

IMPROVING THE VALUE OF PERFORMANCE CONTRACTS

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Energy Financing

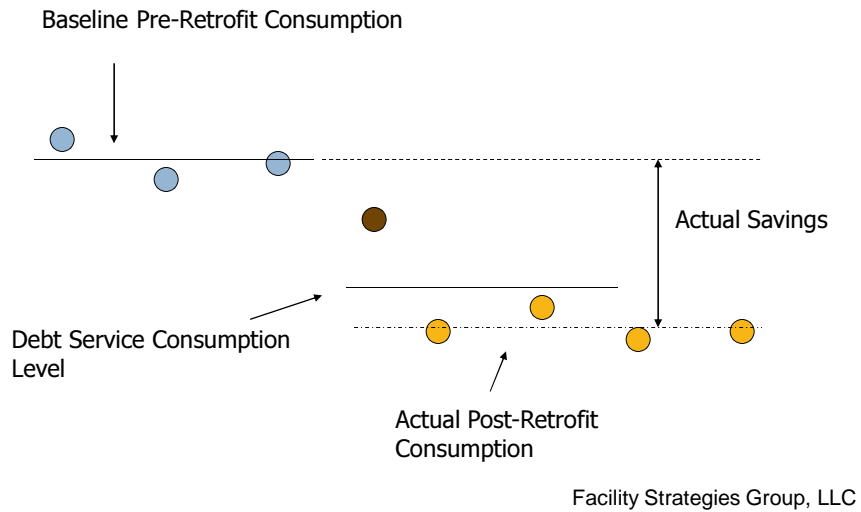
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- The basis for energy financing
 - ▣ Replacing or recommissioning energy systems reduces utility costs
 - ▣ Savings can be predicted, measured, and sustained into the future
 - ▣ Future savings can be used to borrow funds to implement the project

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Savings

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Defining Value

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- Minimize cost
- Maximize investment
- Minimize risk

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Minimize Costs

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- Investment Grade Audit
- Utility Saving Initiatives
 - ▣ Water
 - ▣ Energy
 - ▣ Fuel Switching
- Project specific uses and needs
- Consider alternative technologies

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Maximize Investment

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- Life cycle analysis
- Maximize hard costs, minimize soft costs
- Who will own and operate equipment?
- Negotiate everything
- Sources of leverage
 - ▣ Utility rebates and incentives
 - ▣ Non-profit programs
 - ▣ Local, State, Federal funds

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Minimize Risk

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- The building owner typically takes all the risk for a performance contract, can be passed on to ESCO:
 - Project management
 - Increase project size, shift soft costs to hard costs
 - Engineering
 - Who performs design- ESCO or subcontractor?
 - M&V Options
 - Stipulated/Calculated vs Measured
 - Contract negotiation

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Performance Contracts

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- Steps for Conventional Projects
 - RFP / Proposals
 - Project Development
 - Audit Contract
 - ESA Contract
 - Construction
 - Repayment

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RFP / Proposals

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- Competition
- Require Site visits
- Preliminary audit
- Establish comparable basis
- References
- Oral interviews

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Audit Contracts

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- Schedule
- Scope
- Engineering methods
- State & local funds
- Utility Data, Rates, Rate Escalations

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Reasonable costs

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- Assessing cost reasonableness
 - ▣ The ESCO can't objectively assess their own costs
 - ▣ The ESCO can't objectively assess their own work (Cx)
 - ▣ Independent quotes for same scope
 - Include reasonable soft costs built up on top of hard costs
 - Design
 - General Contractor
 - In House Administration

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Reasonable costs

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- Project Costs
 - ▣ Hard Costs
 - ▣ Soft Costs
 - ▣ Ongoing Costs

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Hard Costs

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- Ensure equipment counts are accurate
- Review measures
 - ▣ Are the measures needed
 - ▣ Are other equipment options available
 - ▣ Are the measures optimized

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Hard Costs

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- Request detailed scopes of work
- Estimate trade costs
 - ▣ Industry standards
 - ▣ Recent purchases
 - ▣ Quotations
- Evaluate engineering methodology

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Soft Costs

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- Types of fees
 - ▣ Audit cost
 - ▣ Design fees
 - ▣ Construction management fees
 - ▣ Training fees
 - ▣ Any “Other” costs

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Soft Costs

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- Questions to ask
 - ▣ Do you need the services
 - ▣ When do you need the services?
 - During construction
 - Ongoing
- Evaluate the fees
 - ▣ Industry standards
 - ▣ Recent projects

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Ongoing Costs

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- Review the fees
 - ▣ Training
 - ▣ Repair/replacement
 - ▣ O&M support
 - ▣ Annual site visits
 - ▣ M&V / Cx

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Ongoing Costs

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- Questions to ask
 - ▣ Do you need the services
 - ▣ Do you need them for the term of the contract
- Present value of services

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ENERGY SERVICES COMPANY FIGURES				REASONABLE COSTS			19
Soft Costs	Unload Cost	Loaded w/ OH&P	% of Unloaded Hard Costs	Unloaded	Reasonable Loaded w/ OH&P	% of Unloaded Hard Costs	Difference of Loaded
Design and Engineering	\$ 140,000	\$ 177,100	5.83%		\$ 30,801	1.35%	\$ 146,299
Construction Management	\$ 430,000	\$ 543,950	17.92%		\$ 272,923	12.00%	\$ 271,027
Audit Costs	\$ 57,280	\$ 72,459	2.39%		\$ 28,132	1.24%	\$ 44,327
Monitoring and Verification	\$ 45,000	\$ 56,925	1.88%		\$ 17,131	0.75%	\$ 39,794
Resident Education	\$ 52,096	\$ 65,901	2.17%		\$ -	0.00%	\$ 65,901
Subtotal	\$ 724,376	\$ 916,336	30.19%		\$ 348,987	15.34%	\$ 567,349
Hard Costs							
Lighting	\$ 117,227	\$ 148,292		\$ 117,227	\$ 148,292		\$ -
Tenant Paid Lighting	\$ 411,628	\$ 520,709		\$ 411,628	\$ 520,709		\$ -
Water	\$ 728,231	\$ 921,212		\$ 515,822	\$ 652,515		\$ 268,697
Windows	\$ 882,798	\$ 1,116,739		\$ 831,680	\$ 1,052,075		\$ 64,664
Boilers	\$ 425,000	\$ 537,625		\$ 206,902	\$ 261,731		\$ 275,894
Rad Control Vlv	\$ 335,560	\$ 424,483		\$ 191,100	\$ 241,742		\$ 182,742
Utility Audit	\$ 34,900	\$ 44,149		\$ -	\$ -		\$ 44,149
Owners Contingency	\$ 100,000	\$ 126,500		\$ -	\$ -		\$ 126,500
Subtotal	\$ 3,035,344	\$ 3,839,710	126.50%	\$ 2,274,359	\$ 2,877,064	126.50%	\$ 962,646
Contingency	\$ 132,004	\$ 166,985	5.50%	\$ 71,916	\$ 90,974	4.00%	
Other ECMs/Infrastructure	\$ 264,747	\$ 334,905			\$ 1,940,911		
Total Project Costs	\$ 3,891,724	\$ 5,257,936			\$ 5,257,936		

Energy Services Agreement

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- Terms & Conditions
 - ▣ Guarantee provisions
 - ▣ Warrantee provisions
 - ▣ Partial & Final Acceptance
 - ▣ Termination for cause
- Scope of Work
- Reporting requirements

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Conclusions

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- Work to maximize value of performance contract
- Don't accept "vanilla"

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Comments/Questions

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