

Developing Energy Resilience Solutions with AFCEC's OEA

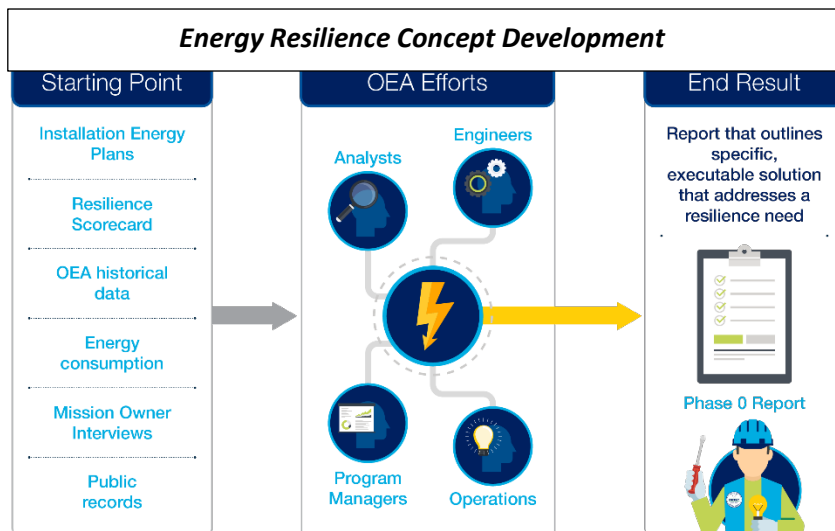
By AFCEC Office of Energy Assurance

Planning for energy resilience at installations has never been more prudent. With prevalent large-scale natural disasters and recognized threats of physical and cyber-attacks on utility systems, a different sort of enemy lurks to threaten installation missions. The Air Force Civil Engineer Center's Office of Energy Assurance (AF OEA) is committed to addressing such threats to mission and energy assurance.

The Air Force is aggressively developing Installation Energy Plans (IEPs) to identify potential energy resilience gaps and strategies to improve installation energy security, resilience, and mission assurance. Air Force OEA, in coordination with Secretary of the Air Force/Installations Energy and Environment (SAF/IEE), supports mission commanders by leading IEP efforts at the installation and authors Phase 0 Reports, which outline project concepts focused on bolstering installation energy resilience. The Air Force Civil Engineer Center Energy Directorate (AFCEC/CN) executes approved Phase 0 Report projects.

Installation Energy Plans are a significant piece of the starting point for resilience concept development. OEA assists Air Force installation personnel with planning, funding resource allocation, data gathering and writing of the IEPs. During the IEP development process, OEA meets with mission owners and attends Courses of Action Workshops to capture baseline conditions and infrastructure vulnerabilities for key systems. Completing the IEP, while critical for identifying the resilience requirements and identifying issues at the installation, is only the tip of the iceberg for the OEA-led process and it is just one data source used by team.

Throughout the approximate ten-month IEP development period, OEA also focuses on high-priority energy resilience opportunities that the installation should pursue. These findings help identify executable resilience project concepts in the Phase 0 Report, which are developed concurrently with IEPs over an period of about three months. The Phase 0 report is generated to quantify how different energy resilience projects would impact an installation's or



mission's energy resilience posture. OEA's energy professionals map out resilience strategies identified in the IEP against potential project opportunities utilizing public records, historical data, energy consumption statistics and a variety of tools from a growing modeling toolkit. The OEA team then evaluates technology and acquisition options for the installation to select a specific course of action that is financially feasible, executable, and addresses an IEP-identified resilience need.

When appropriate, OEA coordinates a review of project concepts through Air Force Energy Governance and vetted by the Facility Energy Board before a validated requirement moves to the execution partner. The AF Energy Governance provides strategic guidance for near and long-term energy project development, review, validation and approval. The governance structure also allows stakeholders – including HAF/A4C, AFIMSC, and AFCEC Directorates – to offer input on a proposed project's Phase 0 Report and energy resilience concepts.

In order to meet deadlines set forth by OSD in March 2018, the Department of the Air Force is working to complete IEPs across the enterprise by the end of FY2023. In FY2020, IEP development was completed or in process at twenty-three installations across the portfolio. Development of fourteen additional IEPs will occur in FY2021. Air Force Energy teams are working tirelessly to identify opportunities to enhance resilience at installations while progressing towards enterprise energy and mission assurance goals. From site visit coordination to mission owner interviews and from opportunity identification to project advocacy, OEA-led IEP teams will continue to capture baseline conditions and infrastructure vulnerabilities for critical systems. The Air Force Office of Energy Assurance will continue to support installation commanders, engage community and industry partners, and develop innovative, data-driven solutions to enhance resilience and ensure mission success.

For more information, please visit the OEA Website:
safie.hq.af.mil/programs/energy/oea/ or subscribe to OEA updates:
safie.hq.af.mil/programs/energy/oea/oea-updates/.