

DRAFT PLAN FOR CREATING A VOLUNTARY BENCHMARKING FOR

EXECUTIVE SUMMARY

Energy efficiency is one of the most effective ways to cut costs. Understanding energy consumption is the first place to start when considering any energy efficiency effort. Energy use benchmarking is measuring a buildings energy use over time, and comparing it to other similar buildings. Energy benchmarking helps us understand our energy use, so that we can make changes that will help plan and prioritize limited resources in order to save money and save energy. According to ENERGY STAR® “Energy expenditures average more than \$2 per square foot in commercial and government buildings, making energy a cost worth managing.” ENERGY STAR® also notes that buildings that benchmark their energy use on a regular basis tend to reduce their energy consumption by 2.4 percent per year, on average. Benchmarking:

- provides objective data on energy use and the benefits of improvements;
- increases awareness, which may lead to behavior change;
- facilitates planning;
- provides a baseline for measuring improvements, and helps to develop a comprehensive energy management action plan
- provides data to evaluate the business case for capital investments in energy retrofits.

Several other communities in Texas, such as Fort Worth, El Paso, and Houston have already created voluntary programs to encourage building owners and operators to benchmarking their buildings. Therefore, has prepared this plan to create a voluntary benchmarking program for the community. No building owners or operators will be required to participate, and participants will not be required to implement any energy efficiency measures. The goal of this plan is to use the Objectives, Strategies, Tactics, and Success Measures Worksheet.

. To achieve this goal we propose to target CommercialMulti-familyVoluntary single-family residential. We will ask participants to benchmark . In order to achieve our goals, we will work with a number of stakeholders, including government personnel, building owners and operators, and other partners and allies in the community. The estimated budget for this project is:

Personnel	\$
Salary/fringe/overhead	\$
Marketing Material Development and Production	\$
Travel	\$
Outside Consultants	\$
Total	\$

The project will use several different tools to empower participants to benchmark their buildings and use that data to identify savings opportunities. We will also recognize the achievements of participants to help demonstrate the value of benchmarking to the wider community. Our community will see several benefits from this program. Increased energy efficiency reduces air emissions and

improves quality of life. Energy efficiency programs can support economic development through reduced operating costs and improved worker productivity, along with supporting job in the energy services sector.

INTRODUCTION

Benchmarking is the process of measuring a building's energy performance and comparing it with its energy baseline, or comparing the building's energy performance with the energy performance of similar types of buildings. Benchmarking can provide building owners with valuable data so that they can save money, reduce maintenance requirements, and improve renovation cycle planning.

Voluntary benchmarking programs encourage buildings owners and operators to benchmark their facilities. Even in the absence of a requirement to benchmark, communities can provide tools and information to help building owners and operators in their community measure performance. These programs typically communicate the successes of the participants in the programs to encourage additional building owners and operators to participate.

This plan is designed to help you create a voluntary benchmarking program for your community. It has been built using input from the Texas State Energy Conservation Office Energy Benchmark Tool for Cities and the ENERGY STAR® "Developing a Strategic Communications Plan" guidance document.¹

STEP 1 - WORK WITH INTERNAL STAKEHOLDERS TO DEFINE SCOPE AND GOALS

Successful benchmarking programs require several stakeholders be actively involved in the process. The internal stakeholders are those community employees that will plan, organize, and implement the program, along with your communications team.

A worksheet has been provided in Appendix A to help you identify your internal stakeholders.

In order to get the internal stakeholders engaged and involved in the project, it is helpful to begin by explaining the benefits of energy benchmarking. When discussing the idea with your internal stakeholders, be sure that they understand why this program is being proposed and are willing to be supportive. One resource that might help you build the case for energy benchmarking is the Institute for Market Transformation two-page fact sheet, "Energy Benchmarking and Transparency Benefits".²

Next, work with the internal stakeholder team to develop the initial scope and project goals. Typical goals for voluntary benchmarking programs include:

- Reduce energy use in commercial office space
- Motivate energy efficient behavior by tenants
- Build a reputation as a sustainable community

Once you have reached consensus on the project goals, work with stakeholders to create the scope for the project. First develop an inventory of buildings that may participate in the program. It is important to learn about the building stock so you can better define the program focus and stakeholders. The best place to get this information is from the tax appraisal district and possibly the permitting department. The primary information you are looking for is:

- Building Address
- Building Square Footage

- Property Type
- Building Owner
- Building Owner Contact Information
- Building Manager Contact Information

Other information that is helpful includes:

- Building Age
- Building Occupancy
- Building Use

When considering the scope of your program, it is important to consider the amount of energy savings that can be gained through compliance. Once you have the building inventory, you can use that to help you identify the building types and sectors that may provide the greatest saving opportunities.³ From a review of US Department of Energy Building Performance Database for Texas, institutional settings, such as hospitals, prisons and universities, as well as data centers, grocery stores, and large commercial office space are typically large energy users.

The proposed scope includes:

- Who will be asked to participate? (Commercial, Residential, Multifamily)
- What benchmarking data will we ask to be reported? (Electricity, natural gas, water)
- What geographic area will we place our focus? (entire city, entire county, downtown core, city jurisdiction, green district etc.)
- When will we roll out the program?
- How will people enrolled in the program be asked to participate?

Also consider:

- What geographic area will we place our focus? (entire city, entire county, downtown core, city jurisdiction, green district etc.)
- When will we roll out the program?
- How will people enrolled in the program be asked to participate?

STEP 2 - WORKING WITH EXTERNAL STAKEHOLDERS

It is important to clearly communicate with potential participants in the voluntary program. It will help if you can clearly explain what benchmarking is and what are the benefits, how building owners and operators can participate, and the value of participating in the program. Potential participants might need training and information on tools and resources available. People implementing the project can reach out to: owners and managers that you would like to participate in the program; trade organizations; relevant non-profits; utilities; and others.

External Stakeholder Groups

Building Owners/ Operators / Property Mangers	Industry Associations for Buildings - owners/ operators / realtors	Energy Vendors/Engineers/ Architects	Industry Associations for Vendors/Engineers/ Architects	Public/Non Profit
CBRE	BOMA	Energy Service Companies - Schneider Electric; Siemens, McKinstry	American Society of Heating Refrigerating and Air-Conditioning Engineers (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE))	SECO
Transwestern	IFMA	JCI	AEE	SPEER
Hines	IREM	Gensler	AIA	HARC
Brookfield	CORENET		National Electrical Contractors Association (NECA)	IMT
Stream Realty	NAIOP			NRDC
Jones Lang LaSalle	Hotel and Lodging Association			DOE
Crimson				Public Utility
Boxer Property				
Trammel Crowe				
Lincoln Property Trust				
Pro-Logis				
Colliers				

Begin your external stakeholder engagement with a small set of motivated and engaged organizations that include major building owners and operators along with other supportive organizations. There are typically five to six participants in the initial group of key external stakeholders. This core group will allow you to draft the initial parameters of your program, such as building sectors, types of buildings, size of buildings, reporting requirements, etc. Once complete, you can focus on developing an expanded external stakeholder group that includes building owners and managers, building tenants, real estate brokers, utilities, energy services providers, and others.

Work with stakeholders to continue to revise and expand your external stakeholder group. This larger group of external stakeholders can provide helpful feedback on the goals and scope, along with providing insight on how to best reach potential participants, and what sort of tools and training would be helpful. You can use this information to further refine the voluntary program. These external stakeholder can help kick-off the program by being the first to sign-up. As they see the benefits of benchmarking in their own buildings, they can also help spreading the word about the value of participating in the program.

Most programs focus on the commercial building sector because of the energy use and opportunities for improvement. Other sectors that some communities have chosen for voluntary programs include multi-family and single family residential. Residential programs are typically smaller in scope and focus on providing prospective buyers and tenants information on the energy features.

Commercial programs focus on getting the business community involved in benchmarking and building energy efficiency. These voluntary programs are typically based on the participants creating a baseline for benchmarking, and then voluntarily undertaking measures to reduce energy use, and reporting these successes to the community. The City can support these programs in a variety of ways, including:

- providing training on how to use Portfolio Manager
- providing information on low/no-cost measures
- providing information on how to create a successful behavior-based programs
- Recognizing and celebrating success and sharing lessons learned
- Voluntary commercial programs have included:
 - Houston Green Office Challenge⁴
 - Columbus Energy Challenge⁵
 - Denver Watts to Water⁶
 - Los Angeles Better Buildings Challenge⁷
 - Central Florida Energy Efficiency Alliance (CFEEA) Kilowatt Crackdown Challenge⁸
 - Pittsburgh Green Workplace Challenge⁹
 - Portland Kilowatt Crackdown Program¹⁰
 - Salt Lake City Mayor's Skyline Challenge¹¹
 - St. Louis High Performance Building Initiative¹²
 - Envision Charlotte¹³

Multi-family programs typically involve measuring energy use, and then reporting on this information to prospective and current tenants. Prospective tenants can use the energy efficiency of a property as one evaluation criteria when they are choosing a residence. Residents of multifamily properties can be given information on energy performance, and tips on how to save money on their energy bill. The Denver Watts to Water program applies to multi-family buildings.

Voluntary single-family residential programs are typically managed in association with the local Multiple Listing Service (MLS), where the listing agent has the opportunity to highlight energy efficiency measures of the listed property. The Oregon Department of Energy has adopted voluntary rules for rating the energy performance of homes.¹⁴ California also has a voluntary energy rating program for homes.¹⁵

STEP 3 - IDENTIFY OBJECTIVES, STRATEGIES, TOOLS, AND TACTICS

Once you have determined the scope and overall goal of the voluntary program, set up clearly measurable, achievable, and time-limited objectives so that the team can measure progress.

Examples of specific objectives include:

- Have 1,000 hits on our program home page by the end of year one
- Have 15% of the commercial buildings participating in the program by the end of year two
- Educate 100 people about the benefits of benchmarking by 2017

Typically multiple strategies are used to achieve each objective. These should be high-level strategic ideas. Try to include a target audience for each strategy.

Examples of an objective and related strategies include:

Sample objective: Sign-up 20 building owners by the end of the second quarter.

Strategies:

- Encourage the key stakeholders to kick off the program by being the first to sign-up.
- Identify and provide incentives, such as a leadership circle and public recognition.¹⁶
- Develop communication plan that includes material/marketing collateral/web sites/ social media explaining the building specific and community benefits of participation.¹⁷ Develop material with the understanding of having different messaging for different audiences.

Next, identify tactics to achieve each strategy. How are you going to make these strategies happen, and what sort of tools are you going to use?

There are a wide range of tools that can help support your stakeholder engagement. Examples include:

- A one page summary describing the program, why the City has created it, and the expected benefits
- Overview of benchmarking in the US.
- PowerPoint presentations for stakeholder meetings that summarize the who, what, why, when, and how of the proposed program
- Website¹⁸ that explains the program, provides links to resources, reports progress and provides information on local incentive programs for energy efficiency¹⁹
- Mass emails
- Press releases²⁰
- Advertisements²¹
- Case Studies²²
- Brochures²³
- Newsletters²⁴
- Bulletins²⁵
- Guidebook²⁶
- Monthly meetings
- Radio²⁷
- Video²⁸
- YouTube
- Help Center²⁹
- Social media³⁰ (Facebook, twitter, LinkedIn, blogs, etc.)
- Seminars/Workshops³¹

Keep in mind that different tools are more effective for different audiences. For the larger audience and general education use web sites, mass emails, social media, government press releases, newsletters, etc. The content on these should focus on the general benefits of energy efficiency,

information on available resources, as well as general programmatic announcements.

It is helpful to engage with specific industries and associations.³² This can include sector specific workshops, advertising in industry publications, speaking at association lunches and meetings, and face to face meetings. Typically the face to face meetings will target industry association leaders and boards of directors. Some industry associations also have committees that can be a target audience; for example, Building Owners and Managers Association's (BOMA's) policy action committee.

Finally, consider how you will measure success for each of your objectives. That way you can adjust your strategies and tactics if the objectives are not being met. It also allows you to easily report on the results.

A summary of the proposed objectives, strategies, tactics, and success measures is included as Appendix

You can use the Benchmarking and Disclosure Toolkit to help you create your proposed objectives, strategies, tactics, and success measures, or you can use the worksheet provided in the Appendix

STEP 4 - BUDGET AND PERSONNEL

The next step is to work with the internal stakeholders to define the budget and resources needed to support the program you have developed. These programs can be government-funded, may be funded through public/private partnerships, or may be utility-funded as a way for the utilities to help meet their energy efficiency goals.

When developing the budget, be sure to consider:

Personnel	\$
Salary/fringe/overhead	\$
Marketing Material Development and Production	\$
Travel	\$
Outside Consultants	\$
Total	\$

The project team consists of:

Position	Name	Phone	Email
Office of Sustainability - Program development and champion			
Head of implementing department - Project management			
Day-to-day project Staff			
Mayor's Office - Leadership and assist with stakeholder engagement and council member support			
Communications/Public Relations - Promote the project and communicate results			

Position	Name	Phone	Email
Permitting Department and/or Tax Assessor - Building data			
City Council Member Staff - Provide information			
Outside Support			

STEP 5 - EVALUATE RESULTS

After the initial program kick off, the team should regularly evaluate

- Is the project meeting the objectives?
- Are the original objectives still appropriate, or should they be refined?
- Is information accessible and usable to appropriate parties?
- What is the feedback from covered buildings, and should changes be made?

The benchmarking team should compile the information from re-appraisal process, identify opportunities for improvement, and update the plan.

STEP 6 - CELEBRATE SUCCESS AND COMMUNICATE RESULTS

It is important that the project team communicate the results of the benchmarking project. Consider the following tips when communicating the benchmarking results and creating an energy strategy.

- Demonstrate the value—build a case for an energy strategy program by showing the benefits of acting on the information. It can be helpful to craft your value messaging for different audiences. For example, value for the building owner, value to occupants, and value to the entire community.
- Be clear about the program intent. Focus on finding opportunities to improve performance cost-effectively.
- Empower stakeholders to integrate benchmarking and strategic energy management into existing operations and provide training
- Set timelines for deliverables—establish the program critical path and set an achievable progression of milestones and project checkpoints.
- Schedule check-ins and share results regularly—build momentum, assess status, and add accountability.
- Celebrate success: annual report,³³ Mayor's breakfast, annual awards, press releases,³⁴ case studies,³⁵ etc.

Examples of Voluntary Programs in Texas

The City of El Paso: In 2012, the City launched the El Paso Green Business Challenge, encouraging local businesses to conserve energy, reduce waste, save water, and consider alternative means of transportation. Commercial building property managers, property owners and office tenants participating in the challenge will have access to trainings and resources for reducing energy consumption, waste generation and water use. Participants demonstrating achievements in energy efficiency over the course of a year are highlighted in the Challenge's public outreach campaign and recognized by the Mayor and City Council at a Gala in April. <http://www.elpasogbc.org/>

The City of Houston: The Houston Green Office Challenge is a friendly competition for commercial property owners, managers and office tenants that celebrates achievements in greening operations through Mayoral and media recognition. This Houston-wide program will bring local, state and national sustainability experts together with businesses and properties to learn and engage in both introductory and high performance green building practices through free workshops and training. The Challenge also helps participants improve their sustainability and work toward third-party green building certifications such as ENERGY STAR® and LEED®.

<https://houstoncityenergyproject.org/sign-up-for-the-houston-green-office-challenge/>

The City of Fort Worth: The City's Better Buildings Challenge, encourages city businesses and communities to save energy in their buildings. Building a network of partners and allies including local energy and water utilities, the Fort Worth Better Buildings Challenge effectively provides a local education and outreach program promoting energy conservation and efficiency as well as technical support for partners to measure and track their energy use. Through the Better Buildings Challenge, Fort Worth has achieved 8% energy savings across 19 million square feet of public and private sector buildings since 2009. The city is on-track to meet a ten year goal to improve energy use by 20% by 2020.

<http://betterbuildingssolutioncenter.energy.gov/partners/fort-worth-tx>

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END NOTES

1 <https://www.energystar.gov/buildings/tools-and-resources/planning-communications-strategy-worksheet>

2
Download at:
http://www.imt.org/uploads/resources/files/IMTBenefitsofBenchmarking_Online_June2015.pdf

3
Check out CBECs or
<https://www.eia.gov/consumption/commercial/data/2012/index.cfm?view=consumption> or the DOE's Building Performance Database - <https://bpd.lbl.gov/#explore>

4 <http://www.greenpsf.com/go/community/index/houston>

5 <https://www.columbus.gov/energychallenge/>

6 <http://www.wattstowater.org/>

7 <http://la-bbc.com/>

8 <https://www.energystar.gov/buildings/about-us/how-can-we-help-you/communicate/energy-star-communications-toolkit/motivate-competition-1>

9 <http://gwcpgh.org/>

10 <http://neea.org/neea-newsroom/press-releases/2014/05/16/kilowatt-crackdown-competition-winners-announced-in-portland>

11 <http://www.slcgov.com/node/1930>

12 <http://stlhighperformbldg.org/>

13 <http://www.envisioncharlotte.com/>

14 http://www.oregon.gov/energy/RESIDENTIAL/docs/HEPSS_Charter_Final.pdf

15 <http://www.energy.ca.gov/2009publications/CEC-400-2009-008/CEC-400-2009-008-BR-REV1.pdf>

16

For example, see Chicago's "Tall Buildings We Really Look Up To":

<http://siteselector.worldbusinesschicago.com/news/some-of-chicagos-tall-buildings-we-really-look-up-to>

17

For example, see the Los Angeles County "Energy Upgrade California Marketing and Communications Plan"

http://energy.gov/sites/prod/files/2014/01/f6/la_county_communications_plan_v7.pdf

18

For example, see Houston's Green Office Challenge website:

<http://www.greenpsf.com/go/community/index/houston> or Envision Charlotte's Website:

<http://www.envisioncharlotte.com>

19

Such as utility-sponsored programs or Property-Assessed Clean Energy (PACE) programs that could help owners implement energy efficiency programs.

20

For example, Atlanta Better Buildings Challenge Press Release:

<http://atlantabbc.com/wp-content/uploads/2011/10/Atlanta-Better-Buildings-Challenge-Press-Release.pdf>

21

Such as Seattle's "Solving Seattle's Energy Puzzle"

<http://ecmweb.com/site-files/ecmweb.com/files/uploads/2014/01/seattletrackingpaint.jpg>

22

For example the case studies done by Montgomery County Maryland:

<https://mygreenmontgomery.org/2015/benchmarked-case-study-jbg-companies/>

23

Such as the ENERGY STAR “Benchmarking to Save Energy” Brochure:

https://www.energystar.gov/sites/default/files/singlesite_uploads/buildings/tools/Benchmarking_to_Save_Energy.pdf

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For example, Envision Charlotte's <http://www.envisioncharlotte.com/news/newsletter/>

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For example, Atlanta’s Better Buildings Challenge

<http://atlantabbc.com/wp-content/uploads/2011/10/Atlanta-Better-Buildings-Challenge-Fact-Sheet-11-28.pdf>

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Such as the California Energy Commission “What is Your Home Energy Rating”

<http://www.energy.ca.gov/2009publications/CEC-400-2009-008/CEC-400-2009-008-BR-REV1.pdf>

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For example:

<http://resultsmatterradio.businessradiox.com/2012/04/10/atlanta-environmental-sustainability/>

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Such as Broadcast Atlanta's Better Buildings Challenge video : <http://atlantabbc.com/media/>

29

See IMT’s Benchmarking Help Center Guide:

http://www.imt.org/uploads/resources/files/IMT_Benchmarking_HelpCenter_2012_final_0113.pdf

30

For example the St. Louis High Performance Buildings blog: <http://stlhighperformbldg.org/blog/>

31

For example: Muskegon, Michigan's

<http://www.greenmichigan.org/events/energy-bench-marking-workshop-muskegon/>

32

For example, Chicago and Atlanta do some programming for building owners and other programming for the building engineers. The different parties will have different motivators and find value in different information.

33

For example: Atlanta

<http://atlantabbc.com/wp-content/uploads/2014/03/ABBC-2013-Annual-Report.pdf>

34

For example, Denver:

<http://betterbuildingssolutioncenter.energy.gov/sites/default/files/news/attachments/Better%20Buildings%20Challenge%20-%20Denver%20Area%20Press%20Release%20-%20final.pdf>

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For example the case studies done by Montgomery County Maryland:

<https://mygreenmontgomery.org/2015/benchmarked-a-case-study-from-brookfield-office-properties/>

or the St. Louis High Performance Building Initiative Success Stories:

<http://stlhighperformbldg.org/success-stories/>

Internal Stakeholder Identification Worksheet

Mayor's Office -Leadership

Name:

Phone Number:

Email:

Program Development

Name:

Phone Number:

Email:

Department Heads or Delegates

Public Works / Municipal Utilities for bill data

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Property Assessor for property data

Name:

Phone Number:

Email:

Legal to provide support when legal questions come up about data access and data sharing

Name:

Phone Number:

Email:

Other department

Name:

Phone Number:

Email:

City Council

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Name:

Phone Number:

Email:

Communications/Public Relations

Help with development of marketing collateral, press releases and social media.

Name:

Phone Number:

Email:

Head of implementing department

If separate from the developing department. Helpful if, for example, the Office of Sustainability is developing the policy but is not an institutionalized department. If the program is implemented in a department that has been institutionalized, it is more likely to maintain operations regardless of administration.

Name:

Phone Number:

Email:

Goal, Objectives, Strategies, Tactics, and Performance Measure Worksheet

PROJECT GOAL:

Objective 1:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

How we will measure success:

A)

B)

C)

Objective 2:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

How we will measure success:

A)

B)

C)

Objective 3:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

How we will measure success:

A)

B)

C)

Objective 4:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

How we will measure success:

A)

B)

C)

Objective 5:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

Strategy:

Tactic:

Tactic:

Tactic:

How we will measure success:

A)

B)

C)
