

Alternative Financing for Energy Projects Including Enhanced Use Leases (EUL), Public Private Partnerships (PPP), and Energy Savings Performance Contracts (ESPC)

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Bostonia Introduction

- Founded in 1998, Bostonia Partners LLC (BP) is an investment bank headquartered in Boston, Massachusetts.
- Bostonia Partners is a daily market participant through its own broker/dealer, Bostonia Global Securities LLC (BGS), established in 2004.

Investment Banking

The Investment Banking group has expertise in financing unique and highly structured transactions with a primary focus on the following:

- Credit Tenant and GSA Leases, Public/ Private Partnerships, Enhanced Use Leasing, Energy Efficiency Project Financings, Renewable Energy Project Financings.
- Service all sectors (Federal, Private, Large C&I, MUSH).
- Specialize in Energy Finance, Contract Securitization and Project Finance.

Sales & Trading

The Sales & Trading group works with its institutional clients to buy and sell corporate securities.

- Strength in placing traditional and non-traditional structures.
- Deep pool of debt investors for energy efficiency/renewable transactions.
- Placed \$2 billion in transactions in 2010.
- Consistently ranked in the top tier in dollar volume of US domestic private placement new issuance in 2008 – 2010 league tables, by Private Placement Monitor TM

Presentation Overview

Renewable Energy Financing Overview

- Basics of Renewable Energy Project Financing
- ➤ Debt Financing Overview

Contracting and Financing Options

- ➤ Renewable Power Purchase Agreements (PPAs)
- ➤ Utility Energy Service Contracts (UESCs)
- ➤ Energy Savings Performance Contracts (ESPCs)
- ➤ Energy Services Agreements (ESAs)
- ➤ Enhanced Use Lease (EUL)

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Renewable Energy Financing Overview

Financing Overview - Basics of RE Project Financing

- Renewable Energy (RE) Financing is "project finance".
 - > Revenue driven.
 - Non-recourse debt.
- RE projects are capital intensive (low cash flows vs. high project costs).
- Typically investment grade developer and Power Purchase Agreement (PPA) counter-party are required.
- Projects need to be of certain size to justify tax equity structure and achieve economies of scale.
- Proven technologies required.
- Typically, the capital stack consists of the following:
 - > Debt
 - Supported by PPA revenue
 - > Tax Equity
 - Supported by Tax incentives and Depreciation benefits
 - Sponsor Equity
 - Renewable Energy Credits (RECs)

Financing Overview - Debt Financing

- Market Update:
 - The credit markets continue to function, but continue to face tremendous volatility.
 - Concerns remain on the horizon.
 - European economy, concerns about Greece driving investors towards safety.
 - ➤ US Economy stalling / debt ceiling concerns.
 - Lenders looking at all projects, and paying a premium for the best projects.
- Financing Requirements at Project Level:
 - Strong Sponsor/Developer.
 - Strong Power Purchase Agreement with Creditworthy off-take.
 - ➤ United States Government.
 - ➤ Investment Grade Entity.
 - Utilization of environmental benefits.
 - ➤ Long-term Solar Renewable Energy Certificate agreements with Investment Grade.

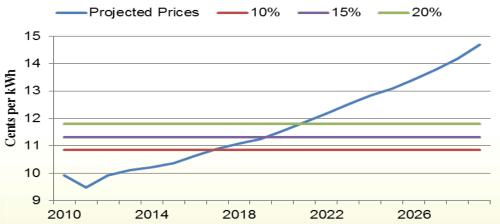


Contracting and Financing Options

Contracting and Financing Options - Renewable Power Purchase Agreements

- PPAs efficient way to secure energy at an installation, and for developers and financiers to raise capital for RE.
- Provide fixed long-term energy price certainty and protection against rising energy costs.
- Revenues generated from PPAs drive debt and equity returns; long term PPA necessary to secure financing.
- Don't require outlay of capital to procure.
- Power contractually delivered to installation, tenants onsite, or to the grid with assured quality and in assured quantities.
- In absence of a PPA, feed-in tariffs or net metering may be available.
- How much is energy security worth to an installation?

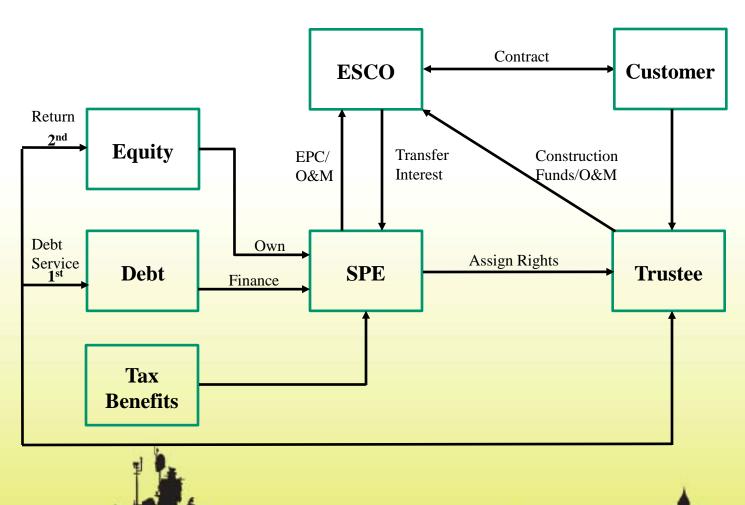
Electricity Prices vs. PPAs at Various Premiums



Installation Demanding 5MW / Year for 20 Years With a Fixed Price Power Purchase Agreement (PPA) vs. Status Quo

	Present Value of Electricity Cost	Average Cost Difference
Status Quo (No PPA)	\$7,615,921.97	-
PPA with 10% Premium	\$7,237,742.87	-5%
PPA with 15% Premium	\$7,566,731.19	-1%
PPA with 20% Premium	\$7,895,719.50	4%

Contracting and Financing Options - PPA FinancingStructure



Contracting and Financing Options - Short Term vs. Long Term PPAs

Short-term PPAs are difficult to finance and are financed at a higher cost of capital.

10 Year PPA

- Sponsor earns returns in later years after Tax equity has exited the transaction, so must take renewal risk.
- Shorter Term PPAs provide little incentive for Sponsor to develop the projects.
- Projects will be funded by more equity, driving cost of capital higher.

Long Term (15-20+) Year PPA

- Longer term provides greater price certainty and lower cost of capital.
- Provides opportunity for longer term debt financing up to the term of the PPA resulting in greater proceeds.
- Less equity needed and increasing equity returns

Contracting and Financing Options - Utility Energy Services Contracts/Energy Savings Performance Contracts

The US Government has 2 programs for the development and financing of energy efficiency and renewable energy projects for federal agencies

ESPC

- ➤ Customer or third party investor must own the equipment to utilized Tax incentives.
- ➤ Customer repays over time out of savings or generation.
- ➤ Can accommodate energy efficiency, renewable energy, and self-generation.
- ➤ 25 year contract terms.
- > Experienced RE project installers.
- ➤ No upfront capital costs to customer.
- ➤ ESCO guarantees savings or generation; responsible for any shortfall.
- ESCO responsible for operations and maintenance.

<u>UESC</u>

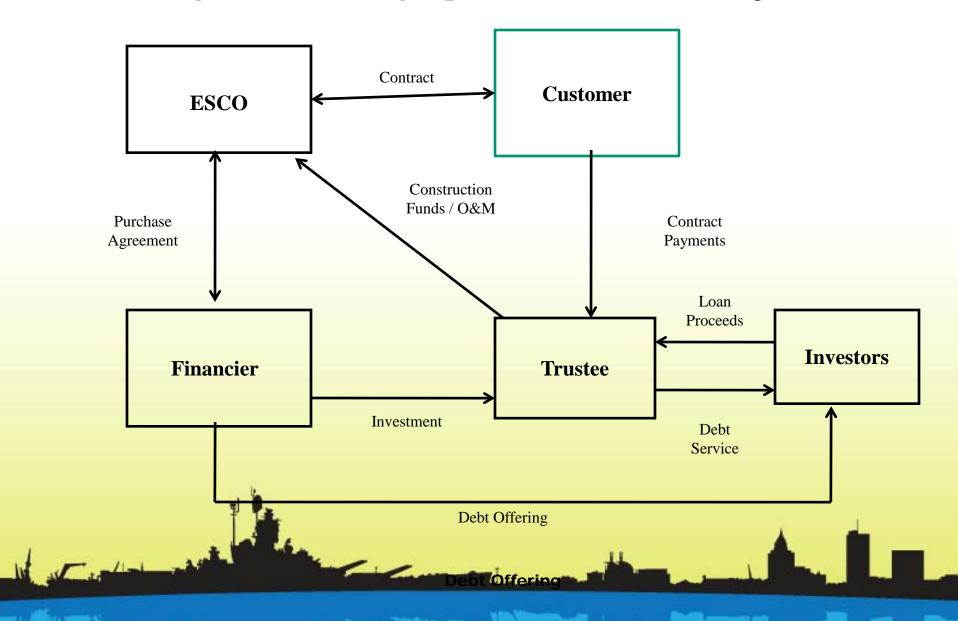
- ➤ Customer can partner directly with their franchised or serving utility on a sole source basis; Utilities able to utilize investment tax credits
- Customer repays over time out of savings or Generation.
- can accommodate energy efficiency, renewable energy, and self-generation
- ➤ 10-25 year contract terms, depending on the agency.
- ➤ May have limited experience with RE projects.
- ➤ No upfront capital costs to customer.
- ➤ ESCO guarantees savings or generation; responsible for any shortfall.
- > ESCO responsible for operations and maintenance.
- ➤ Avoid potential interconnection issues.

Contracting and Financing Options - ESPC

- ESPCs allow a customer to install energy projects without paying capital costs upfront.
- ESPCs can accommodate energy efficiency, renewable energy, and self-generation.
- An initial facility evaluation and customer due diligence are performed at no cost or commitment to go forward.
- This preliminary evaluation is followed by a comprehensive Investment Grade Energy Audit (IGEA), which identifies improvements and opportunities; and designs a project to meet the Customer's needs.
- Highlights cost, savings, and payback or return on investment.
- Customer or third party investor owns the equipment and Customer repays over time out of the savings or generation produced by installed equipment under the ESPC.
- ESCO guarantees savings or generation.
- Reduced energy and operation and maintenance (O&M) costs.
- Projects may also include terms and pricing for O&M, repair and replacement and measurement and verification performed by the ESCO.

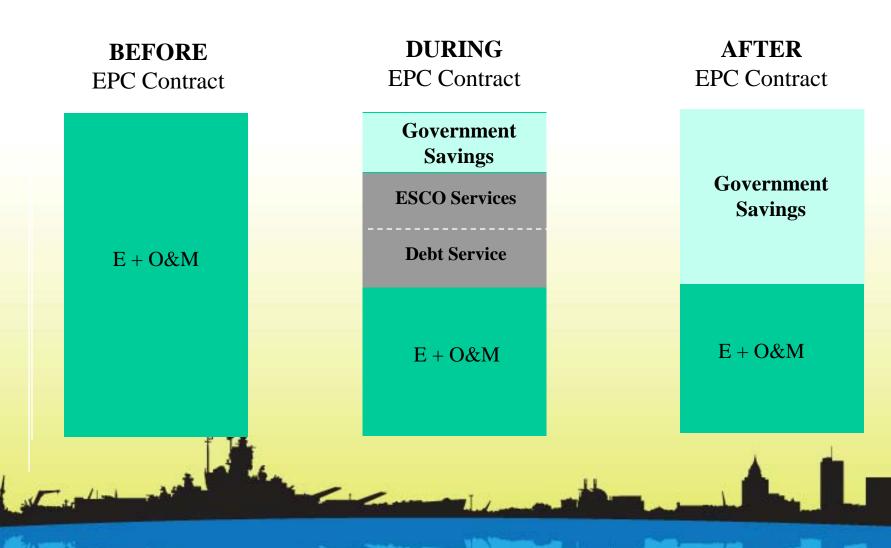


Contracting and Financing Options - ESPC Financing Structure



Contracting and Financing Options - EPC Structure

EPCs reallocate agency's payments for energy and energy-related O&M expenses (E + O&M)

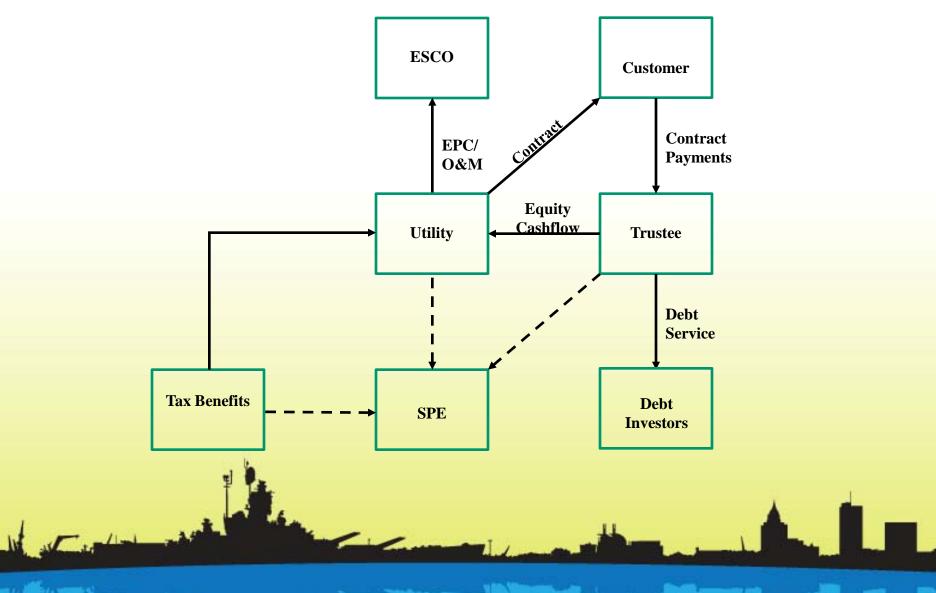


Contracting and Financing Options - UESC

- Similar to ESPCs, but UESC allows installation to partner directly with their franchised or serving utility on a sole source basis.
 - the utility has ability to put up the capital costs.
 - assesses the opportunities.
 - designs & installs the project.
 - and is paid from the savings.
- The utility is an established and known entity.
- Many utilities have limited experience with renewable energy development.



Contracting and Financing Options - UESC Financing Structure



Contracting and Financing Options - ESPC/UESC Renewable Energy Financing Process

- Financing is arranged in the form of debt, equity or tax equity depending upon the type of project and associated technology.
- Payments under the ESPC are assigned to a Special Purpose Entity (SPE) in exchange for the purchase price/loan proceeds.
- Bank serves as "Trustee" for lender and disburses escrowed funds to the ESCO during the construction period.
- Financing features:
 - Bonding
 - **ESCO** performance guaranty (installation and ongoing services).
 - Customer pays trustee directly



Contracting and Financing Options - RE Financing Through Energy Services Agreements (ESA)

- Renewables in ESPCs/UESCs vehicles utilize ESAs or PPAs to reduce cost to the Federal customer for up to 25 years.
 - the asset must be owned by a tax-paying entity to monetize tax incentives (Utility or Partner).
 - Programs require that projects be paid for out of energy savings produced by the projects; ECMs are blended with renewables.
 - Flexibility for the installation as asset can be purchased at end of the contract for FMV, returned to owner, or else agreement may be extended.
 - Federal customer will amortize an amount less than the full cost of the renewable asset.
 - Must justify savings over federal customers current utility bill.



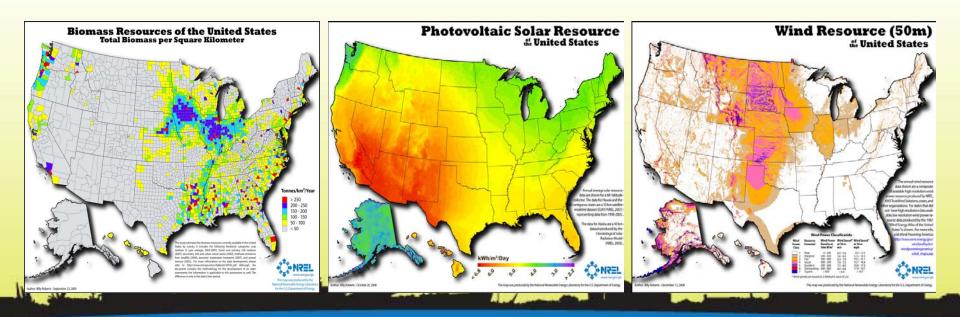
Contracting and Financing Options - Enhanced Use Lease

- Enhanced Use Leasing (EUL) is part of a legislative authorization for military departments to lease underutilized and non-excess real property, governed by Section 2667 Title 10 United States Code.
- Law requires the lessee to pay, in cash or in-kind, consideration in an amount that is not less than the fair market value of the lease interest.
- Categories of in-kind consideration that may be accepted in lieu of cash include construction of new facilities, restoration (including environmental), acquisition, alteration, and other services.
- Initially used principally for real estate developments; now being employed for energy projects (e.g. cogeneration and renewable power).

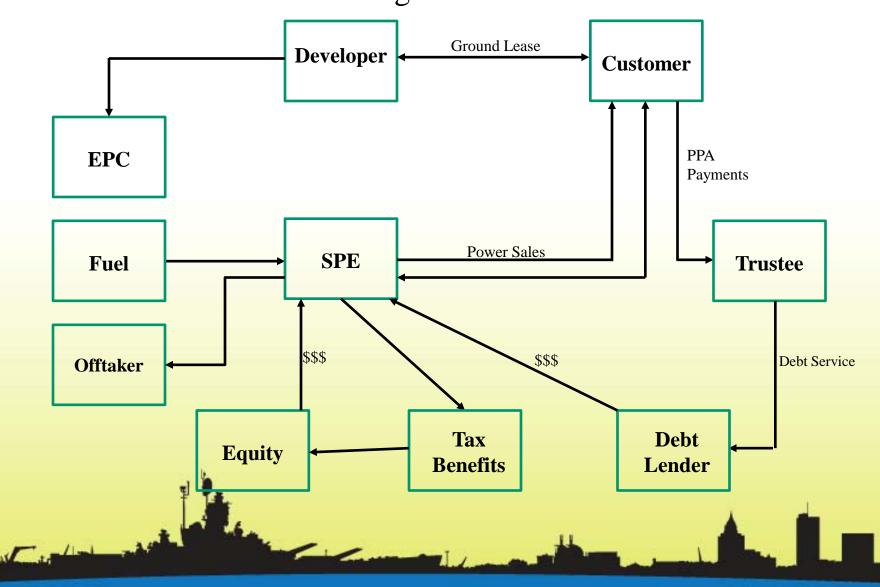


Contracting and Financing Options - Energy EULs

- Utilize EUL authority to leverage renewable energy alternatives and other "inside the fence" power options in close partnership with other government agencies and the private sector.
- Nearly every area of the country can take advantage of renewable energy ("RE") technologies; some technologies are better suited for particular areas than others.
- Opportunity offers energy security as well as an opportunity to meet federal objectives for renewable energy (7.5% by 2013).

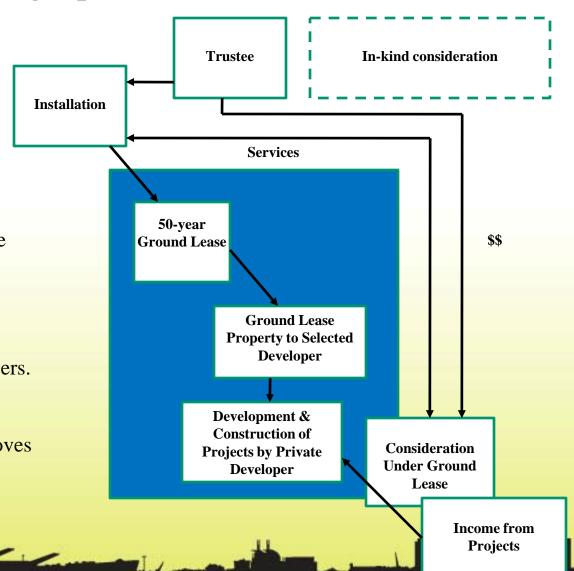


Contracting and Financing Options - Enhanced Use Lease Financing Structure



Contracting and Financing Options - Structure of EUL Transactions

- Installation provides 50- year ground lease.
- Developer assumes all risks and responsibilities.
- Installation receives a minimum of FMV as in-kind consideration for the ground lease.
- Developer develops the project based upon market demand from government and non-government users.
- Commitment by installation or any other agency to enter into PPA improves project feasibility.



Contracting and Financing Options - Implications of EUL

- Leased Land up to 50 years.
- Environmental issues.
- Transmission accessibility/capacity issues (e.g. long term application waiting periods with local utilities).
- Permitting issues.
- Protracted development periods (e.g. Up to 4-5 years).
- Competing (potentially cheaper) sites located nearby.
- Local community impact can be a benefit or a detriment to a development.



Conclusions

- Documents and structures are crucial components for all parties—the right financing vehicle (PPAs, ESPC/UESC, EUL) can present an ideal opportunity for installations to meet their energy goals and achieve energy security.
- Understand your markets RECs, incentives, energy prices to determine what revenues are available and what technologies are best suited for geographic locations.
- Only sound projects with quality participants and strong cash flow will get done.
- Work with public/private mentality and remain adaptive and flexible.
- Long term PPAs with creditworthy off-takers are essential for financing.
- Conditions improving but capital still precious and investors still risk averse.
- Projects continue to rely on federal and state tax credits.
- Government should consider taking REC risk to drive development in the Federal sector.



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