# **Environmental Security Technology Certification Program (ESTCP) Overview**

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#### **About ESTCP**

- Established in 1995 to:
  - ♦ Improve DoD's environmental performance
  - ♦ Reduce costs
  - ♦ Enhance and sustain mission capabilities
- Demonstration & validation focus
- Promote Implementation
- Energy & Water is one of five ESTCP Program Areas
- Issue annual solicitations.

Environmental Restoration

Resource Conservation & Climate Change Weapons
Systems &
Platforms



Munitions Response

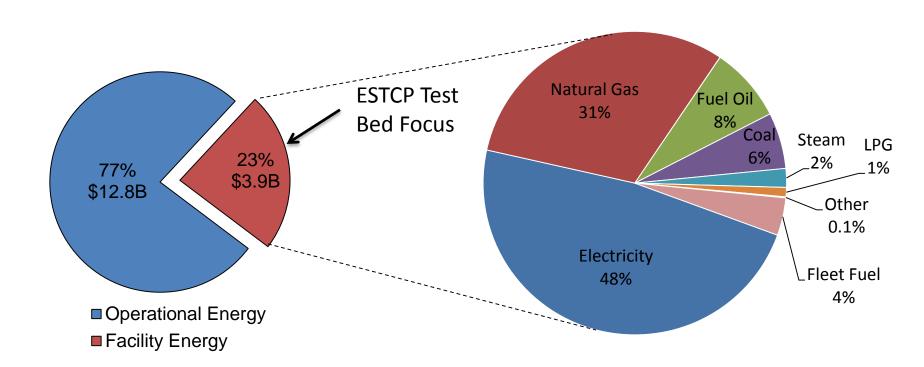
Energy & Water



#### **DoD Energy Use – ESTCP Focus**

DoD Facility & Operational Energy Cost: \$16.7B (FY15)

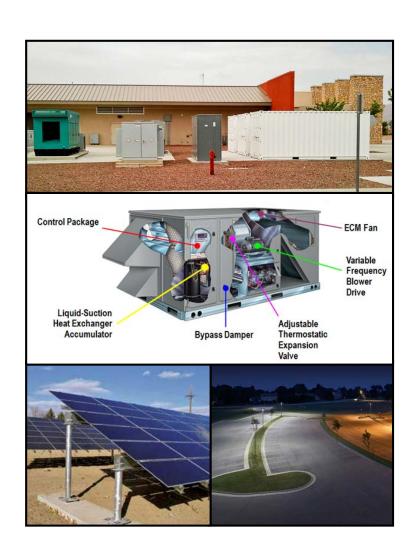
Military Installation Energy Consumption





#### **Energy and Water**

- Smart and secure installation energy management
  - ♦ Microgrids
  - ♦ Energy storage
  - Ancillary service markets
- Efficient integrated buildings and components
  - Design, retrofit, operate
  - Enterprise optimized investment
  - ♦ Advanced components
  - Intelligent building management
  - Non-invasive energy audits
- Distributed generation
  - ♦ Cost effective
  - ♦ On-site
  - Emphasis on renewables





#### A Successful Project Should:

- Objectively evaluate the cost and performance of the demonstrated technology; and
- Contribute to DoD's understanding of facility energy technologies and their applications; and
- Accelerate broad deployment of the technology



## **ESTCP Technology Consideration**

- Relevance to solicitation topic
- Potential impact
- Applicability to military installations
- Technology maturity
- Technology transfer potential
- Cost



# **Energy Technology Maturity**

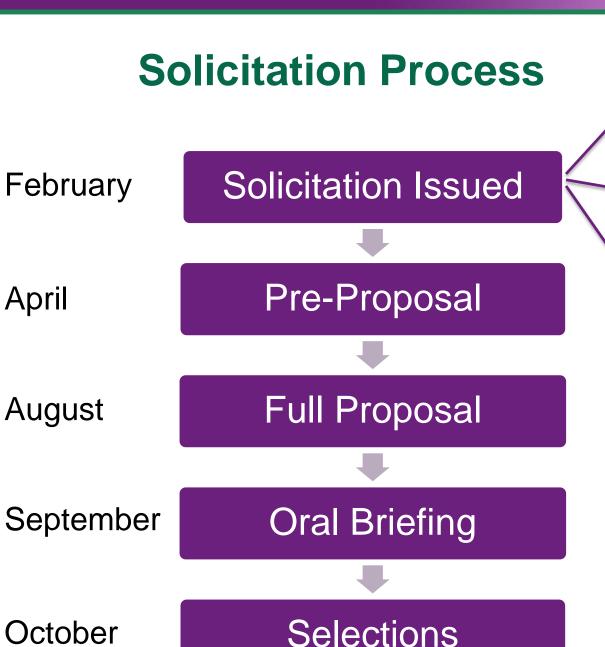
**ESTCP Investments** 

Invention Translation Adoption Diffusion

R&D Initial prototype TRL 3-6 Product development Beta prototype TRL 7-9 Pilot production Pre-commercial TRL 9 Full-scale production Commercial product TRL 9

|                                   | Translation   | Adoption  | Diffusion  |
|-----------------------------------|---|---|--|
| Performance & Cost                | Value proposition or price is unclear or ill defined.                 | Value and risks understood<br>by specialist or for some<br>applications. Limited or no<br>independent validation. | Risks and value understood for most applications. Education of broader community underway. |
| Industry, supply chain, & support | Developers required for demonstration. Building industry not engaged. | Limited commercial availability. Support and distribution partnerships not well developed.                        | Technology is available and sustainable but not usually specified.                         |



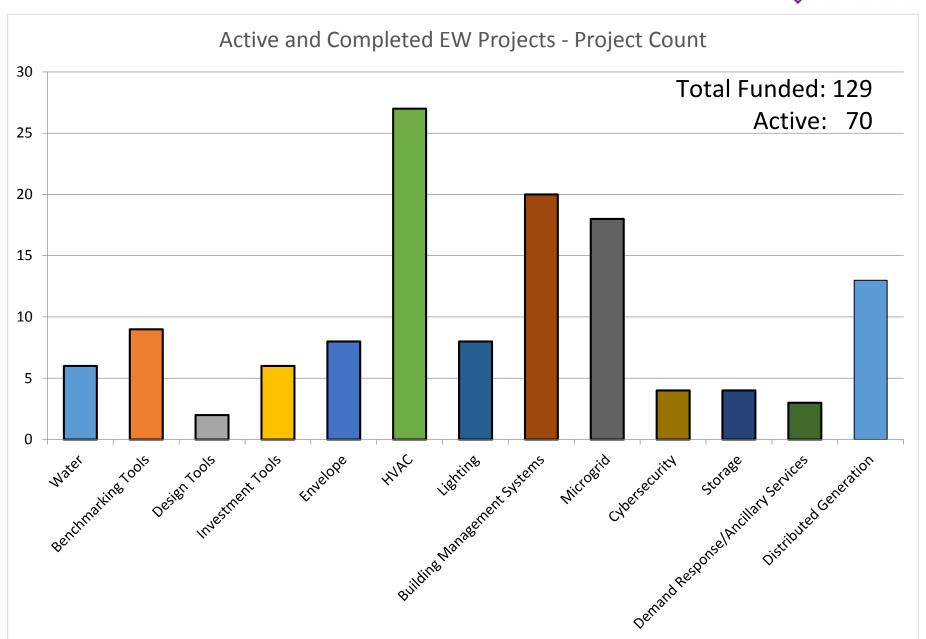


Broad Agency
Announcement (BAA)

Department of Defense Call

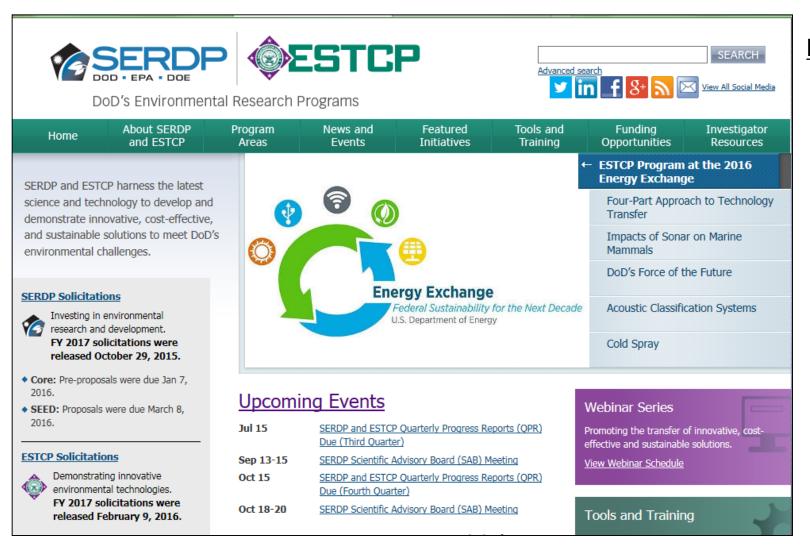
Fed Organizations
Outside DoD Call







## Website: www.serdp-estcp.org



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#### Contact

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