US EPA ARCHIVE DOCUMENT

Launching an Energy Efficiency Competition with ENERGY STAR®

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U.S. Environmental Protection Agency (EPA)

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ENERGY STAR
Commercial Buildings Program

- Offers a strategic approach to energy management
- Enables building owners, managers, and tenants to save money & protect the environment
- Provides organizations with measurable information on energy savings and greenhouse gas emissions reductions from commercial buildings
- ENERGY STAR on a building = Superior Energy Performance
- Builds on strong ENERGY STAR brand recognition

Why Launch an Energy Competition?

- Help participants reduce operating costs and lower carbon footprint
- Show quantifiable energy, cost, and GHG savings results
- Generate positive publicity and media exposure
- Tap into local and nationally available training opportunities & organizational knowledgebase
- **<u>THEY WORK!!!!!</u>**

ENERGY STAR® PortfolioManager™

- Management Tool – Helps business and organizations by offering a platform to:
  - Assess whole building energy and water consumption
  - Track changes in energy, water, greenhouse gas emissions, and cost over time
  - Track green power purchase
  - Share/report data with others
  - Create custom reports
  - Apply for ENERGY STAR certification

- Metrics Calculator – Provides key performance metrics to integrate into a strategic management plan
  - Energy consumption (source, site, weather normalized)
  - Water consumption (indoor, outdoor)
  - Greenhouse gas emissions (indirect, direct, total, avoided)
  - ENERGY STAR 1-to-100 score (available for 15 building types)

→ ***Accessible at: www.energystar.gov/benchmark***

Existing State and Local Programs

"We all know that energy efficiency makes good business sense as well as good environmental sense, but a contest like this is a great way to help companies get started."

- Judy Poferl, president and CEO of Northern States Power Co.-Minnesota, an Xcel Energy company (March 2012)

Access National Tracking Sheet:
www.energystar.gov/government

EPA's ENERGY STAR National Building Competition

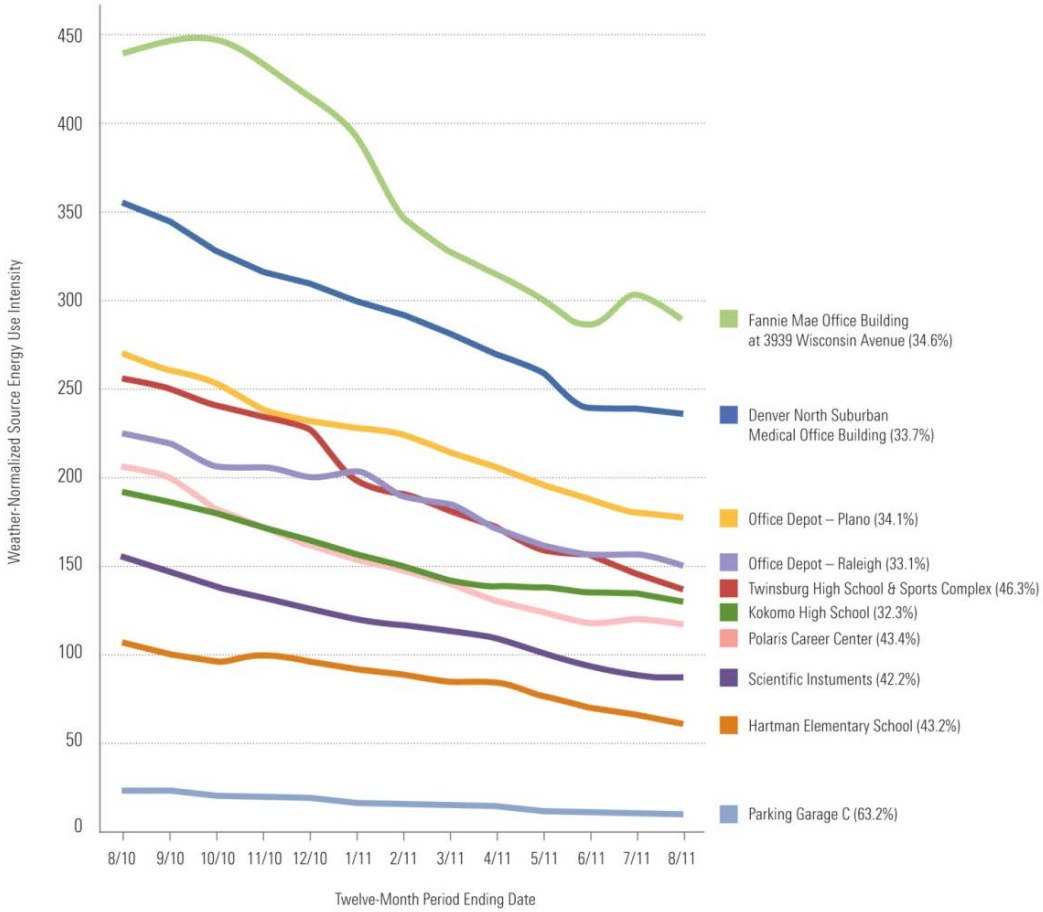
BATTLE OF THE BUILDINGS

EPA's NATIONAL BUILDING COMPETITION

ENERGY STAR

- Nearly 3,300 buildings are battling it out to see who can reduce their energy waste the most.
- Competitors represent all 50 states, two U.S. territories, and Washington, D.C.
- Participants are tracking energy and water performance in ENERGY STAR Portfolio Manager and reporting savings to EPA.

ENERGY STAR National Building Competition - 2011 Winners



- In 2011:
  - 245 competitors saved 240 million kBtu of energy and $5.2 million on utility bills
  - Top 10 finishers saved 30% or more
  - 75 competitors saved 10% or more

Remember:

- 30% of energy consumed in commercial and industrial buildings is wasted
- Reductions of 10% in energy use can be possible with little or no cost

www.energystar.gov/battleofthebuildings

2012 ENERGY STAR National Building Competition – Midpoint Results

- In six months:
  - 3 buildings saved 30% +
  - 21 buildings saved 20% +
  - 284 buildings saved 10% +
  - 814 buildings saved 5% +

- Together, 3,000 competitors have already saved:
  - $37 million on utility bills
  - GHG equal to the electricity used by 16,000 homes annually

www.energystar.gov/battleofthebuildings

2012- The Building to Beat

- Demarest Elementary School
  - Bloomfield Public School District in Bloomfield, NJ
  - *Whopping* 47% reduction!
  - A few of their winning strategies:
    - Trimmed run times of boilers and changed pressure/cycle
    - Fixed EMS system in parts of building where it wasn't working
    - Reduced lighting in hallways and teachers are turning off lights when classrooms are empty

www.energystar.gov/battleofthebuildings

ENERGY STAR Guide to Energy Efficiency Competitions for Buildings & Plants

- The guide will help you understand how to:
  1. Set Goals
  2. Define the Playing Field
  3. Dedicate Resources
  4. Recognize Participants
  5. Keep Score
  6. Plan the Launch
  7. Get the Word Out
- ENERGY STAR Resources for Competitions
- **Appendix:** ENERGY STAR Competition Workbook

Download at www.energystar.gov/competitionguide

Set Goals

Set Goals | Define the Playing Field | Dedicate Resources | Recognize Participants | Keep Score | Plan Launch | Get the Word Out | ENERGY STAR Resources

CASE STUDY | **Georgia State Building Competition**

The State of Georgia launched a competition with the purpose of reducing its state-owned building energy consumption. The **goal** for each participant was to achieve the greatest percent reduction in energy use intensity (EUI). The focus on EUI, a universal indicator of energy consumption for buildings, reflected the overall purpose while enabling agencies with a range of building types, from offices to parking garages, to participate.

SAMPLE COMPETITION GOALS:

- Improve energy efficiency by 10%
- Reduce GHG emissions by 20%
- Earn the ENERGY STAR
- Improve average ENERGY STAR score by 15 points

Define the Playing Field

Set Goals | **Define the Playing Field** | Dedicate Resources | Recognize Participants | Keep Score | Plan Launch | Get the Word Out | ENERGY STAR Resources

Playing field	Considerations
Geographic and Organizational Boundaries	• Single building, school district-wide, city/county-wide or statewide; in one block or Zip code; campus-wide
Timeframe	• Define baseline period • Choose the start and end dates • Determine benchmarks, milestones, or check-ins • Also see *Chapter 6: Plan the Launch*
Building Types	• Target one or multiple types of buildings or plants • For multiple building types, how will this will affect recognition structure • Also see *Chapter 4: Recognize Participants*
New Construction or Existing Buildings	• Will it focus on new construction or existing buildings • Determine how design or buildings will be evaluated (e.g., energy target goal, change from baseline, or other criteria)

Dedicate Resources

Set Goals | Define the Playing Field | **Dedicate Resources** | Recognize Participants | Keep Score | Plan Launch | Get the Word Out | ENERGY STAR Resources

Step 1. Assign Personnel to Manage the Competition

- Assign key staff
- Empower a junior staff
- Involve students
- Hire an intern
- Recruit a local college student

Step 2. Allocate Financial Resources to the Competition

- Invite sponsors
- Combine resources when possible
- Invest your savings
- Leverage utility incentive programs

COMPETITION MANAGER MAY OVERSEE THE FOLLOWING ACTIVITIES:

- Conduct outreach and marketing
- Recruiting participants
- Collect, analyze, and report data
- Advertise resources
- Encourage sponsorship
- Communicate incentives
- Work with sponsors like utilities or other energy efficiency program sponsors
- Train participants

Recognize Participants

Set Goals | Define the Playing Field | Dedicate Resources | **Recognize Participants** | Keep Score | Plan Launch | Get the Word Out | ENERGY STAR Resources

- Top Finishers
- Target-based
- Best in Class
- Qualitative Award
- Multiple Awards
- Others?

RECOGNITION CRITERIA:

- Greatest reduction in GHG emissions, EUI, cost
- Greatest increase in ENERGY STAR energy performance score

RECOGNITION EXAMPLES

- 20% Reduction in EUI
- Best-in-Class
- Best/Most Innovative Energy Management
- Innovation staff/student involvement/contribution

Keep Score

Set Goals | Define the Playing Field | Dedicate Resources | Recognize Participants | **Keep Score** | Plan Launch | Get the Word Out | ENERGY STAR Resources

Step 1: Select Metrics to Assess Success

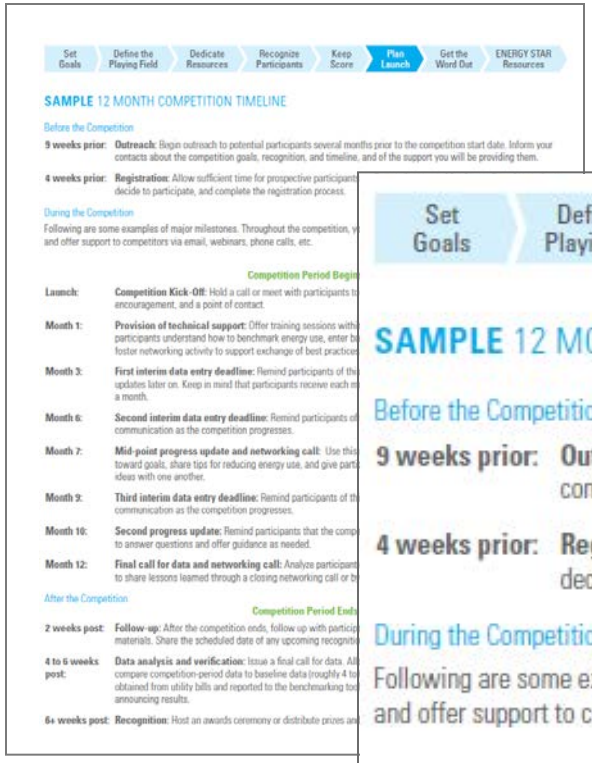
Step 2: Establish a Baseline

Step 3: Track and Verify Data

Use EPA's ENERGY STAR Portfolio Manager www.energystar.gov/benchmark

ENERGY STAR® PortfolioManager™

Plan Launch



SAMPLE 12-MONTH Competition Timeline

Set Goals | Define the Playing Field | Dedicate Resources | Recognize Participants | Keep Score | **Plan Launch** | Get the Word Out | ENERGY STAR Resources

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 benchmark energy use, enter baseline data, jump-start reductions in energy use, 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 energy data only several weeks after the end of a month.

Get the Word Out

Set Goals | Define the Playing Field | Dedicate Resources | Recognize Participants | Keep Score | Plan Launch | **Get the Word Out** | ENERGY STAR Resources

Step 1: Spread the Word Leading Up to the Competition

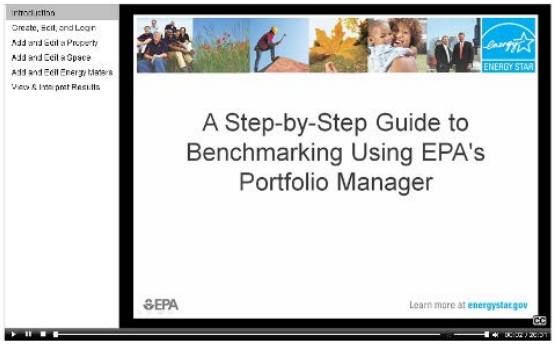
Step 2: Maintain Communication throughout the Competition

Step 3: Wrap Up the Competition

Include ENERGY STAR Resources into Your Competition

Set Goals | Define the Playing Field | Dedicate Resources | Recognize Participants | Keep Score | Plan Launch | Get the Word Out | **ENERGY STAR Resources**

- **Energy Tracking & Management Tools**
  - Portfolio Manager
  - Guidelines for Energy Management
  - Building Upgrade Manual
- **Communication and Training Resources**
  - Web-based training sessions
  - Customizable ENERGY STAR Publications
  - “Bring Your Green to Work”
- **Existing ENERGY STAR Competitions**
  - ENERGY STAR National Building Competition
  - ENERGY STAR Challenge for Industry
  - ENERGY STAR Low Carbon IT Campaign



Thank You!

- **For more information:**
  - Download the Competition Guide at: www.energystar.gov/competitionguide
  - Visit www.energystar.gov/buildings
  - Email buildings@energystar.gov