



Why Bother with Alternative Financing ?



- It's new and different,
- It will take a lot of time, focused attention and care and feeding, and
- Most lawyers, contract officers, decision makers don't know about it and will need to be convinced before saying "maybe"



GovEnergy
www.govenergy.gov



What Resource Alternatives are there to meet Energy Goals?

- Appropriated funds and in-house personnel
- Utility Company Programs offered to all customers
- Energy Savings Performance Contracts
- Shared Energy Savings Contracts
- Enhanced Use Leasing

My Thesis

- Each have their individual pros and cons - but:
- Alternatively financed mechanisms allow the government to access resources to accomplish savings and benefits that often can not be attained otherwise.
- In many cases alternative financing is more life cycle cost effective due to
 - the lost savings from delay in the “normal” processand
 - the permanence of savings from continuing monitoring and appropriate O&M.
- They’re really not that hard and there’s help available

A Recovering Bureaucrats' Perspective/ Bias ?



• INTERESTING (?) FACTS

- My years in Federal energy Management 32
 - My years in private energy consulting 11
 - Hours in the day 24
 - Beers in a case (coincidence?) 24
 - TOTAL 91*
- * All accurate and factual – but does the total make sense? ... Ask Questions



Appropriated Funds and In-house Personnel Beliefs

- Funds spent as available – no “credit card debt”
- Lowest interest rate on borrowed money
- No profit to be paid
- In-house personnel rates considered low
- Existing knowledge of buildings and systems
- Standard project development processes are relatively uncomplicated



Appropriated funds and In-house Personnel Reality

- Force reduction has significantly reduced technical expertise – through contracting out and privatization (4 letter words in my humble opinion)
- Conservation “does not compete well” with mission requirements for remaining expertise or administrative resources
- Facility maintenance in most cases is on breakdown basis - even new systems
- There is very little structural incentive for long term cost-effective resource allocation
- The wait for limited appropriated funds results in significant lost savings ---



Alternative Financing

Why do it?

- Billions are needed to comply with requirements
- Technical expertise to identify, develop, implement and validate cost effective energy efficiency improvements is needed
- Operations and Maintenance capability to maintain savings is needed
- ALL of these resources are in decreasing supply in the Federal government and/or dedicated to other higher priority requirements
- By not accomplishing efficiency improvement projects the Federal government is wasting *millions* of dollars a day!

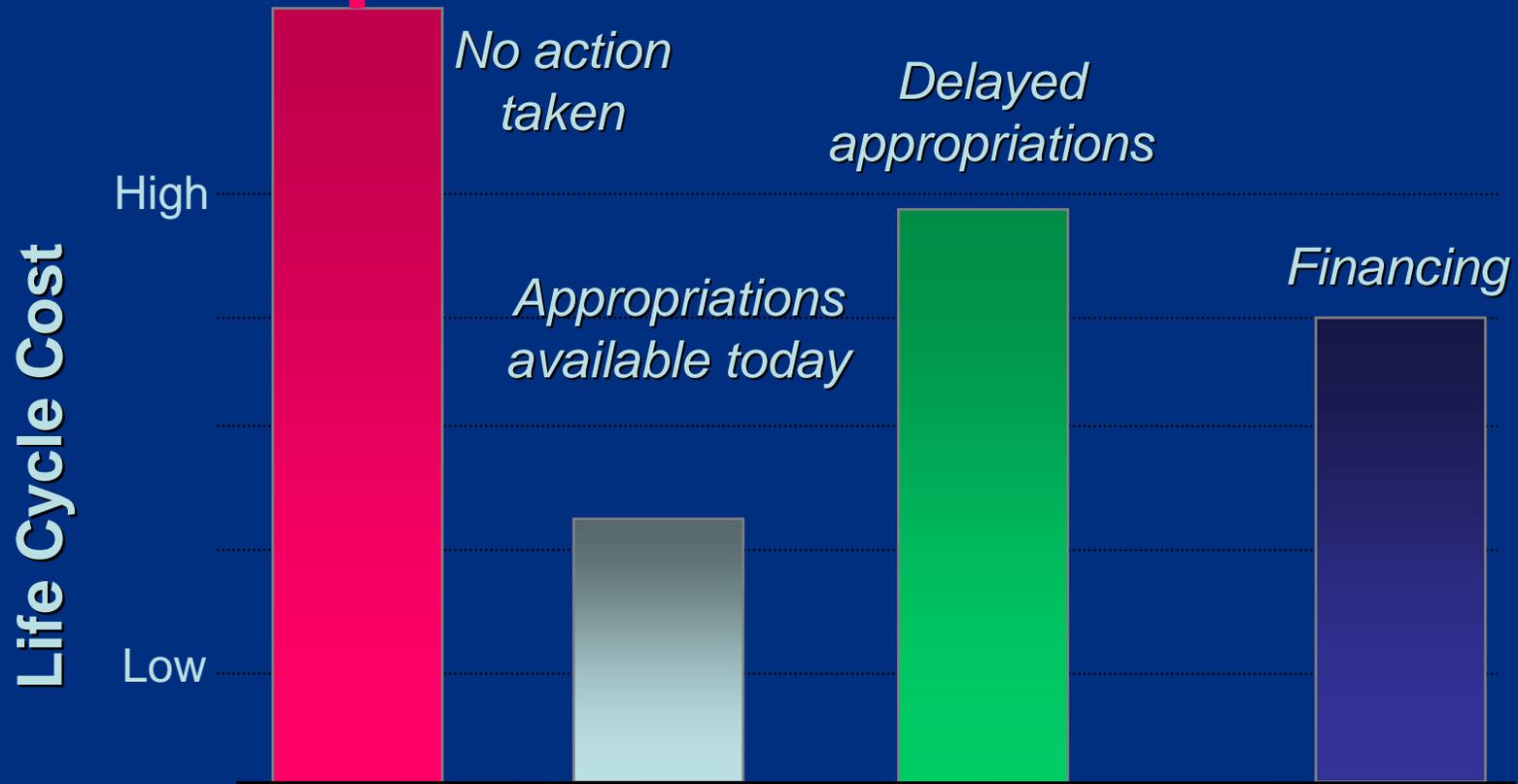


Appropriated funds and In-house Personnel Reality

- \$6.5 billion in Federal Facility Energy
- 30% reduction would be about \$2B – with a 5 year payback – approx \$10 billion needed (?)
- Agencies spent \$281 million in 2006
- It will take 33 years at that rate to reach the 2015 goal



The Cost of Delaying a Project



Any delay in project implementation results in loss of life cycle savings



Appropriated funds and In-house Personnel Reality

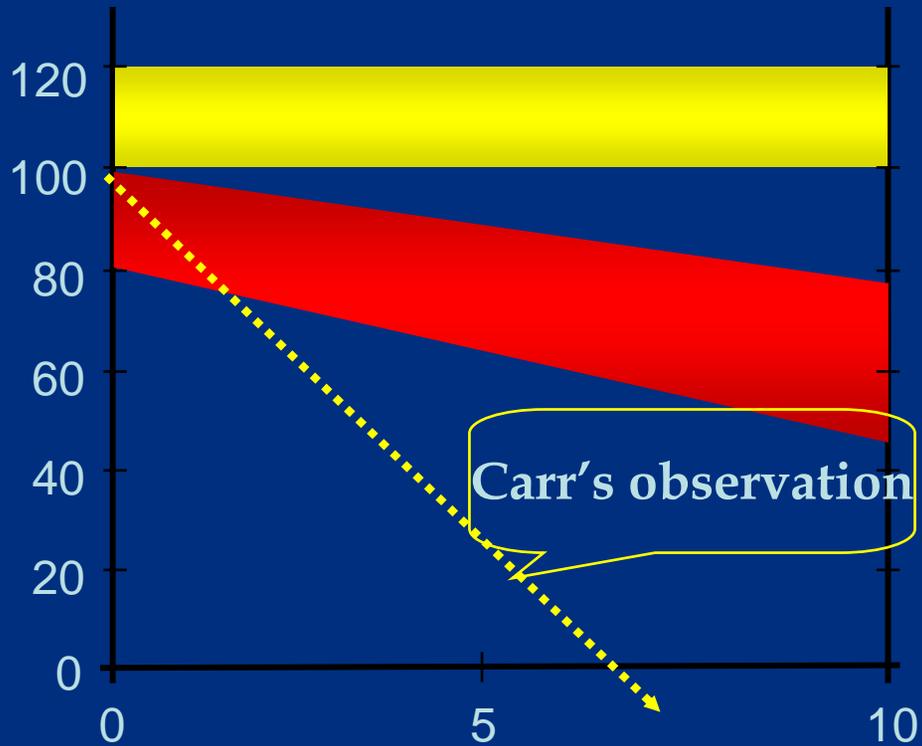
- Military Construction projects take from 3 to 8 years from identification to accomplishment, O&M somewhat less
- Lost savings ?
- \$2 billion per year = \$5.4 million per day = \$226,000 per hour
- = 46 taxpayers average annual payment per hour of delay

In-House Technical Expertise is Becoming Scarce



Additional REAL Benefits from Alternatively Financed Projects

% Savings Realization



Two key benefits

- Higher initial savings level
- Persistence of savings

Years post project completion

Alternative Financing Lessons Learned

- IDIQs and standard formats make it much easier
- Lots of assistance available

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

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

www1.eere.energy.gov/femp/pdfs/28792.pdf

- The Measurement and Verification Protocol is vital

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

- There is lots of ongoing effort to make it easier and reduce risk, and help is available
- EISA directed DOE to train contract officers

Alternative Financing Lessons Learned



- Facility Energy Champion is critical
- All parties should be involved from the beginning, and be comfortable with the process
- POA&M with responsibilities is critical
- The Devil is in the Details
- Experience is the best teacher - get help from someone who has done it.
- Partnership formation is critical



**Alternatively Financed Projects
Require a Partnership
Relationship from the beginning**

**But the rewards are worth the
effort**





For More Information

Would you like to know more about this session?

- Millard Carr, PE, CEM, RB
- Sain Engineering Associates, Inc.
- 65 Pierce Court Fredericksburg, VA 22406
- Millard.Carr@saineng.com

Don't forget to fill out and drop off your session evaluations!