Energy Services in a Resilient Marketplace

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The National Association of Energy Service Companies (NAESCO)

NAESCO National Association of Energy Service Companies

NAESCO

- A non-profit trade association advocating for the energy service company market
- In existence since 1983
- Membership of 97 companies
- Home of the only Energy Service Company (ESCO) Accreditation
- 28 Accredited ESCOs

NAESCO National Association of Energy Service Companies

Our projects

- Repurpose money currently spent on wasted energy and maintenance of obsolete equipment
- Implement comprehensive, 10-20 year projects, primarily for government agencies
  - Largest Market (MUSH)
  - Federal buildings and facilities
- Implement negotiated project work scopes
- Provide private capital and that is repaid from project savings over the term of the contract
- Guarantee Project Performance

Limitations of ESCO Model

- Project scope limited by legal definitions of "savings"
- Non-Energy Benefits (NEBs) don't count because their value usually cannot be "monetized"
  - Operations and Maintenance savings
  - Capital Cost Avoidance
  - Electric system capacity credits
  - Emissions reductions credits
  - Space and/or systems infrastructure reductions
  - Productivity improvements
  - Resilience and reliability
- Counting NEBs could more than double "savings" and increase project scopes

Limitations of the ESCO Model

- Commercial and industrial (C/I) customers can recognize NEBs as they see fit
- C/I customers generally not interested in comprehensive, long-payback projects

Why Focus on Resiliency Now?

- Wake-up call from recent natural disasters
  - Hurricanes, forest fires, rising tides
- Utilities not available for weeks or months
- Recognition that our increasingly interconnected information systems are increasingly vulnerable
- Publicized cyber attacks – Target, Marriott, Equifax
  - Russian hacks into utilities in 24 states
- Utility outages threaten national security installations
- Increased threat of Terrorism or rogue states

Potential Resiliency Measures

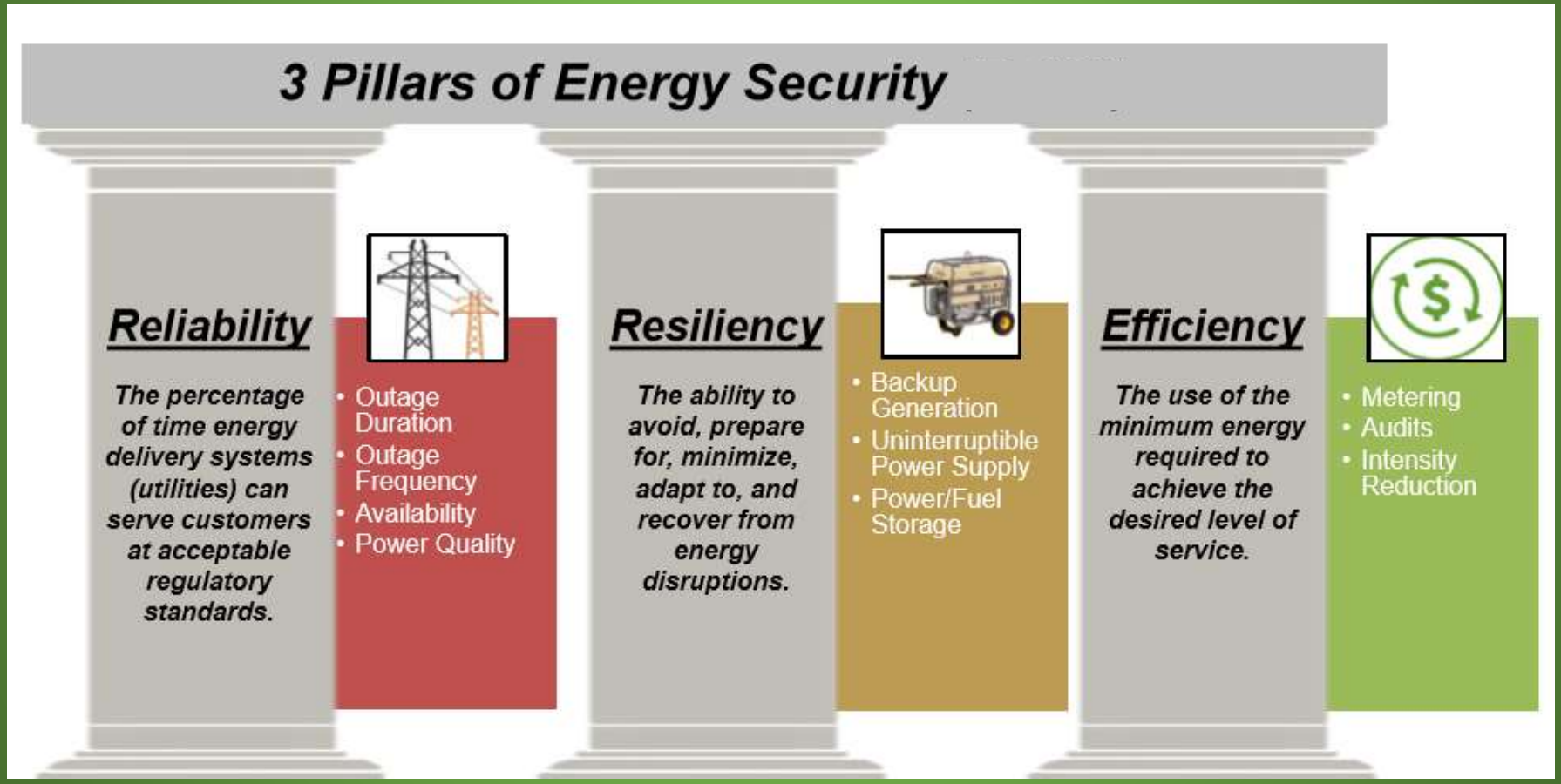
- Site power
  - Emergency – battery, UPS
  - Long-Term replacement – renewable and CHP
  - Contingency and controls - switching
- Climate Change Adaptation
  - Building and Structure modifications – barriers, pumps
  - Control System Algorithms – alarms
  - Roofing – wind, water
- Terrorism
  - Windows – blast resistant
  - Security systems
- Cybersecurity

Challenges in resiliency

- Inconsistent definition of resiliency
- Lack of consistent design guidelines
- Unclear analysis of actual site resiliency needs

- ESCOs provide unique capabilities to cooperatively negotiate a scope of work that fits the unique requirements of each site, as well as fulfilling legal design requirements

Resiliency (from Navy document)

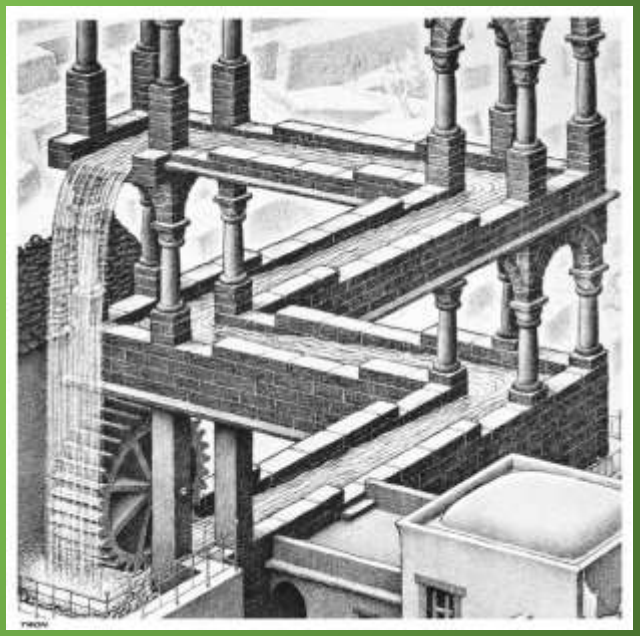


Federal government initiatives

- In the energy arena
  - 2010-2015 - Direction was for renewable power, lower the carbon footprint, green the facility
  - 2015 – Shift began as renewable power was seen as a resilient energy source, but not end-all to resilience
  - 2016-2018 – Full transformation to a government view that all projects be viewed in terms of resiliency
    - Renewable Power paired with other sources and controls to improve reliability
    - Building Retrofits considered in overall resiliency assessment
    - Additional requirements to make retrofits meet a reliability or resiliency guideline
    - Pentagon requirement for on-site fuel storage?

Paradigm Shift

- Future cost savings is based upon past expenses
- Resiliency expectations for performance in the future are different from the past
- Value of resilience not defined
- How do you do cost/benefit analyses on investment in resilience?



Need new ways to finance

- Resilience is a new project deliverable, which has not been valued in most public facilities
- Projecting savings based on historical performance not sufficient to pay for resilience
- Industry ahead of government in calculating the value of, and investing in, resilience and reliability
- Need to develop standard methods to value NEBs
- Use these values to add resilience and reliability for critical public facilities to infrastructure initiatives

Questions?

Contact information

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