



# State and Local Governments Teaming Up to Achieve Widespread Energy Savings

Moderated by:

**Amy Kidd**

U.S. DOE



**Better  
Buildings<sup>®</sup>**  
U.S. DEPARTMENT OF ENERGY

# City Energy Management Program: Successful Partnerships

Adrienne Ricehill and Dean Laube



# **City Energy Management Program**

*Successful Partnerships*

**Iowa Energy Office  
Iowa Economic Development Authority  
&  
Franklin Energy Services**

# Goals

- Increase energy efficiency project implementation in city buildings
- Establish successful partnerships
- Develop customized action plans for each community
- Provide a dedicated technical resource to catalyze process

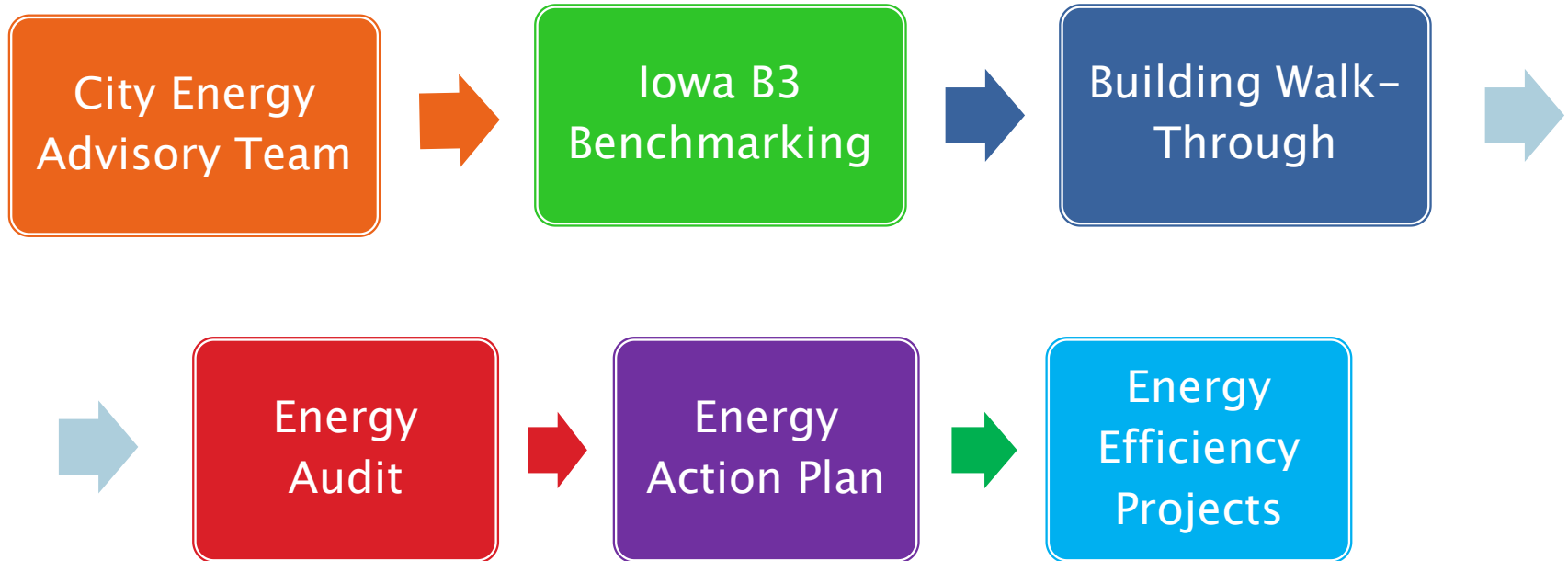


# Strategy

- Identify third party consultant through RFP process
- Evaluate participants to ensure proper participation
- Set timeline of deliverables with measureable results
- Identify projects with excellent ROI to get over “cost” hurdle



# Project Deliverables



# The Deliverable Driver

## Regional Energy Manager:

- Able to focus entirely on the energy management process
- Knowledgeable of current energy efficiency policies and programs
- Shared resource results in less cost burden to participants



# Barriers To Overcome

- Outreach: Lack of understanding of the service the community would receive
- Custom approach: Each city is quite unique requiring a different approach
- Project identification: Conducted during budgeting sets implementation back
- Consensus difficulty: Some communities have far too many “cooks in the kitchen”





# Outcomes

CITY ENERGY MANAGEMENT PROGRAM COMPLETED SAVINGS							
	POPULATION	BUILDINGS	PROJECTS	PROGRAM SAVINGS			
				\$	kWh	therm	CO2 (metric ton)
BLOOMFIELD	2645	6	12	\$ 6,504.07	85113	0	58.700
CHARLES CITY	7527	9	18	\$ 11,916.10	145292	162	100.859
CRESKO	3879	8	11	\$ 5,222.98	42800	4517	53.400
DUBUQUE	58253	16	6	\$ 21,377.40	213378	3414	165.100
ELKADER	1229	6	2	\$ 664.00	9352	0	6.400
HEDRICK	750	6	8	\$ 11,021.15	125294	227	87.600
INDEPENDENCE	5968	7	1	\$ 42,000.00	560000	0	386.000
MASON CITY	27704	8	12	\$ 43,201.00	611100	4593	445.400
NORTH LIBERTY	14971	6	7	\$ 15,438.00	44808	17279	122.500
WAVERLY	10070	8	7	\$ 12,211.00	102806	11881	133.900
ALGONA	5,560	8	2	\$ 198.36	2642	0	1.800
ANKENY	51,567	14	3	\$ 425.43	5796	0	4.000
DENISON	8,298	11	9	\$ 6,103.28	75927	227	53.600
GUTHRIE CENTER	1,569	9	2	\$ 1,059.39	8797	0	6.100
LE MARS	9,826	12	17	\$ 15,027.08	256624	698	180.700
MOUNT AYR	1,691	8	6	\$ 2,127.24	20065	43	14.028
SIOUX CITY	82,684	12	3	\$ 25,851.74	336495	0	232.000
STORM LAKE	10,600	12	3	\$ 2,496.98	40262	469	30.300
WALL LAKE	819	6	6	\$ 1,398.86	15331	284	12.100
<b>TOTALS</b>		<b>172</b>	<b>135</b>	<b>\$ 224,244.05</b>	<b>2,701,882</b>	<b>43,794</b>	<b>2,094</b>

# Projected Savings

CITY ENERGY MANAGEMENT PROGRAM IDENTIFIED SAVINGS							UTILITY PROVIDER	
	Population	# of Buildings	PROJECT	PROGRAM SAVINGS				
			COUNT	\$	kWh	therm	CO2 (metric tons)	
BLOOMFIELD	2645	6	66	\$ 48,577.90	501587	16425	433.100	
CHARLES CITY	7527	9	31	\$ 31,951.52	1527755	2220	1054.500	
CRESKO	3879	8	43	\$ 66,043.46	736870	12559	574.600	
DUBUQUE	58253	16	84	\$ 251,457.25	1732281	37800	1394.000	
ELKADER	1229	6	44	\$ 10,898.51	111914	3065	93.500	
HEDRICK	750	6	21	\$ 5,150.16	47909	2338	45.400	
INDEPENDENCE	5968	7	47	\$ 13,253.17	173450	5873	151.100	
MASON CITY	27704	8	47	\$ 77,956.15	840978	15749	663.500	
NORTH LIBERTY	14971	6	32	\$ 29,260.00	303504	12211	273.700	
ALGONA	5,560	9	31	\$ 29,739.37	347,282	3,071	255.300	
ANKENY	51,567	14	37	\$ 37,862.27	485,778	3,299	352.500	
DENISON	8,298	11	25	\$ 92,848.45	1,163,431	461	804.400	
GUTHRIE CENTER	1,569	9	21	\$ 12,533.80	82,484	2,433	69.800	
LE MARS	9,826	12	34	\$ 30,586.22	477,160	5,126	356.200	
MOUNT AYR	1,691	8	36	\$ 15,620.93	120,054	3,007	98.700	
SIOUX CITY	82,684	12	68	\$ 216,005.36	3,525,365	74,658	2827.000	
STORM LAKE	10,600	12	56	\$ 55,810.71	974,250	6,218	705.000	
WALL LAKE	819	6	16	\$ 6,003.74	70,616	567	51.700	
<b>TOTALS</b>		<b>165</b>	<b>739</b>	<b>1,031,559</b>	<b>13,222,667</b>	207081	10204.000	

# Key Takeaways

1. Set reasonable timelines when dealing with city government
2. Establish strong relationships = SUCCESS
3. Municipalities have excellent saving opportunities but need help with the identification and prioritization
4. Work with and through utility programs for best success
5. Measure success in distinct categories; immediate, short and long term





**Better  
Buildings**<sup>®</sup>  
U.S. DEPARTMENT OF ENERGY

# Los Angeles Better Buildings Challenge

David Hodgins



**Better Buildings**  
**CHALLENGE**  
U.S. DEPARTMENT OF ENERGY  
**LOS ANGELES**

# A Leadership Initiative



- 20% Energy & Water Savings by 2020\*
- Local & National Competition
- Recognition & Free Services



\* 2009 baseline

# Institutional Partners



LOS ANGELES AREA  
CHAMBER OF COMMERCE



# LACI



Los Angeles  
Department of  
Water & Power



# SoCalGas

A  Sempra Energy utility

# Sustainable City pLAn Goals



## PLAN

2017

60  
million  
square feet



By 2017 we will expand the Better Buildings Challenge (BBC) to over 60 million square feet, and avoid 1250 GWh of energy use due to efficiency programs

2035



REDUCE ENERGY USE

By 2035 we will reduce energy use per square foot – for all building types – by 30%



## LADWP Goals



- 15 percent by 2020 across the board
- Exceeds CA requirement of 10%
- Increased rebate amounts, and increased annual budgets

A screenshot of a news article from KOET. The top navigation bar is red with the KOET logo and "50 YEARS" badge, followed by links for SHOWS, NEWS, ARTS, LIVING, SOCAL, VIDEO, and SCH. The article is categorized under "CONSERVATION" and has the main headline "LADWP Sets Higher Energy Saving Goals" in large black font. Below the headline is the byline "by City News Service | November 10, 2014 2:17 PM". A social sharing bar includes a "SHARE" button, icons for email, Facebook, and a plus sign, a "Tweet" button, a "G+1" button with a "0" counter, and a "Log In" link.

KOET 50 YEARS SHOWS | NEWS | ARTS | LIVING | SOCAL | VIDEO | SCH

CONSERVATION

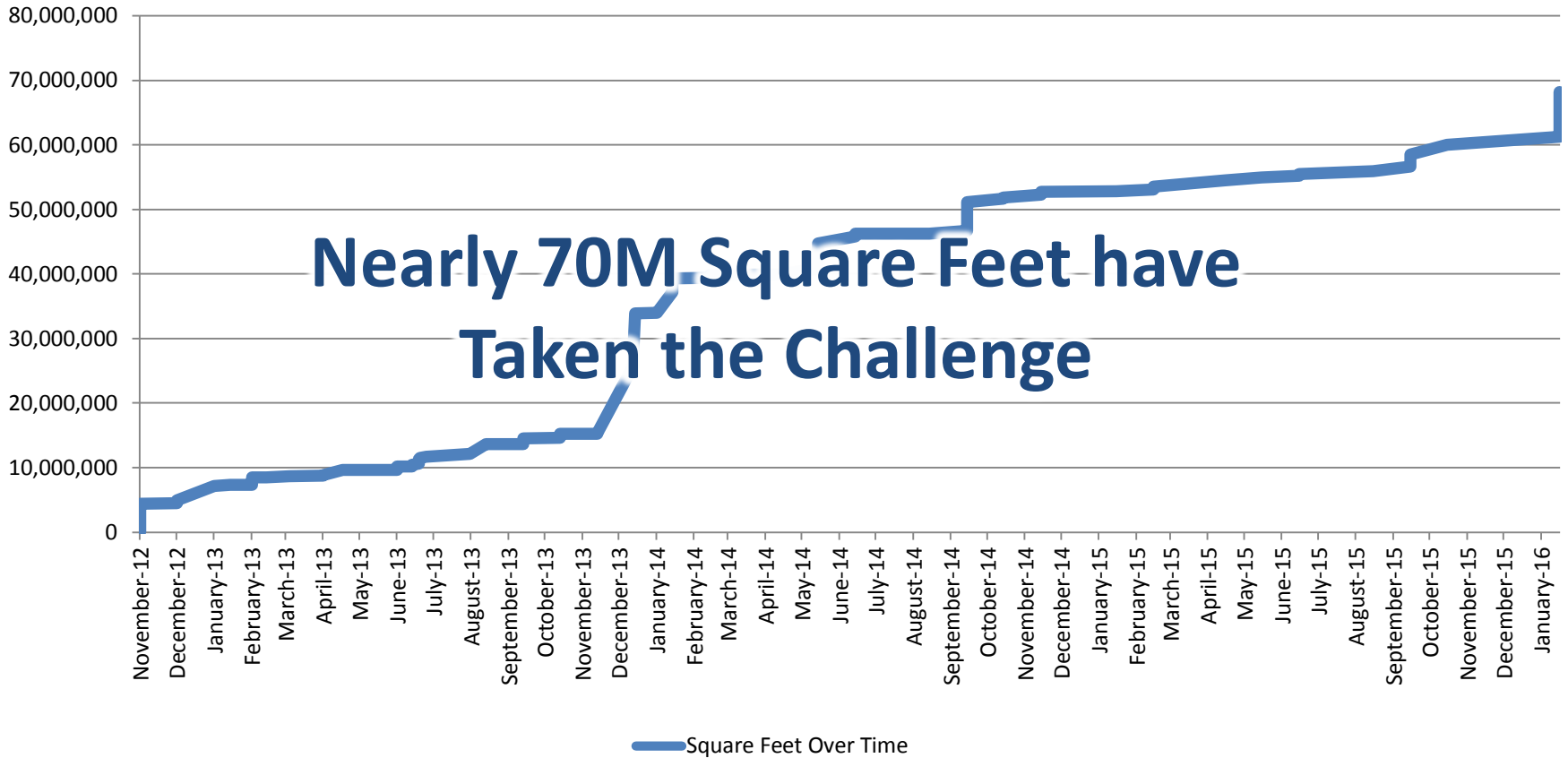
# LADWP Sets Higher Energy Saving Goals

by City News Service | November 10, 2014 2:17 PM

SHARE [email] [Facebook] [plus] Tweet G+1 0 Log In



### Square Feet Over Time



# Building Partners



Ocean | West Capital Partners



Where We Work



REAL ESTATE

GOVERNMENT  
& UTILITIES



TECHNOLOGY



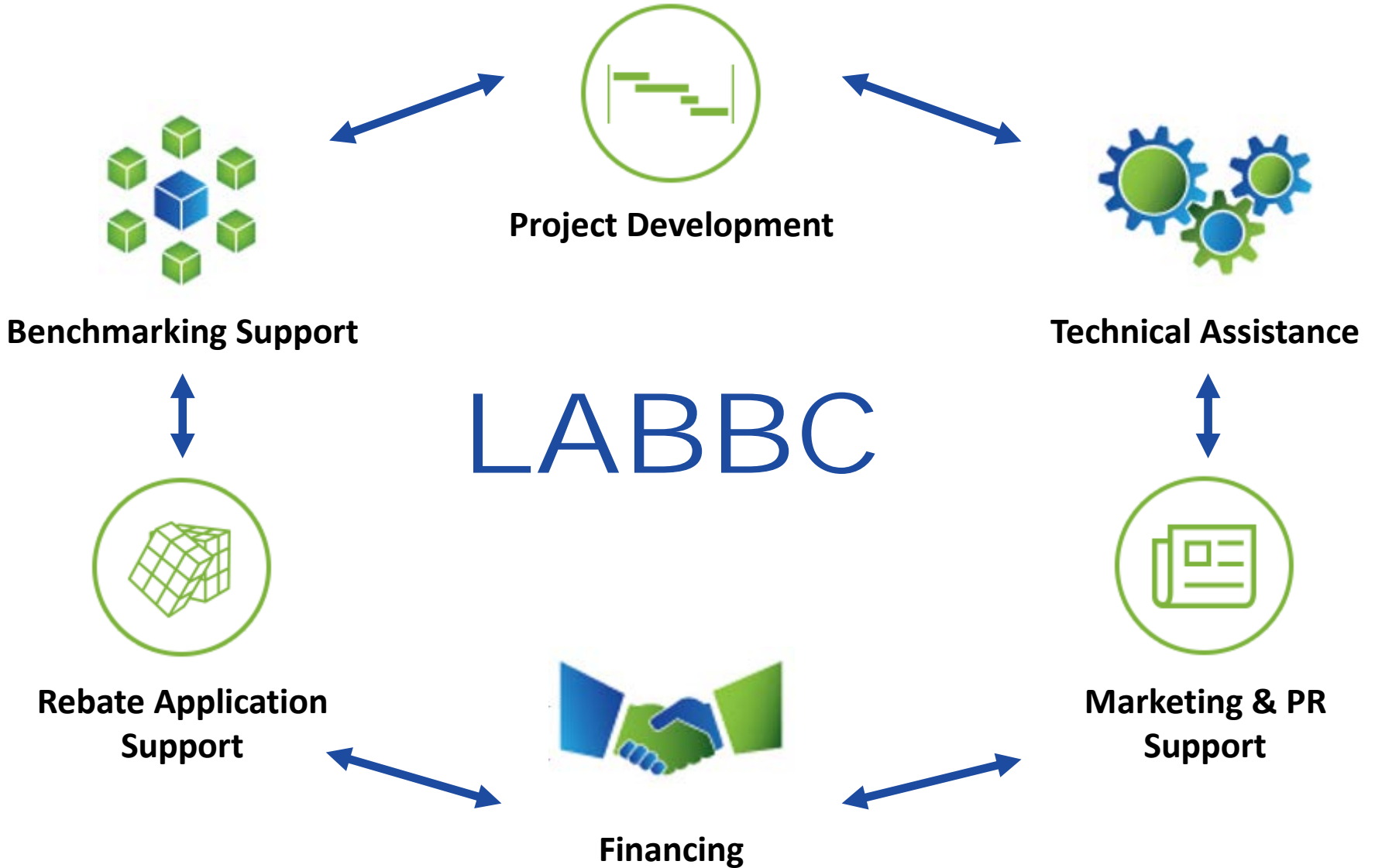
## What We Do



- **Market** and **Improve** Utilities' Incentive and Rebate Programs
- **Promote** Creative Financing for Sustainability
- **Share** Best Practices and Information about Technologies and Products
- **Develop** and Share **Knowledge** and **Data** about Markets, Products and Programs
- **Establish** and **Leverage** Partnerships within the City and the Utilities
- **Facilitate** Cost-Effective Energy Upgrade **Projects** with Technical Assistance
- **Identify** Market **Gaps** and Opportunities
- **Track** and Measure Market Adoption

# Benchmarking & Disclosure Ordinance





January 27, 2016

# 2ND ANNUAL INNOVATION AWARDS

Recognizing LA's Leaders in Energy and Water Efficiency

**Portfolio of the Year**  
**Overall Project of the Year**  
**Energy Efficiency Project of the Year**  
**Water Efficiency Project of the Year**

Collaborating Organizations:





# Industry Partners



“Central City Association (CCA) is proud to work with LABBC, impressed with LABBC's transformational work in Downtown, and strongly encourages property owners and managers to consider LABBC's services.”  
- Central City Association

Take The Challenge!



Help make LA the greenest big City in the US

Contact: [info@la-bbc.com](mailto:info@la-bbc.com)



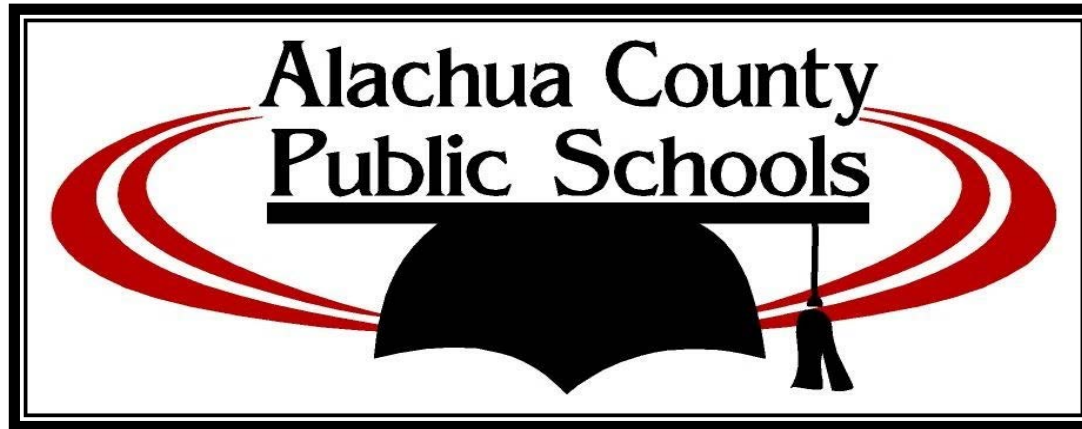
**Better  
Buildings**<sup>®</sup>  
U.S. DEPARTMENT OF ENERGY

# Partnerships in K-12 Schools

Theresa A. Spurling-Wood

# State and Local Governments

Teaming Up to Achieve Widespread Energy Savings

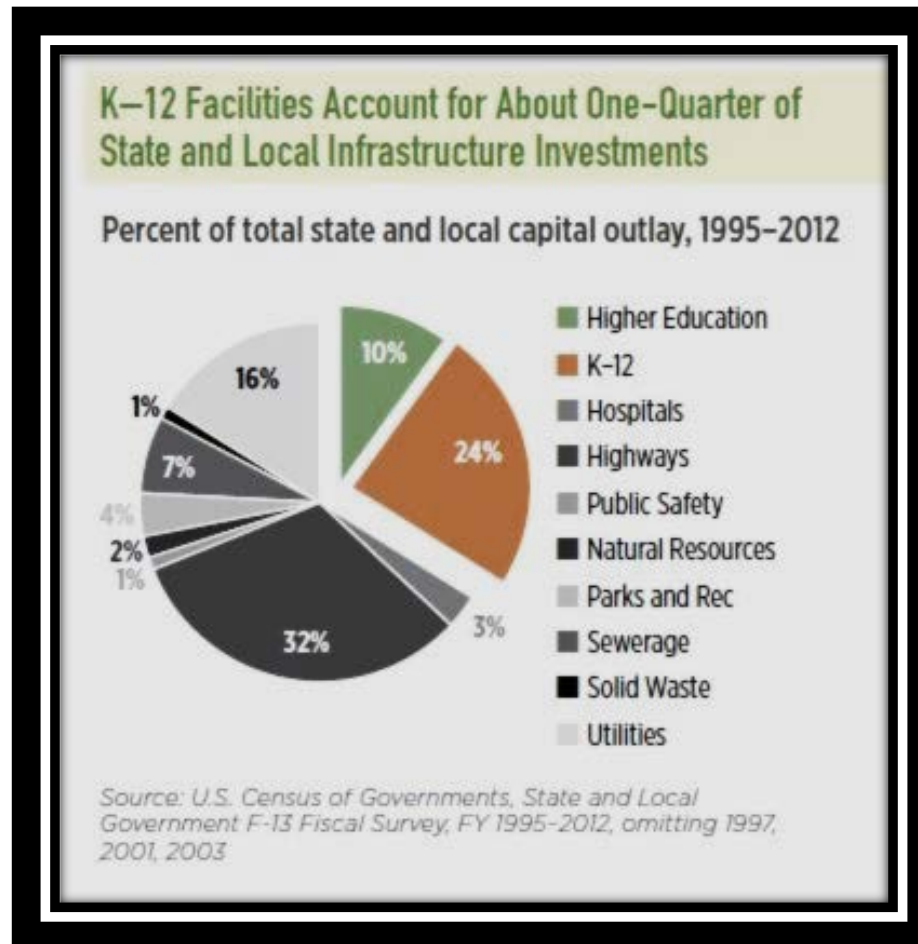


Better Buildings Summit 2016

Theresa A. Spurling-Wood

CEM,CIE,GGP,LEED AP

# So why does “where we learn” matter so much?



Did you know?

# Typical school day in U.S. K-12 Public Sector

There are nearly  
**50 million** students and

**6 million adults** – mostly teachers  
in **100,000** school buildings

**7.5 billion square feet** of  
conditioned space  
covering **2 million acres** of  
land



# Research shows that high-quality school buildings

- ✓ **Improves** student achievement
- ✓ **Reduces** truancy and suspensions
- ✓ **Increases** staff satisfaction and retention
- ✓ **Raises** property values and
- ✓ Is integral to ensuring **equity in educational offerings** and **opportunities** for all students



# And....

## School facilities have a direct impact

- On students' achievements and learning
- On students' and staffs' **safety and health**
- On community, state, and federal **finances**
- On water, sewer, energy, & local **infrastructures**





# Alachua County, Florida.

As of the [2010 United States Census](#),<sup>[11]</sup> there were **247,336** people, **100,516** households, and **53,500** families residing in the county



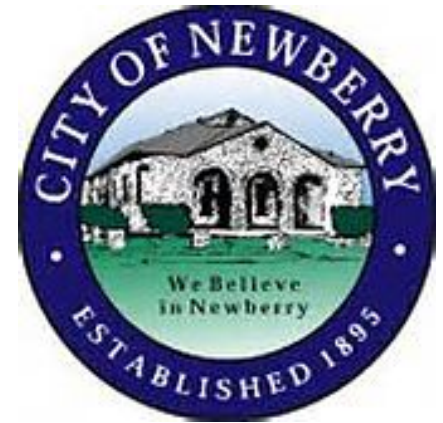
**Sustainable decision making** strives to achieve a *triple bottom line* of benefits for all citizens that **enhances the environment, economy and society.**

## [Alachua County, Florida Creating Sustainable Workplaces and Organizations](#)

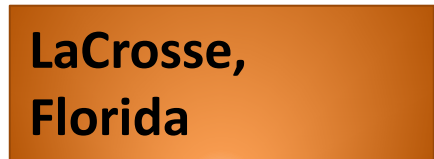
The greatest benefit for **people, profit and planet** is achieved when actions are overlapped by all three spheres and are critical areas for **collaboration and dialogue in the community.**



City of  
**HAWTHORNE**  
Florida



CITY OF  
**GAINESVILLE**  
every path starts with passion  
FLORIDA



Official Website of the



City of Alachua, FL



FISCAL YEAR

2016

# Property Tax Division



35¢  
to Alachua  
County



6¢  
to Library  
District

2¢  
to Water  
Management  
District

33¢  
to Alachua County  
School Board



24¢  
to City of Alachua

7.7¢ to General Government



6.2¢ to Public Safety-Law Enforcement



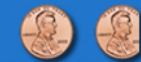
1.5¢ to Public Safety - Fire



0.5¢ to Public Safety -  
Protective Inspections



1.8¢ to Physical Environment



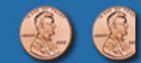
2.5¢ to Transportation



0.5¢ to Community Redevelopment



1.9¢ to Recreation



1.2¢ to Debt Service



0.2¢ to Reserves



This is a representation of how each property tax dollar is divided for property owners in the City of Alachua.

For every property tax dollar a City of Alachua property owner pays, only 24¢ is received by the City of Alachua, while a total of 76¢ is received by other taxing authorities. The City of Alachua Commission strives to provide our residents high quality services while levying the lowest possible millage rate.

Figures above are rounded to cents for illustrative purposes.

# Sustainability = Building up the Three Pillars

- ✓ Employee Assistance and Employee Wellness Programs
- ✓ Food and Nutrition program awarded HealthierUS School Challenge
  - (2) Gold Awards of Distinction and (2) Bronze Awards
- ✓ USDA Farm to School Program
- ✓ Environmental Programs for 2<sup>nd</sup> and 5<sup>th</sup> Grades at Camp Crystal
- ✓ Florida Volunteer Program District -Gold Award
- ✓ Transportation Alternative Fuel Buses & Reduction
- ✓ Solar Curriculum and North Florida EnergyWhiz Expo
- ✓ Districtwide Recycling Program
- ✓ Green Buildings LEED/Green Globes
- ✓ Continued Energy Savings

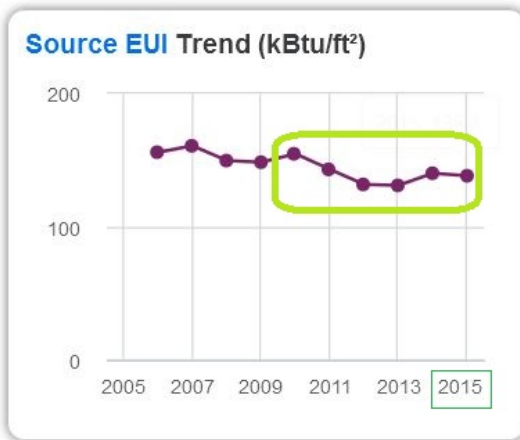


**2014/2015 Florida Green Schools Award**  
**Florida Gold District Award**  
Alachua County Public Schools



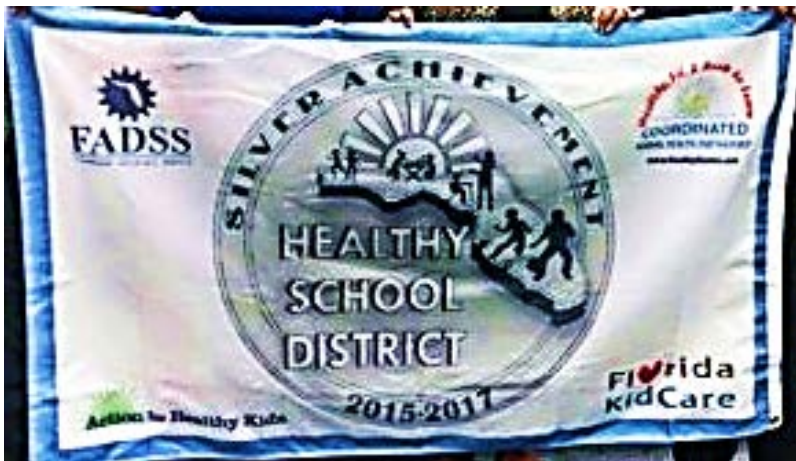
# 1. Reduced Environmental Impact and Costs

- ✓ Reduced or eliminated greenhouse gas emissions
- ✓ Improved water quality, efficiency, and conservation;
- ✓ Reduced solid and hazardous waste production through increased recycling and composting
- ✓ Expanded use of alternative transportation



**2013 Districtwide  
10% Energy  
Reduction**

## 2. Improved Health and Wellness



- ✓ High standards of coordinated school health, including health, nutrition, and outdoor physical education; health, counseling, and psychological services for both students and staff; family community involvement; and an integrated school environmental health program that considers occupant health and safety in all design, construction, renovation, operations, and maintenance of facilities and grounds.

### 3. Effective Environmental and Sustainability Education



- ✓ Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems;
- ✓ Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy; and
- ✓ Development of civic engagement knowledge and skills and students' application of such knowledge and skills to address sustainability issues in their community.





2016

NORTH FLORIDA  
ENERGYWHIZ EXPO

# Community partners of 2016 North Florida EnergyWhiz Expo



FPL®



Alachua County,  
Florida



More than Energy



American  
Water Works  
Association



GAINESVILLE

Raceway  
A DIVISION OF NHRA



FLORIDA



FLORIDA SOLAR ENERGY CENTER



HANDS ON GAINESVILLE



Alachua County  
Public Schools



CITY OF NEWBERRY  
We Believe  
in Newberry  
ESTABLISHED 1895



NHRA  
GATORNATIONALS



SF  
SANTA FE  
COLLEGE

# 2016 District Sustainability Award Alachua County Public Schools



## U.S. Department of Education

goal is to inspire schools and districts to strive for 21st century excellence, by **highlighting promising practices and resources** that all can employ.

# 2016 = Reassessment Time

## GUIDELINES FOR ENERGY MANAGEMENT



Re-Assess

We are here

# Chapter 4:

## What will it take to meet future Educational Facilities needs?

- Set Industry Standards for Facilities Spending
- Setting School Facilities Investment Standards
- Annual Maintenance and Operations Budgets Increased
- Annual Capital Construction Investments
- Stop Deferring Maintenance
- New Construction - Average School Buildings 40 + years old
- Nationwide Gaps in Delivering Adequate K–12 Facilities

# Florida Department of Agriculture and Consumer Services

Examples of qualified projects include

- energy efficiency improvements to public buildings, green communities,
- renewable energy installations,
- various research and development efforts,
- efficiency/energy reduction measures for mass transit
- and energy efficiency education campaigns.



## **Qualified Energy Conservation Bonds**

Qualified Energy Conservation Bonds (QECBs) provide low-interest federal bonds to state, local and tribal governments for qualified energy projects.

# The Center for Green Schools

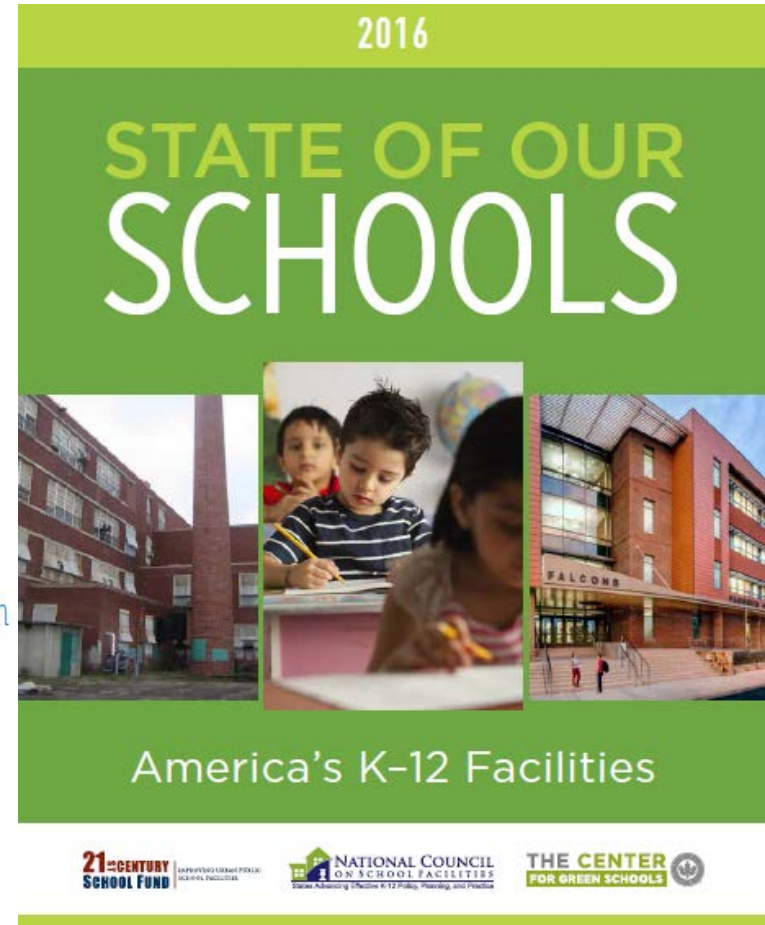
## State of Our Schools Report

### America's K-12 Facilities

School facilities have a direct impact on student learning, student and staff health, and school finances. But too many students attend school facilities that fall short of providing 21st century learning environments because essential maintenance and capital improvements are underfunded. ([Read the press release.](#))

In 2016's State of Our Schools report, we compile and analyze the best available school district data about U.S. K-12 public school facilities funding. The report projects that going forward our nation will under-invest in school buildings by \$46 billion annually. [View our infographic to learn more.](#)

Download the report



# Special Thanks to:

- Center For Green Schools –  
State of Our Schools Report  
<http://centerforgreenschools.org/state-our-schools>  
<http://www.mygreenapple.org/>
- US Department of Education -  
US Green Ribbon Schools  
[https://www.youtube.com/watch?utm\\_content=&utm\\_medium=email&utm\\_name=&utm\\_source=govdelivery&utm\\_term=&v=eCvcedAi4E](https://www.youtube.com/watch?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=&v=eCvcedAi4E)
- What is the size of your  
Ecological footprint?

[http://www.footprintnetwork.org/en/index.php/GFN/page/world\\_footprint/](http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/)



Contact information:  
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Questions?