



Innovation for Our Energy Future

Financing Federal Projects with Your Utility Partners

A Utility Energy Efficiency Contracts (UEESC) Overview



**Energy Efficiency
a Portal to Profitability**

Deb Beattie

June 24, 2010

FEMP Mission

The DOE/FEMP mission is to facilitate the Federal Government's implementation of sound, cost-effective energy management and investment practices to enhance the nation's energy security and environmental stewardship.

FEMP provides assistance to agency EERE projects

Federal Energy Management Guidance

- General Guidance for Facilities
- Sustainable Building Design and Operation
- Advanced Metering
- Water Efficiency
- Energy-Efficient Products
- Renewable Energy Technologies
- Fleet Management



Definition

A UESC is a contracting vehicle which allows utilities to provide comprehensive energy and water efficiency improvements and demand reduction services to their federal customers.



UESCs are comprehensive design/build EERE projects with a finance option



Authorization of UESC

Energy Policy Act (EPAct) of 1992

Federal Acquisition Regulations (FAR) Part 41

Authorization for UESC

Energy Policy Act of 1992 *Section 546(c) Utility Incentive Programs*

Agencies

- Are authorized and encouraged to participate in utility programs generally available to customers
- May accept utility financial incentives, goods, and services generally available to customers
- Are encouraged to enter into negotiations with utilities to design cost effective programs to address unique needs of facilities used by the agency

(Codified as 42 USC 8256, P.L. 102-486)



Authorization for UESC

Energy Policy Act of 1992 *Section 546(c) Utility Incentive Programs*

“EPAAct authorizes regulated utilities to provide services on a sole-source basis that will enable the Federal Government to attain its energy reduction goals Convenient and streamlined method of obtaining demand side management goals.”

Mark Ewing, GSA

Director of the Energy Center of Expertise



FAR Part 41: Acquisition of Utility Services

FAR Part 41 provides for GSA authority to prescribe policies and methods governing the acquisition and supply of utility services for federal agencies

- GSA may delegate authority to specific agencies to purchase utility services
- GSA may issue an **Areawide Contract (AWC)** for utility services within the franchised, regulated utility territory

Utility Service is defined as furnishing electricity, natural or manufactured gas, water, sewage, thermal energy, chilled water, steam, hot water, or high temperature hot water



GSA Areawide Contract (AWC) for Utility Services

Utility Services

Authorization Form for Utility Service



Areawide Contract (AWC)



Definition

An **Areawide Contract (AWC)** is a pre-established contractual vehicle for ordering utility services

- between the General Services Administration (GSA) and a utility service provider
- for use by federal agencies within the franchised certified service area



AWC is a 10-year IDIQ
Agency agreement for utility services is for 10-years





Areawide Contract (AWC)



Services Available Under the AWC

There are seven Authorizations for procuring nearly any type of utility service available.

1. Electric Service
2. Electric Transmission Service
- 3. Energy Management Services**
4. Gas Transportation Service
5. Natural Gas Service
6. Steam Service
7. Water Service



Utility Energy Services Contracts with an AWC

UESC with an AWC Diagram

Master / Model Agreement

Procuring Utility Energy Services

Energy Management Services Authorization (EMSA)

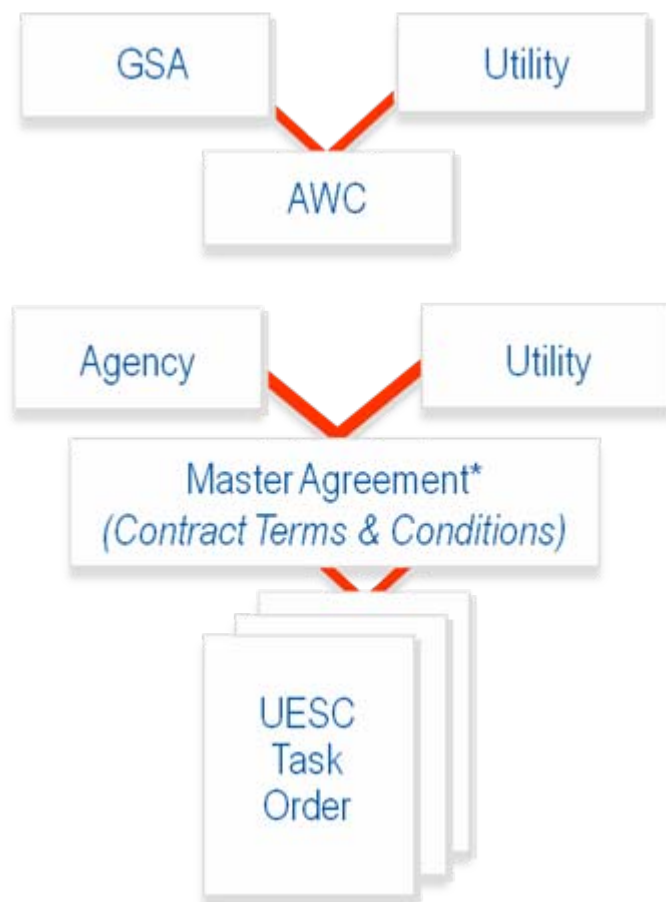
Utility Energy Services (UESC) with an AWC

Agencies within the franchised certified service territory may order energy management services for DSM and improved efficiency.

- A UESC Task Order is placed directly under the AWC
- TOs for UESCs may have terms up to 25 years, per GSA Legal opinion, (see Enabling Documents)

* A Master Agreement contains the Terms & Conditions specific to energy management services

Where an AWC exists,



“If an AWC exists with a utility, you need an extraordinary reason to use some other procurement mechanism.” ~ Mark Ewing, GSA, Director of ECOE



UESC Under an Areawide Contract

Master Agreement

Serves as the Terms & Conditions for all TOs placed under the AWC for UESC work between the Serving Utility and the Customer Agency



“The process is well established

- Has a successful track record*
- Accelerates the project schedule*
- And GSA and FEMP can provide support”*

~ Agency CO



UESC Under an Areawide Contract

Master Agreement

Model Agreement (Template)

- Contains approximately 95% of the Terms & Conditions essential to a successful UESC
 - Provides:
 - General Conditions
 - Warranties & Remedies
 - Financing & Payment Provisions
 - Special Requirements
 - Developed collaboratively (by agencies, utilities and other supporting members of the Federal Utility Partnership Working Group (FUPWG))



*Model Agreement & Explanations

<http://www1.eere.energy.gov/femp/docs/civagree.doc>

<http://www1.eere.energy.gov/femp/pdfs/civexplan.pdf>



UESC with an AWC

Procuring Utility Energy Services

- Download the AWC from www.gsa.gov
- Complete the appropriate form for the service you want to order
- Attach appropriate supporting documentation
- Obtain appropriate agency and utility signatures



UESC with an AWC

Energy Management Services Authorization (EMSA)

Required Information for EMSA

- Nature of Service
- Estimated Project Cost, Capital Cost, % of Cost Financed
- Rebate Amount (if applicable)
- Simple Payback
- Accounting and Appropriation Data
- Energy Conservation Measures
- Signed by Agency and Utility

EXHIBIT "C"

Contractor's ID NO. _____ (Optional)
Ordering Agency's ID NO. _____ (Optional)

AUTHORIZATION FOR ENERGY MANAGEMENT SERVICES
CONTRACT NO. _____

Ordering Agency: _____
Address: _____

Pursuant to Contract No. _____ between the Contractor and the United States Government and subject to all the provisions thereof, services to the United States Government under such contract shall be rendered or modified as hereinafter stated. Contract Articles 2 and 4 shall be followed for the initiation of service under this contract.

PREMISES TO BE SERVED: _____
SERVICE ADDRESS: _____

NATURE OF SERVICE:

<input type="checkbox"/> Preliminary Energy Audit	<input type="checkbox"/> ECP Engineering & Design Study
<input type="checkbox"/> Energy Conservation Project (ECP) Installation	<input type="checkbox"/> Demand Side Management (DSM) Project
<input type="checkbox"/> ECP Feasibility Study	<input type="checkbox"/> Special Facilities
<input type="checkbox"/> Other (See Remarks Below)	

SERVICE HEREINAFTER shall be provided consistent with the Contractor's applicable tariffs, rates, rules, regulations, plans, practices, and/or terms and conditions of service, as modified, amended or supplemented by the Contractor and approved, to the extent required, by the Commission. (See Article 5 of this contract.)

ESTIMATED PROJECT COST: \$ _____ CAPITAL COST: \$ _____ % OF COST FINANCED: _____ %
REBATE AMOUNT (IF APPLICABLE): \$ _____ SIMPLE PAYBACK: _____ YEARS

ACCOUNTING AND APPROPRIATION DATA: _____

ENERGY CONSERVATION MEASURES:

<input type="checkbox"/> Mechanical System Upgrades	<input type="checkbox"/> Controls	<input type="checkbox"/> Lighting
<input type="checkbox"/> Steam System Upgrades	<input type="checkbox"/> Renewables	<input type="checkbox"/> Cogeneration
<input type="checkbox"/> Water Conservation	<input type="checkbox"/> Others	

LIST OF ATTACHMENTS:

<input type="checkbox"/> General Conditions	<input type="checkbox"/> Payment Provisions	<input type="checkbox"/> Special Requirements	<input type="checkbox"/> Economic Analysis
<input type="checkbox"/> Facility/Site Plans	<input type="checkbox"/> Historical Data	<input type="checkbox"/> Utility Usage History	<input type="checkbox"/> ECP Feasibility Study
<input type="checkbox"/> Design Drawings	<input type="checkbox"/> Design Specifications	<input type="checkbox"/> Certifications	<input type="checkbox"/> Commission Schedules

REMARKS: _____

ACCEPTED: _____

(Ordering Agency)	(Contractor)
By: _____	By: _____
Title: Authorized Signature	Title: Authorized Signature
Date: _____	Date: _____

NOTE: A fully executed copy of the Authorization shall be transmitted by the Contractor to the General Services Administration, WFE, Washington, DC 20407.

EMSA Form is "Exhibit C"



UESC with an AWC

Exhibit C

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REBATE AMOUNT (IF APPLICABLE): \$ _____ SIMPLE PAYBACK _____ YEARS

ACCOUNTING AND APPROPRIATION DATA: _____

ENERGY CONSERVATION MEASURES:
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 Water Conservation Others: _____

LIST OF ATTACHMENTS:
 General Conditions Payment Provisions Special Requirements Economic Analysis
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 Design Drawings Design Specifications Certifications Commission Schedules

REMARKS: _____

ACCEPTED: _____

(Ordering Agency) _____
(Contractor)

By: _____ Authorized Signature By: _____ Authorized Signature
Title: _____ Title: _____
Date: _____ Date: _____

NOTE: A fully executed copy of this Authorization shall be transmitted by the Contractor to the General Services Administration, WPE, Washington, DC 20407.

1. Fill out the form:

- Contract No. _____
- Ordering Agency: _____
- Address: _____
- Pursuant to Contract No. _____ Between the Contractor and the U.S. Government and subject to all the provisions thereof, service to the US Government under such contract shall be rendered or modified as hereinafter stated. ...
- Premises to be served: _____
- Service Address: _____

2. "Check the appropriate boxes"

3. Provide essential details

4. Obtain signatures

UESC with an AWC

Exhibit C

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Contractor's ID NO. _____ (Optional)
Ordering Agency's ID NO. _____ (Optional)

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REMARKS:

ACCEPTED:

(Ordering Agency) _____
(Contractor)

By: _____
Authorized Signature By: _____
Authorized Signature

Title: _____
Title: _____

Date: _____
Date: _____

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1. Fill out the form:

2. "Check the appropriate boxes"

3. Provide essential details

- Estimated Project Cost: \$ _____
- Capital Cost: \$ _____
- % of Cost Financed: _____ %
- Rebate Amount: \$ _____
- Simple Payback _____ years
- Accounting & Appropriation Data: _____

4. Obtain signatures

Authorization for Energy Management Services

UESC Basics

A Partnership for Implementing Comprehensive Efficiency Projects
ECM Criteria
UESC Process Overview
Financed Project Repayment
Reasons to Choose UESC

Key Benefits to the Agency

- Utility fronts the capital costs of the assessment, design, construction, performance testing, and other optional services like O&M, Commissioning, and M&V
- Agency agrees to pay for the costs of services and construction either from appropriations or from project financing, or a combination of the two

No Up-front Costs for Design/Build Efficiency Projects





GSA ECM Criteria - *Synopsis*

1. The ECMs must reduce energy or water consumption or demand;
2. The ECMs must be directly related to energy or water use or demand reduction;
3. The majority of work must be for 1 or 2; and,
4. The ECMs must be an improvement to real property *(land and buildings and anything firmly attached and integrated; not personal property)*



UESC Basics

UESC Process Overview

Identify Potential

- Identify the best set of Energy Conservation Measures (ECM)
- Utility provides a comprehensive assessment of cost effective EE / RE / H₂O opportunities

Engineering & Design

- Engineering & Design
- Utility provides engineering and design services for the agreed upon ECM set

Construction & Installation

- Construction & Installation
- Utility installs the ECM set

Performance Testing & Acceptance

- The Utility must prove the performance of each ECM and the ECM set
- The Agency accepts each ECM and the ECM set

Verification & Payment Period

- Agency is responsible for verifying energy savings of financed projects; utility may provide verification services as an option to the contract
- Utility provides invoices and the agency pays invoices

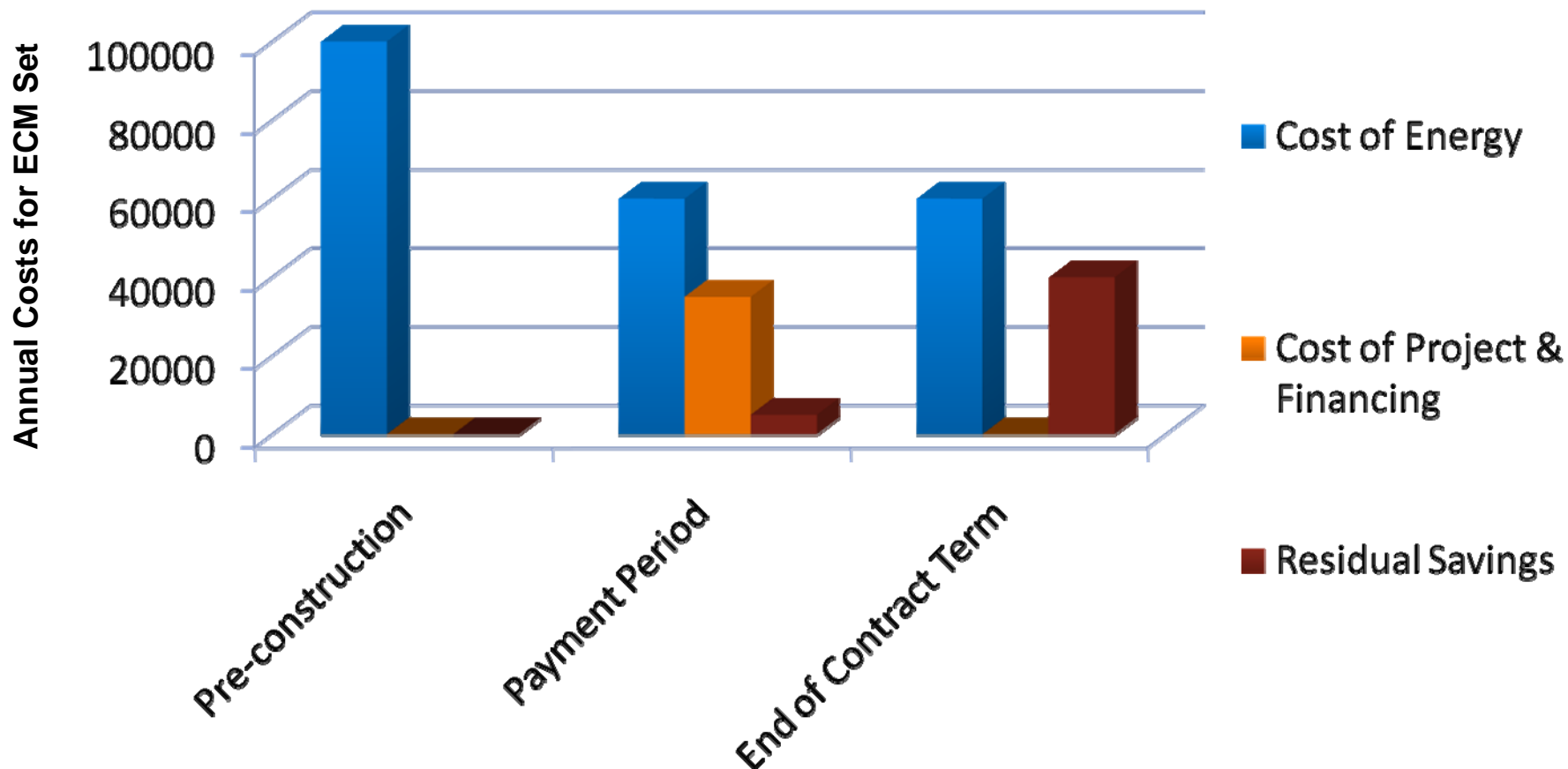




UESC Basics

Financed Project Re-payment

Financed projects are paid from appropriations



Generally, invoices are slightly less than avoided energy costs of installed ECMs



The UESC Process

UESC Step-by-Step

Step 1 – Pre-work

Requirements
Agency Acquisition Team

Step 1 – Pre-work

Federal Energy Management Requirements At-a-Glance

Reduce Energy (BTU/S.F.)

- Reduce 30% by 2015
- From Baseline of 2003

Reduce Water (Gal./S.F.)

- Reduce 16% by 2015
- From Baseline of 2007

Increase Use of Renewable Energy (*% of Total Electricity Consumed*)

- 5% in 2010 – 2012
- 7.5% in 2013 and thereafter
- 50% from new sources each year
- Implement on agency property for agency use as feasible



Step 1 – Pre-work

Who Should Be On The Team?

Site decision maker

Technical staff

Procurement personnel

Legal rep.

Budget rep.

Environmental specialist

Tenants

Operations staff

Maintenance personnel

Security

FEMP Project Facilitator
(optional)

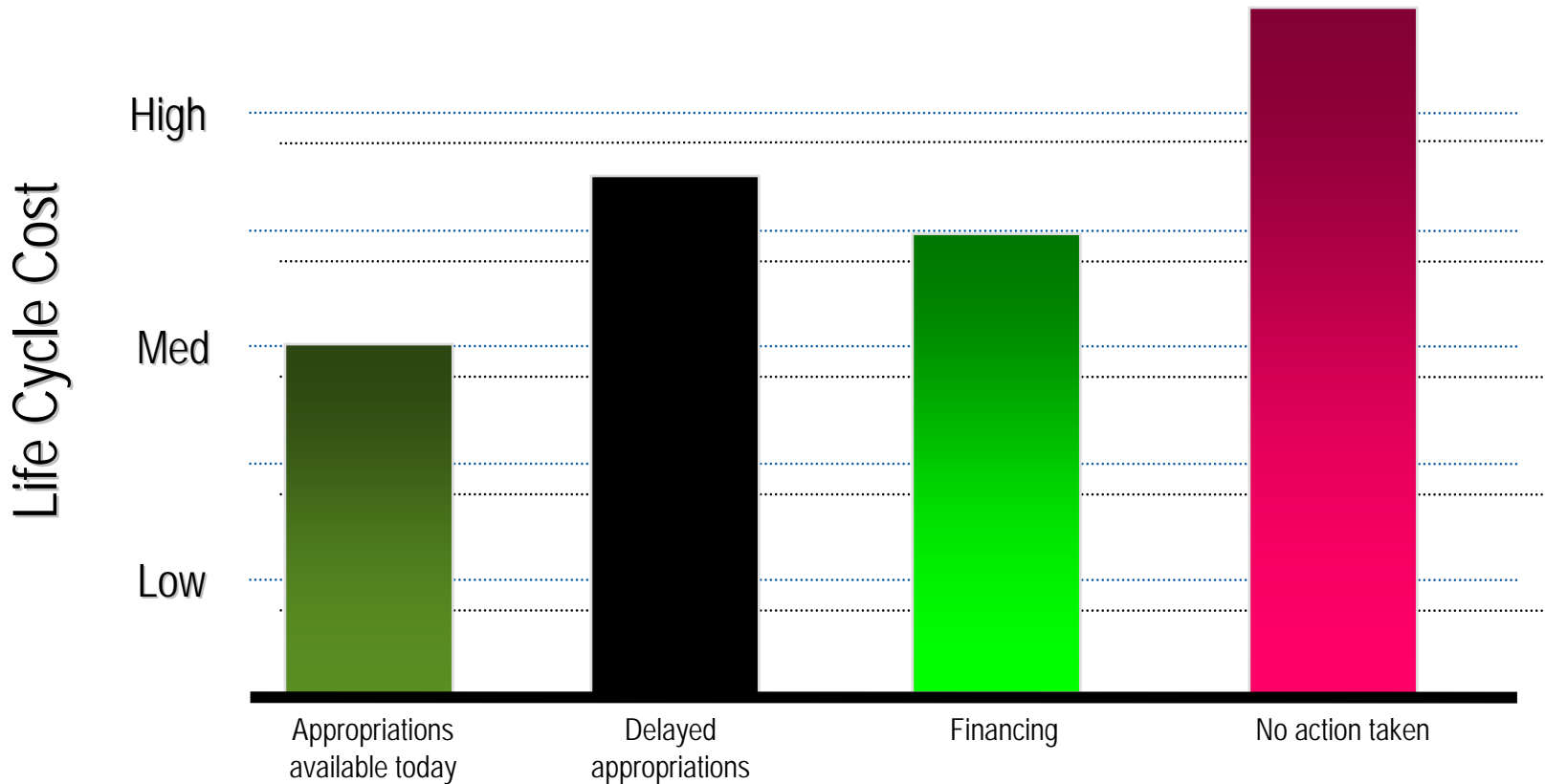
Other?

Step 2 – Site Needs

Agency Objectives
Site Needs
Existing Audit Reports
Facility Plans
Utility Data

The Cost of Delaying a Project

Delaying project implementation results in loss of life cycle savings



Step 3 – Finance Options

Appropriations
Finance Options

Alternative Finance Options Matrix

<i>Descriptor</i>	DOE ESPC	UESC
Unique Characteristics	Issued as a delivery order against the DOE Federal IDIQ Contract. Competitive selection & financing. Measurement & Verification and Operations & Maintenance required.	The utility must be a provider of energy to the site. UESCs. Financing, performance guarantees, M&V, and O&M are optional
Term Allowable	25 year maximum (including the construction period).	Legal opinion indicates up to 25 years allowed including construction; EISA 513.
Enabling Legislation	NECPA Sect. 801 (P.L. 99-272), 42 USC 8287 (P.L. 102-486) EPACT 92 Sect. 155, DoD Authorization Act of FY05 Sect. 1090 (P.L. 108-375 (2004), EPACT 05 (P.L. 109-58 Sect. 105), EISA Title V Subtitle B Sect. 511-518.	42 USC 8256 P.L. 102-486, Energy Policy Act of 1992 Section 152(f) Utility Incentive Programs, 10 USC 2911(d): Selection of Energy Conservation Measures, 10 USC 2913 Energy Savings Contracts and Activities. 10 USC 2866.
Additional Applicable Legislation	2008 National Defense Authorization Act Section 843(d) & 843(e)	Civilian agencies receive their UESC authority from 42 USC 8256; DOD agencies from 10 USC 2913 and 10 USC 2866 (water)
Applicable Regulations	DOE Final Rule 10 CFR Part 436 Subpart B (1995), Federal Acquisition Regulation (FAR) 41.102 (7)	48 CFR 41; 48 CFR 16. Federal Acquisition Regulation (FAR).
Minimum / Maximum Investment Required	under \$1M is rare;\$5B per ESCO	None, investment is variable.
Availability:	Global at Federally owned facilities or buildings.	Where offered by franchised utility.
Title/Ownership Retention	Agency typically takes title at ECM acceptance. CO may allow ESCO/financier to retain title to apply applicable tax incentives.	The civilian and DOD authorities are silent regarding title, while the UESC Model Agreement states that the agency is to take title at ECM acceptance.

http://www1.eere.energy.gov/femp/pdfs/alternative_financing_fs.pdf

Step 5 – Initial Contract Documents

Areawide Contract

- Review the AWC to ensure it allows Energy Management Services
- Obtain a copy of the Authorization Form for Energy Management Services



<http://www.gsa.gov/pbs/xu/areawide.htm> or call 202.501.5543



Step 4 – Acquisition Team Training

Energy Management Training
ESPC Training
UESC Training

Step 4 – Acquisition Team Training

FEMP Training

FEMP trains Federal agency managers on the latest energy requirements, best practices, and technologies.

- Energy management
- Laws, regulation, and guidance
- Greenhouse gases
- Renewable energy
- Water efficiency
- **Financing – UESC Workshops**
- Sustainable design
- Operations & Maintenance
- Energy efficient products
- Fleet

Step 5 – Initial Contract Documents

Areawide Contract
Energy Management Services Authorization Form

UESC with an AWC

Exhibit C

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 Design Drawings Design Specifications Certifications Commission Schedules

REMARKS:

ACCEPTED:

(Ordering Agency) _____
(Contractor)

By: _____ By: _____
 Authorized Signature Authorized Signature

Title: _____ Title: _____
Date: _____ Date: _____

NOTE: A fully executed copy of this Authorization shall be transmitted by the Contractor to the General Services Administration, WPE, Washington, DC 20407.

1. Fill out the form
2. "Check the appropriate boxes"
3. Provide essential details
4. Obtain signatures

Authorization form must be bilaterally executed

Step 5 – Initial Contract Documents

Best Practices

- The project is a good business deal.
- Life Cycle Cost Analysis is performed.
- Extended warranties are available and used when it makes business sense.
- The agreement contains provisions for the buyout of the principal or refinancing at any time during the life of the contract without penalty.

Step 5 – Initial Contract Documents

Fair Consideration between Two Serving Utilities

When more than one serving utility offers UESCs, “fair consideration” is recommended (see *Enabling Documents, p.241; UESC Lessons Learned*)

For example, an Oral Presentation may be requested, each Utility would be rated according to defined factors:

- Factor #1 – past performance
- Factor #2 – experience of key personnel
- Factor #3 – technical and management approach
- Factor #4 – pricing and mark-up

There is no legal requirement to compete for utility energy services

Step 6 – Identify ECMs

Preliminary Study
Detailed Feasibility Study
Review Process
Decision Point

Step 6 – Identify ECMs

Preliminary Study

- The preliminary study is a broad assessment of the potential for energy and water efficiency measures
 - It is based on a review of existing facility use and conditions
 - And an examination of energy and water consuming equipment and control systems



Utility Energy Services Contract (UESC) under and Areawide Contract (AWC)



Step 6 – Identify ECMs

Preliminary Study

- It establishes the Baseline
- It describes recommended ECMs and offers an estimate of
 - Energy and water usage
 - Estimates of ECM savings and installed costs
 - Applicable / available incentives
 - Simple payback



Utility Energy Services Contract (UESC) under and Areawide Contract (AWC)



Step 6 – Initial Contract Documents

Preliminary Study

- Negotiate the cost of the Preliminary Study with the utility
- Include a description of the facility/system to be studied
- Include any agency specific requirements
- Sign a Letter of Agreement
 - Indicate the negotiated cost
 - Attach Scope of Work for the Preliminary Study

Step 6 – Identify ECMs

Detailed Feasibility Study

A Detailed Feasibility Study is an “Investment Grade” analysis of the site’s conditions and potential efficiency improvements

- It is a detailed presentation of both the technical and economic viability of the proposed ECMs
- The resulting report must comply with the Task Order statement of work and provide sufficient information for a decision to go forward

Approximately \$0.1 – 0.2 per square foot

Step 6 – Identify ECMs

Detailed Feasibility Study

Key elements include:

- An executive summary of the proposed project
- Description of ECMs
- Estimates of proposed energy, water, and renewable energy systems
 - with installed costs, usage, and cost savings
- Risk and Responsibility Matrix
- Optional plans for O&M, Commissioning, and Performance Assurance
- Financial schedules

Approximately \$0.1 – 0.2 per square foot

Step 6 – Initial Contract Documents

Detailed Feasibility Study

- Negotiate the cost of the feasibility study with utility
- Sign an **Exhibit** for Energy Management Services
 - Attach Schedule A – Terms and Conditions for Detailed Feasibility Study
 - **Master Agreement – serves as T&C for all UESC task orders**

Clarify Expectations of Report Content

Summary of Proposed Energy Conservation Measures

Bldg Or System	Electricity Consumption (kWh/yr)	Natural Gas Consumption (therms/yr)	Proposed Measure	Estimated Savings (kWh/yr)	Estimated Savings (therms/yr)	Estimated Savings (\$)	Estimated Installed Cost (\$)	Simple Payback (years)	Savings To Investment Ratio
			Lighting Controls						

Table 1 – Energy Conservation Measures Analyzed

#	Measure	Electric Consumption Savings (kWh/yr)	Gas Consumption Savings (therms/yr)	Total Energy Consumption Savings (MMBtu/yr)	Total Monetary Savings (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (yrs)	Savings to Investment Ratio
1	Lighting Controls	637,098	-15,058	669	22,370	63,773	2.9	5.2
2	Lighting Retrofit	1,146,675	-5,628	3,351	46,001	167,313	3.6	4.1
3	Premium Eff. Air Compressor Motor	20,637	0	70	855	3,850	4.5	3.4
4	System Scheduling (EMS)	232,521	82,063	9,000	31,563	162,448	5.1	3.3
5	Control OA fraction	-216,631	151,243	14,384	31,434	161,784	5.1	3.6
6	Fix Economizers	593,674	135,077	15,534	60,692	312,368	5.1	3.2
7	Convert AHUs to VAV	1,369,034	-2,440	4,429	56,065	378,802	6.8	2.2
8	Chiller Replacement and Consolidation	1,635,662	0	5,583	67,763	716,475	10.6	1.4
9	Window Retrofit	471,198	36,908	5,299	29,384	679,215	23.1	0.7
10	Replace Existing Chillers	382,394	0	1,305	15,842	512,000	32.3	0.5
11	Central Utility Plant (CUP)	1,635,662	0	5,583	67,763	3,420,310	50.5	0.3
A1	All Measures (1 through 8)*	5,200,456	220,134	39,763	274,274	1,966,813	7.2	2.2

* Only measures 1-8 were recommended, based on cost-effectiveness

Ask for what you need and want right up front

Clarify Expectations of Report Content

Summary of Recommended Water Conservation Measures

Water Conservation Measure	Qty	Total Cost	ANNUAL SAVINGS			Simple Payback (Direct Only)
			Direct Water	Direct Energy	Indirect Energy	
Boiler Blowdown Optimization						
Automatic Faucets						
Faucet Aerators						

Table 4 – Recommended Water Conservation Opportunities

Item	Quantity	Total Cost	Annual Savings			Simple Payback (Direct Only)
			Direct Water	Direct Energy	Indirect Energy	
Installation of Automatic Faucets	66	\$21,780	\$79,001	\$32,264	\$9,811	0.2
Installation of Faucet Aerators	13	\$169	\$20	\$8	\$2	5.9
Boiler Blowdown Optimization	4	\$24,000	\$250	\$1,232	\$54	16.2

Ask for what you need and want right up front

Clarify Expectations of Report Content

Summary of Renewable Energy Opportunities Analysis

Renewable Energy Measure	Total Capital Cost (\$)	Total Energy Cost Savings (\$)	Savings To Investment Ratio	Simple Payback (yrs)
Solar Hot Water				
Solar Ventilation Preheat				
Lighting Controls				

Table 5 – Cost-Effective Renewable Energy Opportunities

Renewable Energy Measure	Total Capital Cost	Total Energy Cost Savings	Savings to Investment Ratio	Simple Payback Period (years)
Lighting Controls	\$53,800	\$10,070	3.0	5.3
Solar Ventilation Preheat	\$233,333	\$8,831	0.6	26.4
Facility Level Wind Generation	\$1,089,000	\$81,208	1.2	13.4

Ask for what you need and want right up front

Clarify Expectations of Report Content

Annual Reduction in Greenhouse Gases due to Proposed ECMs

Building Or System	Proposed Measure	Electricity Related			Natural Gas Related		
		Reduced CO ₂ (lb)	Reduced SO ₂ (lb)	Reduced NO _x (lb)	Reduced CO ₂ (lb)	Reduced SO ₂ (lb)	Reduced NO _x (lb)

Table 3 – Annual Reduction in Greenhouse Gases due to Proposed ECMs

#	Measure	Electricity Related			Natural Gas Related		
		Reduced CO ₂ (Lb)	Reduced SO ₂ (Lb)	Reduced NO _x (Lb)	Reduced CO ₂ (Lb)	Reduced SO ₂ (Lb)	Reduced NO _x (Lb)
1	Lighting Controls	4,464	4,048	1,666,370	-647	-753	-306,883
2	Lighting Retrofit	8,034	7,286	2,999,201	-242	-281	-114,700
3	Premium Eff. Air Compressor Motor	145	131	53,977	0	0	0
4	System Scheduling (EMS)	1,629	1,478	608,174	3,529	4,103	1,672,451
5	Control OA fraction	-1,519	-1,378	-567,137	6,503	7,562	3,082,328
6	Fix Economizers	4,159	3,772	1,552,791	5,808	6,754	2,752,871
7	Convert AHUs to VAV	9,592	8,699	3,580,796	-105	-122	-49,724
8	Chiller Replacement and Consolidation	11,460	10,394	4,278,179	0	0	0
A1	All Measures (1 through 8)	36,435	33,046	13,602,124	9,466	11,007	4,486,333

Ask for what you need and want right up front

Step 6 – Identify ECMs

Review

- Review the Technical aspects of the Report
- Review the Financial aspects of the report

Step 7 – Final Proposal & Review

Engineering & Design
Review Process
Decision Point



Step 7 – Final Proposal & Review

Engineering & Design

The results of this step should be 100% design, plans & specifications and a detailed price proposal consistent with the Feasibility Study

The design package should include:

- Plans for Commissioning, Performance Assurance, and effective O&M
- A final price proposal
- A construction schedule w/ planned service interruptions, environmental compliance, quality control, and ECM installation sequence



FEMP provides technical assistance with proposal and design reviews, advice on technologies and help resolving contracting questions and concerns

Step 7 – Final Proposal & Review

Negotiations

Prepare Government team

- Executive Summary
- Management of project
- Technical discussion
- Pricing discussion
- Review timeline
- Review milestones

Caution – when negotiating interest rates

- Should be market rates
- See Federal Research Statistical Release at
<http://bog.frb.fed.us/releases/H15>



Step 8 – Final Contract Documents

TO for Construction & Installation
Contract Award

Step 8 – Final Construction Documents

TO for Construction & Installation

- Plans & Specifications
- Monitoring plan for ECM installation
- Equipment Submittals
- Final construction schedule
- Final performance testing / assurance plan
- Final training plan
- Construction Schedule
- Acceptance process



Step 8 – Final Contract Documents

CO Issues Task Order for C&I

- Proof of Insurance
- Payment & Performance Bonds
- Review of submittals
- Notice to proceed with construction

Contract Award



Step 9 – Construction

Pre-Construction Meeting
ECM Construction & Government Oversight
Performance Testing
Acceptance

Step 9 – Construction

ECM C&I and Government Oversight

- Utility installs ECMs
- Agency monitors ECM installation
- Utility performs testing of each ECM and combined ECMs
- Agency monitors all performance testing
- Utility provides ECM training
- Utility provides ECM O&M manuals



Step 9 – Construction

Performance Testing

- Utility performs testing of each ECM and combined ECMs
- Agency monitors all performance testing
- Utility provides ECM training
- Utility provides ECM O&M manuals



Step 9 – Construction

Acceptance

- Utility provides as-built drawings & specifications
- Utility provides performance testing report
- Utility provides commissioning results
- Agency issues Acceptance Letter



Step 10 – Post-Construction

Invoices & Payments

O&M

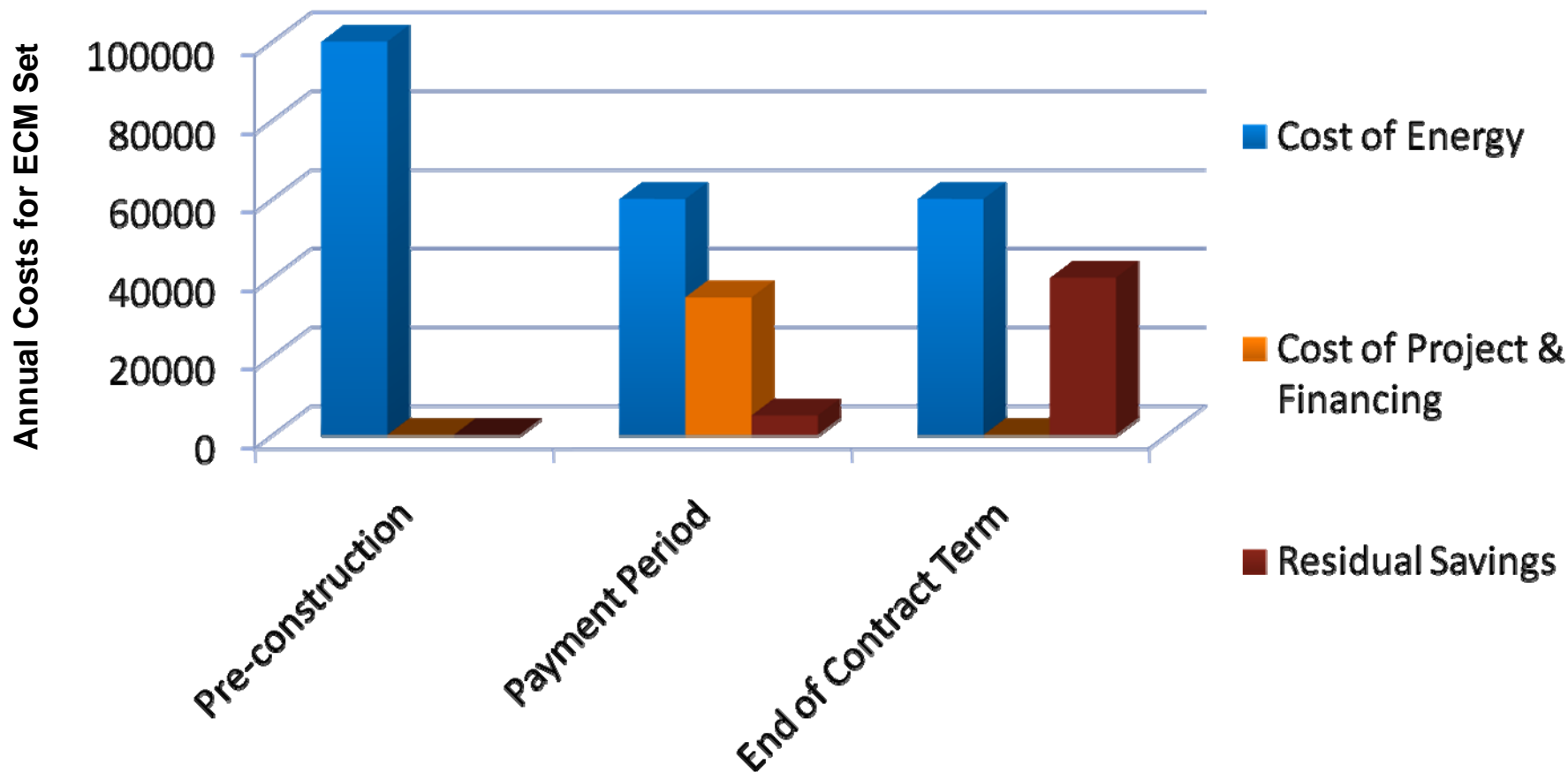
Verifying Savings

Reporting

Step 10 – Post-Construction

Financed Project Re-payment

Financed projects are paid from appropriations



Generally, invoices are slightly less than avoided energy costs of installed ECMs



Step 10 – Post-Construction

Invoices & Payments

Annual payments are the most cost effective

- First invoice *(30 days after acceptance and performance)*



Step 10 – Post-Construction

Verify Savings

- Financed project savings must be measured and verified
- DOE's Measurement and Verification Protocol can be obtained at <http://eande.lbl.gov/cbs/femp/mvdoc.html>

UESC Resources



UESC Enabling Documents

- Legislation
 - EPLA, 1992
 - FAR Part 41
 - Energy Independence and Security Act, 2007
 - National Defense Authorization Act, 2007
 - Emergency Economic Stabilization Act, 2008
- Executive Action
 - E.O.13423

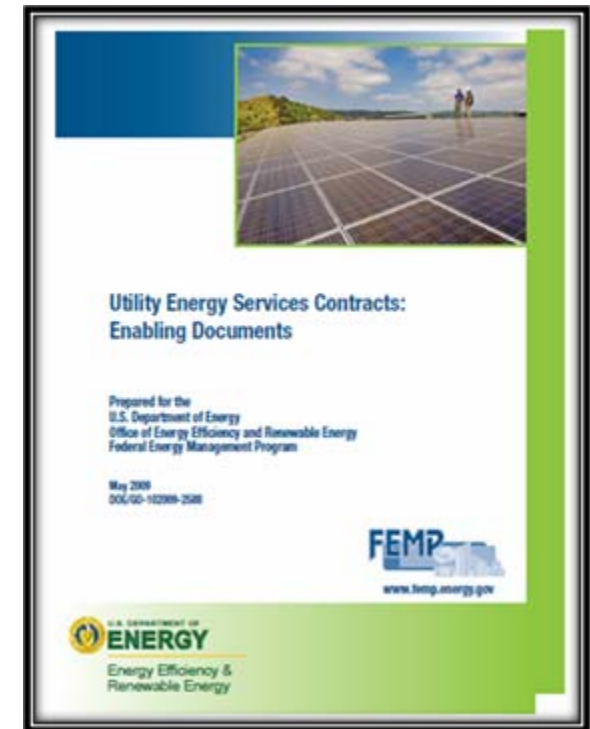


Photo: Camp Pendleton's PV Array – UESC with SDG&E

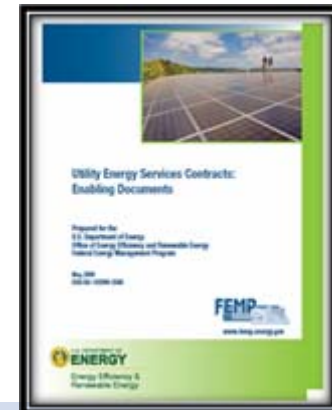
http://www1.eere.energy.gov/femp/pdfs/uesc_enabling_documents09.pdf





UESC Enabling Documents

- Legal Opinions
 - Authority for Extended Utility Agreements
 - Acquisition of DSM Services
 - Relationship of the Anti-Deficiency Act to Multi-Year Contracts
 - Statutory Exception from Competition in DSM Utility Contracts
 - Rebates
- Agency Guidance
 - Procuring Energy Management Services with the GSA Utility AWC
 - Performance Assurance for Multi-Year Contracts
 - Sole Source Justification
 - Relationship of Anti-Deficiency to Multi-Year Contracts
 - DOD Rebate Guidance



http://www1.eere.energy.gov/femp/pdfs/uesc_enabling_documents09.pdf





UESC Enabling Documents

- UESC Contracts
 - UESC Model Agreement
 - Exhibit C per Areawide Contracts
 - Basic Ordering Agreement
 - Site-Specific Contract
 - Negotiated SOW
- UESC Sample Documents
 - Instrument of Assignment
 - Subcontracting Plan
 - Sample Payment Schedules

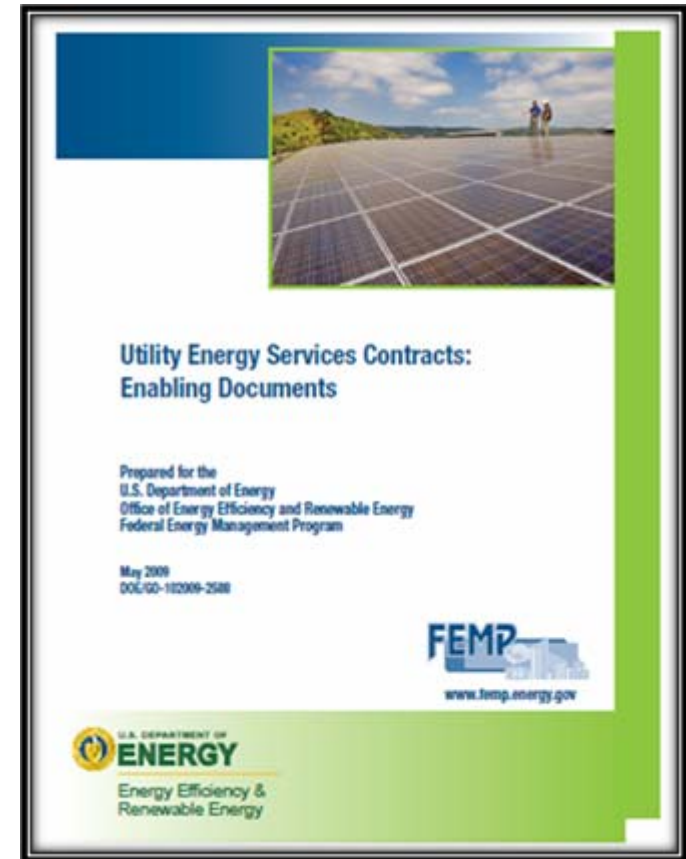


Photo: Camp Pendleton's PV Array – UESC with SDG&E

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GSA Energy Center of Expertise

Energy Center of Expertise on-line Library:

<http://www.gsa.gov/Portal/gsa/ep/programView.do?pageTypeId=17109&oid=8351&programPage=%2Fep%2Fprogram%2FgsaDocument.jsp&programId=14663&channelId=-24345>

Procuring Energy Management Services Guide:

http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/procuring_energy_R2H915_0Z5RDZ-i34K-pR.pdf

www1.eere.energy.gov/femp/financing/uescs.html

- Types of contracts
- Laws & Regulations
- Federal Utility Partnership Working Group
- Case Studies
- Resources
- Contacts



UESC Video – featuring
– National Institutes of Health UESC

Conclusion

UESC with an AWC

A streamlined approach

1. Available to federal agencies within an offering utilities franchised service territory
2. Used to procure energy, water, and renewable energy systems projects and financing is an option
3. Agreement for UESC is between the agency and the utility
4. Agency is responsible for paying the bill
 1. Can pay with appropriation
 2. Can pay with financing
 3. Can pay with a combination of appropriations and financing

Next UESC Classroom Training

August 13, 2010

@

GovEnergy 2010

Aug 15 - 18, 2010

Dallas, TX

<http://www.govenergy.com>

For UESC Assistance:

http://www1.eere.energy.gov/femp/financing/uescs_contacts.html

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