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Navy Techval

GovEnergy

Doing Business With The Federal Government

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Cincinnati, OH

Paul Kistler, PE CEM

NAVFAC Engineering Service Center

Port Hueneme CA

Navy Techval

- **What Does The Navy Techval Program Do?**
- **How Can I Get Involved In the Navy Techval Program?**
- **How Techval Transitions Technologies**

Navy Techval

Shore Energy Technology Plan

- NAVFAC Technology Officer
 - Coordinates all technology efforts (RDT&E) in NAVFAC
 - Leads efforts to identify technology gaps
 - Works with technology developers to prove and commercialize technologies
- Technology Clearing House
 - Database of technologies
 - Watch, Partner, Lead, COTS

Navy Techval

Shore Energy Technology Plan

- Energy Leadership Group ELG
 - Oversees Energy Technology Development to determine which technologies are relevant
 - Recommends technologies for Watch, Partner, Lead, COTS
 - Provides ranking criteria used to prioritize technologies

Navy Techval Purpose

- First funded in FY 2004
- Identifies technologies that
 - have high Mbtu savings
 - broad application in the Navy
 - low maintenance impact
- Save the Navy money on it's energy bill through early adoption of new technologies.
 - Identify
 - Validate
 - Transition
- Meet energy reduction mandates.
- Reduce dependence on congressional adds and allow for greater flexibility
- Identifies technologies that do not work as advertised.
- Technical assistance to rest of Navy.

Navy Techval Operating Procedure

- Navy leadership establishes the requirements
- Demonstration proposals are accepted throughout the year from Navy, other Government Agencies and general public.
- Proposals are voted on by the Techval Working Group (TWG) using a set of weighted criteria in late April
 - TWG consists of approximately a dozen Navy energy experts, most but not all are energy managers
- Criteria for demonstration sites are developed and email blast sent to approximately 200 Navy personnel requesting demonstration sites meeting criteria

Navy Techval Operating Procedure

- TWG recommends demonstration sites in August at GovEnergy
- Navy leadership approves the FY12 program
- Prime Contractor designs and installs technology at selected sites
 - Monitoring, data analysis, report writing by Prime Contractor or National Lab
- Technology transition
 - Reports
 - Infosheets
 - Presentations
 - CECOS
 - GovEnergy
 - FUPWG
 - Army
 - REMs
 - Guide Specs
 - Navy Energy News Letter *Energized*



Navy Techval Operating Procedure

Criteria	Weight
Total Mbtu energy or Kgal of water saved Navy/Marine wide	1.6
Implementation cost, \$/MBtu or \$Kgal	1.4
Probability of project success Can we test the technology? Will Navy adopt?	1.2
Mission impact is neutral or improved	1.2
Overall environmental impact is neutral or improved	1.2
Payback within the lifetime of the equipment	1.1
Reliability	0.8
Low maintenance	0.8
Technology easy to remove or abandon if it does not work	0.6

Navy Techval Operating Procedure

Collaboration

- DOE
- National Labs
 - PNNL
 - ORNL
 - LBNL
- Army
 - CERL, Champaign
 - COE, Huntsville



Navy Techval Operating Procedure

What Happens Next?

- Navy makes, purchasing decisions at the local level based on global requirements and criteria with Techval input.
- Anticipate significant increase in FY12 SRM energy projects
 - Watch for potential contracts on FedBizOpps (<https://www.fbo.gov/>)
 - Contact local MACC contractors for potential subcontracting work
- Financed projects, ESPC or UESC.
 - Market to Utilities and ESCO's

Navy Techval

CURRENT PROJECTS

- **Boiler Controls**

- *NA Annapolis MD*

- **EMP Water Treatment**

- *NADEP San Diego CA*

- *Kitsap*

- **Large Ceiling Fans**

- *NAS Lemoore*

- **Work Station Specific**

- Lighting**

- *NBVC Port Hueneme CA*

- **Air Cooled Magnetic Bearing Chiller Compressor**

- *NAWS China Lake*

- *NSF Dahlgren*

- *NAS Oceana*

- **Duct Sealants**

- *JRB Fort Worth*

- *NS Bremerton*

- *NS Newport*

- *NSA Mid-South*

- **Exterior Insulation**

- *NAWS China Lake*

- *Keyport*

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CURRENT PROJECTS

- **LED/Induction Lighting**

- *NS Newport*

- **Condensing Boilers**

- *MCAGCC 29 Palms*

- *Prospect Harbor*

- **LED Recessed Cans**

- *MCAGCC 29 Palms*

- **MR 16 LED**

- *NSB New London*

- *NAVSTA Everett*

- **Condensing Water Heater**

- *MCLB Albany*

- *NAB Little Creek*

- **Solar PV AC**

- *MCAGCC 29 Palms*

- **Solar Thermal AC**

- *NAVCOMTELSTA Key West*

- *NAS Corpus Christi*

- **Direct LED Lighting Replacement for HID**

- *Meridian MS*

- *Naval Station Great Lakes*

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CURRENT PROJECTS

•Insulation

- *Portsmouth NSY*
- *Meridian MS*
- *NAS Fallon*
- *MCMWTC*

•Hybrid Heat Pump Water Heaters

- *Joint Base Pearl Harbor-Hickam*
- *NAS Fallon*
- *MCLB-ALBANY*
- *Portsmouth NSY*

•M-cycle Indirect Evaporative Coolers

- *NAWS China Lake*

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COMPLETED PROJECTS

- **Boiler Combustion Controls**

- *NB Kitsap Bremerton WA*

- **Power conditioner**

- *SUBASE New London CT*

- **30kW Microturbine**

- *SUBASE New London CT*

- **Walk in Cooler Fan Controller**

- *NBVC Port Hueneme CA*

- **RF Plug Controller**

- *NBVC Port Hueneme CA*

- **Plug Occupancy Sensor**

- *NBVC Port Hueneme CA*

- **HVAC CO2 Controls**

- *NAB Little Creek VA*

- *NAVSUPPACT Mid-South TN*

- *NB Kitsap WA*

- **HVAC Occupancy Controls**

- *NAS Oceana VA*

- **Thermal Destratifiers**

- *NAS Oceana VA*

- *NSWC Crane IN*

- *NSWC Carderock MD*

- **EER+ Retrofit**

- *NSWC Corona CA*

- *NB San Diego CA*

- *NWS Yorktown VA*

- *NAWS China Lake*

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COMPLETED PROJECTS

- **Magnetic Bearing Chiller Compressor**

- *NUWC Newport RI*
- *NRSW San Diego CA*
- *NAS Jacksonville FL*

- **HID dimming**

- *NBVC Port Hueneme CA*

- **Spectrally Enhanced Lighting**

- *Washington Navy Yard DC*

- **Wrap around heat pipe**

- *NS Pearl Harbor HI*
- *NAS Pensacola FL*

- **LED Parking Lot Lights**

- *NBVC Port Hueneme CA*

- **LED/Induction Lighting**

- *NBVC Port Hueneme CA*

- **Sand Filters**

- *NAS Lemoore CA*

- **Desuperheater**

- *NS Norfolk VA*
- *NAS North Island CA*

- **Aerosol Duct Sealants**

- *NSA Orlando FL*
- *NS Newport RI*
- *NSY Puget Sound WA*

Navy Techval

- **How Can I Get Involved In the Navy Techval Program?**
- **Get A Proposal Form From Paul Kistler, Complete It and Return It.**
 - **paul.kistler@navy.mil**
- **Technologies Are Selected Using a Weighted Criteria Once Per Year, Currently April.**

Navy Techval

- **How Techval Transitions Technologies**
- **Training energy managers**
- **Writing or changing guide specs**
- **Financed projects**
- **Cannot sole source**
- **Navy Energy Program is decentralized**
- **Techval cannot use taxpayer's money to promote a specific product or vendor**
- **Techval can promote a technology**
- **Reports are only releasable to Government agencies or contractors**
- **Data not releasable to vendors or manufacturers**

Navy Techval

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