



U.S. Department of Energy  
**Energy Efficiency  
and Renewable Energy**

Bringing you a prosperous future where energy  
is clean, abundant, reliable, and affordable

**Federal Energy Management Program**

# Combining ESPC and PPAs for Large-Scale Renewable Energy Projects

Renewable Energy Working Group  
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- Facilities with substantial land areas and renewable resources, but small facility energy demand
- Supports broader DOE/EERE mission by helping to commercialize renewable energy technologies
- Potential distributed generation benefits to power quality, reliability, energy surety



- Many technologies are more competitive at larger-scale, and receive a bonus for siting on Federal land
  - Biomass Electricity & Thermal
  - Large-Scale Wind
  - Concentrating Solar Power
  - Geothermal Electric
  - Ocean Systems





- **ESCO**
  - Can provide ECMs that combine with power project that create cost-effective package, financing
- **Renewable Project Integrator/Energy Supplier (Could Also be the ESCo)**
  - Ability to construct RE project and offer output as a power sale to government, sells excess to non-government consumers
- **Government**
  - Purchaser for part of the RE project output, and pays for energy savings from any related ECMs



- What they bring to the table:
  - Investors with “tax appetite” who can use tax credits and incentives agencies cannot
  - Renewable energy expertise
  - Channel for selling RECs if necessary
  - Channels for selling excess generation to other customers (local utility)



- Their concerns:
  - Land/building access over life of project – leasing terms
  - Termination provisions to keep their investors whole
  - Contract/project term/lifetime
  - Environmental impact, analysis and mitigation requirements

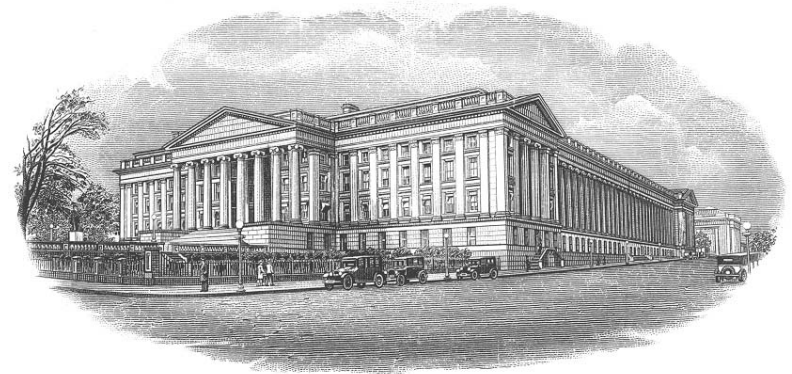


- What they bring to the table:
  - Those on Qualified list provide a simpler procurement path
  - Expertise in bundling ECMs, structuring an overall project that works for all parties
  - Access to financing
- Their concerns:
  - Maintaining a good return on investment on the overall project
  - Risk surrounding the technology, market, and incentives that can change financial profile of a deal
  - Legal/procurement interpretation of combining ESPC and PPA in specific situations





- What they bring to the table:
  - Demand for both renewable energy and for energy savings
  - Reliability as a customer
  - Land lease and infrastructure useful in project development
  - In some cases EIS or EA that reduces siting costs
  - Support NEPA compliance requirements as required
  - WAPA as another potential party to assist with purchase and possibly wheeling
- Their concerns:
  - Limiting costs/maximizing savings
  - Complying with all procurement, land-use and environmental requirements
  - Expediting/simplifying procurement of renewable energy as much as possible





- Land Use/withdrawal and fair compensation
- NEPA
- Water Use/State permits for withdrawal and fair compensation (some technologies)
- Dependence on incentives and sales outside government
- Incentives beyond tax credits, new types of RECs, ?
- Dependence on local utility or other off-taker as purchaser of excess, or power wheeling
- What is the right balance between size of ESPC element and PPA element?
- Long-term power purchase contract authority for RE – all agencies calling for the same language



- Actions?
- Thoughts?
- Experience?
- Questions?

