

U.S. DEPARTMENT OF
ENERGY

Office of
**ENERGY EFFICIENCY &
RENEWABLE ENERGY**

Federal Pipeline, Program Needs, & Market Potential NAESCO Federal Workshop

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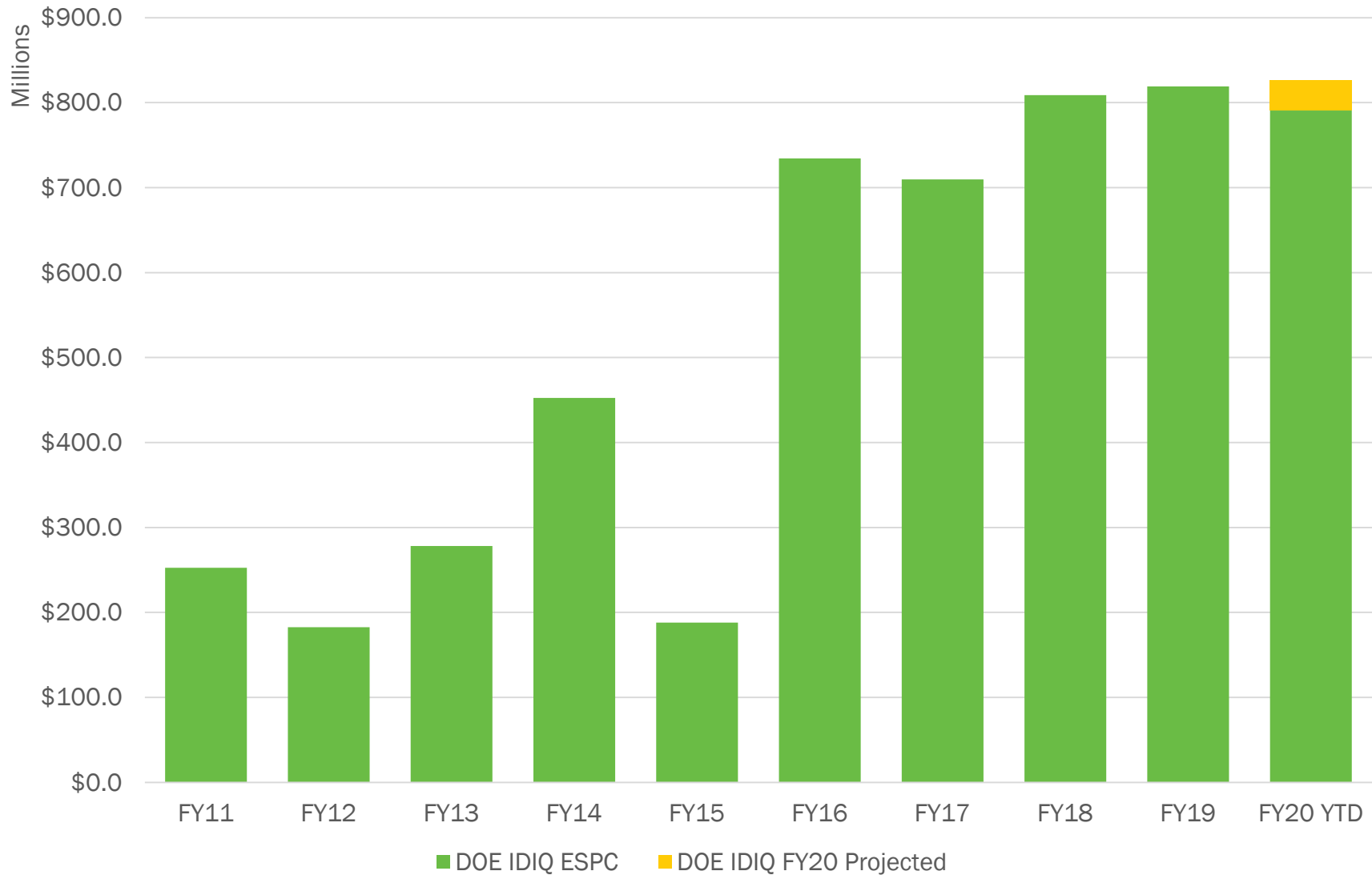
March 12, 2020



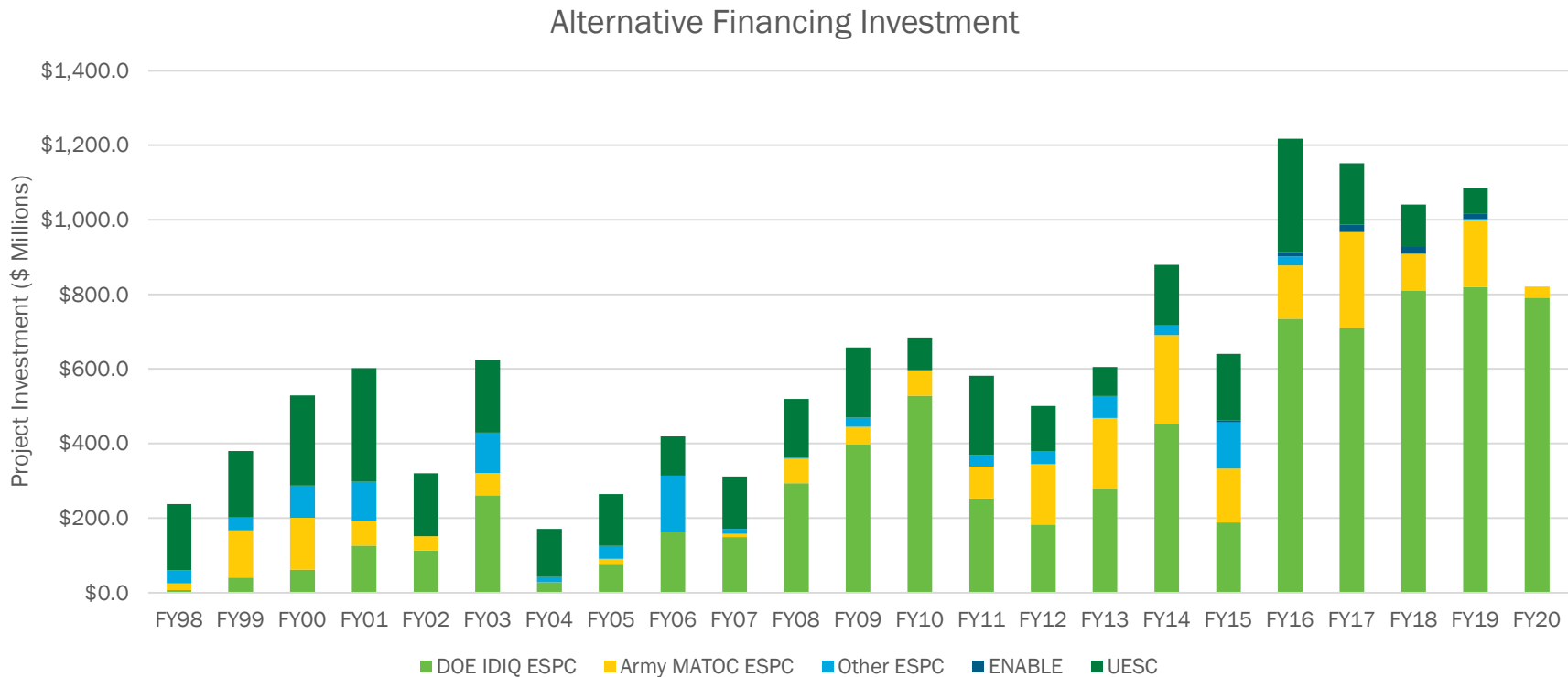
Overview

- Five consecutive years of record or near record project investment and impact
- Growing average project investment
- Significant market potential remains
- Increased investments in renewable and resilient technologies
- New or emerging areas of opportunity and special initiatives
- Training opportunities for the ESCO community.

10-Year DOE IDIQ Program Award History



Alternative Financing Investments in Federal Agencies (FY98 – FYTD20)



	Program Investment (since FY98)	Program Year Start
DOE IDIQ	\$7.463B	FY98
ENABLE ESPC	\$0.068B	FY12
Army MATOC	\$2.187B	FY96
UESC	\$3.852B	FY92
Other ESPC (e.g. VA IDIQ)	\$0.911B	FY98
Total Alt. Finance	\$14.192B	

Federal Alternative Financed Project Benefits

- Infrastructure: \$14.2 billion in investment since 1998 addresses a portion of the backlog in federal buildings and maintenance needs
- Jobs & Economic Impact: \$14.2 billion investment; created 113,500 jobs (job-years)
- Support for U.S. manufacturing

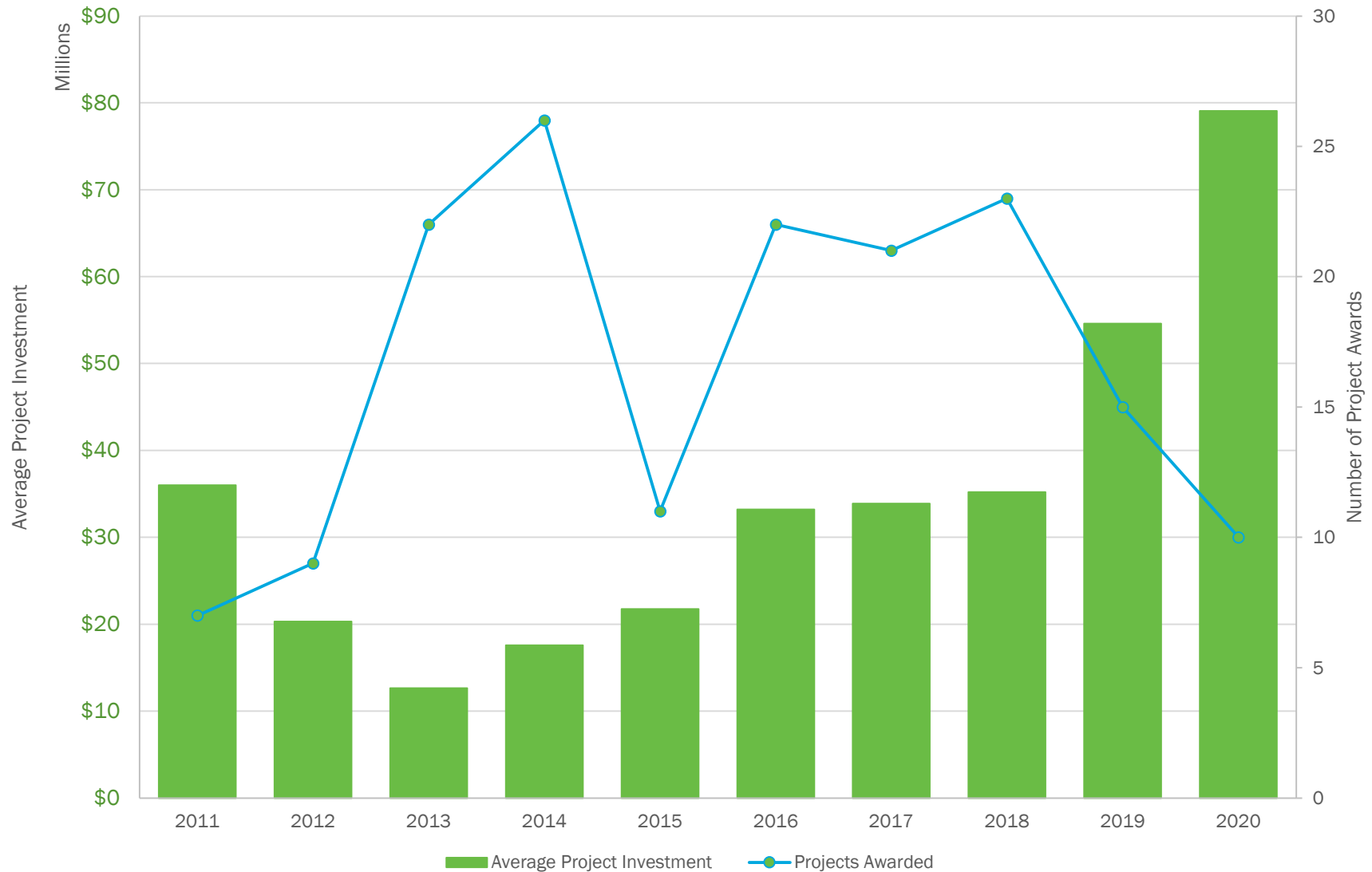


Trades typically supported through ESPC investment:

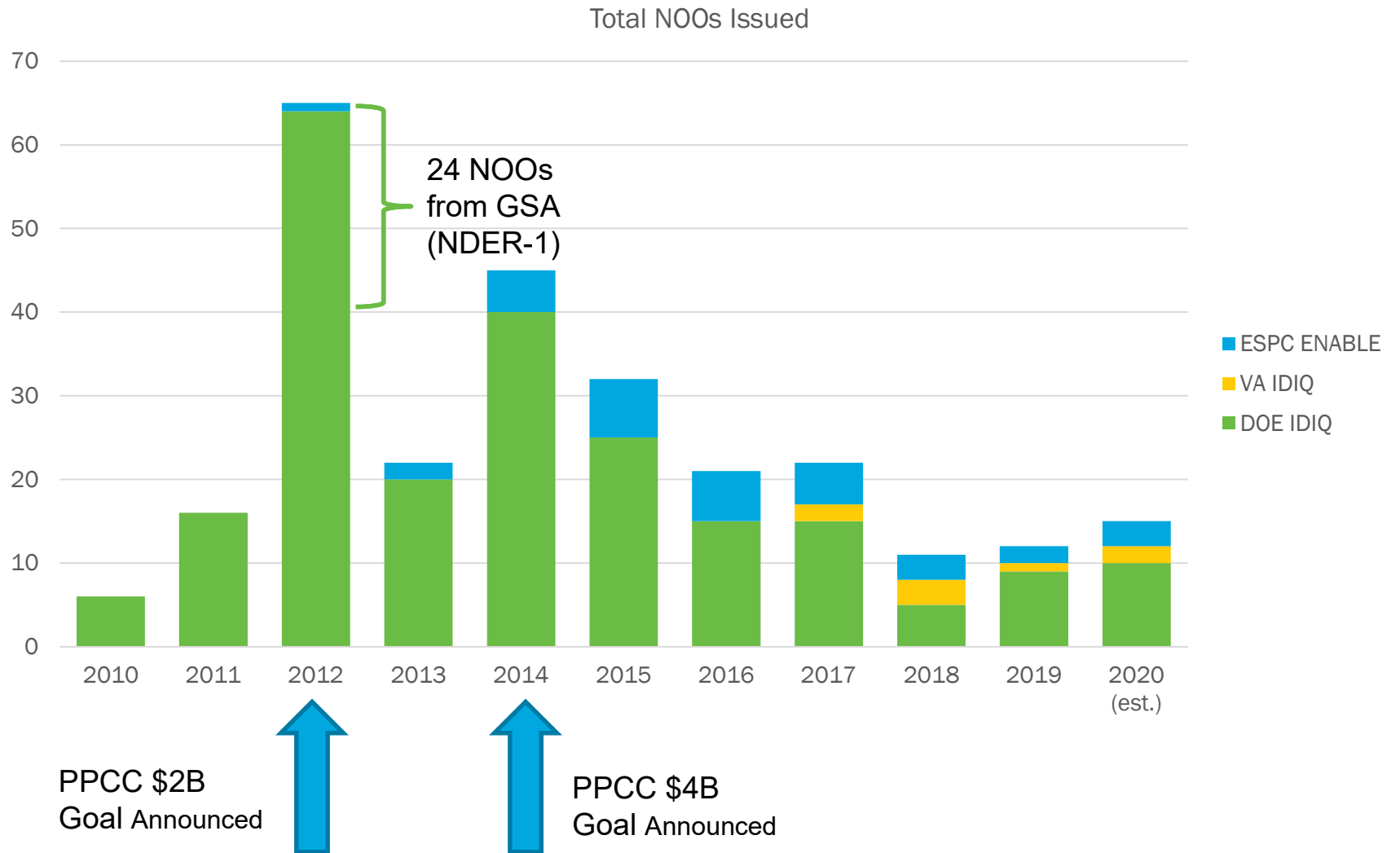
- HVAC technicians
- Electricians
- Plumbers
- Construction labor
- Construction management
- Manufacturing labor
- Engineers
- Project managers

<http://www.nam.org/Issues/Energy-and-Environment/Affordable-Energy/Domestic-Energy/Improving-Federal-Energy-Savings-Through-Performance-Contracting--Full-Report/>

10-Year Annual Project Investment vs Awards



ESPC: NOOs Issued FY2010 - 2019



Market Potential in Federal Buildings

- **EISA 432 Audits**
 - \$8.2 billion of self-funding efficiency measures identified
 - \$821 million in potential annual cost savings
 - \$690 million in potential annual energy savings
 - \$35 million in potential annual water cost savings
- **LBNL ESCO market potential study: estimated at \$92-\$201 billion**
- **\$150 billion in deferred maintenance and repairs for government-owned property, plant, and equipment**

ESPC Turns Energy Waste into Infrastructure Improvements with increased resilience, efficiency, and security.

Resilience

- USMC Parris Island (Awarded/IDIQ): CHP, Microgrid, Battery storage, PV
- USFS R5 (Awarded/ENABLE): PV, Battery Storage
- Misawa AFB Japan (Awarded/IDIQ): CHP, Microgrid, PV
- Navy Guantanamo Bay (Awarded/IDIQ): Microgrid

Disaster Response/Security

- DHS-CBP Yuma Border Fence (Awarded/ENABLE), LED Lighting

Data Centers

- NASA JPL (Awarded/IDIQ): Data center consolidation
- Army National Guard HQ (Awarded/IDIQ): Data center consolidation

ESPC Energy Sales Agreement (ESA)

- DEA EPIC (Awarded/ENABLE): PV ESA
- EPA Edison (Awarded/Site Specific ESPC): PV ESA

ISO 50001

- Tinker AFB (Awarded/IDIQ): ISO 50001 integrated throughout project

Performance Based Contract National Resource Collaborative Initiative (PBCNRCI)

- Established in H.R.1865, the Further Consolidated Appropriations Act, 2020
- “to provide expertise to state and local governments to facilitate the expansion of the performance-based contracting nationwide.”
- “shall develop a structure, with process and procedure, to provide technical and financial expertise to state and local government users”
- Reports were requested to
 - Assess available infrastructure work that can be accomplished through performance-based contracts over a 10-year period,
 - Propose methods [process, policy, legislative, etc.] to double the Federal expansion of these cost-savings programs.
 - A National Academy of Science review performance contracts for improving evaluation methodologies to better reflect real-world performance of these contracts.
- Initial efforts will include a web resource center, trainings, technical assistance, studies, data tracking, and other initiatives

AFFECT FY 2020

- Congress established in H.R.1865, the Further Consolidated Appropriations Act, 2020, \$11M for AFFECT (Assisting Federal Facilities with Energy Conservation Technologies).
- AFFECT program to date has focused on projects that leverage AFFECT funding with other sources, like performance contracts to maximize impact.
- Keep posted for an upcoming Notice of Intent which will describe the FY 2020 Program followed by a Federal Agency Call (FAC) with complete details.

Data Center Opportunities in ESPCs

- OMB requires federal agencies to consolidate, optimize, and modernize IT / data centers (OMB Memo M-19-19)
 - Performance metrics include Virtualization, Advanced Energy Metering, Energy Efficiency, Server Utilization, and Availability.
 - Aligning energy-related strategies/activities with DCOI requirements could be a win-win for agencies
- IT/data center ESPC projects can stand alone or be part of a comprehensive project including other building systems
- Technology Modernization Fund (TMF) and IT Working Capital Funds (WCF) are opportunities for leverage

Join us for [Opportunities For ESPCs In Data Centers Webinar](#) on May 21, 2020 from 1:00 – 2:30 pm EST

**Potential
Energy
Opportunities
in Data Centers**

**20-40%
savings & high
ROI typical**

**Aggressive
strategies can
yield 50+%
savings**

**Extend life and
capacity of
infrastructures**

ESPC ESAs – Act Now for Higher ITC

- ESPC Energy Sales Agreements (ESAs) use the ESPC authority for distributed energy projects on federal buildings or land where the ECM is privately-owned and the agency purchases the electricity
 - Recent example projects include DEA 2.5 MW PV (bundled with other ECMs) and NIST 5 MW PV



- Investment tax credit (ITC) benefit declines from 30% to 10% by 2022; ITC amount is based on the “commence-construction” year. See table, [IRS Notice](#), and [FEMP ITC fact sheet](#)

Solar Investment Tax Credit

Deadlines

Year of Commence Construction	Deadline for Placement in Service	ITC Amount
2019	End of 2023	30%
2020		26%
2021		22%
2022 onward	2022 onward	10%

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