# Energy Security/Resiliency

Pacific Northwest NATIONAL LABORATORY
*Proudly Operated by Battelle Since 1965*

- Energy Security is "having assured access to reliable supplies of energy and the ability to protect and deliver sufficient energy to meet mission essential requirements" - FY2012, National Defense Authorization Act (NDAA)
- Resiliency is "the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions" – E.O. 13653
- Key elements of Energy Security/Resiliency Planning

**Identify Core Assets & Potential Threats**

- *Important facilities*
- *Critical missions*
- *Communication & cybersecurity*
- *Physical infrastructure security*

**Assess Installation Status & Vulnerabilities**

- *Existing plans*
- *Future installation investment plans*
- *Existing backup systems*


**Identify & Analyze Risks**

- *Physical and cyber threat identification*
- *Utility vulnerability*
- *Impact on core functions*
- *Temporal scenarios*
- *Risk prioritization*

**Design Integrated, Resilient Solution**

- *Infrastructure efficiency*
- *On-site generation economic analysis of resiliency options*
- *Microgrid design*
- *Cybersecurity plan*

**Provide Implementation Strategy**

- *Financing options*
- *Implementation schedule*
- *External partner coordination*
- *Communication strategy*
- *Continued evaluation of risks*

**Energy Resiliency**

*The level of detail needed for a specific site's planning process depends on size of site, and the complexity and maturity of site systems.*

Energy Security/Resiliency: Caroline Harrover Email: Caroline.Harrover@pnnl.gov Phone: (202) 557-0609