DoD Power Resilience Review

DoD Energy Resilience Overview and Next Steps

DoD Energy Resilience (1) Guidance & (2) Business Case Analysis Review
OASD(EI&E) conducted a DoD Power Resilience Review from Dec 2013 – Jun 2014¹

DoD-wide power resilience review helped understand vulnerabilities and risks that impact mission assurance
- Results included 500+ CONUS/Hawaii/Alaska installations, sites and facilities
- Examined adherence to key resilience policies and policy gaps
- Identified more integrated/holistic critical energy requirements

Focus was on remediating issues associated with existing critical energy requirements and policies

¹Further details on the power resilience review, along with resilience guidance are located at: http://www.acq.osd.mil/ie/energy/power.shtml.
**DoD energy resilience** is, the ability to prepare for and recover from energy disruptions that impact mission assurance on military installations.

What we found?
- Many energy resilience policies did already exist
- Disruptions primarily from natural and reliability issues
- ‘Critical’ energy requirements were identified by DoD Components that align to mission assurance
- Most solutions for critical energy requirements are fixed backup generators tied to a critical facility
  - Opportunities beyond generators could be more *cost-effective* while also improving *mission readiness*

What are we doing now?
- Developing universal energy resilience guidance
  - Ensure performance against existing requirements
  - Encourage the most *cost-effective* solutions that improve *mission readiness*
- Developing business case analyses (BCA) approaches to support budgetary resources or alternative financing opportunities
  - Study to review BCA approaches (MIT-LL Study)

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FY 2014 Utility Outages

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act of Nature</td>
<td>18%</td>
</tr>
<tr>
<td>Equipment Failure</td>
<td>30%</td>
</tr>
<tr>
<td>Planned Maintenance</td>
<td>52%</td>
</tr>
</tbody>
</table>

Results – Dec 2013 thru June 2014

<table>
<thead>
<tr>
<th>Requirement</th>
<th>DoD % Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained Operator</td>
<td>90%</td>
</tr>
<tr>
<td>Received Preventive Maintenance</td>
<td>94%</td>
</tr>
<tr>
<td>Fueling Contracts in Place w/ DLA*</td>
<td>74%</td>
</tr>
<tr>
<td>Fueling Plans in Place</td>
<td>84%</td>
</tr>
<tr>
<td>Testing/Exercising</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Installations also have contracts in place with other providers.*

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Developing universal energy resilience guidance

- Define, identify, and update ‘critical’ energy requirements
- Emergency energy preparedness – communication and coordination
- Continue to perform against already existing requirements
- Encourage the most cost-effective solutions that improve mission assurance

Developing business case analyses (BCA) approaches to support budgetary resources or alternative financing

- Evaluate current DoD life cycle cost analysis approaches and levelized cost of electricity practices and methodologies
- Items of interest include:
  - *Operations, maintenance, and repair related costs*
  - *Disruption/outage costs*
  - *Financial incentives*
  - *Availability, reliability, and quality metrics*