Leveraging Federal Tax Incentives to Improve Renewable ECM Economics in ESPCs

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Leveraging Tax Incentives for ESPC Renewable Energy ECMs

- Federal Tax Incentives (~45% of Cap Cost)
  1) Investment Tax Credit (2016) – 30%
  2) 5 Year Accelerated Depreciation
     ✓ Modified Accelerated Cost Recovery System (MACRS)

- Requires private party ownership of RE asset and energy services agreement (ESA) with agency, ESCO and Asset Owner
- ESCO responsible for RE asset performance
- Asset Owner (Tax Equity Investor) responsible for delivery and O&M
Leveraging Tax Incentives for ESPC Renewable Energy ECMs

- **Title Disposition Options**

  1) If Government ownership desired, must be Fair Market Value (3rd party appraiser) purchase price
     ✓ Best done after tax benefits realized
        – After 6 years for solar

  2) No purchase, if ESCO has right of refusal to remove at its expense

• Following illustrates the parties and roles for ESPCs for EE and Private Owned RE Asset
Cash Flow & Parties for Conventional EE ESPCs

- **Agency**
  - Receives Energy Services Payments from Utility
  - Receives RE Incentives from EE Financier
  - Pays ESCO for ESCO Services
  - Pays Utility for Utility Savings

- **ESCO**
  - Receives Financing from EE Financier
  - Provides ESCO Services to Agency

- **Utility**
  - Receives ESCO Services Payments from Agency
  - Provides Utility Savings to Agency
  - Receives Debt Service Payments from ESCO

- **EE Financier**
  - Receives Financing from Agency
  - Receives ESCO Services Payments from ESCO
  - Receives DEbt Service Payments from Utility
Cash Flow & Parties for Leveraging Tax Incentives for RE in ESPC

Private Sector Operating Lease

- **Agency Lessee**
  - Energy Delivery
  - Payments
  - RE Incentives
  - Utility Savings

- **ESCO**
  - Subcontract
  - Debt Service & Energy Payments

- **Utility**
  - Payments

- **RE Developer**
  - Financing & RE Asset Operating Lease

- **Tax Equity Financier Lessor**
  - Debt Service & Energy Payments
Cash Flow & Parties for Leveraging Tax Incentives for RE in ESPC

**ESA – Deliver RE Power at \( \leq \) current cost**

- **Agency**
  - Payments
  - RE Incentives
  - Utility Savings

- **Utility**
  - RE Incentives
  - Utility Savings

- **ESCO Lessee**
  - ESA
  - Payments
  - Energy Delivery

- **RE Developer**
  - ESA
  - Financing & RE Asset Operating Lease
  - RE Investment Power Production
  - Tax Credits MACRS

- **Financier Lessor**
  - ESA
  - Debt Service & Energy Payments

- **IRS**
  - RE Investment Power Production
Several Federal ESPCs with RE where PV energy $\leq$ current utility cost

Site Access Critical for Investor
  - Recommend License

ESA templates provide a good starting point.

FAA – Regional Traffic Control
  - 1.1 MW PV Ground Mounted
  - 100 kW Carports
### FAA Tracon Mather, CA
**ESPC With Private Owned PV Energy Services Agreement (ESA)**

- 1.1 MW Ground Mounted and 100 Kw PV Carports
- NREL RE Expertise and Tech Assist to FAA, SMUD, NORESCO, REC Solar, Enfinte (financier)
- Provided ESA template & negotiation successful to implement 2nd civilian ESPC RE project
BACK UP SLIDES
Cash Flow & Parties for Leveraging Tax Incentives for RE in ESPC

Meeting IRS Regulations

- Agency Lessee
  - Payments
  - RE Incentives
  - Utility Savings
  - Energy Services

- ESCO
  - Subcontract
  - RE Developer
    - Financing & RE Asset Operating Lease
    - Tax Credits MACRS

- Financier Lessor
  - Debt Service & Energy Payments
  - RE Investment Power Production

- Utility
  - IRS

IRS Tax Tests
- Lease Term < 80% useful life
- At lease end asset value >= 20% initial value
- Lessee purchase option – protect Lessor ROI
- Lessor must have 3% cash on cash return
Cash Flow & Parties for Leveraging Tax Incentives for RE in ESPC

Private Party Owns RECs

1. **Agency Lessee**
   - Payments
   - RE Incentives

2. **ESCO Lessee**
   - Energy Services
   - ESA
   - Financing & RE Asset Lease

3. **Financier Lessor**
   - Debt Service & RE Lease Payments

4. **Utility**
   - Utility Savings

5. **Utility or REC Market**
   - REC Revenues
   - REC Delivery

6. **IRS**
   - Tax Credits
   - MACRS

**Flow**
- Agency Lessee to ESCO Lessee
- ESCO Lessee to Financier Lessor
- Financier Lessor to Utility
- Utility to Agency Lessee
- ESCO Lessee to Utility
- Utility to ESCO Lessee
- Financier Lessor to Utility
- Utility to Financier Lessor
- ESCO Lessee to IRS
- Financier Lessor to IRS
- IRS to ESCO Lessee
- ESCO Lessee to ESCO Lessee