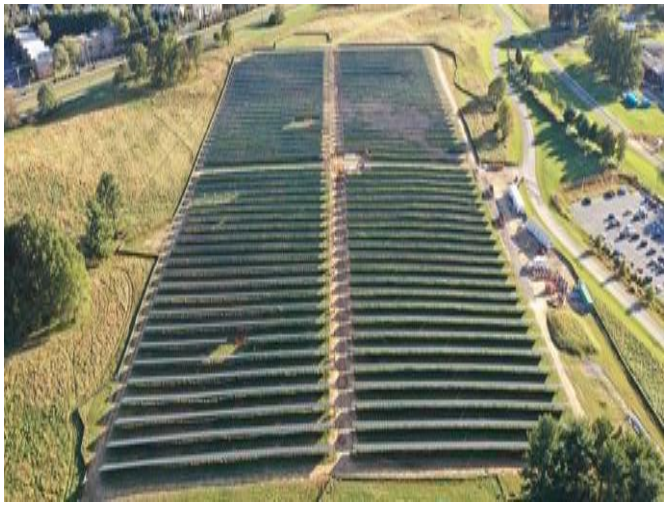
ESPC ENABLE with ESA Project Example:

National Institute of Standards and Technology (NIST)

Gaithersburg, MD



Background

- NIST awarded larger ESPC ($45M) with 4 ECMs the previous year (June 2015)
- Non-selected ECM was fixed-tilt, ground-mounted solar array on federal property
  - Forecasted cash flow wouldn't payback within 25 years
  - Principal solar array developer was subcontractor to prime ESCO; prime's O/H and profit too much burden unless NIST provided 7-digit upfront cash infusion
- Tried 1 year later as sole ECM using ESPC ENABLE; avoids tacked-on O/H, profit burden
  - Issued NOO using GSA Federal Supply Schedule 84, SIN 246-53
  - Initially pursued government ownership option: NIST owns & responsible for O&M, repair/replacement costs following commissioning and acceptance
  - No need for Preliminary Assessment
  - Price was most important evaluation criteria – 65%

Selection Criteria

- Had 4 separate GO – NO GO criteria:
  - Safety (EMR) rating of 1.0 or less
  - Proof of experience on PV systems larger than 1 MW in size
  - Attend (in person) site visit to NIST Gaithersburg, MD campus
  - Offer an "all in" unit electric rate < 10 cents/kWh, which was rate that NIST was currently paying to local utility
- Six ESCOs submitted bids
- 5 of 6 rec'd GO on each of 4 criteria
- Price evaluation - lowest unit rate; highest first year cost savings
- Written responses to questions - past performance, management plan & structure, strengths, design/implementation team

New Option – Added Step, Reduced Price

- It was clear cut who to choose as Down Select single ESCO and move forward to IGA phase; offered all-in unit rate was 15% lower
- **Hold the presses** – IRS publishes Revenue Procedure 2017-19, providing new guidance regarding tax credits for private ownership option
- NIST was almost ready to proceed down govt ownership path when IRS 2017-19 was issued; NIST chose to explore both govt & private options
- Remaining 5 ESCOs queried – submit price component for private ownership option given IRS guidance, or only interested in govt owned?
- 4 ESCOs provided private ownership all-in unit rate; one declined
- 4 offers evaluated again against price criteria – lowest unit rate, highest first year cost savings

The Offer

- Clear cut again who to choose as Down Select single ESCO to move forward to IGA phase; offered unit rate was 40% lower than what NIST was paying local utility provider
- ESCO with best govt ownership offer compared against ESCO with best private ownership offer
- All-in unit electric rate:
  - Government ownership – 8.5 cents
  - Private ownership – 5.9 cents (31% lower than govt ownership option)
- First Year and Life cycle cost savings:
  - Government ownership - $98K and $1.56M (adjusted to $4.08M for 20 years)
  - Private ownership - $304K and $5.98M (202% and 283% higher than govt ownership option)

Selection, IGA, and Award

- ESCO that offered best private ownership option continued on in the process to conduct IGA
- Normal process – IGA received, SOW reviewed/finalized in partnership with ESCO, Final Proposal, allowable price adjustments negotiated, contract award

  *Advice – if price is primary evaluation factor, request that ESCOs include information in their NOO responses regarding how the market and other changes (such as SREC prices) will impact their final unit price offered in IGA.
- Final unit price: 7.1 cents; impacts of solar panel tariff, SREC market, utility connection requirements raised IGA offered rate of 5.9 cents
- Timeline– not any faster by using ESPC ENABLE: kick-off July 2016; award May 2018; operational December 2018

  *Advice – engage NREL and DoE/FEMP subject matter experts; use them actively throughout the entire process. A wealth of useful help.

Summary

- In the end, private ownership 31% cheaper than govt ownership option
- Project size – 5 MW (DC); 15 acres; 11 football fields; 14,700 panels; $10.2M; provides 4% of NIST's electric load
- 20-year contract term, ESCO responsible for all operations, maintenance, repair, replacement costs
- Developed revocable, no-cost license agreement for non-federal use of NIST's real property
- PV contractor gets tax credits (ITC, MACRS), solar REC
- NIST purchases array at end of 20-year term at fair market value
  - Interim FMV appraisals at 5, 10, 15 years. Final appraisal at time of title transfer
  - All-in unit rate that ESCO charges per kWh includes a reserve account payment. Total of account at end of 20 years = final appraised fair market value; so no add'l funds needed
  - Projected 10 more years of solar energy generation
  - In all, estimated ~ $12M savings