



AUGUST 21-23, 2018 • CLEVELAND, OHIO

Selecting A Contracting Vehicle

PPAs and ESPC ESAs

NREL/PR-7A40-71944

On-Site Distributed Energy (DE) Implementation Options

Procurement Options for On-Site DE Project with Private Ownership*



- 10 USC 2922a (Dept. of Defense only)
- 40 USC 501/FAR Part 41 (GSA authority; requires delegation)
- FAR Part 12 Commercial Items
- Western Area Power Administration (WAPA)
- ESPC Energy Sales Agreement (ESPC ESA)
- Real Property Arrangement

**Disclaimer: Not all options are available to all agencies; check with your contracting and legal staff regarding available options.*

Power Purchase Agreement (PPA)

Renewable Developer

- Purchases, installs, owns, operates, and maintains renewable equipment on federal land and/or buildings
- May be able to take advantage of tax incentives and/or sell the project renewable energy certificates (if they are valuable) to reduce price

Agency

- Hosts an on-site renewable energy project
- Purchases energy from the renewable project for the life of the contract

- Best for large renewable projects (generally >500 kW)
- Long-term contract (20 years) is ideal, but civilian agencies have limited long-term contract options

ESPC ESA

ESPC ESA is a project structure using ESPC authority for renewable energy conservation measures (ECMs) on federal buildings or land where the ECM is initially privately owned and the agency purchases the electricity.



- Similar to PPA but uses long-term ESPC authority
- Must meet all ESPC requirements
- Differences from typical ESPC:
 - Payment is based on kWh generation; price is in ¢/kWh
 - Private ownership initially
- FAR Part 41 authorizes use of ESPC for the acquisition of utility services (48 CFR § 41.102(b)(7))

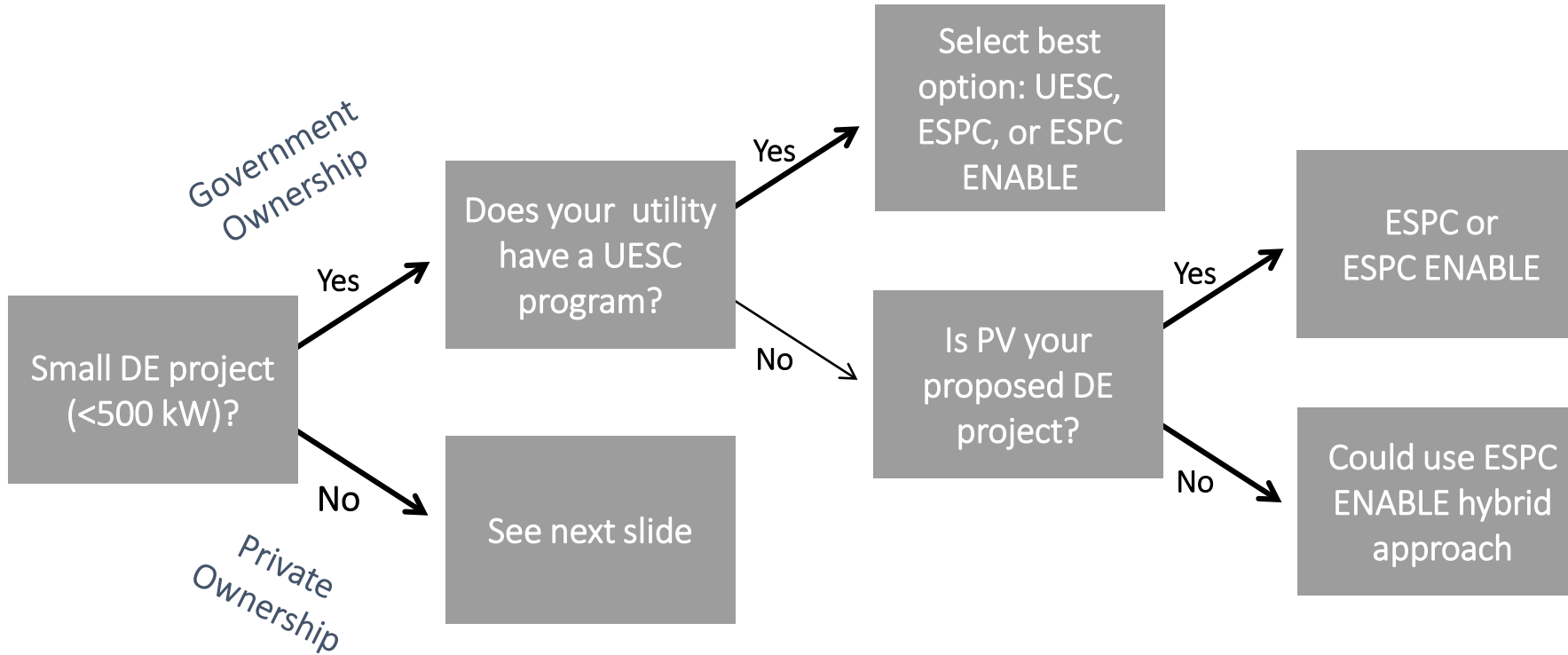
ESPC ESA: Unique Requirements/Considerations

- Must retain equipment title by end of contract for annual scoring
 - [2012 Office of Management and Budget Memo M-12-21](#)
- Tax incentives: safe harbor provided by IRS
 - IRS will not challenge treatment of an ESPC ESA as a service contract under §7701(e)(3) of Internal Revenue Code (ESCO responsible for tax incentive due diligence)
 - IRS Revenue Procedure 2017-19 published in [Internal Revenue Bulletin 2017-07](#)
 - Section 4 contains contract requirements (including 20 year limitation)



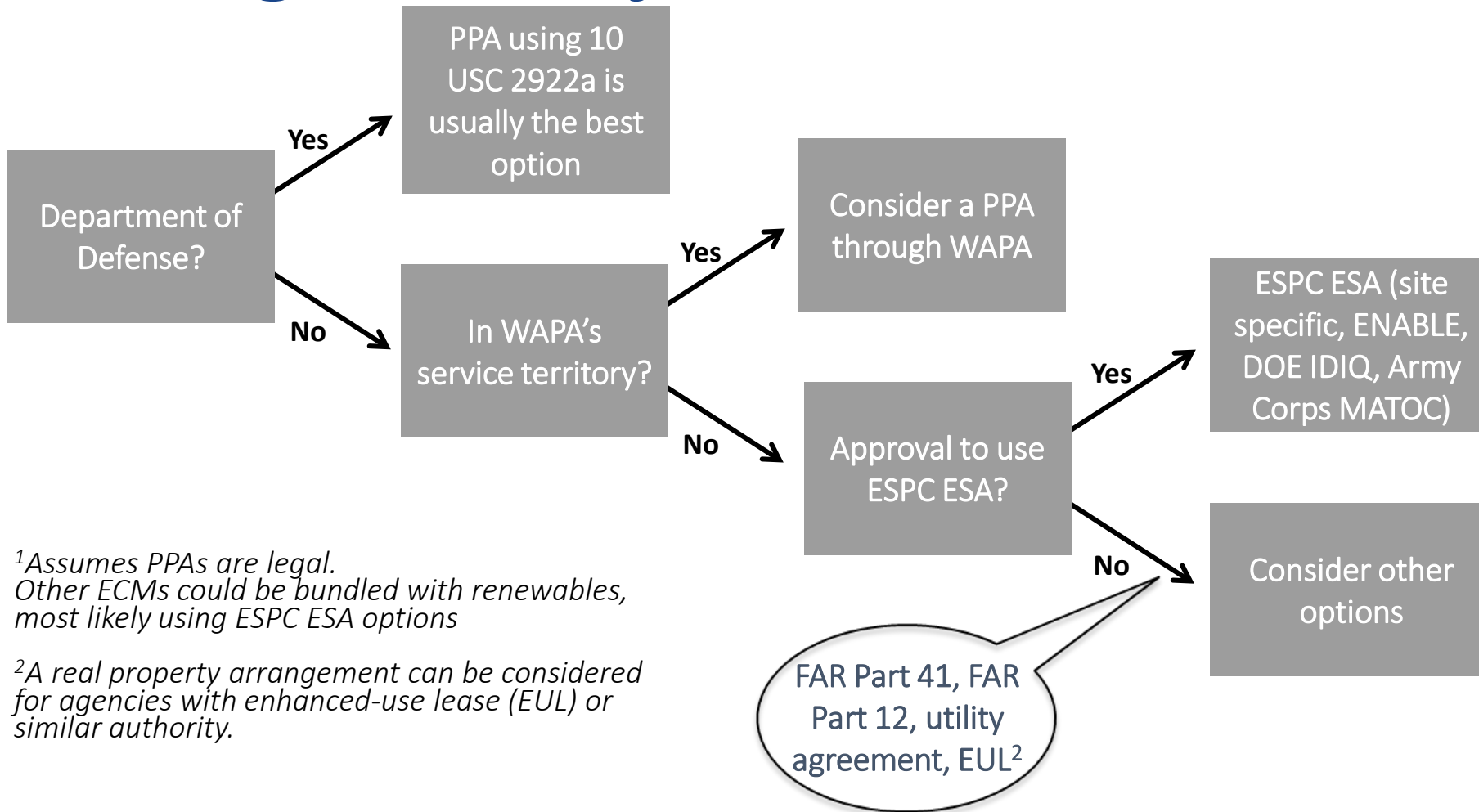
Selecting A Contracting Vehicle for On-Site DE

Small DE Projects



Caveat: This flowchart serves as a general decision-making framework.

Large DE Project with No Other ECMs¹



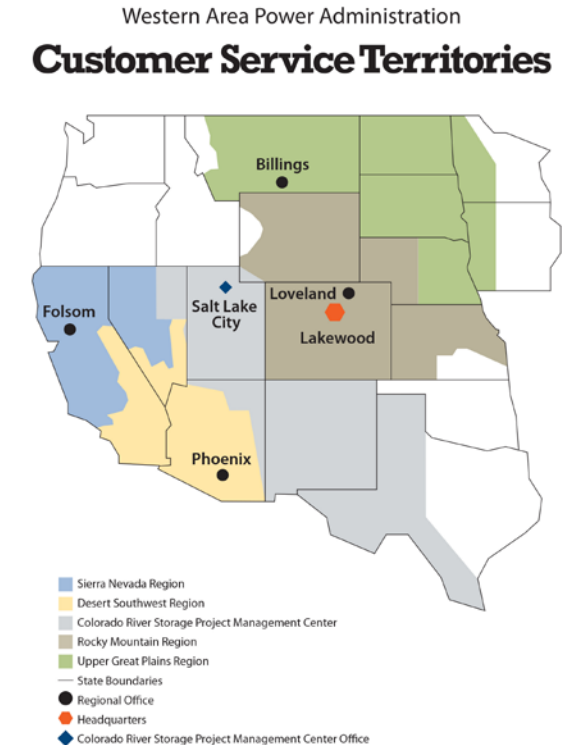
¹Assumes PPAs are legal.
Other ECMs could be bundled with renewables,
most likely using ESPC ESA options

²A real property arrangement can be considered
for agencies with enhanced-use lease (EUL) or
similar authority.

Case Studies

Solar PPA Using WAPA

- Large project (>1 MW), so private ownership beneficial
- Civilian agency with limited long-term contract options
- In WAPA's service territory
- Implemented before ESPC ESA concept developed
- Agency legal and contracting approved use of WAPA
- Project RECs sold , agency purchases replacement RECs



ESPC ENABLE ESA

- Civilian agency with limited long-term contract options
- Not in WAPA's service territory
- Settled on ESPC ESA due to long-term contract authority
- Considered ESPC approaches (site-specific/stand-alone, DOE IDIQ and ENABLE)
- Agency selected ENABLE

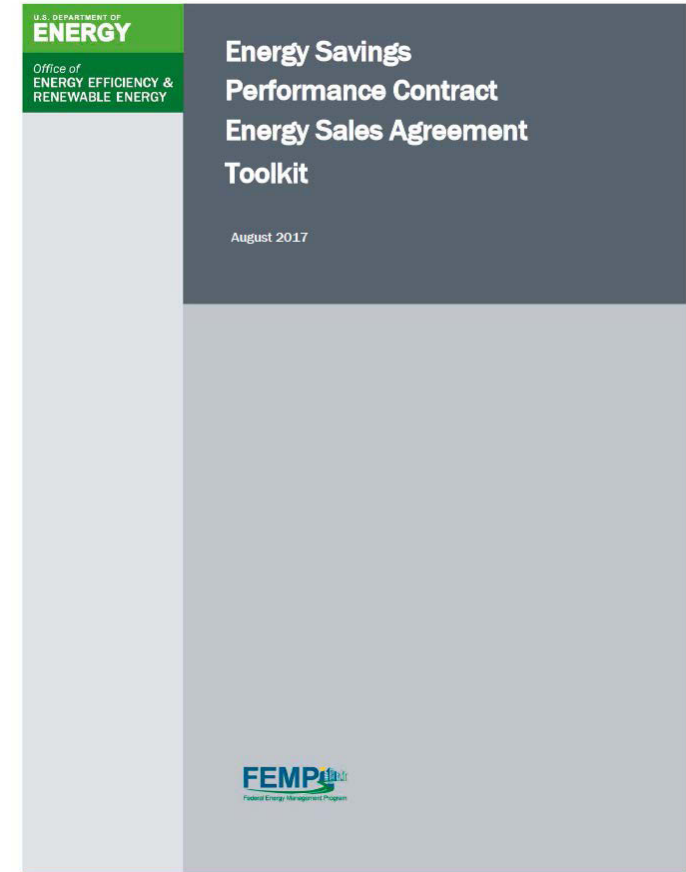
Resources

FEMP's ESPC ESA Toolkit

A resource focused on ESPC ESA projects*

- Assumes site-specific (stand-alone) ESPC
- Includes project consideration description, process diagram, checklist, and team responsibility chart
- Provides authorizing legislation; other applicable information
- Contains editable templates including RFP
- Toolkit for ESPC ESAs using the DOE IDIQ and ENABLE in development

**This information may be useful for other types of projects.*



ESPC ESA Toolkit: Resources Summary

- ESPC ESA website (including link to ESPC ESA Toolkit)
 - <https://www.energy.gov/eere/femp/energy-savings-performance-contract-energy-sales-agreements>
- “Procurement Specifications Templates for Onsite Solar Photovoltaic: For Use in Developing Federal Solicitations”
 - <https://energy.gov/eere/femp/downloads/procurement-specifications-templates-site-solar-photovoltaic-use-developing>
- DOE IDIQ Contract
 - <https://www.energy.gov/eere/femp/downloads/2017-doe-idiq-esp-c-generic-contract>
- 2012 OMB Memo M-12-21
 - <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2012/m-12-21.pdf>
- IRS Revenue Procedure 2017-19 published in Internal Revenue Bulletin 2017-07
 - <https://www.irs.gov/pub/irs-irbs/irb17-07.pdf>

FEMP's Distributed Energy Program



Tracy (Logan) Niro
FEMP, Advisor
tracy.niro@ee.doe.gov
202-431-7601



Rachel Shepherd
FEMP, Program Lead
rachel.shepherd@ee.doe.gov
202-586-9209



Chandra Shah
NREL
chandra.shah@nrel.gov
303-384-7557



Andy Walker
NREL
andy.walker@nrel.gov
303-384-7531



Gerald Robinson
LBL
gtrobinson@lbl.gov
510-486-5769



Emma Elgqvist
NREL
emma.elgqvist@nrel.gov
303-275-3606



Mike Warwick
PNNL
mike.warwick@pnnl.gov
503-417-7555



Kevin DeGroat
Antares Group
kdegroat@antaresgroupinc.com
301-789-7768



Chandra Shah

Senior Project Leader

National Renewable Energy Laboratory

chandra.shah@nrel.gov

303-384-7557

NREL Disclaimer

This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08G028308. Funding provided by the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy Federal Energy Management Program. The views expressed in the presentation do not necessarily represent the views of the DOE or the U.S. Government. The U.S. Government retains and the publisher, by accepting the presentation for publication, acknowledges that the U.S. Government retains a nonexclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this work, or allow others to do so, for U.S. Government purposes.