



DEPARTMENT OF THE AIR FORCE

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OFFICE OF THE ASSISTANT SECRETARY

MEMORANDUM FOR AF/A4C
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FROM: SAF/IEE
1665 Air Force Pentagon
Washington DC 20330-1665

SUBJECT: Guidance on identification and applicability of Energy Resilience and Conservation Program candidate projects and Post-Award Status Tracking

The Air Force must assure that energy resources will be available when and where our essential missions and tasked critical mission assets require. To provide this energy assurance we must have the capability to avoid, prepare for, minimize, adapt to, and rapidly recover from anticipated and unanticipated energy disruptions. These energy resilience capabilities will better equip our warfighters, expand our operational effectiveness in air, space, and cyberspace, and provide mission assurance. The Air Force will target strategic investments for energy resiliency and identify existing and emerging energy issues, innovations, and technologies affecting the Air Force.

The Air Force can enhance energy resilience in multiple ways, including:

1. Providing independent alternate energy sources guaranteed to the installation in the event of a primary distribution outage
2. Adding redundant power distribution feeds to critical/essential loads
3. Implementing cyber secure controls that make the electrical system more agile and add capability to direct the power where/when required and efficiently shed non-critical loads
4. Increasing the physical security of existing service feeders to minimize vulnerabilities

The Energy Resilience and Conservation Investment Program (ERCIP) is a subset of the defense-wide Military Construction (MILCON) program, and a critical element of the Department of Defense's (DoD's) strategy to improve the energy resilience, energy security, and energy conservation of its fixed installations.

The Air Force will utilize the ERCIP program to promote and sponsor projects that achieve Air Force strategic requirements. SAF/IEE will evaluate each ERCIP project on how it will improve mission assurance, and will assess how the system increases capacity, quality, and condition using attributes defined by the 5 Rs of Resilience: robustness, redundancy, resourcefulness, responsiveness, and-or recovery. Project planning will clearly articulate how the proposed technologies will assure mission requirements and provide enhanced resilience capabilities by highlighting the qualities and quantities of resiliency attributes they incorporate.

The 5 Rs of Resiliency are:

- **Robustness:** ability to physically absorb and withstand disturbances, or to insulate missions from system-wide impacts by segregating and localizing disruptions
- **Redundancy:** ability to back-up, reroute, or provide alternate energy sources to enable continuance of core mission functions through disturbances
- **Resourcefulness:** ability to adapt to crises, respond flexibly and transform negative impact into positive
- **Response:** ability to expediently identify, isolate, and diagnose disruptions, and to quickly mobilize and deploy recovery assets in the face of crises
- **Recovery:** ability to regain normal operations after an event, and the flexibility of a system to grow and adapt to address vulnerabilities in evolving threat environments

Preventative attributes (robustness, redundancy, and resourcefulness) plan for crises in advance, while performance attributes (response and recovery) adapt to active crises.

Pre-Award

Attributes of Appropriate Air Force-sponsored ERCIP Projects

ERCIP candidate projects must demonstrate enhancement of on-installation energy network resilience. ERCIP supports power, water, wastewater, natural gas, and other civil engineer-managed infrastructure systems, networks, devices, and commodities that are critical for mission assurance.

Projects must:

- Is the right solution to support mission readiness and assurance at an installation;
- Is the most efficient way to implement to support mission readiness and assurance;
- What the compelling need is for the project to support mission readiness and assurance; and
- Impact to energy resilience and security improvement and its contribution to mission readiness and assurance;

ERCIP for Partial Funding of Resilience Solutions

If an ERCIP project only provides a portion of the resilient solution, the project submission should show how it would be holistically integrated with other acquisition methods (e.g., 3rd-party performance contracts, direct investment, etc.) to reach the desired state of resilience, and how it provides the ability to assess relative level of resilience of proposed project. An ERCIP project can be a complementary action to a third-party funded effort; ERCIP funds may be used for aspects of resilience not able to be funded via other mechanisms. However, as a subset of MILCON, each ERCIP project must produce a complete and useful project. It can upgrade or interface with other projects as long as each can stand alone under the relevant rules.

ERCIP for Installations with Privatized Utilities

The Air Force will remain consistent with OSD Policy and currently evaluates these projects on a case by case basis.

ERCIP for Installations with an Installation Energy Plan (IEP)

ERCIP projects submitted to SAF/IEE for consideration must reference the specific capability requirements in the IEP that the project was developed to address. Projects must show a deliberate linkage to Air Force strategic planning requirements. ERCIP submissions from installations with a completed IEP that meet these requirements will be given priority.

Projects that are not candidates for ERCIP funding

The Air Force has multiple programs to support our overall Energy Strategy, utilizing appropriate authorizations for specific classifications of work. As a general rule, use of MILCON funding via ERCIP is not appropriate for the following requirements:

- Candidates for private financing (e.g., Energy Savings Performance Contracts);
- Air Force ownership of primary power generation and/or utilities-scale storage assets on our enduring installations (note: SAF/IEE may consider technologies that optimize prime power sources with supplemental stand-by generation);
- New infrastructure investments to bed-down new Acquisition Programs of Record

Post Award

Project Changes and Delays

There are technical and financial cost justifications for project modifications or delays, such as changes to mission and changes in material or construction costs. It is required that delays and changes are reported in TRIRIGA on a monthly basis.

Measurement and Verification (M&V)

Measurement and Verification plans for ERCIP projects are required as part of the DD 1391 document. Details of post-construction verification activities, including inspections, measurements, and analysis are required to be reported in TRIRIGA on a monthly basis for 5 years post project start.

This guidance memorandum applies to all Air Force installations. It will expire one year from the date of publication, or upon publication in an Air Force directive publication, whichever occurs first. My POC for this matter is Mr. Douglas Tucker, DSN 223-9544 or commercial (703) 693-9544, douglas.k.tucker.civ@mail.mil.

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