



# Energy Project Incentive Funds Updates and Trends

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# EE Funding Overview



- **Ratepayer-funded EE budget \$5.3B in 2010**
  - Plus over \$1B for DR/LM and \$1.5B for renewables
- **Expected to reach \$6B for EE in 2011**
  - Nearly double the 2008 figure (\$3.1B)
- **Strong expansion expected to 2020**
  - Total expected to reach \$7.5-12.4B (EE only)
- **It's not just the usual suspects anymore**
  - Recent entrants: NM, MI, NC, AR, VA, OH, PA, IN...

# EE Funding – Current Picture



- **~ 45 states have ratepayer-funded EE**
- **2010 budget (EE only) \$5.3B (source: CEE)**
  - \$4.4B in 2009, \$3.1B in 2008 and \$0.8B in 1998
  - ~ 80% on electric side (\$4.3B); ~20% for gas EE
- **2009 LBL study ID'd ~ 15 leaders, spending 1%+ of revenues from electric sales**
  - Leaders: New England, west coast, NY, NJ, WI, MN, IA, ID, UT
  - Two other categories: “up-and-comers” (~ 15) and “uncommitteds” (~ 20)
- **Grade inflation (one year later):**
  - Several up-and-comers would now qualify as leaders
  - 6-8 uncommitteds would now be up-and-comers

# Trends



- **Growth, especially in the long term**
- **Some SE states beginning to see EE as a resource**
  - TVA goals 6.2%-7.9% cumulative savings by 2020
- **MA and RI passed “least cost procurement” legislation**
  - I.e., efficiency should be driven until marginal cost of avoided kWh = marginal cost of generating kWh
- **IL regulators asking for greater commitments in utility resource plans**
- **PA went from “0 to 60” in 2010**
  - Driver: Act 129 kWh and kW targets for utilities
- **Caveat: A few states moving EE funds to general coffers or proposing reduced budgets**

# Why the generosity?



- **Ultimate driver: EE cheaper than new generation**
  - EE programs, *en masse*, cost ~ 2-5¢/kWh and 30-60¢/therm avoided (source: ACEEE, others)
- **And easier**
  - No siting, permitting or transmission issues
- **Proximate drivers**
  - EE Portfolio Standards and mandatory savings targets (e.g., PA)
  - Statutory requirement that utilities acquire all cost-effective EE (e.g., MA and RI)
  - Integrated Resource Plans (IRP) and Demand Side Management plans required by PUCs
  - Renewable Energy Portfolio Standards (RPS)

# EE Program Offerings



- **Most common: rebates for EE equipment**
  - AKA “Prescriptive” measures
- **“Custom” incentives**
  - Non-standard equipment
  - whole building approaches
- **Design assistance (e.g., for new construction)**
- **No- or low-cost energy audits**
- **Re-/retro-Commissioning**
- **Incentives for performance contractors**
- **Load management programs (kW reduction)**



# Renewable Energy Incentives



- **Most common: rebates for on-site solar PV**
  - Up-front or performance-based
- **Other technologies include:**
  - wind, geothermal
  - small hydro, biomass
- **Other incentives:**
  - RECs can provide dramatic buy-down
  - Tax credits can be leveraged by Federal agencies
- **Check availability – funds sometimes exhausted before end of the year**



# Enabling Legislation



## Yes, federal agencies may use these funds

- **Energy Policy Act of 1992:**
  - “Agencies are **authorized and encouraged** to participate in programs to increase energy efficiency and for water conservation or the management of electricity demand conducted by gas, water, or electric utilities and generally available to customers of such utilities.”
  - “Each agency may accept financial incentives, goods, or services **generally available from any such utility** to increase energy efficiency or to conserve water or manage electricity demand.”

# Eligible Funding Sources



## **EPACT 1992 language specifies “utilities”**

- Does this mean incentive funds from other sources (e.g., state agencies or 3<sup>rd</sup>-party administrators) can't be accepted?
- FEMP interprets EPACT language to be inclusive because it was written prior to the existence of non-utility providers
  - Remember: “...generally available to customers of such utilities”
- However, attorneys at two Federal agencies have argued otherwise

# Accepting Payment



## Many federal facilities have difficulty accepting checks

- **Work-around #1: Assign payment directly to contractor**
  - Most incentive programs make this easy
- **Work-around #2: Have incentive applied to utility account and receive credit**
  - Obviously more difficult with non-utility providers

# What is available for my facility?



- **FEMP provides clickable map with annotated listing of all programs open to Federal facilities in all 50 states and DC:**
  - [www1.eere.energy.gov/femp/financing/energyincentiveprograms.html](http://www1.eere.energy.gov/femp/financing/energyincentiveprograms.html)
  - Navigate through “**Project Funding**” tab of FEMP website
- **Similar to DSIRE (Database of State Incentives for Renewables and Efficiency):**
  - But FEMP site focuses strictly on programs for Feds; excludes residential programs
  - FEMP site also includes DR programs



# Sample program description



## Typical Program Description

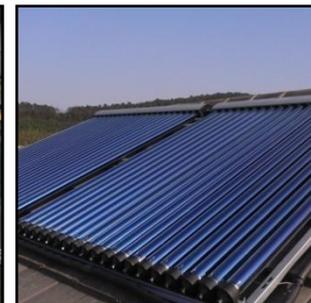
- Idaho Power sponsors the [Energy Efficiency for Business](#) initiative. Three programs of interest to federal facilities:
  - The [Easy Upgrades for Simple Retrofits](#) program offers incentives of up to \$100,000 per site per year for qualifying energy-saving projects
  - The [Custom Efficiency for Complex Projects](#) program provides large commercial and industrial customers financial incentives based on \$0.12/kWh savings, up to 70 percent of the project cost...

# Summary



- **Many opportunities available – FEMP is here to help**
- **FEMP energy incentives map:**  
[www1.eere.energy.gov/femp/financing/energyincentiveprograms.html](http://www1.eere.energy.gov/femp/financing/energyincentiveprograms.html)
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# Case Studies

# Naval Post-Graduate School Monterey, CA



- **UESC Contract, PG&E expedited approach**
  - ECMs natural extension of previous projects
- **\$3.5 million for improvements in 14 buildings**
  - Lighting upgrades – over 4,600 fixtures
  - 300 HP boiler improves recently upgraded central plant
  - EMCS expansion connects multiple building systems
  - Steam system upgrades improves function and reliability
- **~\$270,000 in utility rebates and incentives**
- **~ 23,700 MMBtu annual energy savings**
  - 14% reduction over current usage
- **~\$325,500 annual cost savings**
- **4.2 million lb. annual carbon reduction**

# Fort Dix, New Jersey

- **ESPC - Honeywell**
- **\$23 million in improvements**
  - Lighting upgrades – over 48,000 fixtures
  - HVAC replacements
  - 156 boiler controllers
  - EMCS – 520 new points, 3400 repairs
  - 1400 kWDC Solar Photovoltaic
- **~\$2.15 million in utility rebates**
- **Estimated ~\$3.6 million average annual cost savings**
- **\$685,000 annual SRECs**

# Ft Dix PV Solar Installations



- **Two installations:**
  - Solar field array
  - Solar rooftop
- **700 kWDC each**

