see the design parameters outlined in the memorandum to determine applicability. OSD is not providing additional funds to DAF to meet the requirements to maximize use of all-electric technologies in building design, construction, repair, and operations where market ready technologies exist. The DAF electrification memorandum requests AFIMSC to assess feasibility of incorporating all-electric technologies in FY26 programs (including Military Construction and Facilities Sustainment, Restoration, & Modernization maintenance operations), and the impact to utility costs and Facility Operations account.

When does this policy apply for DD1391s that are currently being written?

• Effective immediately, all designs should incorporate this policy.

How does electrification align with net-zero efforts?

• Figure 1 below highlights how electrification is one strategy the DAF employs to meet its net-zero goals. Net-zero requirements can be found in the following:

- <u>Executive Order 14057:</u> Targets a net-zero emissions building portfolio by 2045 and net-zero emissions from overall Federal operations by 2050.
- <u>Federal Building Performance Standard:</u> Includes a goal for at least 30% of an agency's applicable facilities to achieve zero Scope 1 emissions from on-site fossil fuel use through building electrification by FY30.
- <u>FY22 National Defense Authorization Act:</u> Requires at least 10% of major military installations to achieve energy net-zero and water or waste net-zero by FY35.
- Within these same orders, standards, and statutes are electrification requirements to help reach net-zero targets. The principal driver for the electrification requirement is the March 2023 DoD memorandum "Electrification of Standard Building Operations." This memorandum requires DoD Components to maximize the use of all-electric technologies (i.e., technology with zero Scope 1 emissions) in building design, construction, repair, and operations.



Figure 1. DAF Net Zero Emissions Framework, Strategies, and Pilots