

The background of the slide is a photograph of an industrial facility, likely a power plant or refinery, featuring a complex network of pipes, valves, and large cylindrical tanks. The image is overlaid with a semi-transparent blue filter. The JACOBS logo is positioned in the top left corner.

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An Update on Energy Project Incentives

WADE DistribuGen Conference 2015

Agenda

- Jacobs Engineering Overview
- Relevant incentives for district energy technology and projects
- Application tips and resources

Jacobs Overview

- One of the world's largest and most diverse providers of technical, professional and construction services
- Publicly traded (NYSE: JEC)
 - 2013 Revenue \$11.8 billion
- 65,000 employees; 200+ locations; 25+ countries
- Industry Recognition and Rankings:
 - **#1 in ENR for Cogeneration Design**
 - **#3 in ENR Top 500 Design Firms**
 - **Top 100 Sustainable Design Firms**
 - **Forbes #3 Most Trustworthy Company**
 - **FORTUNE Magazine's #2 World's Most Admired Companies (E&C Companies)**
- Core Values
 - We are Relationship-based
 - Growth is an Imperative
 - People are Our Greatest Asset



Jacobs Energy & Power Solutions

- Dedicated Power and Utilities Specialization
- National Utility Planning & District Energy Practice
- What we do:
 - Utility Master Planning
 - District Energy Plant Design
 - Electrical Distribution
 - Substation Design
 - Utility Distribution
 - Cogeneration Design / Combined Heat and Power
 - Sustainability Master Planning
 - Energy Management
 - Industrial Controls
 - Commissioning
 - Construction Management
 - Energy Procurement
 - Funding Assistance
 - Award-Winning



ENR THE TOP 500 DESIGN FIRMS

COGENERATION		
RANK	FIRM	\$ MIL. REVENUE
1	JACOBS	86.6

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Incentives: Opportunities and Tips



The Challenge

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

- Positive life cycle cost
- Reduces GHG emissions and demonstrates environmental leadership
- Supports job creation and market development
- Achieves emissions compliance
- Hedges against financial risks of aging infrastructure
- Increases electric and thermal reliability and resiliency

...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 - R&D / Demo / Commercial
- Grants, Cost-Share Agreements and Cooperative Agreements
 - » up to 100% for analysis, modeling and testing
 - » up to 80% for R&D
 - » up to 50% for demonstration and commercial deployment
 - » Level of government oversight
- Loan Guarantees

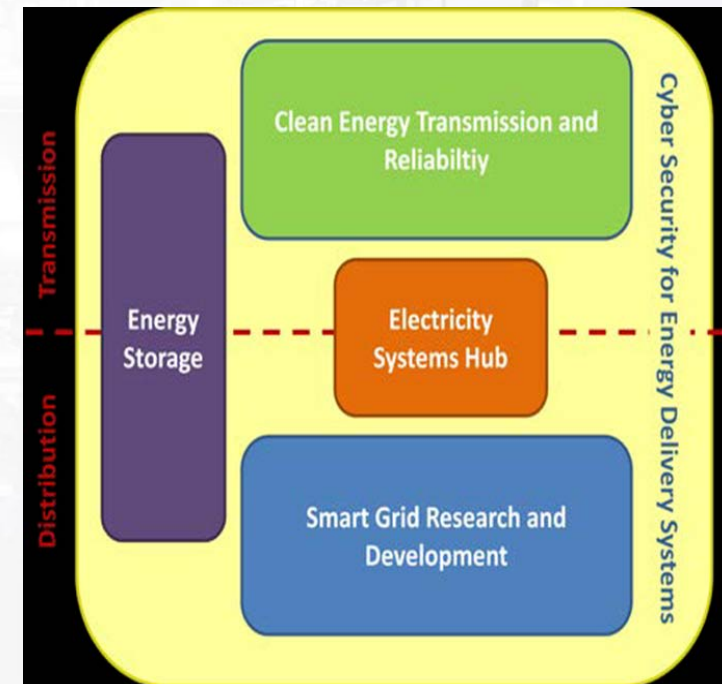
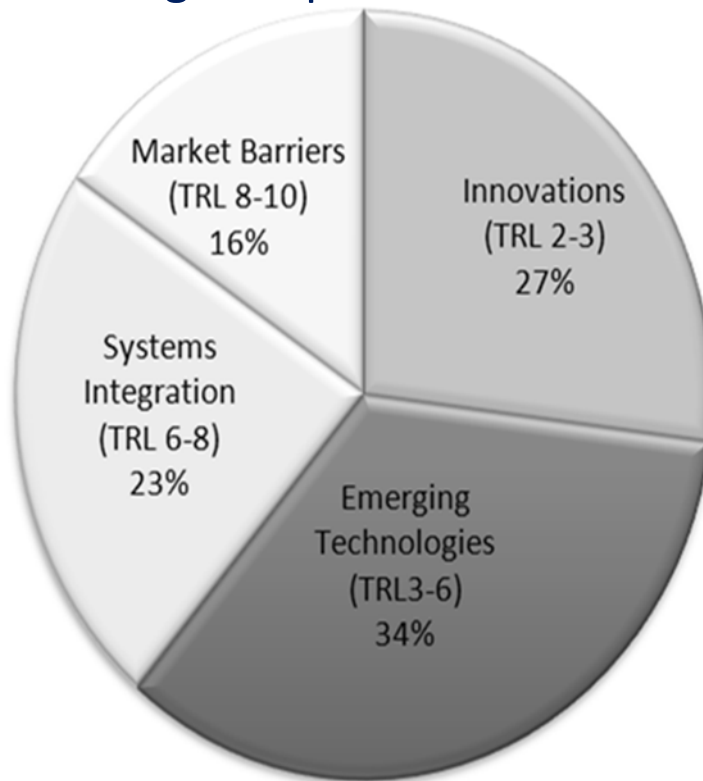
Federal Incentives – DOE Funding Outlook

DOE FY15 budget for clean energy programs - \$2+ Billion

No significant increases over 2014 funding

DOE FY16 budget request for clean energy programs - \$3+ Billion

- EERE
- OE
- FEMP
- ARPA-E



Federal Incentives – DOE Applied R&D Programs

Programs supporting energy efficiency and renewable energy technologies:

- **Biomass:** eere.energy.gov/biomass/
- **Buildings:** eere.energy.gov/buildings/
- **Federal Energy Management:** eere.energy.gov/femp/
- **Geothermal:** eere.energy.gov/geothermal/
- **Fuel Cells:** eere.energy.gov/hydrogenandfuelcells/
- **Advanced Manufacturing:** eere.energy.gov/manufacturing/
- **Solar:** eere.energy.gov/solar/
- **Vehicles** eere.energy.gov/vehiclesandfuels/
- **Weatherization:** eere.energy.gov/wip/
- **Wind:** eere.energy.gov/wind/
- **Water Power:** eere.energy.gov/water/

Federal Incentives - Opportunities

- **BENEFIT**
 - 2014: \$14M in grants for building energy efficiency projects.
- **ARPA-E Open FOA**
 - 2015 FOA offering \$125M in grants.
- **SUNSHOT Technology to Market**
 - 2015 FOA offering \$45M in grants.
- **FEMP AFFECT**
 - 2014: \$5M in grants awarded. 2015 FOA issued in March.
- **NETL Resilient Electricity Delivery Infrastructure (REDI)**
 - 2014/2015: \$3.5M in grants for local governments.
- **Loan Guarantee Program**
 - Updated 2014. \$2.8B available. Challenging for smaller projects (<\$50M).
- **Tax Credits**
 - 10% ITC for CHP / 30% ITC for renewables. Dec 2016 Sunset dates looming.

Other Federal Incentive 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.
 - CA PUC: Ongoing Self Generation Incentive Program (SGIP) grants.
- Utility Incentives
 - On the rise – alternative portfolio standards, customer demand.
 - Stability and Cost Avoidance.
 - Prescriptive and Custom project incentives.
- “Green Bank” Initiatives
 - CA, CT, HI, MA, NY
 - Varied capitalization - Bonding, loans, grants, credit support.
 - Accelerate the pace of private investment.

Application Tips



Application Tips

Create visibility with agency career program management staff prior to issuance of a grant opportunity.

The key elements of successful applications:

- » Take the Long View
- » Technology
- » Team
- » Timing

- Develop 2-3 page White Papers
- Hold meetings with career staff
- Develop appropriate partnerships
 - End Users
 - Technology Partners
 - Legislative Support
 - Industry Support
- Pursue precursor technical and financial assistance at a smaller-scale
 - Analytic Grants
 - Technical Support
 - Competitive Solicitations
 - Unsolicited Proposals

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

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Thank you!

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Questions?

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