



U.S. Environmental Protection Agency's **Guide to Energy & Water Efficiency Competitions for Buildings & Plants**

October 2016



TABLE OF CONTENTS

Introduction 1

Chapter 1: Set Goals..... 2

Chapter 2: Define the Playing Field 3

Chapter 3: Dedicate Resources 4

Chapter 4: Recognize Participants..... 5

Chapter 5: Keep Score..... 7

Chapter 6: Plan the Launch..... 9

Chapter 7: Get the Word Out..... 12

Chapter 8: Competition Resources..... 14

APPENDIX A: Host An ENERGY STAR Battle Of The Buildings™ Competition 17

APPENDIX B: Competition Workbook 18

INTRODUCTION

Why host an energy or water efficiency competition?

A competition can inspire participants to reduce their operating costs and environmental footprint by challenging them to improve their facilities' energy and water efficiency. Time and time again, leading ENERGY STAR partners have found that a spirit of healthy competition and the opportunity for recognition are among the best drivers for participation in organization- or community-wide energy and water management.

Any organization can run a competition, from private-sector groups like trade associations, commercial businesses, and manufacturing plants; to public-sector groups like utility companies and local and state governments; to community-based groups like schools and congregations.

More importantly, a competition benefits hosts, participants, and sponsors by providing:

- **Significant cost savings.** Energy and water use accounts for a significant portion of any building's operating costs, and in many cases it is the single largest controllable cost of operations. Reducing utility use can significantly improve any bottom line.
- **Positive publicity and media exposure.** Launching an energy or water efficiency competition demonstrates innovation, a commitment to protecting the environment, and the responsible use of resources, all of which can generate positive publicity.
- **Networking opportunities.** Participants can benefit from the chance to share best practices and ideas for overcoming obstacles to improved energy and water efficiency. This exchange of information can help generate new ideas and working relationships.

- **Camaraderie.** Efforts shared between colleagues, business associates, neighbors, and students to work together towards a shared goal can strengthen relationships and foster a sense of common purpose.
- **Source of momentum.** Once participants see the financial benefit of their energy and water efficiency efforts, they are far more likely to continue making improvements even after the competition has ended.
- **Co-branding with ENERGY STAR and WaterSense.** Together, these programs have more than 85% consumer brand recognition. Take advantage of EPA's well-regarded brands by aligning your organization with their energy and water efficiency missions.
- **Training opportunities.** Build organizational knowledge by using no-cost ENERGY STAR and WaterSense tools and resources to train participants in best practices for energy and water management.

How to Use this Guide

This guide is intended to be used by competition leaders who need to understand the major considerations associated with developing and running a competition. The chapters build on each other and are meant to be read sequentially. The guide will help you understand how to set goals, define the competition scope, dedicate human and capital resources to the effort, measure success, plan the competition launch, communicate to both participants and the public, and recognize achievement. Also included in this guide is a summary of no-cost ENERGY STAR and WaterSense tools and resources that can support all aspects of your competition (see *Chapter 8: Competition Resources*).

CHAPTER 1: SET GOALS

Choose clear and obtainable goals for participants that set the competition on a solid foundation and give participants, administrators, and the public an endpoint on which to focus their efforts and attention.

Clear goals will also inform your planning process and choice of metrics, help determine what the competition will ultimately achieve, and drive the framing and messaging of the event. Competition goals can be qualitative or quantitative and can pertain to a participant's single facility, a portfolio of related or unrelated facilities, or competitor achievements in aggregate. Goals should be:

- Measurable
- Ambitious but reasonable
- Specific and well-defined
- Timely and considerate of participant capabilities
- Aligned with your values and those of the participants

To set reasonable goals, it is helpful to understand the current utility performance of potential competitors and their experience with energy and water management. To better understand your competitors' capabilities, ask the following questions:

- What metrics have your peer organizations used for energy and water management, and what results did they achieve? Review the energy and water efficiency goals and achievements of similar organizations, companies, associations, or groups who are targeted as competitors—understanding what peers have achieved can help you develop reasonable goals.
- What are the competitors' current levels of energy and water use, and has this usage been increasing or decreasing? Review historic records of competitors' utility use and cost data to identify any long-term trends or variations in utility performance.
- What is the level of energy and water management experience among competitors? Examine competitors' staffing resources, support capabilities, and experience with energy and water management. Do competitors have full-time, part-time, volunteer, or novice managers?
- What is the potential for improvement? Evaluate past building upgrades or energy and water efficiency projects to determine what participants may be able to achieve. Have the competitors picked all the low-hanging fruit, or are there still many opportunities to save energy and water?



**CHICAGO
GREEN OFFICE
CHALLENGE**

CASE STUDY

**Green Office Challenge,
City of Chicago, IL**

The City of Chicago and ICLEI – Local Governments for Sustainability collaborated to create the [Chicago Green Office Challenge](#). The Challenge engages organizations in a friendly competition to achieve the following **goals**: reduce energy, waste, and water usage. These goals provide measurable indicators of sustainability and reflect the overall purpose of the competition, while enabling various building types, such as offices, retail stores and schools, to participate.

TIP!

EXAMPLE QUANTITATIVE AND QUALITATIVE COMPETITION GOALS:

- Reduce energy and/or water use per square foot by 10 percent in the community, company, or industry.
- Raise awareness about energy and water efficiency by achieving 100 percent target participation.
- Support existing commitments to social responsibility and environmental stewardship.
- Learn about patterns of energy and water use and share best practices.
- Demonstrate environmental leadership through energy and water efficiency.

CHAPTER 2: DEFINE THE PLAYING FIELD

Every competition needs a playing field. Explicitly define the competition's playing field to keep the planning process and competition scope focused. Delineate geographic and other boundaries related to participant eligibility, timeframe, and types of buildings and resources. Defining these elements will help enhance your messaging and the support you provide to competition participants.

For example, if your competition is citywide, you may choose to include all types of buildings (e.g., offices, hotels, hospitals), or perhaps just the most energy-intensive sectors. Alternatively, if your competition includes many similar buildings in one area, consider aggregating participants by city block, business, or type of industry to encourage further competition and team-building.

The table below provides a selection of important issues to consider related to your competition's scope. More detailed recommendations associated with these issues are provided in subsequent chapters.



CASE STUDY

Watts to Water, City of Denver, Colorado

Denver launched its [Watts to Water program](#) with the goal of reducing energy and water use in Denver metro-area office buildings and hotels. Currently, the program's **scope, or "playing field," limits participation** to office buildings and hotels.

Playing Field Element	Issues to Consider
Geographic and Organizational Boundaries	<p>Will the competition be:</p> <ul style="list-style-type: none"> » City/county-wide or statewide; in one block or Zip code; within one or many school districts or universities? » Within one or across multiple company brands or industries? » Within one building or across a campus or portfolio of buildings?
Timeframe	<ul style="list-style-type: none"> » Choose the start and end dates of the competition. » Decide whether actions taken prior to the competition count towards participants' achievements during the competition. » Determine benchmarks, milestones, or check-ins during the competition period. For more information, see <i>Chapter 6: Plan the Launch</i>.
Building Types	<ul style="list-style-type: none"> » Determine whether the competition will target one or multiple types of buildings or plants. » If the competition includes multiple building types, consider how this will affect the competition's recognition structure. For more information, see <i>Chapter 4: Recognize Participants</i>.
New Construction or Existing Buildings	<ul style="list-style-type: none"> » Decide whether the competition will focus on new construction (where builders set energy efficiency targets in the design phase) or existing buildings (where actual energy use is assessed). » Determine how new construction projects will be evaluated during the design phase (e.g., energy target goal, change from baseline, or other criteria).
Energy and/or Water Focus	<ul style="list-style-type: none"> » Determine whether the competition will focus on energy, water, or both. Regardless of focus, EPA recommends tracking whole building energy or water consumption. » Note that some buildings have only one water meter so cannot separately track indoor and outdoor water use.

CHAPTER 3: DEDICATE RESOURCES

Step 1. Assign Personnel to Manage the Competition

Decide who in your organization will provide strong management for the competition—a crucial element to a competition’s success. Appoint an individual or group with sufficient availability and expertise to support the competition and its participants on an ongoing basis. Competitions are the most successful when the host’s own staff, rather than external parties or volunteers, is responsible for implementation. To gain further management support for your competition, consider:

- Assigning key staff or empower a junior staff member
- Hiring an intern
- Recruiting local college students committed to your cause

Step 2. Allocate Financial Resources to the Competition

Competitions can be run with no or low financial costs to the host, or they may be run with significant financial support. Identifying and dedicating resources ahead of time can help you avoid setbacks and maintain momentum throughout the duration of the competition. If running your competition requires a budget, identify the costs and determine precisely how funding will be spent. Common expenses are associated with staff member compensation, marketing and communication efforts, and awards. Note that all ENERGY STAR tools and resources, and many WaterSense resources, are publically available at no cost on the ENERGY STAR and WaterSense websites.

Use the following methods to identify and utilize potential sources of funding for both the host and participants:

- **Invite sponsors.** Many businesses would be proud to support an initiative that protects the environment and helps participants save money. Extend invitations for sponsorship or in-kind contributions.
- **Combine resources when possible.** Join forces with other groups interested in energy and water efficiency, the environment, and good utilities management to maximize available resources and achieve common goals.
- **Invest your savings.** Energy and water efficiency pays for itself. While some efficiency upgrades require up-front investment, many are no-cost or low-cost and pay for themselves over short periods of time by reducing utility bills. These savings can help fund a competition.

TIP!

COMPETITION STAFF RESPONSIBILITIES SHOULD INCLUDE:

- Conducting pre- and post-competition outreach, marketing, and communications
- Recruiting participants and corresponding with them throughout the competition
- Collecting, analyzing, and reporting data
- Informing participants about the resources and support provided by the competition sponsor, as well as incentives offered by utilities or other energy efficiency program sponsors
- Training participants in the use of Portfolio Manager and providing them with other general support



CASE STUDY

New York City Water Challenge to Hotels

Participants in the [Challenge to Hotels](#) worked to conserve water with the goal of reducing total consumption by 5% over one year. The Department of Environmental Protection partnered with the Hotel Association of New York, Alliance for Water Efficiency, and EPA’s WaterSense program to offer a number of resources including factsheets, best management practices, and calculators.

- **Leverage utility incentive programs.** While utility companies may be willing to serve as competition sponsors, they more frequently offer incentive programs that can encourage participants to improve their energy efficiency. See *Chapter 8: Competition Resources* for more information about energy and water efficiency program incentive and rebate resources.

CHAPTER 4: RECOGNIZE PARTICIPANTS

Set up a structure for recognition to motivate and reward participants and validate the competition.

Step 1. Choose a Recognition Structure

There are a number of options for structuring recognition. The examples in the table below demonstrate how your recognition structure is tied to your competition's goals and metrics. Make sure the recognition structure is communicated at the start of the competition so that participants know what to expect.

Step 2. Select a Mechanism for Recognition

Put yourself in the competitors' shoes and consider their unique priorities as you decide how best to recognize and celebrate their achievements. When selecting a mechanism for recognition, keep the following in mind:

- **No surprises.** Recognition should be equitable and based on published criteria. Be sure all participants know the methods, data, and standards on which their efforts will be judged.

- **Remember the competition's goals.** Recognition should reflect the competition's goals and purpose. For example, if a utility company sets a goal for its electricity customers to achieve a 20 percent reduction in energy consumption, the utility should reward every customer who achieves that goal.
- **Remember who made the effort.** Consider who is responsible for the achievements you are recognizing. Be sure you reward the right individuals. Look at the incentives you have chosen from the perspective of participating individuals and ask, "What's in it for them?"
- **Don't break the bank.** Prizes need not be extravagant. They can range from a simple certificate, to public recognition, to financial bonuses. Typically, a gesture of appreciation like distributing coffee mugs or delivering a formal letter of commendation signed by a dignitary can convey your recognition of participants' significant efforts.

Recognition Structure	Description of Recognition
Participation-based	All competitors receive a certificate or other form of recognition for participation.
Top Finishers	The top one, two, or three performers in specific categories (measuring gross or relative improvement) receive recognition. Categories may include: <ul style="list-style-type: none"> » Greatest percentage reduction in total energy or water use intensity » Greatest cost savings » Greatest reduction in greenhouse gas emissions » Greatest increase in ENERGY STAR score
Target-based	Any participant who meets a pre-established target, such as a 20 percent reduction in energy and/or water use intensity, or a certain ENERGY STAR score, receives recognition. Participants who reach different levels of achievement, such as 10, 20, and 30 percent reductions in energy or water use, receive different levels of recognition.
Best in Class	Categorize participants into groups and give a "Best in Class" award to the top performer in each group. For example, if the competition includes multiple building or plant types (e.g., hotel and office), consider granting a "Best in Class" award to one competitor of each building or plant type.
Qualitative Award	Recognize participants for qualitative achievement, as reported in narratives that describe superior achievement in energy and water management, overcoming unique challenges, implementation of no-and-low-cost practices, and innovative community engagement. Narratives may highlight best practices to publish and share with all participants.
Multiple Awards	Present awards for different qualitative and quantitative achievements, such as Greatest Percentage Reduction in Energy Use Intensity or Best Water-Saving Idea.

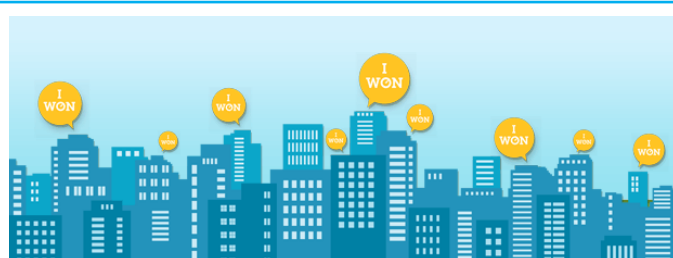


There are a number of mechanisms for bestowing recognition. Examples of popular choices include:

Publicity. Publicity can be a powerful motivator for organizations and companies that rely on a positive public image. Even if achievements were modest, participation in an energy and/or water efficiency competition can reflect well on participants. Decide how you will spread the word—via newsletter, display boards at important upcoming conferences, press releases, public service announcements, social media blitzes, or updates to your website’s news feed. A public announcement should include an update on the impact of the competition, such as the total or average reduction in energy or water use, total number of participants, or some other indicator of the competition’s effectiveness and achievements.

Prizes. Tangible prizes can include certificates reflecting participants’ achievements or tickets to fun recreational events. Consider engaging competition sponsors to see if they can offer desirable prizes to the highest achieving participants; doing so will give your sponsors and the competition more visibility.

Events. Convening participants for an event can be a great way to gain visibility, encourage the exchange of lessons learned, and provide a stage for highlighting the significance of participant achievements. Give your participants formal recognition at a special ceremony, or support networking and the friendly exchange of ideas by throwing an informal party.



CASE STUDY

Kilowatt Crackdown, Portland, OR and Boise, ID Metropolitan Areas¹

The **method of recognition** for the [Kilowatt Crackdown Competition in Portland, OR and Boise, ID](#) included a variety of prizes for winners in each of the metropolitan areas. Prizes ranged from a rotating trophy for the grand prize winner to display for one year, to gift certificates awarded throughout the year to various participants for meeting milestones.

¹ Portland Dawn, by Stuart Seeger. Photo taken from http://commons.wikimedia.org/wiki/Portland,_Oregon#mediaviewer/File:Portland_Dawn.jpg

CHAPTER 5: KEEP SCORE

You can't manage what you don't measure! It is critical to identify appropriate metrics that will allow competitors to meaningfully track their accomplishments.

Step 1. Select Metrics to Assess Success

Metrics associated with competitor progress can be based on participation and/or achievement (absolute or relative), depending on the goals of the competition and your preferred method of recognition. Consider the kind of change participants can reasonably achieve within the established timeframe. If a company is entering a period of swift growth, for example, it may be a better time to focus on reducing energy or water use per square foot—expanding business while keeping usage flat—rather than use total use as an indicator of improved energy or water efficiency.

Be sure to choose a metric that is directly tied to the competition goals and recognition categories. Examples of metrics include:

- Change in weather-normalized commercial building site and source energy use intensity (kBtu/sf)
- Change in water use intensity (kGal/sf)
- Change in manufacturing plant energy use intensity (MMBTU/product)
- Change in greenhouse gas emissions (MtCO₂e)
- Change in ENERGY STAR score (1-100 points)²

Step 2. Establish a Baseline

A full year of utility data is the best baseline against which to compare all future energy or water use. Choose a baseline year

TIP!

METRICS FOR INDUSTRIAL FACILITIES

- Where 60 percent or more of energy use is consumed in manufacturing or production, metrics should be production-based (e.g., kBtu per pound of product).
- For plants where non-production process utility systems like lighting, heating, and ventilation account for 60 percent or more of site energy use, metrics should be building-based (e.g., kBtu per square foot).



CASE STUDY



ENERGY STAR Challenge for the Dairy Industry

To spark interest in energy management and efficiency, the International Dairy Foods Association partnered with EPA to promote the [ENERGY STAR Challenge for the Dairy Industry](#). Through this initiative, **dairy facilities pledge to reduce their energy use intensity by 10 percent or more within five years**. Hundreds of dairies have taken the Challenge, demonstrating the industry's commitment to reducing its carbon footprint.

for which participants will be required to enter utility data. If utility bills are not immediately available, suggest participants contact their utility company for this information. If this data is still not available, perhaps because a building is newly constructed, participants will need to track utility performance for one year before participating in a competition in order to establish a baseline.

Step 3. Track and Verify Data

Tracking and Measurement Tools: Measuring and tracking energy or water performance over time can be simple and straightforward with the right tools. EPA encourages all competitions for commercial buildings to leverage ENERGY STAR Portfolio Manager®, EPA's free, online, energy, water and waste management tool. To track data, competition leaders should:

- Open a Portfolio Manager account by going to www.energystar.gov/portfoliomanager.
- Create a data request that includes all metrics you would like to use to track participant utility use and declare a winner(s). Instructions for creating the request are available at www.energystar.gov/buildings/training.
- Provide the hyperlink to your data request to competition participants, and ask them to submit the requested data via Portfolio Manager by clicking on the link. Data will only be shared with your account, not with all participants.

² While an EUI is available for all facilities, the ENERGY STAR score and certification are available only for select commercial and industrial facilities. For more information, see: www.energystar.gov/industry, www.energystar.gov/buildings

- Once all participants have submitted their data, you can generate the report and download it using Microsoft Excel.

For industrial plants, the ENERGY STAR Energy Tracking Tool can be used to track energy intensity using a production-based metric (e.g. MMBTU/product). ENERGY STAR Plant Energy Performance Indicators for specific manufacturing plants can also be used to establish baselines and benchmark annual energy performance (see: www.energystar.gov/industrybenchmarkingtools).

Data Entry: Determine how frequently participants will be required to report utility data, as well as the deadlines for data entry (for more information about timelines, see *Chapter 6: Plan the Launch*). Ideally, participants should enter and report their data monthly or quarterly. Information about specific data requirements for commercial buildings is available at www.energystar.gov/benchmark. For buildings that cannot receive a 1-100 ENERGY STAR score, square footage and energy consumption data are the only required metrics. Data requirements for industrial facilities are available at www.energystar.gov/epis.

Certain key data elements can be used for reporting and verification purposes. These include the following:

- Building square footage
- Building site and/or source energy consumption
- Weather normalized building site or source energy consumption
- Greenhouse gas emissions
- Energy or water costs
- ENERGY STAR score (if available)
- Total water use

Verify and Analyze Data: Data verification and analysis can be time-consuming, but at the very least, you should consider verifying data reported by the competition's apparent winners. You should also encourage participants to carefully review their own data, because simple errors due to manual entry often occur.

Other data-verification actions to consider include the following:

- Identify a member of the competition team who will serve as the point person for technical issues.
- Decide whether you want to verify all competitors' data or just the winners' data.
- Determine the level of rigor you think is necessary and affordable for verification. For EPA's own competitions,

TIP!

DATA REQUIREMENTS

- All buildings can generate a weather-normalized energy use intensity (kBtu/sf) value by entering building energy use and square footage. The EUI can be used in lieu of the ENERGY STAR score to track competitor achievements, and enables a greater range of building types to participate.

ENERGY STAR AUTOMATED REPORTS TO SUPPORT DATA VERIFICATION

- Data verification can be supported by template and custom ENERGY STAR reports, including a Statement of Energy Performance for commercial and industrial facilities. More information on commercial and industrial facility report generation is available on the ENERGY STAR website. See also the Quick Reference Guide for commercial buildings for information on generating reports.

winners are required to have data verified by a Professional Engineer or Registered Architect.

- Determine how you will verify the data. Examples include crosschecking a random sample of data entries with utility bill information; walking through competitor buildings to ensure they are not sacrificing occupant health, safety, or productivity for energy efficiency; requiring a signature from an organization's leaders on a competitor's utility performance report; and setting up third-party verification of data.

Step 4. Share Results

Sharing data with participants can help them gauge their progress compared to the rest of the playing field, and can give the competition's stakeholders interim data on its overall success. Determine if, how, and when you will report individual and aggregate achievements.

- Distribute an email or newsletter with updates about successful competitors' achievements.
- Host meetings to encourage the exchange of lessons learned and best practices.
- Host webinars to encourage networking and information-sharing among participants.

CHAPTER 6: PLAN THE LAUNCH

Create a comprehensive timeline for the competition to help you and participants stay on task and on track. There are many elements and phases of a well-run competition, and planning them out ahead of time ensures you don't miss any key steps once the competition begins.

Step 1. Define the Overarching Timeframe

Determine Duration: To keep participants engaged and working toward reductions in energy or water use, the timeframe can be short as one month, but ideally no longer than twelve months. There are benefits and drawbacks to these variable competition periods, as described in the table below. A sample 12-month competition timeline is included later in this chapter.

Identify Coinciding Events: In setting the start and end dates of the competition, identify any existing events and holidays that should be avoided. Note that certain holidays or events, such as Earth Day or the end of the fiscal year, may be convenient or exciting choices for the competition's launch or closing dates.

Step 2. Plan the Recruitment Process

Outreach: Begin outreach to potential participants eight to ten weeks prior to the start of the competition. Begin outreach well in advance of any competition deadlines to allow word to spread, and for participants to plan for the effort, but not so far in advance that the pitch seems irrelevant at the time. Provide competitors with basic information about the competition at this time. For more information about targeted outreach and communication, see *Chapter 7: Get the Word Out*.

Registration: Set a deadline by which participants must register, typically one to two months prior to the start of the competition. Be sure to give potential participants enough time after initial outreach efforts to discuss their involvement internally before committing. Choose a date that gives your staff ample time before the competition start date to collect any additional information you may need about participants. For more information related to registration, see *Chapter 7: Get the Word Out*.

Step 3. Plan the Competition Period

Good leadership and communication during the competition period is key to ensuring that competitors remain engaged. Consider the following issues in your internal planning for the competition period, and make sure participants are aware of key dates on which you will be requiring specific data or providing training, support, or progress reports.

Data Entry Deadlines: Incremental deadlines for participant data entry can help keep participants on track with the competition's timeline. Monthly or quarterly data-entry deadlines are useful and help ensure that data entry is consistent.

Planned Communication: Set dates for when you will send participants reminders, updates, check-ins, training information, and other correspondence. Determine how much time and effort you can commit to communicating with participants. Networking calls can be an effective way to distribute information, collect feedback, and foster the exchange of ideas all at once. Include the following in your communications plan:

- Provide initial training on the competition rules, requirements, and key tools like Portfolio Manager, the industrial Energy Tracking Tool, WaterUSE Tool and Assessment Worksheet, and other useful resources. More detailed information about these ENERGY STAR and WaterSense resources is available in *Chapter 8: Competition Resources*.
- Facilitate a forum for discussion of challenges and/or exchange of best practices.
- Give progress updates, reminders, and presentation of mid-point results.
- Give competitors ideas about how to message their achievements.
- Answer general questions.

Duration	Advantages	Disadvantages
Short (one to six months)	<ul style="list-style-type: none"> » Requires minimal time commitment from participants. » Relatively easy to keep participants engaged. » Recognition will be provided in the relative near term. 	<ul style="list-style-type: none"> » Less significant achievements are possible. » Less time is available for behavioral changes to be reinforced. » Shorter competition period results in less time to generate and attract publicity.
Long (six months or longer)	<ul style="list-style-type: none"> » Significant energy and water reduction is possible. » Behavioral changes can be reinforced over a longer time period, leading to greater impact. » Longer competition period allows more time to generate and attract publicity. 	<ul style="list-style-type: none"> » Requires a longer-term time commitment. » May be more difficult to keep participants engaged. » Recognition is less immediate.

Step 4. Plan the Post-Competition Period

Follow-up: Soon after the competition ends, follow up with participants to answer questions and distribute close-out materials, such as information about a future recognition ceremony and tips for maintaining momentum in energy reductions beyond the competition period.

Data Analysis and Verification: Full data for all participants may not be available until six weeks after the competition ends due to utility billing cycles. Plan for this delay, as well as for the time required to assess the data in each participant's account and to complete the data verification process, if desired. For more information related to metrics, see *Chapter 5: Keep Score*.

Recognition: Participants will be anxious to hear the results of the competition, so determine when you will announce results and provide recognition. More specific information about how to provide recognition and communicate results is outlined in *Chapter 4: Recognize Participants* and *Chapter 7: Get the Word Out*.



CASE STUDY

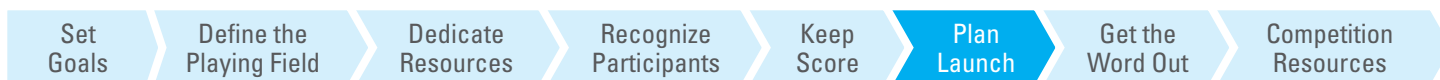
Kilowatt Crackdown, BOMA,
Minneapolis, MN

The [Kilowatt Crackdown in Minneapolis, MN](#) developed a **comprehensive website** where the public could learn more about the competition and register to compete. The site included a competition calendar and rules, as well as a list of resources, prize categories, FAQs, and links to sponsors.

TIP!

PLAN FOR DATA LAGS

- Portfolio Manager requires data for all days within each of its month-long reporting periods. Therefore, if a participant's energy billing period ends before the final day of a month, it may take up to six weeks for that participant to receive the data for the next billing period in order to provide complete data in Portfolio Manager. Plan ahead for data lags!



SAMPLE 12 MONTH COMPETITION TIMELINE

Before the Competition

- 9 weeks prior: Outreach:** Begin outreach to potential participants several months prior to the competition start date. Inform your contacts about the competition goals, recognition, and timeline, and of the support you will be providing them.
- 4 weeks prior: Registration:** Allow sufficient time for prospective participants to discuss the competition internally, ask questions, decide to participate, and complete the registration process.

During the Competition

Following are some examples of major milestones. Throughout the competition, you should endeavor to consistently communicate with and offer support to competitors via email, webinars, phone calls, etc.

Competition Period Begins

- Launch: Competition Kick-Off:** Hold a call or meet with participants to formally give them background, resources, encouragement, and a point of contact.
- Month 1: Provision of technical support:** Offer training sessions within the first weeks of the competition to help participants understand how to properly benchmark, jump-start reductions in resource consumption, and foster networking activity to support exchange of best practices.
- Month 3: First interim data entry deadline:** Remind participants of this deadline, which allows you to provide them progress updates later on. Keep in mind that participants receive each month's utility data only several weeks after the end of a month.
- Month 6: Second interim data entry deadline:** Remind participants of this deadline and continue to maintain open lines of communication as the competition progresses.
- Month 7: Mid-point progress update and networking call:** Use this meeting to update participants on overall progress toward goals, share tips for reducing energy or water use, and give participants a chance to ask you questions and exchange ideas with one another. Consider sharing a "leaderboard" to spur more competition.
- Month 9: Third interim data entry deadline:** Remind participants of this deadline and continue to maintain open lines of communication as the competition progresses.
- Month 10: Second progress update:** Remind participants that the competition's end is approaching. Continue to be available to answer questions and offer guidance as needed.
- Month 12: Final call for data and networking call:** Analyze participant data provided to date. Give your participants a chance to share lessons learned through a closing networking call or by publishing these insights in a closing newsletter.

After the Competition

Competition Period Ends

- 2 weeks post: Follow-up:** After the competition ends, follow up with participants to answer questions and distribute close-out materials. Share the scheduled date of any upcoming recognition events.
- 4 to 6 weeks post: Data analysis and verification:** Issue a final call for data. Allow sufficient time for the competition staff to compare competition-period data to baseline data (roughly 4 to 6 weeks to ensure all competition period data can be obtained from utility bills and reported to the benchmarking tool). Carry out data verification, if desired, prior to announcing results.
- 6+ weeks post: Recognition:** Host an awards ceremony or distribute prizes and publicity to acknowledge participants' achievements.

CHAPTER 7: GET THE WORD OUT

Step 1. Spread the Word Leading Up to the Competition

Tailor your message. There are many reasons to pursue energy and water efficiency, such as cost savings, environmental stewardship, and good publicity. Tailor your message to participants' interests and concerns to maximize your reach and effectiveness.

- Remain consistent in your overall messaging and don't hesitate to repeat information.
- Be mindful of potential barriers to participation and stress why participation is important for each group based on their specific priorities.

Leverage existing communications outlets. Leverage internal and external communication outlets to circulate information about the competition, and to attract competitors. Spread the word to employees, partners, and the general public to generate excitement and momentum. Examples of communication opportunities include the following:

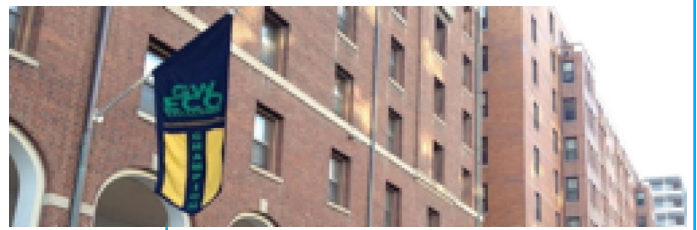
- Use the internet (e.g., websites, e-newsletters, email list serves, and social media outlets like Facebook and Twitter).
- Send press releases to local, regional, and/or national news outlets (print and internet).
- Publish notices in trade publications and leverage their membership email lists.
- Ask partners and supporters to advertise the competition on your behalf.
- Request that participants announce their plans to compete to their own constituents or audiences.

TIP!

TARGET CONTACTS INTELLIGENTLY

The value of a competition is perceived in different ways by people with different organizational roles. Carefully consider your message, and who would most positively respond to it. Outreach can be targeted to a range of contacts, including:

- President or CEO
- Communications personnel
- Building managers, owners, or operators
- Association membership coordinator



CASE STUDY

George Washington University Eco Challenge

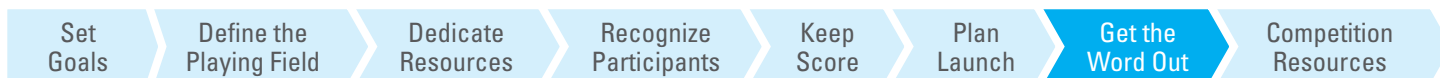
George Washington University (GW) hosts a conservation competition between residence halls and townhouses to see who can save the most electricity and water. GW's Office of Sustainability **distributes prizes at midpoints** in the year-long, campus wide ECO Challenge. These prizes **sustain interest and publicity** in the Challenge and inspire students to join in the campuses energy efficiency efforts.

Develop resources and guidance for prospective participants.

Distribute introductory information and technical resources to potential participants to familiarize them with the goals and details of the competition, the value of participation, and the basics of energy and water efficiency. This encourages them to register to participate.

Identify and collect information required of participants in order to join. Design and launch a registration process to collect the information you need from participants. Make the registration process simple and include clear instruction for registration as part of your early outreach efforts. Important information to collect includes:

- Contact information for main points of contact, building managers, and communications personnel—these staff members play different roles but are crucial to achieving and messaging success.
- Competing building address, type, and basic statistics like square footage, number of employees, or other information that may help characterize competitors.



Step 2. Maintain Communication throughout the Competition

Develop a schedule for communication with competitors.

Align communications efforts with the competition timeline that was established during the planning process. For more information, see *Chapter 6: Plan the Launch*. Inform participants of the type and frequency of support you plan to provide during the competition, such as:

- Initial training on Portfolio Manager and presentation of other useful resources.
- Forum for discussion of challenges and/or exchange of best practices.
- Progress updates and presentation of mid-point results.
- Periodic but consistent check-in sessions where questions can be answered.
- Information session on how to message achievements.

Communicate about available resources. Support participants with basic guidance on the technical aspects and potential challenges associated with energy and water management and the competition. Also make sure they are aware of the online, no-cost ENERGY STAR and WaterSense resources that EPA provides, such as trainings, calculators, and guides like the Building Upgrade Manual. These tools are described in more detail in *Chapter 8: Competition Resources*.

Communicate about progress. Provide participants, the press, and other interested parties with updates on participants' progress through regular check-ins or a publicly displayed running tally. Pace your delivery of good news so that you always have something worthwhile and encouraging to share.

Step 3. Wrapping up the Competition

Develop message about participant achievements. Decide how to frame the results of the competition and what aspects of participant achievements to emphasize in post-competition messaging. Highlight the specific or overall accomplishments that are both impressive and aligned with your goals. If applicable, convert greenhouse gas emissions to meaningful, eye-catching metrics like seedlings planted or cars kept off the road.³ Even if the competition's only accomplishment was improved awareness among community members and participants, that is still significant and worth celebrating!



CASE STUDY

EPA's National Building Competition

Following the annual [EPA National Building Competition](#), EPA features a **wrap-up report** on its website that highlights not only the specific achievements of the competition winners, but also the total energy reduction of all participants' combined efforts.

Determine how and where to direct the message. Select a method for delivering news about competition achievements to both competitors and the public. You might host a recognition ceremony (see *Chapter 4: Recognize Participants*) or distribute newsletters detailing achievements to competitors only. To expand the messaging beyond competitors, you may leverage any of the communications outlets listed under Step 1.

Announce subsequent competitions. If you plan to host this or a similar competition again, take advantage of interest stirred up by the current competition's achievements. Announce the next opportunity to get involved, and show both participants and non-participants what they can do in the meantime to make sure they perform well in the next competition.

³ The EPA greenhouse gas equivalencies calculator is available at <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>.

CHAPTER 8: COMPETITION RESOURCES

Here you will find information about ENERGY STAR and WaterSense tracking and management tools including calculators, communication and training resources, and EPA competitions that you can join or use as a model. This information is provided in the following tables:

Table 1. Energy Tracking & Management Tools

Table 2. Water Tracking & Management Tools

Table 3. Communications and Training Resources

Table 4. ENERGY STAR and WaterSense Competitions

1. Energy Tracking & Management Tools

Tool Name	How These Tools Help You
Portfolio Manager (commercial buildings)	<p>Measure the energy and water use, waste and materials, and greenhouse gas emissions of existing properties, identify and prioritize improvement opportunities, and track improvement over time. For more information, visit www.energystar.gov/benchmark.</p> <p>You may also use web services to exchange energy and water use data and facility information with Portfolio Manager via third-party energy service organizations (e.g., utility services provider) resulting in an energy performance score and other energy, water, and environmental performance metrics. For more information, see http://www.energystar.gov/buildings/service-providers/service-and-product-providers/use-web-services-exchange-data-portfolio-manager.</p>
Target Finder (commercial buildings)	Provides an energy performance target and/or score for commercial building design projects. For more information, visit www.energystar.gov/targetfinder .
Guidelines for Energy Management (all facilities)	Use a proven strategy based on the successful practices of ENERGY STAR partners, for superior energy management, with tools and resources to help each step of the way. View the guidelines at www.energystar.gov/guidelines .
Building Upgrade Value Calculator (commercial buildings)	The Building Upgrade Value Calculator is a savings calculator that helps you analyze the financial value of efficiency-related capital investments, square footage, annual utility bills, the projected cost and savings for each investment, and financing terms to determine a particular investment's energy and financial benefits. For more information, see https://www.energystar.gov/buildings/tools-and-resources/building-upgrade-value-calculator .
Building Upgrade Manual (commercial buildings)	A strategic guide to help you plan and implement profitable energy-saving building upgrades. View the complete Building Upgrade Manual at www.energystar.gov/BldgManual .
Plant Energy Performance Indicators (EPIs) (industrial facilities)	EPIs are sector-specific energy performance benchmarking tools that provide an ENERGY STAR score and are available for a dozen industrial sectors. For more information, see www.energystar.gov/epis .
Guidelines for Energy Management (all facilities)	Use a proven strategy, based on the successful practices of ENERGY STAR partners, for superior energy management, with tools and resources to help each step of the way. View the guidelines at www.energystar.gov/guidelines .
Service and Product Providers (SPPs) (all facilities)	SPPs work throughout the country and can help promote the competition to their clients, recruit and train competitors on Portfolio Manager, and help deliver energy efficiency improvements. A list of the most active ENERGY STAR SPPs is available at www.energystar.gov/spp .



Tool Name	How These Tools Help You
Energy Tracking Tool (ETT) (industrial facilities)	The ETT provides all industrial facilities with a simple means of tracking energy use, setting baselines, establishing energy and emissions reduction goals, and evaluating progress toward goals. For more information, visit www.energystar.gov/industry .
Service and Product Provider (SPP) Partners (all facilities)	ENERGY STAR Service and Product Provider partners work throughout the country and can help promote the competition to their clients, recruit and train competitors on Portfolio Manager, and help deliver energy efficiency improvements. A list of the most active ENERGY STAR SPPs is available at www.energystar.gov/spp .
The ENERGY STAR Treasure Hunt Guide	Follow step-by-step guidance on how to organize and execute an Energy Treasure Hunt. Examples from ENERGY STAR partner organization and checklists are provided to illustrate practices and help with implementation. View the complete file at www.energystar.gov/treasurehunt .

2. Water Tracking and Management Tools

Tool Name	How These Tools Help You
Portfolio Manager (commercial buildings)	Measure the energy and water performance of existing properties, identify and prioritize improvement opportunities, and track improvement over time. For more information, visit www.energystar.gov/benchmark .
Guidelines for Energy Management (all facilities)	Use a proven strategy, based on the successful practices of ENERGY STAR partners, for superior energy and water management, with tools and resources to help each step of the way. View the guidelines at www.energystar.gov/guidelines .
WaterSense at Work (commercial buildings)	A compilation of 36 best management practices for commercial and institutional facilities to help owners and managers understand water use and establish a water management program. Resources include a suite of worksheets to help users collect information about their building and its water consumption. For more information, visit http://www3.epa.gov/watersense/commercial/index.html .
WaterUSE Tool and Water Assessment Worksheet (commercial buildings)	WaterSense's Water Assessment Worksheet guides users through a complete audit of their facility. The user inputs collected data to the WaterUSE Tool to identify cost-effective improvements and best management practices to improve water efficiency. The tool was designed for hotels but can be applied to multiple commercial building types. For more information, visit http://www3.epa.gov/watersense/commercial/challenge_tools.html .

3. Communications and Training Resources

Resource Name	How These Resources Help You
ENERGY STAR Communications Toolkit	Find ideas for educating competition participants, organization employees, the public, and other stakeholders about the competition and accomplishments, and find tip sheets and customizable templates at www.energystar.gov/challengekit .
ENERGY STAR Success Stories	Read stories of success at www.energystar.gov/success . Highlight your successes on the ENERGY STAR website by submitting information about the competition, and the notable achievements of participants, at www.energystar.gov/buildingshelp .
ENERGY STAR Publications	Provide this toolkit to participants to help them educate their employees about how to save energy at work, at www.energystar.gov/work .
Bring Your Green to Work	Provide this toolkit to participants to help them educate their employees about how to save energy at work, at www.energystar.gov/work .
ENERGY STAR Partner	Partnership offers your organization a unique opportunity to leverage ENERGY STAR. The ENERGY STAR label appears on dozens of product categories as well as new homes, commercial buildings, and industrial plants. Learn more about ENERGY STAR Partnership at http://www.energystar.gov/about/join-energy-star .
ENERGY STAR Web-Based Training	ENERGY STAR offers live and recorded online training sessions on a variety of topics, from how to use Portfolio Manager to best practices in energy management. Find more information at http://www.energystar.gov/buildings/training .
WaterSense Success Stories	Read stories of success at http://www3.epa.gov/watersense/commercial/casestudies.html .

4. ENERGY STAR and WaterSense Competitions

Competition Name	Competition Description
ENERGY STAR National Building Competition	A nationwide competition for commercial buildings to reduce energy and water use, run from 2010 to 2016. More information, including winner case studies, is available at www.energystar.gov/battleofthebuildings .
ENERGY STAR Challenge for Industry	A national call to action to improve the energy efficiency of industrial plants by 10 percent or more. The Challenge for Industry recognizes industrial sites that improve their energy efficiency by 10 percent within five years of making the commitment. More information is available at www.energystar.gov/industrychallenge .
ENERGY STAR Challenge for Architects	A national call to action for architecture and engineering firms to incorporate energy efficiency into their projects to achieve Designed to Earn the ENERGY STAR certification. More information is available at http://www.energystar.gov/buildings/service-providers/design/challenge-architects .
WaterSense H ₂ Otel Challenge	An annual competition for hotels to assess water use, change products to incorporate best management practices, and track improvements using WaterSense resources and tools. Learn more and take the pledge to reduce water use at http://www3.epa.gov/watersense/commercial/challenge.html .

APPENDIX A: HOST AN ENERGY STAR BATTLE OF THE BUILDINGS™ COMPETITION

Hosting an ENERGY STAR Battle of the Buildings competition allows you to leverage the national ENERGY STAR brand, which is recognized by more than 85% of consumers, to support your local competition. As a host, you'll have a ready-made competition platform, and the direct support of the ENERGY STAR program. You'll also be able to engage and support competitors with tailored ENERGY STAR technical and communication resources, as well as award top performers with ENERGY STAR recognition.

[Your Organization] Presents



YOUR COMPETITION
NAME HERE

An ENERGY STAR®
Battle of the Buildings™ Competition



Who can host an ENERGY STAR Battle of the Buildings competition? Any private or public sector organization or association can run a competition. This includes trade associations, commercial businesses, manufacturing plants, utility companies, local and state governments, schools and congregations, and many other groups.

What are the requirements? The requirements for hosting an ENERGY STAR Battle of the Buildings competition parallel the rules for EPA's ENERGY STAR National Building Competition. The requirements are as follows:

- The competition host organization must be an ENERGY STAR partner. [Learn more about partnership here.](#)
- The competition host organization must be headquartered in the United States.
- EPA's ENERGY STAR Portfolio Manager must be used as the platform through which energy or water data is input by competitors and collected by the host.
- Recognition must be based on actual measured data, and at least one quantitative metric provided by Portfolio Manager. Any qualitative recognition is subject to EPA approval.
- Competitors who receive recognition bearing the ENERGY STAR name or mark must have their data verified by a Professional Engineer or Registered Architect before they can be recognized.
- The competition host agrees to provide a summary of the competition and its results to ENERGY STAR upon conclusion of the competition.
- The competition will not be used to promote any particular commercial products or services.

Get started!

Use this guide to start planning your competition, as well as the additional resources accessible at EPA's [Host an ENERGY STAR Battle of the Buildings Competition website](#). To get started:

- Use this guide to plan your competition.
- Complete and submit the [online application form](#) requesting to host a Battle of the Buildings Competition.
- Read the frequently asked questions regarding hosting a competition.
- Leverage EPA's free ENERGY STAR resources to support competitors throughout the competition.

APPENDIX B: COMPETITION WORKBOOK

Complete this workbook to help plan your competition. The layout of the workbook parallels the chapters in the EPA Guide to Energy and Water Efficiency Competitions for Buildings and Plants. You can reference the guide for help completing this workbook.

1. SET GOALS

List the goal(s) for the competitors (goals should be measurable, reasonable, and well-defined).

Goal 1: _____

Goal 2: _____

Goal 3: _____

2. DEFINE THE PLAYING FIELD

2A. Describe the geographic and organizational boundaries of the competition.

2B. Identify key dates related to, or that may affect, the competition.

Start/Finish: _____

Data entry deadlines: _____

Recognition event: _____

National holidays: _____

Other: _____

Other: _____

Other: _____

2C. List the building type(s) that are eligible to participate.

3. DEDICATE RESOURCES

3A. List the names of personnel who will manage this competition, and describe their individual roles.

Name:	Description of Role:
	[Primary competition manager(s)]
	[Communications]
	[Training on benchmarking tools, such as Portfolio Manager]
	[Data analysis]
	[Other]
	[Other]

3B. List any anticipated costs and potential sources of funding for running this competition

Funding Need:	Cost:	Potential Source of Funding:
1.	\$	
2.	\$	
3.	\$	
Total	\$	

3C. List any utility programs or other efficiency incentive programs that participants can leverage to help them implement energy and water management and achieve cost savings.

1. _____
2. _____
3. _____

4. RECOGNIZE PARTICIPANTS

4A. Choose the recognition category(ies) for the competition (select as many as apply).

- ☐ Participation-based
- ☐ Top finishers
- ☐ ENERGY STAR score (if available)
- ☐ Meeting a set reduction goal
- ☐ Best in Class
- ☐ Qualitative Award(s) (describe): _____
- ☐ Other (describe): _____

4B. Describe the type of recognition that will be provided to participants (e.g., publicity, prizes, events):

5. KEEP SCORE

5A. Identify the metrics you will use to assess participant performance (e.g., energy or water use per square foot).

1. _____
2. _____
3. _____

5B. Choose a baseline period against which to compare participants' energy or water use during the competition period.

_____ (DD/MM/YY) to _____ (DD/MM/YY)

- 5C. Describe your intended method of data verification (if any), and indicate whose data you plan to verify (e.g., all participants, winners only): _____
- _____
- _____

At minimum, consider reviewing the following data elements for accuracy to ensure that apparent winners do not have errors in their data:

- ☐ Building or facility square footage
- ☐ Building or facility baseline and final site and/or source energy use, or water use
- ☐ Baseline and final Energy Use Intensity (e.g. kBtu/sq ft, or MMBTU/product for manufacturing)
- ☐ Greenhouse gas emissions
- ☐ Energy or water costs
- ☐ ENERGY STAR score (if available)

6. PLAN THE LAUNCH

- 6A. Complete the following sample timeline to support planning the competition. Modify the sample time line as appropriate based on the chosen length of your competition period.

Before the Competition

_____ : **Begin outreach**

_____ : **Registration**

During the Competition

_____ : **Competition period begins**

_____ : **Competition kick-off**

_____ : **Provide technical support**

_____ : **First interim data-entry deadline**

_____ : **Mid-point progress update and networking call**

_____ : **Third interim data-entry deadline**

_____ : **Second progress update**

_____ : **Data summary and networking call**

_____ : **Competition period ends**

After the Competition

_____ : **Follow-up (2 weeks post)**

_____ : **Data analysis and verification (4-6 weeks post)**

_____ : **Recognition (6+ weeks post)**

7. GET THE WORD OUT

7A. Plan how you intend to spread the word leading up to the competition.

Describe the message you want to create and deploy to recruit competition participants: _____

Identify the outlets through which you will transmit this message: _____

Describe the resources and guidance you will provide to participants once they register: _____

7B. Develop your registration process. Start by listing below (and then collecting) the basic information required of participants in order to join the competition; this should give you both basic information about competing organizations and contact information for participants.

- | | |
|--|--|
| • Building address(es) | • Contact information for building managers |
| • Building space type(s) | • Contact information for communications personnel |
| • Building gross floor area | • [Other] _____ |
| • Industrial sector or products manufactured | • [Other] _____ |
| • Number of employees | • [Other] _____ |
| • Main contact for the competition | |

7C. Create a preliminary schedule for communicating with participants throughout the competition. List a date for each major communications activity you anticipate.

Date	Activity
_____	Kick-off call
_____	Benchmarking training
_____	_____
_____	_____
_____	_____

7D. Plan how you will wrap up the competition.

Describe how you will frame and message participants' achievements: _____

Describe how you will distribute this message: _____

Indicate the audiences to which you will direct this message: _____
