



ENERGY STAR[®]
Focusing on Energy Efficiency
for the
Drinking Water and Wastewater
Industries

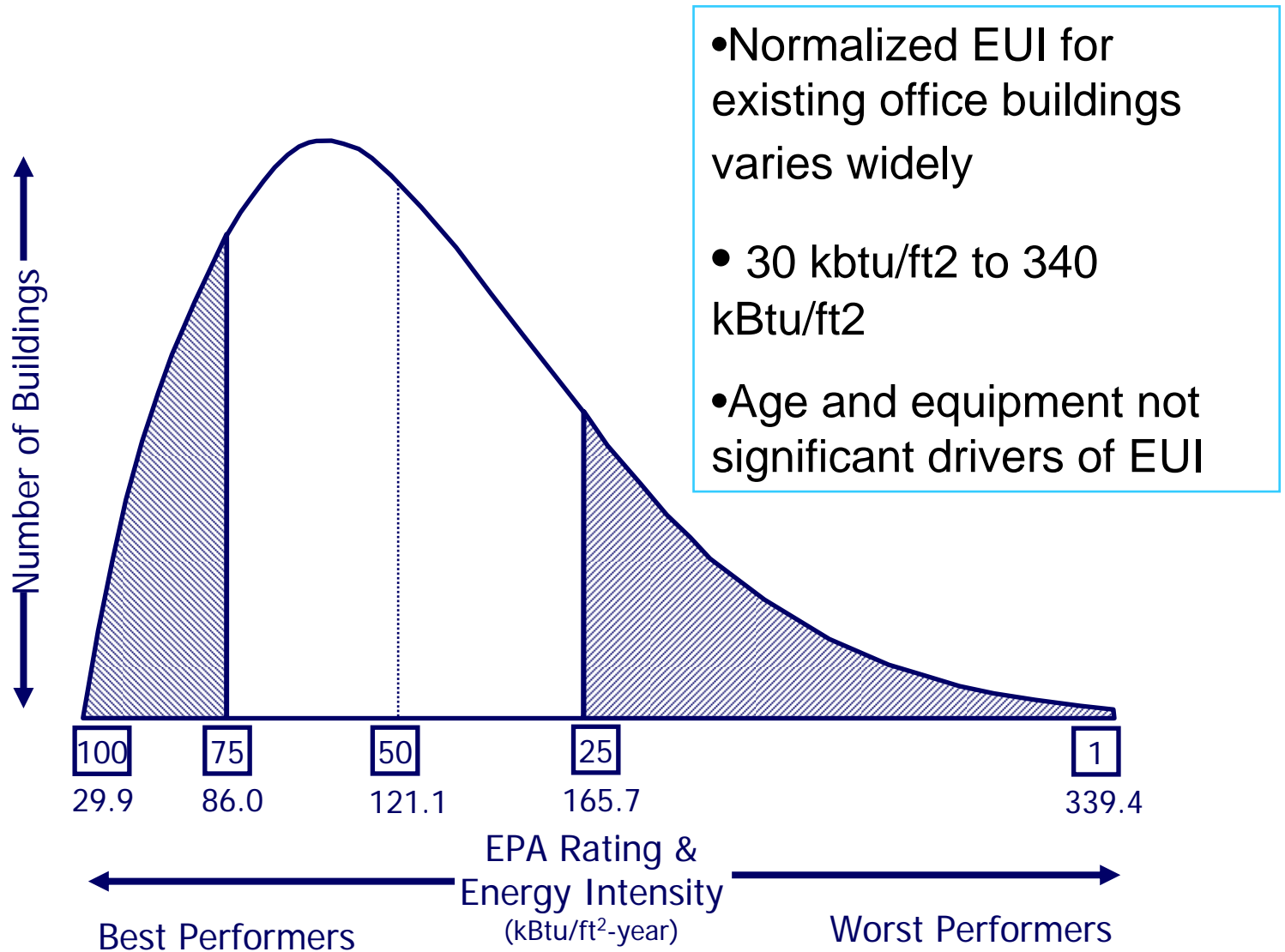
Caterina (Katy) Hatcher
ENERGY STAR National Manager, Public Sector
US EPA



ENERGY STAR

- Voluntary government program
- Emphasis on strategic energy management and identifying the best performance
 - emphasis on:
 - strong energy management
 - using benchmarks for gauging improvement
 - use of available technology now
 - learning from each other - efficiency forum

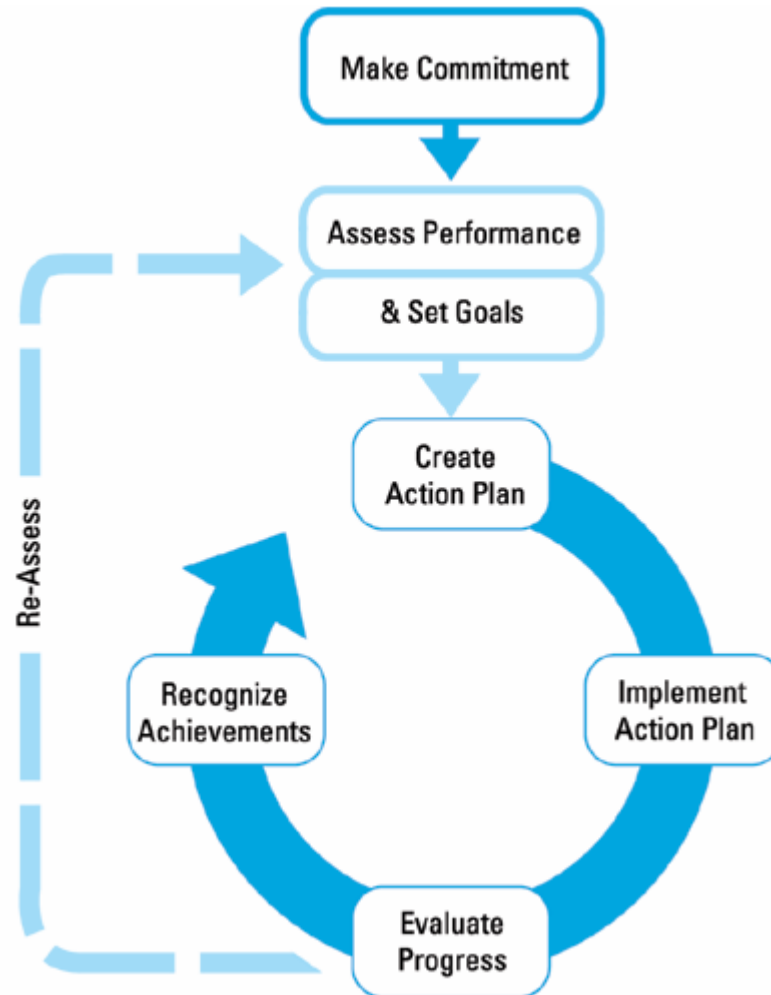
Energy performance gap





ENERGY STAR & Strategic Energy Management

Approach based on the successful energy management practices of over 1,600 commercial and industrial organizations





Organizations Can Get Involved

- Estimate Energy Use at Design
 - Target Finder
- Verify energy use in operation
 - Portfolio Manager
- Reduce energy across portfolio
 - ENERGY STAR Guidelines for Energy Management





Promote and Meet the ENERGY STAR Challenge

- What is the Challenge?
 - EPA, through ENERGY STAR, is challenging building owners to improve existing building efficiency by 10% or more
- The Challenge Promotes Three Important Actions:
 - Determine how much energy buildings are using
 - Establish efficiency improvement goals
 - Make improvements
- Meet the ENERGY STAR Challenge and help build a better world—10% at a time and be recognized by EPA as an ENERGY STAR Leader.



Challenge Participants

EPA, has partnered with more than half of US states and leading local government and school associations to promote the challenge to governments, schools, and businesses

- AZ, AL, CA, DE, Efficiency VT, FL, HI, IL, IN, ISE for CT, KS, KT, ME, MD, MI, MS, MN, NH, NM, NC, NY, OH, PA, SC, TX, WI, WV, and Washington, DC– Many are working to improve the energy efficiency of state buildings as well as targeted sectors, such as schools
- CEFPI, NSBA, CGCS, ASE, NASSP, NAESP, PTA – encouraging members to meet the ENERGY STAR Challenge



ENERGY STAR & Industry

ENERGY STAR works with select industries to improve the energy performance of their operations



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Focuses Underway

- Automobile assembly (coordinating with Alliance of Automobile Manufacturers)
 - provided plant energy performance indicator (EPI)
 - energy guide of current efficiency opportunities
 - annual energy efficiency forum
- Cement manufacturing (working with Portland Cement Association)
 - EPI in development
 - energy guide for cement plants
 - energy efficiency forum May/June 2004
- Corn refining (working with Corn Refiners Association)
 - EPI in development
 - energy guide for corn milling completed
 - energy efficiency forum
- Brewing (coordinated with Beer Institute)
 - EPI provided
 - energy guide for breweries
 - energy efficiency forum
- Pharmaceutical manufacturing
 - Focus requested by industry and planned for 2004
 - Petroleum refining
 - energy guide in development



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Water and Wastewater Focus



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Water & Wastewater Focus

EPA's ENERGY STAR Focus Support Team

- Cadmus Group – Overall support
- Catalyst Financial Group – financing solutions
- LBNL – ENERGY STAR Energy Guides and benchmark development support
- ORNL – benchmark development support

Special Focus Participants

- Linda Reekie, AwwaRF
- Steve Carlson, CHD Energy supporting the AwwaRF Water and Wastewater Utility Energy Index



Goals for the ENERGY STAR Water and Wastewater Focus

- Create momentum for continued improvement of energy efficiency
- Identify and tackle barriers to energy efficiency in both industries
- Provide tools and resources to enhance energy performance
- Uncover new energy saving opportunities
- Encourage sharing for efficiency



Components of a Focus

Development of program tools and resources
(ongoing):

- Energy performance rating/benchmarking system for each industry that is normalized for variable – weather, climate, plant/system characteristics, regional difference, etc.
- ENERGY STAR Guides - technical energy efficiency opportunities assessment report for water and wastewater utility managers
- Financing solutions
- Recognition opportunities
- Energy efficiency focus discussions (quarterly)



Benchmarking

- EPA plans to expand EPA's Energy Performance Rating System for use by water and wastewater utilities to rate energy performance
- Engine(s) behind the rating system
 - AwwaRF Project Data (one time survey)
 - NACWA Survey(repeat clean water survey)



ENERGY STAR Energy Guides

- Summarizes available knowledge on energy use and energy efficiency in a particular sector
- Provides information on energy-efficient practices and technologies that are commercially available
 - Includes characteristics like costs, benefits, energy savings
 - Includes practical experiences of their use and application
- Based on assessment of proven energy-efficient practices in the U.S. and *internationally*
- Opportunities that can be used now
- Energy Guides are *for operators at* plants and energy managers, made *with* operators and experts



ENERGY STAR Energy Guides

- Audience:
 - targeting medium to large utilities
 - Within the utilities, for plant or system operators and energy managers
- Function of Energy Guides:
 - identify opportunities
 - preliminarily evaluate opportunities
 - serve as a checklist for its users
 - improve efficiency of energy management
 - reduce information barriers
 - learn from experiences

... save energy, money and the environment...



Working with the Water Industries

- **Mode of collaboration**
 - How may we contact you and your industry?
 - With whom should we talk?
 - What should the role of PTI or other organizations be? (identify other municipalities to work with?)
- **Start of collaborative analysis**
 - Outline for discussion will be circulated
 - Provide comments within one month
- **Areas of Focus**
 - What would you like to see in the guide?
 - What would be most useful to you?



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Water and Wastewater Focus

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