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Finding the Money for District Energy Projects

Campus Energy 2015

Agenda

- Relevant incentives for district energy technology and projects
- Application tips and resources
- Financing options for public sector and non-profits



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Incentives: Opportunities and Tips

Rod Schwass

The Challenge

KNOWING THE ENEMY

BEFORE YOU CAN DEFEAT
THE COMPETITION, FIRST
YOU MUST DEFEAT YOUR
OWN COMPANY.



THIS IS THE PROJECT
PLAN ...



WE'LL IGNORE OUR PLANNING
DEPARTMENT ...

BYPASS THE FINANCE
DEPARTMENT...

INSTIGATE A FIGHT
BETWEEN PARKS
AND WATER
...

AND PRAY
NOBODY
NOTICES OUR
PROJECT.



BUILD A BETTER LIFE BY STEALING OFFICE SUPPLIES Dogbert's Big Book of Business 33



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The Challenge

Even if a distributed energy or district energy project pencils out...

- 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 does your CFO make it happen?



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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



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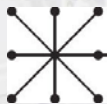
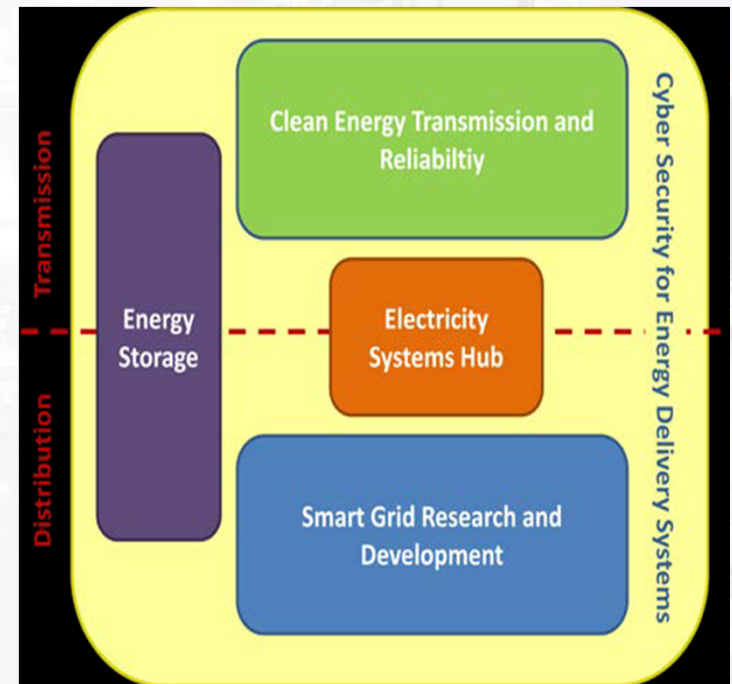
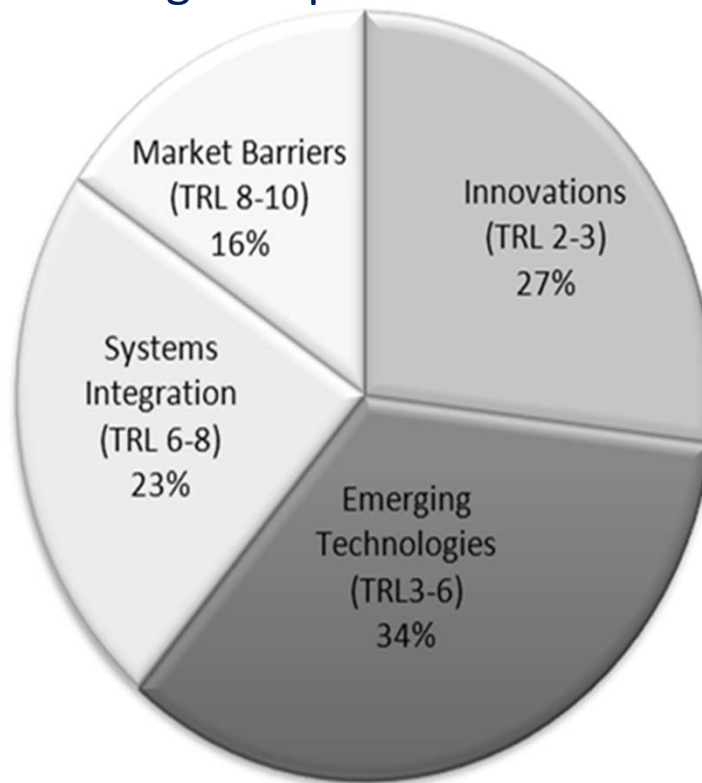
Federal Incentives – DOE Funding Outlook

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



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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/



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Federal Incentives - Opportunities

- BENEFIT
 - 2014: \$14M in grants for building energy efficiency projects
- ARPA-E Open FOA
 - 2015 FOA offering \$125M in grants. Concept papers due 2/27/2015
- FEMP AFFECT
 - 2014: \$5M in grants awarded. 2015 FOA pending
- Loan Guarantee Program
 - Declining budget. Challenging for smaller projects (<\$50M)
- Tax Credits
 - 30% ITC for CHP. Sunset dates looming for CHP and renewables



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State and Local Incentives

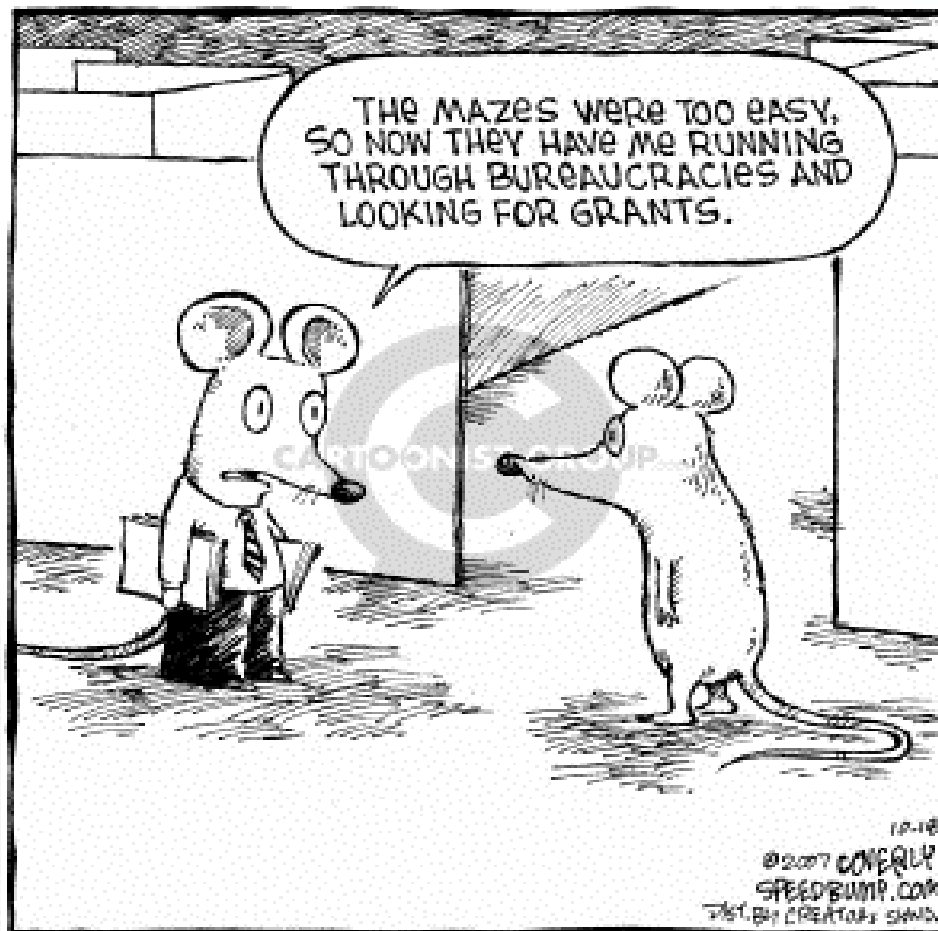
- State Energy Programs
 - NYSERDA: Ongoing program to fund CHP and other energy efficiency projects
 - MA DOER: \$40M in grants awarded for energy resiliency projects in 2014
 - CA PUC: Ongoing Self Generation Incentive Program (SGIP) grants
- Utility Incentives
 - On the rise – alternative portfolio standards, customer demand
 - Stability and Cost Avoidance
 - Prescriptive and Custom project incentives



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Application Tips



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Application Tips

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

The key elements of successful applications:

» 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



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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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Project Financing Options

David Clamage

The Tax-Exempt Customer

State and Political Subdivisions, i.e. “Muni”

- States
 - Higher Education
 - Community Colleges
 - In some States these are under local/district control
- Local Government
 - Cities
 - Counties
 - K thru 12
 - Hospitals, i.e. District and Local Government, i.e. Denver General
 - Airports
 - Energy Improvement Districts



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Municipal Finance Options

Bonds

- Low Cost
- Political Process and Risk, i.e. *“Debt Aversion”*
- Scale

+	Issuer Name	Symbol	Callable	Sub-Product Type	Coupon	Maturity	Ratings			Last Sale	
							Moody	S&P	Fitch	Price	Yield
<input type="checkbox"/>	UNIVERSITY COLO ENTERPRISE SYS REV		Yes		5.000	06/01/2046	Aa2		AA+	119.401	2.650
<input type="checkbox"/>	UNIVERSITY COLO ENTERPRISE SYS REV		Yes		5.000	06/01/2043	Aa2		AA+	111.550	3.500
<input type="checkbox"/>	UNIVERSITY COLO ENTERPRISE SYS REV		Yes		5.177	06/01/2043	Aa2		AA+	108.059	4.060
<input type="checkbox"/>	UNIVERSITY COLO HOSP AUTH REV		Yes		5.000	11/15/2042	A1	AA-	AA-	113.786	3.010
<input type="checkbox"/>	UNIVERSITY COLO HOSP AUTH REV		Yes		4.000	11/15/2042	A1	AA-	AA-	104.783	3.300
<input type="checkbox"/>	UNIVERSITY COLO ENTERPRISE SYS REV		Yes		3.500	06/01/2042	Aa2		AA+	102.825	3.069
<input type="checkbox"/>	UNIVERSITY COLO HOSP AUTH REV		Yes			11/15/2041	Aa1		AA-	100.000	
<input type="checkbox"/>	UNIVERSITY COLO ENTERPRISE SYS REV		Yes		5.000	06/01/2041	Aa2		AA+	107.055	4.100
<input type="checkbox"/>	UNIVERSITY COLO ENTERPRISE SYS REV		Yes		5.000	06/01/2041	Aa2		AA+	113.486	3.033



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Municipal Finance Options

Municipal Lease or Loan

- No Voter Approval
- Cancellable Annually for Non-Appropriation

Glossary of Municipal Securities Terms

NON-APPROPRIATION CLAUSE

A provision of a [bond contract](#) that allows the lessee or borrower to terminate certain obligations under a [long-term](#) certificate of participation or other revenue obligation financing if the appropriating body does not appropriate funds for the lease payments. See: CERTIFICATE OF PARTICIPATION; LEASE-PURCHASE AGREEMENT; LEASE RENTAL BOND; ANNUAL APPROPRIATION PLEDGE; SUBJECT TO APPROPRIATION.

- Pre-Payable
- Fully Amortizing
- Easily “Sculpted” Payments



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Conduit Financing – the 501(c)(3) “Non-Profit” Customer

Higher Education and Healthcare

- Higher Education Examples

- The University of Denver
- Stanford University

COLORADO SEMINARY

[Read Reviews](#)

[Income:](#) \$543,405,959
Denver, CO 80210

STANFORD UNIVERSITY BOARD OF TRUSTEES OF THE LELAND STANFORD JU

[Income:](#) \$4,936,509,854
Also known as: Stanford
University
Stanford, CA 94305

- Healthcare Examples

- The “Sisters and Saints”

SISTERS OF CHARITY OF LEAVENWORTH HEALTH SYSTEM INC

[Income:](#) \$339,229,737
Denver, CO 80211

National Jewish Health

[Read Reviews](#)

[Income:](#) \$213,888,461
Also known as: National
Jewish Health
Denver, CO 80206

SAINT JOSEPH HOSPITAL

[Read Reviews](#)

[Income:](#) \$468,278,775
Denver, CO 80218



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Conduit Financing – the 501(c)(3) “Non-Profit” Customer

Arts and Cultural

- Zoos
- Museums
- Campus
- Theatres and Music

Zoological Society of San Diego

Income: \$237,805,368
Also known as: San Diego Zoo Global

DENVER ART MUSEUM INC

Income: \$34,338,656
Denver, CO 80204

TEXAS MEDICAL CENTER

Income: \$93,720,701
Houston, TX 77021-2040

METROPOLITAN OPERA ASSOCIATION INC

Income: \$311,963,964
New York, NY 10023

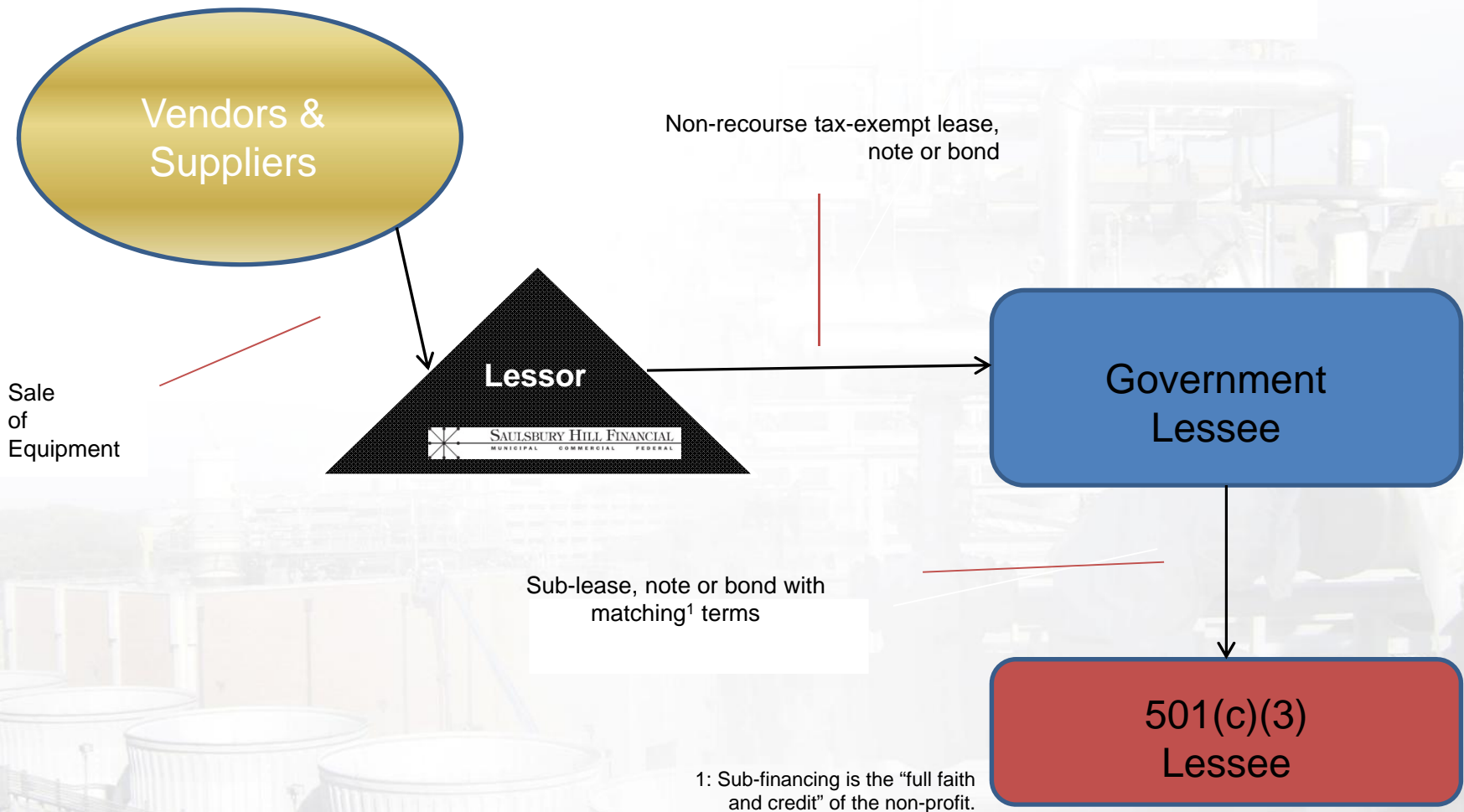


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Conduit Financing – the 501(c)(3) “Non-Profit” Customer

Conduit Financing for Non-Profits: A Simplified Flow Chart



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Thank you!

Campus Energy 2015

Questions?

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