

# Community Energy Strategic Planning Resources



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy

Technical Assistance Program  
January 24<sup>th</sup>, 2013

# Agenda

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1. Welcome & overview
2. What is a community energy strategic plan and why is it valuable?
3. What materials and resources are available through DOE?
4. How have other communities used these materials?
5. What new opportunities are available for technical assistance?
6. Question & answers

# What is the Technical Assistance Program?

- DOE's Technical Assistance Program (TAP) provides state, local, and tribal officials with resources to advance successful, high-impact, and long-lasting clean energy policies, programs, and projects
- TAP supports one of EERE's key missions – taking clean energy to scale through high impact efforts
- TAP has been around for over a decade and handled thousands of inquiries – most recently TAP had been focused on supporting Recovery Act grantees
  - One-on-one assistance
  - Online resource library & webinars
  - Facilitation of peer exchange

# New TAP Approach



# Strategic Energy Planning as a Priority Area

- Resources: *Guide to Community Energy Strategic Planning*
  - Will be published on the Solution Center in February
  - You will be notified directly when it is available
- Peer Exchange & Trainings:
  - Regional peer exchange – join us for next week's calls, focused on *Getting the Green Light to Get Started*
  - National webinars on strategic energy planning, including – *State Energy Planning, Strategic Energy Planning & Economic Development*
  - Long-term peer exchange – join the *Better Buildings Alliance Working Group for Community Energy Planning*
- One-on-one Assistance

# How to Tap into These and Other TAP Offerings

- Visit the ***Solution Center***  
<http://www1.eere.energy.gov/wip/solutioncenter/>
- Contact Local or State ***Regional Coordinator***  
<http://www1.eere.energy.gov/wip/solutioncenter/pdfs/rcmapsep2012.pdf>
- Submit an ***application*** for assistance  
[http://www1.eere.energy.gov/wip/solutioncenter/technical\\_assistance.html](http://www1.eere.energy.gov/wip/solutioncenter/technical_assistance.html)
- Sign up for ***TAP Alerts***, the TAP mailing list, for updates on our latest and greatest  
[TechnicalAssistanceProgram@ee.doe.gov](mailto:TechnicalAssistanceProgram@ee.doe.gov)

# Why is Strategic Energy Planning a Priority Area?

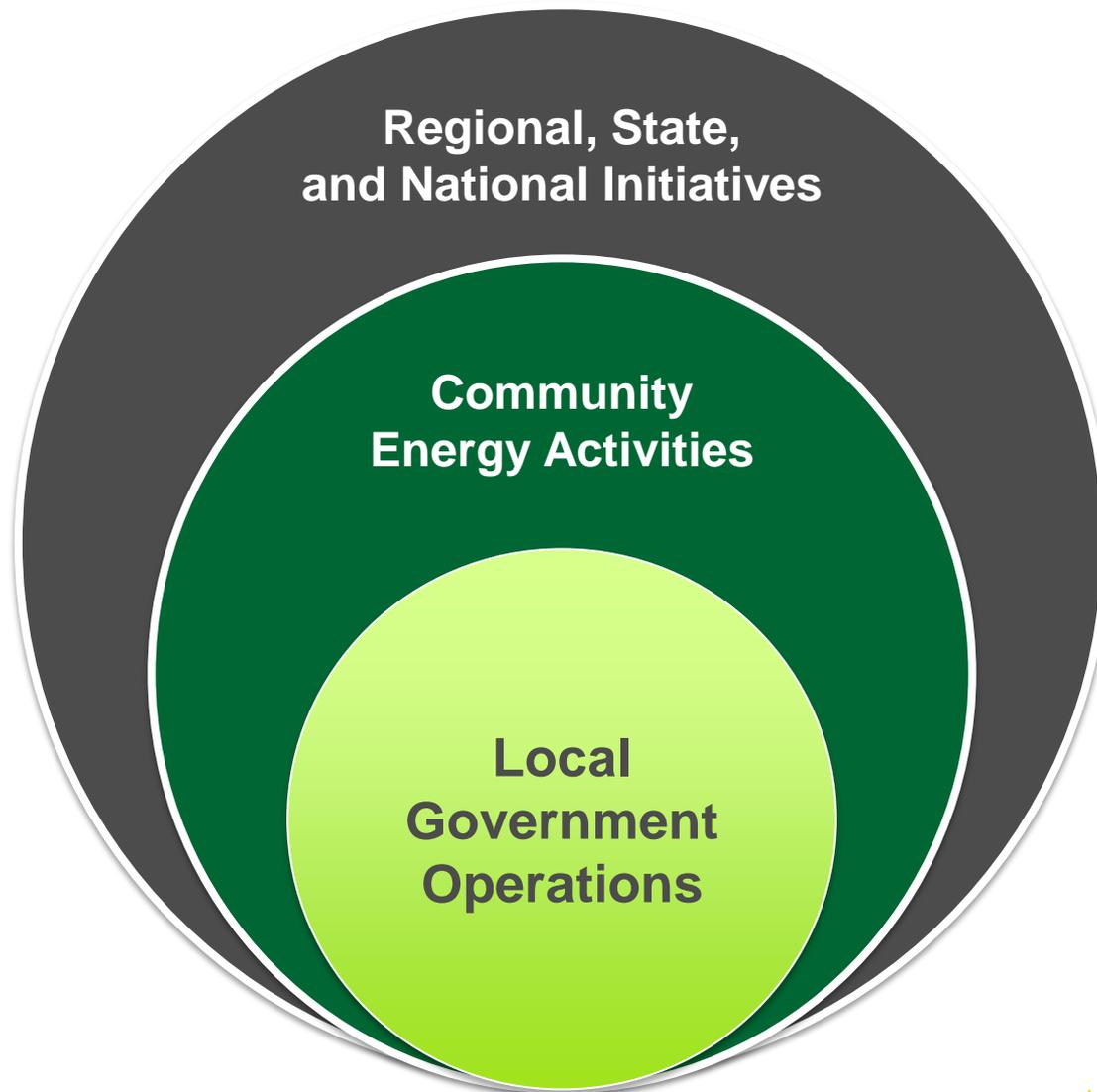
- Strategic energy planning can help state and local governments build on initial or one-off energy successes, by moving from single projects and programs to a comprehensive, long-term energy strategy that delivers benefits for years to come
- The creation of a robust strategic energy plan for your government and community that can help save money, create local jobs, and improve our national security



# What is a Strategic Energy Plan?

- A long-term blueprint to focus and guide efforts toward achieving a defined energy vision
- Articulates goals, identifies strategies and actions to meet goals, and allocates resources to complete these strategies
- Instead of undertaking decisions on a single-year, as-needed basis, a strategic plan is:
  - Proactive
  - Comprehensive
  - Structured
  - Long-term
  - Enduring

# CESP is a Progression of Influence-Building Actions



# Why Complete a CESP?

- Cost savings for taxpayers and consumers
- Job creation in local economy
- Greater energy security
- Increased influence in infrastructure planning
- Free up cash flow for other community priorities
- Improved air quality
- Proactive stance for capturing future opportunities



# Features of the New CESP Guide

- This Guide introduces the Community Energy Strategic Planning approach, a ***step-by-step process*** for creating a robust strategic energy plan
- Each step is discussed in detail over the course of 10 chapters
- ***Tips & tools*** are also provided to help complete each step
- ***Examples*** from successful planning efforts around the country are highlighted
- ***Appendices*** and suggestions for more in-depth ***resources***

# Community Energy Strategic Planning Process



# Steps Occur In Parallel

Step 1	Form Leadership Team									
Step 2		Identify Stakeholders	Engage Stakeholders							
Step 3			Vision							
Step 4			Energy Profile							
Step 5					Goals & Strategies					
Step 6					Identify Actions					
Step 7					Identify Financing					
Step 8							Implementation Blueprint			
Step 9							Monitoring Plan			
Step 10					Scope & Develop Final CESP					Adopt & Publicize
Month	1	2	3	4	5	6	7	8	9	10

# Introduction & “Step Zero”

More on:

1. What is a strategic energy plan and why is it important?
2. CESP process & outcomes
3. Step Zero: Get the green light to get started
  - ✓ Determine scope and resource needs
  - ✓ Share the value of developing the CESP
  - ✓ Get a firm commitment

## Tools, Tips, Examples & Appendices

- Planning Worksheet & Timeline Template
- Value Brief – including PowerPoint and Elevator Speech
- Links to related planning resources from other stakeholder groups

# Step 1: Establish & Charge a Leadership Team

1. Identify effective leaders
2. Charter & direct the Leadership Team

## Tools, Tips, Examples & Appendices

- Sample Org Chart
- Leadership Team Invitation
- Leadership Team Charter
- Appendix: Tips for Successful Management



# Step 2: Identify & Engage Stakeholders

1. Identify stakeholders to include
2. Engage stakeholders effectively
  - A. Establish a strategy for stakeholder input
  - B. Consider types of enhanced engagement
  - C. Motivate effective stakeholder participation
3. Plan to maximize stakeholder value throughout the planning process

## Tools, Tips, Examples & Appendices

- Stakeholder Matrix Template
- Stakeholder Invitation & Kick-off Meeting Agenda
- Appendix: Engagement Strategies



## Step 3: Develop an Energy Vision

1. Identify long-term aspirations and priorities to use as a basis for the vision
2. Create a focused vision statement
3. Share the final vision with the broader community

### Tools, Tips, Examples & Appendices

- Visioning Tool



# Step 4: Assess the Current Energy Profile

1. Develop the scope and recruit expertise
2. Assess current energy use and supply
3. Identify potential future energy sources
4. Inventory current plans, policies, programs, and projects
5. Identify available human and organizational resources
6. Organize and communicate findings

## Tools, Tips, Examples & Appendices

- Energy Data Calculation & Summary Tool
- Activity Inventory Template
- SWOT Analysis Worksheet



# Step 5: Develop Energy Goals & Strategies

1. Choose effective goal language

**S**

- Specific (Clear, concise, tangible)

2. Develop clear and measurable goals

**M**

- Measureable (Way to assess progress)

3. Identify strategies for achieving goals

**A**

- Attainable (Balance between stretch & feasibility)

4. Integrate input from stakeholders

**R**

- Relevant (Goals align with vision)

5. Publicize goals and strategies

**T**

- Time Bound (Articulate timeframe for completion)

## Tools, Tips, Examples & Appendices

- Goals, Strategies & Actions Planning Worksheet

# Step 6: Identify & Prioritize Actions

1. Establish a system to rank ideas
2. Identify policies, programs, and projects to consider
3. Rank and evaluate options against goals and strategies

## Tools, Tips, Examples & Appendices

- Sample Scoring Form for Prioritizing Actions
- Appendix: Policies, Programs, & Projects to Consider
- Planning Worksheet



# Step 7: Put Together a Financing Strategy

1. Understand financial requirements for different types of energy actions
2. Identify potential financing and funding sources
3. Design a suite of financial mechanisms for proposed activities

## Tools, Tips, Examples & Appendices

- Template for Inventory of Potential Financing Activities
- Appendix: Financing Mechanisms to Consider



# Step 8: Develop a Blueprint for Implementation

1. Develop an blueprint
2. Establish operational responsibilities
3. Incorporate the CESP into other planning and budgeting efforts

## Tools, Tips, Examples & Appendices

- Planning Tool

Goal	Metrics	Strategy	Action	Lead	Timeline
Reduce energy use in municipal buildings by 10% by 2020	Electricity use - kwh/yr	Upgrade 25% of city building square footage to Energy Star levels	Benchmark city buildings against their peers using the EPA's Portfolio Manager	Facilities Manager	3/31/13
	Natural gas use - therms/yr		Identify buildings to upgrade in capital planning process	Engineering Manager	6/30/13
	Or MMBtu equivalent per year	Install photovoltaic panels on 25% of all buildings by 2020	Identify all south facing rooftops in the municipal building stock	Planning & Zoning Analyst	9/30/13
	Baseline = 2010 kwh/yr & therms/yr				

# Step 9: Plan to Evaluate

1. Establish a plan for performance measurement and reporting
2. Evaluate and report on the effectiveness of the full CESP and its components on a regular basis
3. Update the CESP when necessary to ensure the best results

## Tools, Tips, Examples & Appendices

- Monitoring Plan Template
- Planning Tool



# Step 10: Develop, Adopt, & Publicize the CESP

1. Prepare a final CESP
2. Have CESP officially adopted
3. Publicize the adoption and kick off of the CESP
4. Plan to use effective communication and public relations strategies to keep the CESP visible

## Tools, Tips, Examples & Appendices

- Sample adoption language and press releases



cost savings  
new jobs  
energy independence  
increased sustainability  
leading by example

# Energy Planning as a Pathway to Prosperity

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Cuyahoga County Planning Commission

Cleveland, Ohio

January 24, 2013

# About Cuyahoga County

- Cuyahoga County was the recipient of a \$5.7 million EECSBG Grant in 2009
- Cuyahoga County, OH is located in the Northeast region of Ohio
- There are 1.3 million citizens living in the County; the City of Cleveland is the center; one of the county's 59 municipalities

# About Cuyahoga County

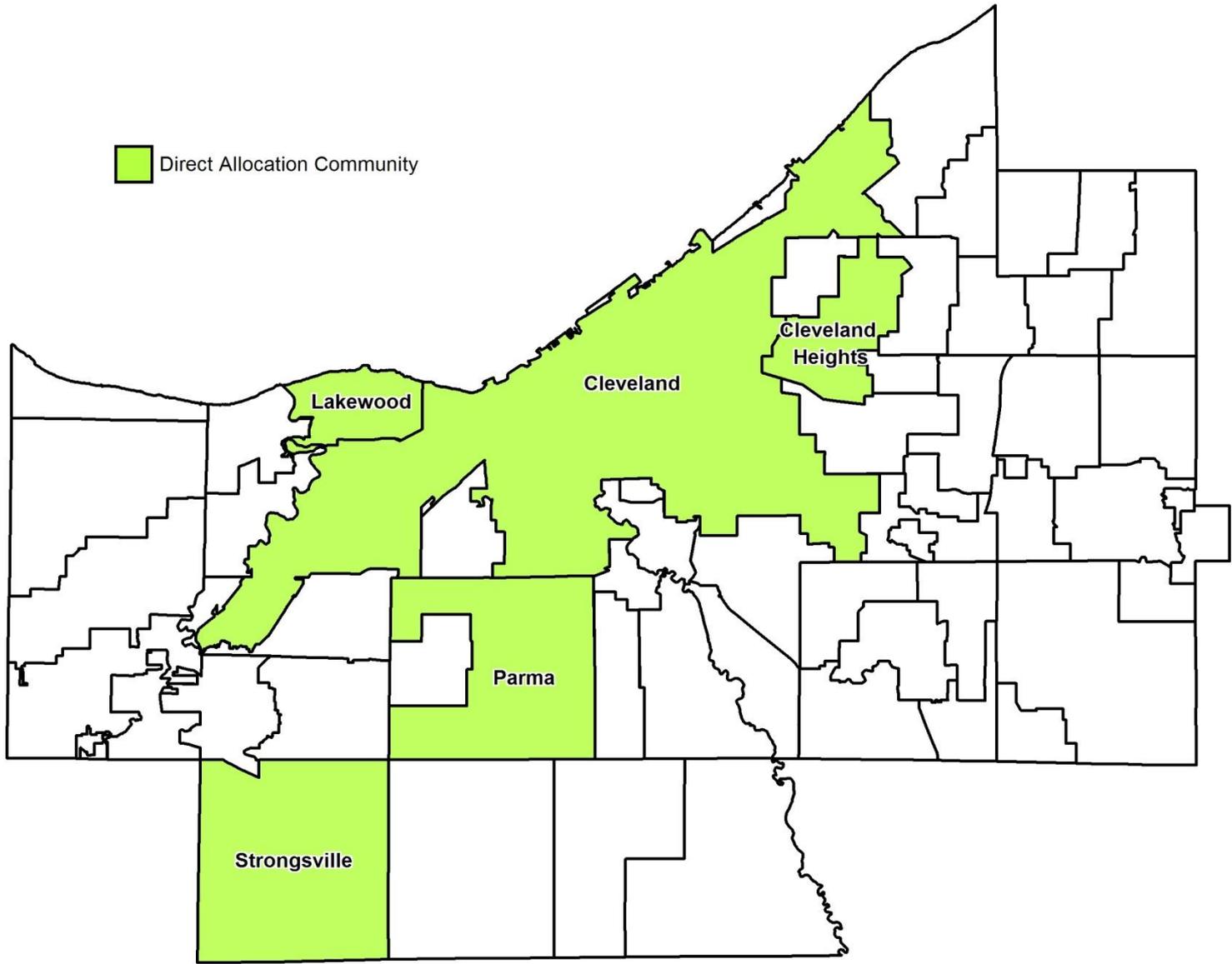
Municipalities in the county vary considerably in their demographics, geography and development patterns from the dense urban environment of the City of Cleveland and the older “First Ring Suburbs” to the sprawling outer ring of suburbs.

# Cuyahoga county's eecbg grant

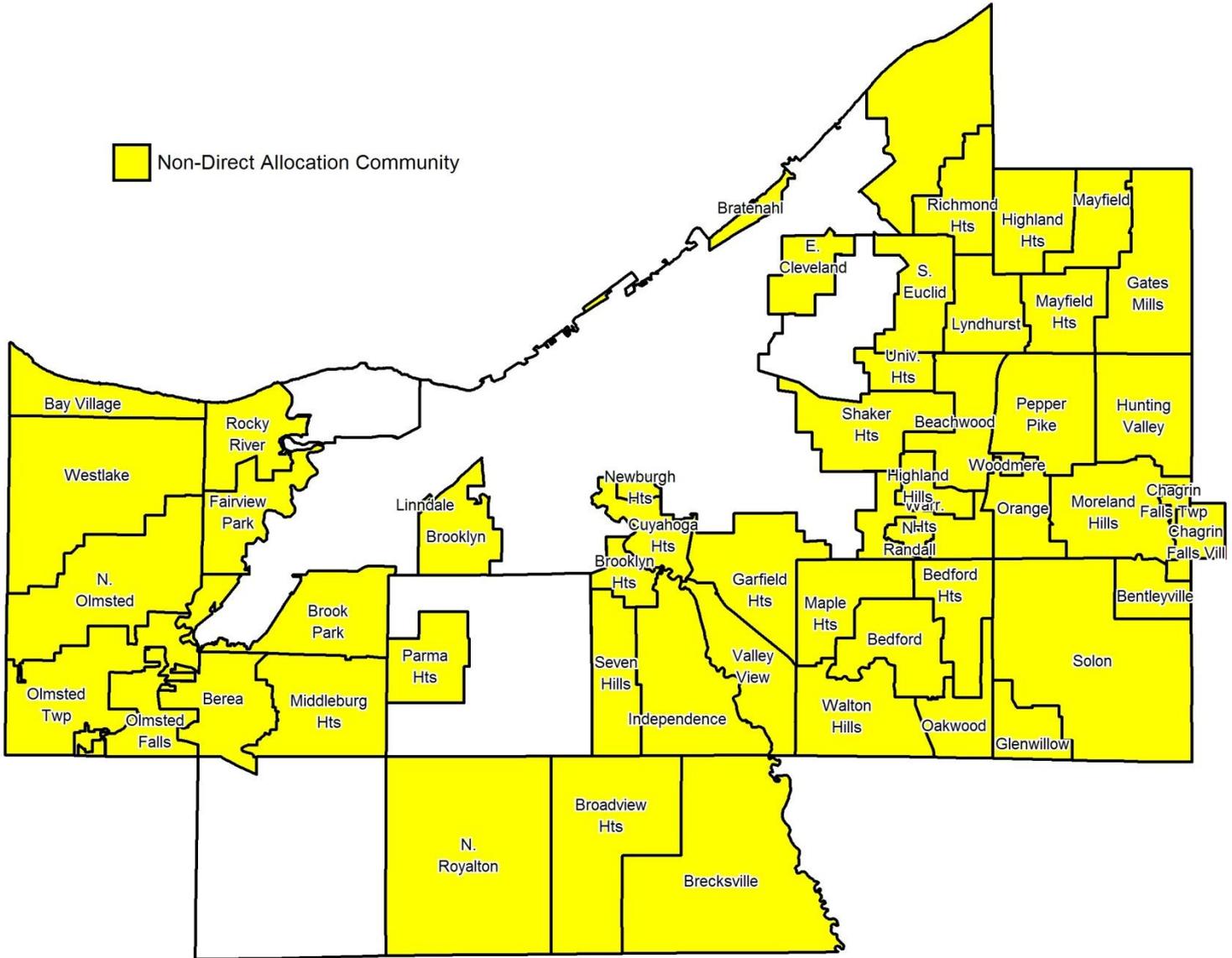
## **EECBG GRANT- \$5.7 MILLION**

- \$1.9 million - used to conduct baseline energy audits of all County- owned buildings and facilities.
- \$3.2 million to fund the Municipal Energy Program (MEP) to provide to communities:
  - 100% funded energy audits and
  - Implement energy retrofit projects.

# Cuyahoga County Energy Efficiency and Conservation Block Grant Program



# Cuyahoga County Energy Efficiency and Conservation Block Grant Program



# Cuyahoga county's eecbg grant

- Cuyahoga County Fairgrounds  
Wind Turbine and Energy  
Education Center



# Cuyahoga county energy efficiency improvements

- The County's Sustainability Program has a target to reduce greenhouse gas emissions 20% by 2019 and a goal of 80% by 2050.
- \$1.9 M of EECBG used the by County to:
  - Conduct 12 investment-grade surveys of county-owned buildings and facilities.
  - Implement \$3 million efficiency improvements
  - Result - Annual energy and operational savings of approximately \$500,000.

**Cuyahoga County Energy Conservation / Infrastructure Upgrade Project  
Summary - 3/4/2009**

Cuyahoga county  
energy efficiency  
improvements

<b>Project Summary</b>					
Cuyahoga County Buildings					
<b>Energy Conservation Measure</b>	<b>Project Investment</b>	<b>Energy Savings</b>	<b>Operational Savings</b>	<b>Total Savings</b>	<b>Simple Payback</b>
Hughes BOE Boiler Replacement	\$184,662	\$8,088	\$4,617	\$12,705	14.5
Hughes Pipe Insulation	\$4,000	\$780	\$0	\$780	5.1
Hughes Lighting Upgrade	\$72,271	\$8,030	\$803	\$8,833	8.2
Hughes Smart Meters	\$5,500	\$550	\$0	\$550	10.0
Virgil Brown Chiller	\$204,000	\$13,074	\$5,100	\$18,174	11.2
Virgil Brown Lighting	\$321,475	\$35,719	\$3,572	\$39,291	8.2
Virgil Brown Smart Meters	\$11,000	\$917	\$0	\$917	12.0
Hunter New Chiller	\$175,278	\$7,872	\$4,382	\$12,254	14.3
Hunter Lighting	\$192,235	\$22,200	\$2,220	\$24,420	7.9
Hunter Tower	\$120,000	\$2,100	\$2,400	\$4,500	26.7
Hunter Smart Meter	\$5,500	\$550	\$0	\$550	10.0
Hunter, Virgil and BOE Automation	\$404,121	\$27,401	\$4,041	\$31,442	12.9
Hunter, Virgil and BOE Water Conservation	\$134,666	\$14,882	\$3,367	\$18,249	7.4
<b>Subtotal for Hunter, Virgil and BOE</b>	<b>\$1,834,708</b>	<b>\$142,163</b>	<b>\$30,501</b>	<b>\$172,665</b>	<b>10.6</b>
Auto Title Lighting	\$36,699	\$4,078	\$408	\$4,485	8.2
Auto Title Automation	\$25,310	\$2,812	\$633	\$3,445	7.3
Auto Title Smart Meters	\$5,500	\$550	\$55	\$605	9.1
Juvenile Court Lighting	\$185,625	\$20,625	\$2,063	\$22,688	8.2
Juvenile Court Automation	\$128,016	\$11,638	\$3,200	\$14,838	8.6
Juvenile Court Smart Meters	\$5,500	\$550	\$55	\$605	9.1
Metzenbaum Lighting	\$53,148	\$5,905	\$591	\$6,496	8.2
Metzenbaum Automation	\$36,653	\$3,054	\$916	\$3,971	9.2
Metzenbaum Smart Meters	\$5,500	\$550	\$55	\$605	9.1
Central Services Lighting	\$56,034	\$6,226	\$623	\$6,849	8.2
Central Services Automation	\$38,644	\$2,973	\$966	\$3,939	9.8
Cent. Services Smart Meters	\$5,500	\$550	\$55	\$605	9.1
Whitlach Lighting	\$36,744	\$4,083	\$408	\$4,491	8.2
Whitlach Automation	\$25,341	\$2,304	\$634	\$2,937	8.6
Whitlach Smart Meters	\$5,500	\$550	\$55	\$605	9.1
<b>Subtotal Remaining Buildings</b>	<b>\$649,714</b>	<b>\$66,447</b>	<b>\$10,716</b>	<b>\$77,163</b>	<b>8.4</b>
<b>Subtotal All Buildings</b>	<b>\$2,484,422</b>	<b>\$208,611</b>	<b>\$41,217</b>	<b>\$249,828</b>	<b>9.9</b>

# Cuyahoga county municipal energy program (mep)

## PHASE ONE:

- 100% Grants to eligible municipalities to conduct ASHRAE Level II Comprehensive Energy Audits
- 97% Participation from Municipalities with 51 conducting ASHRAE Level II Audits

# Cuyahoga county municipal energy program (mep)

## PHASE TWO:

- 100 % Grant to eligible municipalities to implement energy efficiency retrofit projects.
- 14 Municipalities awarded funding to conduct 64 energy efficiency retrofits.

# Cuyahoga County MEP - Annual Savings

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				ANNUAL UTILITY COSTS				ANNUAL SAVINGS
#	MUNICIPALITY	# of Bldgs	Total Square Feet	ELECTRICITY	GAS	Water	TOTAL \$	ELECTRICAL (Kwh)
1	Bay Village	13		\$335,490	\$48,914	\$8,151	\$392,555	1,445,024
2	Beachwood <b>including rec</b>	11	551,772	\$342,555	\$154,329	\$53,081	\$549,966	3,294,737
	Beachwood <b>(not including rec)</b>			\$302,367	\$133,688	\$21,235	\$457,290	2,955,698
	Beachwood Aquatic Center (Rec)			\$40,188	\$20,641	\$31,846	\$92,676	339,039
3	Bedford <b>(includes rec &amp; wwtp)</b>	17	156,953	\$302,346	\$83,264	\$62,911	\$448,521	2,622,202
	Bedford <b>(not including rec &amp; wwtp)</b>			\$155,265	\$54,378	\$17,373	\$227,016	1,400,210
	Bedford Rec			\$17,020	\$17,981	\$1,491	\$36,492	116,562
	Bedford Pool (Rec)			\$7,009	\$5,255	\$4,575	\$16,839	44,141
	Bedford WWTP + Pump Stations	7		\$123,052	\$5,650	\$39,472	\$168,174	1,061,289
4	Bedford Heights <b>(including rec, wwtp, lights)</b>	9	205,647	\$363,472	\$261,959		\$625,431	3,701,619
	Bedford Heights <b>(not including rec &amp; wwtp)</b>	4	98,577	\$219,472	\$201,959		\$421,431	2,431,619
	Bedford Heights Rec	1	71,070	\$144,000	\$60,000		\$204,000	1,270,000
	Bedford Heights WWTP	4	36,000				\$0	
5	Bentleyville	2	13,459	\$10,001	\$2,072		\$12,073	81,022
6	Berea	6	37,600				\$0	766,143
	Bere Rec	1	33,071				\$0	626,240
	Berea WWTP	1	21,096				\$0	1,245,600
7	Bratenahl	6	35,191	\$17,790	\$16,281		\$34,071	148,251
8	Brecksville	16	329,449				\$0	3,847,667
9	Brook Park <b>(includes rec &amp; street lights)</b>	9	240,696	\$931,252	\$156,146		\$1,087,398	7,356,887
	Brook Park <b>(not including rec)</b>	8	140,268	\$648,385	\$104,482		\$752,867	4,673,246
	Brook Park Rec	1	100,428	\$282,283	\$46,042		\$328,325	2,680,751
	Brook Park Outdoor Waterpark (Rec)	0	0	\$584	\$5,622		\$6,206	2,890
10	Brooklyn <b>including rec</b>	5	214,661	\$397,934	\$203,117		\$601,051	3,611,188
	Brooklyn <b>(not including rec)</b>	4	114,661	\$135,064	\$74,152		\$209,216	1,128,988
	Brooklyn Rec	1	100,000	\$262,870	\$128,865		\$391,735	2,482,200

# Strategic Energy Plan FOR Cuyahoga County

## A LOCAL GOVERNMENT CESP:

- Start saving taxpayers, businesses, and residents money as soon as possible;
- Continue momentum of the EECBG investments;
- Seize opportunity to demonstrate leadership;
- Leverage current community support for effort; and
- Address [Western Reserve Plan Principles](#).

# Leadership Team & Stakeholders

## LEADERSHIP

- Cuyahoga County Executive
- Cuyahoga County Planning Commission

## STAKEHOLDERS

- County Municipalities
- County Departments & Agencies
- Schools & Libraries
- Other Public Entities
- Public Utilities

# Leadership Team & Stakeholders

## Broader County Energy Initiatives

- **SOLAR PANELS:** Cuyahoga Metropolitan Housing Authority is building 4,200 solar panels on a 6-acre site adjacent to its headquarters.
- **LAKE ERIE WIND TURBINES:** The County's *Great Lakes Energy Development Task Force* received a \$4 million grant from the U.S. Department of Energy to design the Lake Erie Wind Farm.

# Uniting the Region for a Better Tomorrow



## Energy Vision & Profile

*For nearly a century, Cuyahoga County has explored ways to consolidate and improve service delivery among our many different communities. Today, tight budgets are an additional incentive for collaboration while maintaining municipal authority and quality in service delivery.*

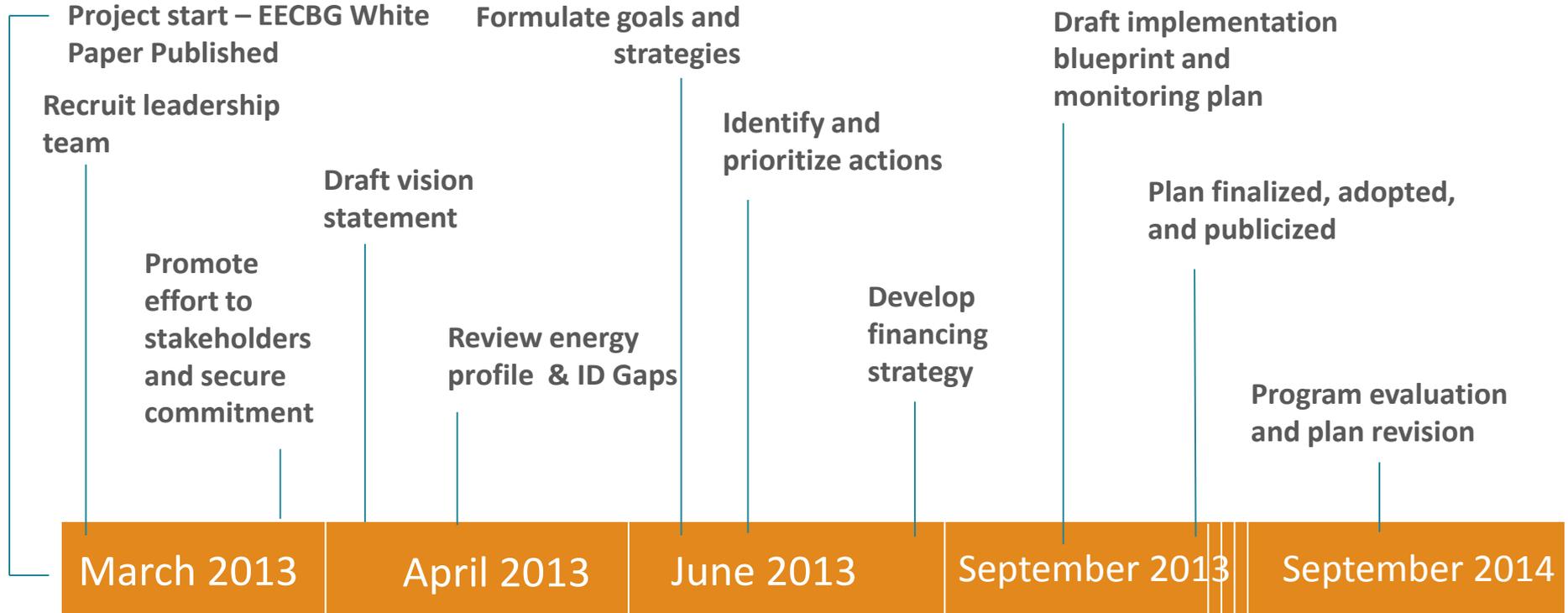
# Uniting the Region for a Better Tomorrow



## Energy Vision & Profile

- Metropolitan Government
- Entrepreneurship & Job Growth
- Downtown Cleveland
- Human Service Needs
- Education
- Health & Wellness
- Economic Inclusion
- International City/Younger Generation
- Foreclosure Crisis
- Veterans
- Public Safety
- Good Government

# How Do We Get There?



Let's Get  
To Work

## NEXT STEPS

- Finalize White Paper - outcomes and recommendations of MEP Program.
- Explore funding opportunities to continue work started.
- Identify Leadership Team and Stakeholders
- Launch Strategic Plan Process

For More  
Information

Contact:

Alison Ball

Claire Kilbane

Marionette Richardson-Scott

Cuyahoga County Planning Commission

323 Lakeside Avenue West, Suite 400

Cleveland, Ohio 44113

216-443-3700

Thank you!

# Better Buildings Alliance

- ▶ Opportunity for governments to work collaboratively with DOE to advance their clean energy goals
- ▶ Helps members sustain success of ARRA funded work
- ▶ Leverages DOE expertise
- ▶ Provides forum to engage with peers around actionable steps
- ▶ Public sector working groups focus on strategic target areas:
  - Energy planning
  - Data collection, analysis, communication
  - Financing
  - ESPC standardization and implementation
  - Technical areas (lighting, HVAC, plug loads, data centers, etc.)

# Alliance Members Agree to:

## ▶ Commit

- Assign a representative
- Share energy savings goals, encouraged to be an annual goal of >2%

## ▶ Act

- Work to achieve goals and monitor progress
- Participate in at least one BBA workgroup or activity

## ▶ Share

- Provide annual updates on energy savings and progress toward meeting goals
- Share your successes and help other members replicate your results



# DOE Agrees To:

## ▶ Assist

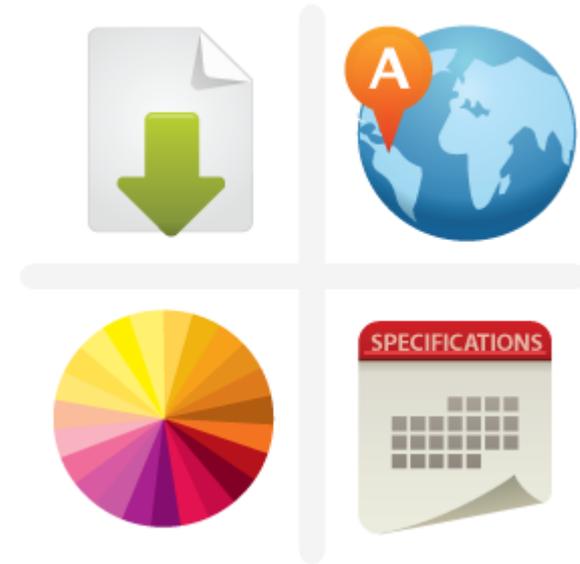
- Provide information and resources to help members meet energy goals
- Work with members to create new resources and tools

## ▶ Connect

- Provide a neutral, third-party platform for peers to build solutions
- Connect members with financial allies for financing solutions

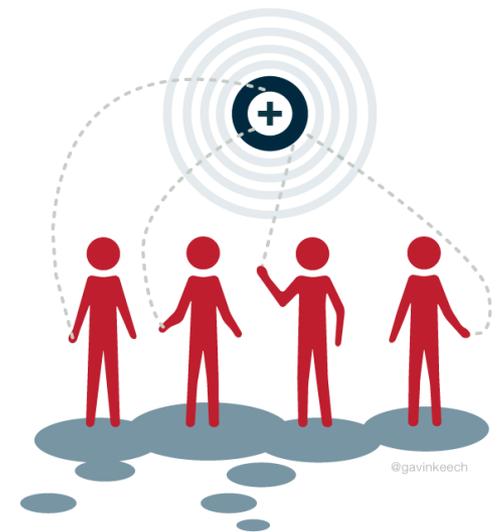
## ▶ Inform

- Keep members informed through regular BBA communications and webinar series
- Provide access to DOE and trusted third-party resources



# Community Energy Planning Working Group

- ▶ Will equip members with knowledge, tools, peer-exchange, and feedback to develop strategic energy plans for their communities
- ▶ Leverage existing CESP materials
- ▶ Sessions held via facilitated webinar
- ▶ Participants will execute process steps in real time as they are discussed in WG sessions
- ▶ Insights participants gain through process will be shared with peers during WG
- ▶ Sessions held April – December 2013



## Better Buildings Alliance

Better Buildings

SEARCH

Search Help



### Installation of night curtains

Whole Foods Market, a BBA member, installed night curtains to cover the refrigerated produce cases when stores are closed. This strategy lowers the cooling load on the refrigeration case by about 40% during unoccupied periods.

## BETTER BUILDINGS ALLIANCE SIGN-UP FORM

Building owners and operators can join the Better Buildings Alliance (BBA) by completing the sign-up form.

[SIGN-UP FORM](#)

## Join the Better Buildings Alliance

Commercial buildings—our offices, schools, hospitals, restaurants, hotels and stores—consume nearly 20 percent of all energy used in the United States. We spend more than \$200 billion each year to power our country's commercial buildings. Unfortunately, much of this energy and money is wasted: a typical commercial building could save 20 percent on its energy bills simply by commissioning existing systems so they operate as intended. Energy efficiency is a cost effective way to save money, support job growth, reduce pollution, and improve competitiveness.

Through the Better Buildings Alliance, members in different market sectors identify specific barriers and work with the U.S. Department of Energy's (DOE) exceptional network of research and technical experts to develop and deploy innovative, cost-effective, energy-saving solutions that lead to better technologies, more profitable businesses, and better buildings in which we work, shop, eat, stay, and learn.

# Questions?

Contact your Regional Coordinator to join next week's call

<http://www1.eere.energy.gov/wip/solutioncenter/pdfs/rcmapsep2012.pdf>

Slides will be posted on the Solution Center

<http://www1.eere.energy.gov/wip/solutioncenter/>

For more information on the **Better Buildings Alliance**,

please send questions to

[bba@ee.doe.gov](mailto:bba@ee.doe.gov)