

Federal Energy Performance Contracting



Trane is a National Association of Energy Services Companies (NAESCO) accredited Energy Services Company (ESCO) and qualified DOE ESCO. Our Energy Savings Performance Contract (ESPC)/Utility Energy Service Contract (UESC) solutions help Government customers **sustain critical operations by providing energy security, high-quality/efficient infrastructure, and reduced operational costs.**

Global Expertise. Local Execution.

Trane has a 100 year history as a trusted provider of superior products and services. As a result, we have a global network of offices and service/parts locations to support ESPC/UESC projects. Our experienced federal performance contracting team partners with the Trane office closest to the project site to develop, construct, monitor, and service federal performance contracts. Trane's local service organization provides 24/7 technical support and access to a robust national supply chain. This community-based approach contributes to uptime for ongoing operations and rapid response during emergencies.

Our Core Products – HVAC Equipment and Control Systems – drive one-third of total Federal ESPC savings*

As one of the world's largest manufacturers/integrators of energy efficient HVAC equipment and Building Automation Systems (BAS)/Energy Management Control Systems (EMCS), Trane has the technical expertise to optimize energy efficiency, peak demand, and renewable power generation in federal facilities. We build, test, certify, implement, and service best-in-class equipment with optimized full and part-load efficiency. Our cyber-secured systems and software—via the Risk Management Framework (RMF) process—allow connection with Department of Defense networks and enable integrated solutions that support resiliency.

Trane is also a vendor-neutral ESCO and we manage, install, commission, and service other manufacturer's systems. Trane provides BAS/EMCS system integration through both open (i.e. BACnet, LON, Modbus) and proprietary control protocols. We leverage our controls expertise to connect the resilient systems that modern federal sites rely on.

*Data extrapolated from: Slattery, T. (2017). Reported Energy and Cost Savings from the DOE ESPC Program: FY 2015 (ORNL/TM -2017/18).

Trane® has been a qualified DOE ESCO since 1999

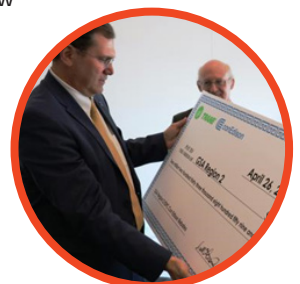
- **30% average energy reduction** from baseline
- **World Class Experience Modification Rating of 0.55**
- **FEMP** Presidential and Multiple Energy/Water Management Awards
- **Local ESPC/UESC service delivery** via 500+ CONUS/OCONUS offices:
 - Robust supply chain to sustain operations and rapidly restore service during emergencies
 - Community-based service technicians provide local operational oversight, O&M, service-repair, and installation support
 - Established relationships with local designers, suppliers, and subcontractors—including small/disadvantaged businesses
 - Reduced travel and lodging costs to save the government money

Energy Contracting in Action

GSA Region 2 ESPC

Trane implemented a \$118M ESPC in 8.1M Sq.Ft. of fully-occupied GSA facilities in Manhattan, Brooklyn, and White Plains, New York. The effort is projected to save \$193M over the lifetime of the contract and has realized \$2.2M+ in rebate revenue—almost double the \$1.2 million originally projected.

photo credit: www.gsa.gov



How Does Trane's Local Delivery Model Benefit Your Organization?

Development Advantage

- Established relationships—built through our vast commercial/government contracting portfolio—with skilled local designers, suppliers, and subcontractors
- Experienced Technical Project Developers dedicated to ESPC/UESC activities
- Renewable Energy and Power Solutions Team focused on clean, economical, and resilient energy generation and distribution solutions utilizing state-of-the-art cybersecure microgrid technology



Implementation Advantage

- Understanding of local labor work practices (Union vs. Non-Union)
- Insight into logistics of working in area/on-site (i.e. deliveries, storage, hoisting)
- Dedicated, local EH&S Specialist to conduct scheduled and random safety audits on subcontractor work to ensure compliance with the Project Safety Plan and Government requirements
- Ability to support continuity of operations/minimize disruptions through the Critical Systems Rental Program; our large inventory of skid-mounted heating, cooling, and power generation solutions can be deployed to CONUS and OCONUS job sites



Performance Period Advantage

- O&M, service repair/replacement support, and M&V/performance data logging services are administered from your community
- Local service centers stock O&M and service-repair parts (over 20,000 SKUs per location), equipment, and supplies
- Discounted/below-list prices on parts, equipment and supplies through Trane's GSA Schedule contract
- Local Trane offices answer service calls — not third party contractors
- Optional centralized monitoring and dispatching services and 24/7 support teams for installed equipment and systems

Trane ESPC/UESC Resources

- **500+** Locations Worldwide; **250+** in the US
- **Dedicated Federal ESPC/UESC Project Developers**, Energy Engineers, M&V Engineers, Project Managers, EH&S Professionals, and Trainers
- **2,750+** Factory-Trained Service Technicians
- **DOD Risk Management Framework (RMF) Specialist** with Interim Authority to Connect, Interim Authority to Test, and Authority to Operate expertise
- **Renewable and Resilient Energy and Power Systems Team** with Smart Grid, solar power, wind power, and generators with battery back up design expertise
- **Additional Specialist Teams:**
 - Energy Procurement Management
 - HVAC Application Engineering
 - Controls Engineering/Design
 - Critical Systems Rental Program

Energy Contracting in Action

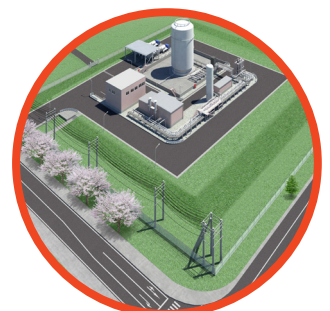
US Forest Service Region 5 ENABLE ESPC

Trane leveraged the ESPC ENABLE contract to deliver an Off-Grid Mobile Solar PV solution to 31 diverse, mixed use facilities scattered across five national forest locations in remote California. Each portable power generation system is fitted with an appropriately-sized battery storage bank and can be transported via utility trailer in the event of forest fires or other catastrophic events.



Misawa Air Base ESPC

Trane is implementing the largest ESPC in the Air Force at Misawa Air Base in Japan. The \$206M ESPC covers 700 diverse, mixed-use, and highly-secured buildings totaling nearly 8M Sq. Ft. The primary elements of the ESPC are electrical power generation and steam production. The power generation will be provided via installation of 7.5 MW DC of Solar PV, 6.5 MW AC of CHP, a cyber secure microgrid allowing Island Operation, a LNG Satellite Plant, and on-base natural gas distribution.



Trane Federal ESPC Experience

Our federal performance contracting team has implemented performance contracts for the Defense Logistics Agency, Department of State, Navy, Army, Air Force, US Forest Service, US Geological Survey, and the General Services Administration. Trane has been hired for six follow-on ESPC projects at three DOD locations.

| FEDERAL ESPC PROJECTS | Boiler Plant | Chiller Plant | BAS/EMCS | HVAC | Lighting | Building Envelope | CW/HW/Steam | Electric Motors & Drives | Refrigeration | Distributed Generation | Renewables | Energy/Utility Distribution Systems | Water and Sewer | Electrical Peak Shaving / Load Shifting | Rate Adjustments | Process Improvements | Commissioning | Advanced Metering |
|---|----------------|---------------|----------|------|----------|-------------------|-------------|--------------------------|---------------|------------------------|------------|-------------------------------------|-----------------|---|------------------|----------------------|---------------|-------------------|
| 8th Army Garrison, South Korea | | | X | | | | | | | | X | | | | | | | |
| Charleston Air Force Base | X | X | X | X | X | | X | X | | | X | | X | | | | | |
| Fort Drum | | | X | | X | | | X | | | X | X | X | | | | X | |
| GSA Region 2 New York | X | X | X | X | X | X | X | X | | X | | X | X | | | | | |
| GSA Region 5 Hart Dole Inouye | X | X | X | X | X | X | X | X | | | | | X | | | | | |
| GSA Region 6 Goodfellow | X | | X | X | X | X | | X | X | | | X | X | | | | | |
| Joint Base Charleston - NAWS | | | X | | X | | | | | | | | X | | | | | |
| MCAS Beaufort - Phase I and II | X | X | X | X | X | X | X | X | | | X | X | X | | | | | |
| MCAS Beaufort - Phase III | | | X | X | X | | | X | | | X | | X | | | | | |
| Misawa Air Base <i>Construction Phase</i> | X | X | X | X | X | X | X | X | | X | X | X | | X | X | | X | X |
| NAS Oceana - Phase I | X | | X | X | | | X | | | | X | | | | | | | |
| NAS Oceana - Phase II | X | X | X | X | X | | X | | | | X | | X | | | | | |
| NAS Oceana Dam Neck Annex - Phase I | X | X | X | X | X | | X | X | | | X | | X | | | | | |
| NAS Oceana Dam Neck Annex - Phase II | X | X | X | X | X | | X | | | | | | X | | | X | | |
| Naval Base Kitsap | | | X | X | | X | | | | | X | | | | | | | |
| NUWC Keyport | | | X | X | X | | | X | | | X | | | | | X | | |
| Osan Air Base <i>Construction Phase</i> | X | X | X | X | X | X | X | X | | | X | | X | | | X | | |
| Pine Bluff Arsenal | X | X | X | X | X | | X | X | | | X | X | | | | | | |
| Sierra Army Depot | | | X | X | X | | | | | | X | | | | | | X | |
| US Dept of State, Seoul, S. Korea | | | | | | X | | X | | | X | | | | | | | |
| US Forest Service Region 5 | | | | | X | | | | | | X | | | | | | | |
| USGS Great Lakes Science Center | | | X | | X | | X | | | | X | | X | | | | | |
| Marine Corps Installations Pacific (MCIPAC), 5 locations, Japan | In Development | | | | | | | | | | | | | | | | | |

To learn more, visit trane.com/government



2020 AMERICA'S MOST TRUSTED HVAC BRAND



Trane is ranked as **America's Most Trusted® HVAC brand** for the sixth consecutive year.

"Earning and maintaining the trust of customers is central to the success of any business. For a brand to retain the top rank in the America's Most Trusted Study year after year reflects the attention and dedication given to customers. Trane earning the top rank for six years in a row reflects the confidence consumers hold in this brand."

Eric Snider, Ph.D.
President & Chief Research Officer, Lifestory Research

CONTRACTING VEHICLES

- Department of Energy, ESPC IDIQ
- US Army Corp of Engineers, ESPC MATOC
- GSA Schedule MAS Contracts

ESPC AWARDS

- **US Forest Service ENABLE**
 - 2019 Regional Forester's Honor Awards
ENABLE Off-Grid Mobile Solar PV & LED Lighting Project
 - 2019 FEMP Annual FEDS Spotlight recipient,
USDA First Off-Grid ESPC ENABLE project
- **Naval Air Station Oceana ESPC**
 - 2014 Federal Energy Management Program Award of the Year
 - 2014 Secretary of the Navy, Large Installation of the Year
- **Dam Neck Annex ESPC**
 - 2009 Presidential Award for Leadership in Federal Energy Management
- **Charleston Air Force Base ESPC**
 - 2011 Air Force Air Mobility Command Civil Engineer Energy Conservation Award
 - 2009 Air Force Air Mobility Command Energy Incentive Award

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Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.com or tranetechnologies.com.

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