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Energy Security Economics: A Financier's Perspective

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The Financed Project and Energy Security – Addressing Key Questions

Understanding how a project is financed helps leverage the benefits and value of energy security projects

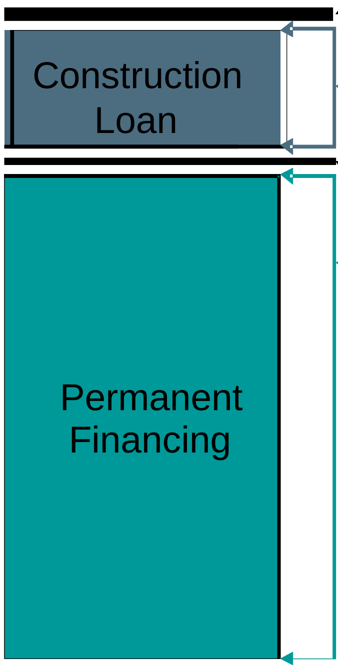
- How is a project financed
- What is financier using as collateral
- How important is credit worthiness
- Which components are key to securing cost effective financing
- What security is associated with UESC deal
- Energy security and financing – How do they relate
- Interest rates and spreads over time

How are ESPC and UESC Projects Financed

100% Debt Financing in Two Parts:

- Construction Loan and Permanent Term Financing are Two Elements

Example Structure Timeline



Financial Closing

- Construction Funds Placed in Escrow, Includes Cap. Interest

Construction Period (18 months)

- Construction Draws, Typically 1 per month

Certificate of Completion from Gov’t Received at End of Construction

Permanent Financing (15 years)

- Monthly, Quarterly, or Annual payments for full term
- Payments escalating typically at 2.5% rate

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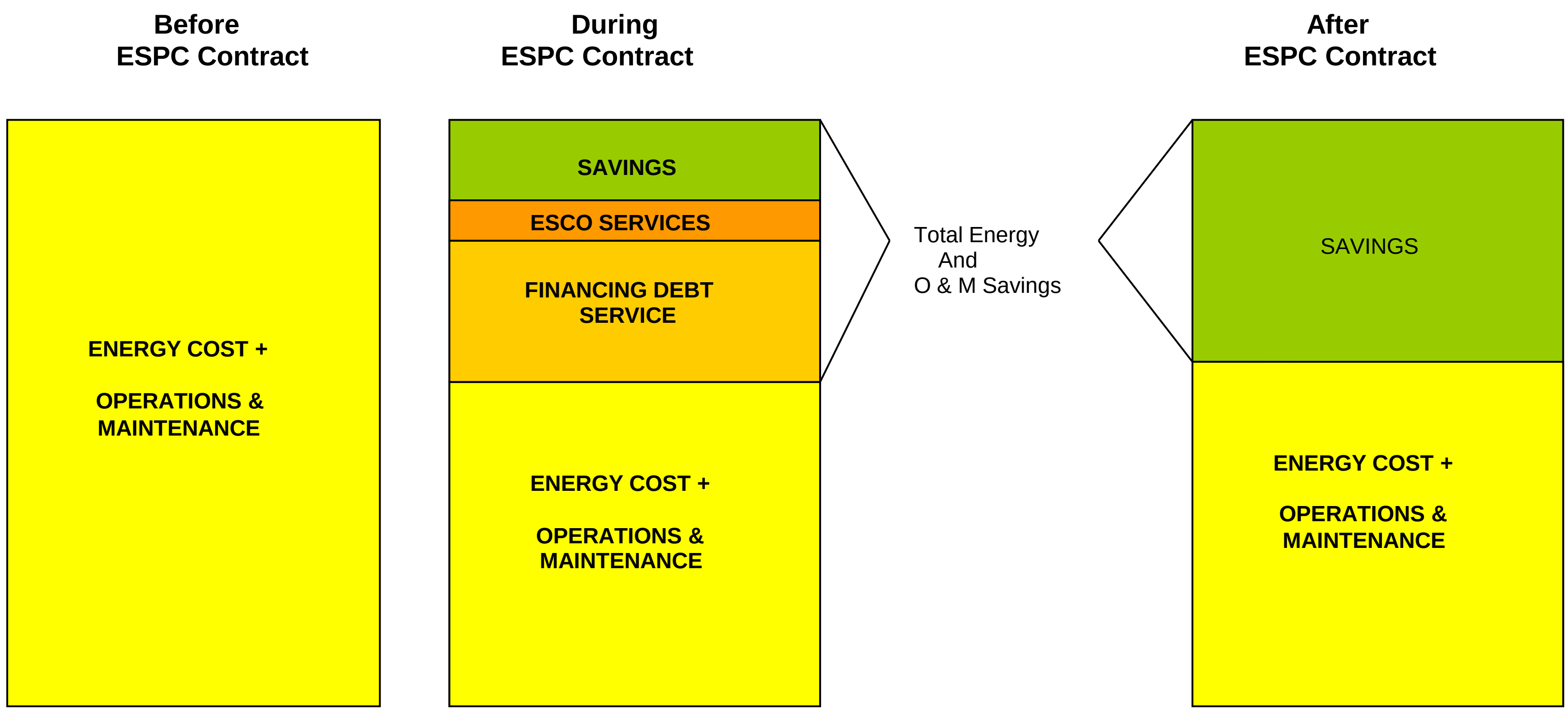
Credit Worthiness of Deal and Where it Comes Into Play

Credit Rating of ESCO: During Construction Loan - both UESC and ESPC rating involved

During Permanent Term - only ESPC rating involved, while UESC has gov't backing during permanent term



What is Financier Using as Collateral

Key legal document is "Sale and Assignment (S&A) Agreement"

- Lien on equipment not allowed on gov't facility
- Instead of lien, "Assignment of Payments" provides collateral
- *Assignment of Claims Act* is legal authority
- S&A Agreement "assigns" the government payment stream (resulting from savings) to the lender
- Debt service payments are paid directly to the lender
- "Sale and Assignment" occurs at close of financing

Investor Screening Criteria – Keys to Cost Effective Rates

Interest Rate = US Treasury Rate + Market Spread

Factors determining market spread

- ESCO/Utility Specifics
  - Credit Rating – usually prefer investment grade
  - Amount of Corporate Bond exposure influences interest
- M&V option of project
  - Most prefer option with least amount of risk, which is Option A
  - Recent Gov't push to use Option B, but investors shy
  - Little interest from investment community for Options C & D

Investor Screening Criteria – Keys to Cost Effective Rates

Factors Determining Market Spread (cont'd)

- Length of Maturity
  - Pricing based on Weighted Average Life (WAL) of payments
  - Longer the WAL, higher the effective rate
  - Upper limit of 12 to 15 years for banks
  - Insurance companies go up to 25 years

- $ Size of Project
  - Smaller deals (under $2 to 3 million) result in higher rates
  - Sweet spot for most investors: $10 to 25 million

Security of UESC Deal

Financing Benefits of Using UESC Option

- Construction Period Risks are Limited
  - Focus is on ability of utility to deliver the project it has promised.
  - Payment and Performance bond covers construction completion

- Permanent Term Risks Minimal
  - Risk of default on payment is minimal based on obligation of Government to make payments
  - Partnership with the utility provides Gov't with confidence that problems will be addressed
  - T for C Premium in event of termination by the Government - included in Delivery Order

- *All Of These Result In Lower Rates From Investment Community For UESC*

Energy Security and Financing

Benefits of private vs appropriated funds

- Historically low interest rates
  - Low cost of borrowing can support heavier infrastructure projects
  - Economic challenge: waiting for Gov't appropriated funds versus slightly higher cost of obtaining funds from private sector – economic tradeoff favors private financing

- Financing of energy efficiency projects enhances energy security
  - Less reliance on energy purchased externally

- Financing of renewable projects directly improves energy security
  - 25/25 guidelines for renewable energy component
  - Important addition to energy efficiency
  - Major contributor to energy independence

Interest Rates and Spreads Over Time

Our experience over last 12 months

- WALs have ranged from 4.9 to 8.9 years
- US Treasury Index ranged from 1.42% to 3.73%
- Financing Rates ranged from 3.6% to 4.5%
- Spreads ranged from 1.40% to 2.20%