

AN UPDATE ON ENERGY PROJECT INCENTIVES

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Relevant incentives for district energy technology and projects

2 Application tips lessons learned and resources



RELEVANT INCENTIVES FOR DISTRICT ENERGY **TECHNOLOGY AND** PROJECTS



THE CHALLENGE

Even if a distributed energy or district energy project looks promising...

Achieves emissions compliance

Hedges against financial risks of aging infrastructure

Increases electric/thermal reliability and resiliency

Produces positive life cycle cost Reduces GHG emissions

Supports job creation/ market development

...how do you justify the capital outlay?



FEDERAL INCENTIVES

FEDERAL FUNDING SOURCES

DOE EPA USDA DHS DOD National Laboratories

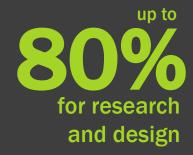
All have programs to support a wide variety of energy technologies and projects



FEDERAL INCENTIVES

Grants, cost-share agreements and cooperative agreements offer







Level of government oversight Loan guarantees Technical assistance



FEDERAL INCENTIVES – DOE Outlook

FY15 budget (enacted) for clean energy programs

\$2.0+ billion

FY16 budget request for clean energy programs

\$3.0+ billion



FEDERAL INCENTIVES – DOE Programs

Applied R&D programs supporting energy efficiency and renewable energy technologies:

Biomass: Buildings: **Federal Energy Management: Geothermal: Fuel Cells: Advanced Manufacturing:** Solar: Vehicles Weatherization: Wind: Water Power:

eere.energy.gov/biomass/ eere.energy.gov/buildings/ eere.energy.gov/femp/ eere.energy.gov/geothermal/ eere.energy.gov/hydrogenandfuelcells/ eere.energy.gov/manufacturing/ eere.energy.gov/solar/ eere.energy.gov/vehiclesandfuels/ eere.energy.gov/wip/ eere.energy.gov/wind/ eere.energy.gov/water/ JACOBS

FEDERAL INCENTIVES – Opportunities

BENEFIT

2016: \$20M in grants for building energy efficiency projects **2017:** \$TBD, Fall/Winter FOA

ARPA-E Open FOA 2015: FOA offered \$125M in grants 2017: \$/Timing TBD

Grid Modernization Initiative (GMI) 2016: \$220M in grants for integration of renewables and energy storage, cybersecurity, controls

FEMP AFFECT 2014/2015: \$7.9M in grants awarded 2016: FOA Issued - \$3M in grants offered (\$200k to \$1M) ACOBS

FEDERAL INCENTIVES – Opportunities

SUNSHOT Technology to Market 2015: FOA offering \$45M in grants 2016: \$21M in grants – accelerate deployment / soft costs 2017: \$25M in grants for grid integration of solar power (ENERGISE)

NETL Resilient Electricity Delivery Infrastructure (REDI) 2014/2015: \$3.5M in grants for local governments

Loan Guarantee Program Updated Oct 2015: Additional \$1B. Rolling application periods. Challenging for smaller projects (<\$50M)

Tax Credits 10% ITC for CHP / 30% ITC for renewables. Dec 2016 sunset dates looming.



FEDERAL INCENTIVES – Opportunities

Other DOE Sources – ARPA-E, National Labs, Clean Energy RACs, Industrial Assessment Centers, Federal Utility Partnership Working Group

USDA – BRDI / AFRI

FAA – GSE / Terminal Ops Efficiency

DOD – ESTCP, DARPA, Onsite and Utility Scale Renewables, Biofuels, EUL/UESC/ESPC

EPA – Recognition / Tech Support, brownfields, EPA-CHP Partnership

DHS / FEMA – Cybersecurity, Hazard/Flood Mitigation

Commerce – Economic Development





STATE AND LOCAL INCENTIVES

State Energy Programs

NYSERDA: Ongoing program to fund CHP and other energy efficiency projects

MA DOER: \$40M in grants awarded for energy resiliency projects in 2014/2015

CA PUC: Ongoing Self Generation Incentive Program grants

"Green Bank" Initiatives

CA, CT, HI, MA, NY

Varied capitalization - Bonding, Ioans, grants, credit support

Varied technology focus

Accelerate the pace of private investment

Utility Incentives

Alternative portfolio standards and customer demand on the rise

Stability and cost avoidance

Prescriptive and custom **project incentives**

<u>Clean Power Plan</u>

Compliance plans 2016-2018

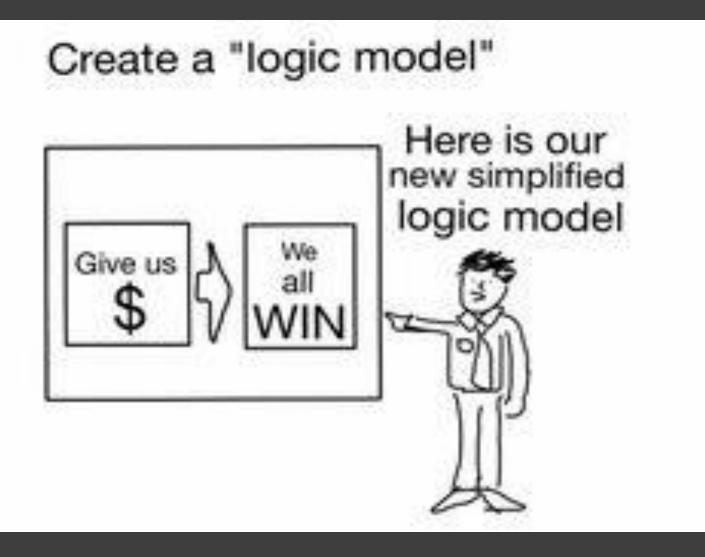
Auction / Allocation of allowances

Potential for reinvestment in CHP, DG, EE projects



APPLICATIONS TIPS LESSONS LEARNED RESOURCES







The key elements of successful applications:



Take the long view



Technology







Pursue precursor technical and financial assistance at a smaller scale Develop appropriate partnerships

Develop 2-3 page white papers

Hold meetings with career staff



Pursue precursor technical and financial assistance at a smaller-scale

Analytic grants Technical support Competitive solicitations Unsolicited proposals Develop appropriate partnerships

End users Technology partners Design partners Construction partners



Develop 2-3 page white papers

Create visibility Legislative support Industry support

Hold meetings with career staff

Align priorities Risk reduction Legislative support Industry support



LESSONS LEARNED

Accounting System Compliance:

- DCAA
- Pre-Award Audits

M&V Plan:

 Additional Instrumentation

Legal Review:

- Certs and Reps
- FARS
- Davis-Bacon

Project Timing:

- Award Process
- Cost Eligibility



LESSONS LEARNED

Project Recognition:

- Ribbon Cutting
- VIP Tours
- Project Profile
- Peer Reviews
- Industry Publications



RESOURCES

Database of State Incentives for Renewables and Efficiency DSIRE.org

EERE Energy Efficiency Exchange eere-exchange.energy.gov

EPA-CHP Policies and Incentives Database epa.gov/chp/policies/database

DOE Technical Assistance Partnerships energy.gov/eere/amo/chp-technical-assistance-partnerships

State Energy Office websites

Utility websites



QUESTIONS?

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