ENERGY STAR® Action Workbook for Small Business

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EPA United States Environmental Protection Agency

ENERGY STAR® is a U.S. Environmental Protection Agency program helping organizations and individuals fight climate change through superior energy efficiency. Learn more at energystar.gov/buildings.

About the Workbook

The United States (U.S.) Environmental Protection Agency's (EPA) ENERGY STAR® program intends this workbook to serve as a resource and planning guide for small business owners and staff who want to increase the energy efficiency of their properties by creating and implementing a realistic and cost-effective energy improvement program. It is available with the accompanying appendices at www.energystar.gov/smallbiz.

Acknowledgements

EPA thanks the U.S. Small Business Administration for assisting in the promotion and distribution of this workbook through its multiple points of interaction with the small business community, as well as for the valuable SBA content in the Appendices document.

Disclaimer

All energy, water, and monetary savings listed in this document are based upon average savings for end users and are provided for educational purposes only. Actual savings will vary based on energy, water, and facility use, national weather data for your locality, energy prices, and other factors. Greenhouse gas (GHG) emissions are calculated based on emission factors reported to the U.S. EPA by the electric utility provider serving your ZIP Code. Data referenced in this document is provided by the U.S. EPA.

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A Message from the Administrator

To America's Small Business Community:

Through energy efficiency measures, small businesses are helping protect human health, bolster national security, and strengthen our economy. For more than four decades through the Clean Air Act, EPA has cut air pollution by more than 70 percent while the GDP has tripled. And all along, we've kept the lights on. EPA's Clean Power Plan will not change that.

With more frequent and extreme weather events, the harmful impacts of climate change are already upon us—threatening families and local economies. The Clean Power Plan will ensure that the United States maintains its competitive edge and continues to capitalize on the American ingenuity that states, cities, and businesses have already tapped to turn the climate challenges we face today into the business opportunities of tomorrow. It will keep the United States—and more importantly our businesses—at the forefront of a global movement to produce and consume energy in a better, more sustainable way. By 2030, the steady and responsible steps EPA is taking will: **1)** cut carbon emission from the power sector by 30 percent nationwide below 2005 levels, which is equal to the emissions from powering more than half the homes in the United States for one year; **2)** cut particle pollution, nitrogen oxides, and sulfur dioxide by more than 25 percent as a co-benefit; **3)** avoid up to 6,600 premature deaths, up to 150,000 asthma attacks in children, and up to 490,000 missed work or school days—providing up to $93 billion in climate and public health benefits; and **4)** shrink electricity bills roughly eight percent by increasing energy efficiency and reducing demand in the electricity system.

One of the most significant actions a small business can take is simply to reduce energy waste. Energy efficiency is the quickest, most cost effective way to bottom-line dollar savings while cutting carbon pollution. EPA's ENERGY STAR is the leading national program helping consumers and businesses use electricity more productively. We don't have to choose between a healthy economy and a healthy environment—we can sharpen America's competitive edge, spur innovation, and create jobs—all while protecting human health.

This ENERGY STAR Action Workbook for Small Business, along with ENERGY STAR strategic energy-management tools, training, and technical support, can help your business save money and prevent pollution. During the past 20 years, the EPA has learned that most businesses can cut energy use and costs, while cutting emissions, by about 30 percent from a typical baseline, often with no- or low-cost measures. Your energy savings are retained for your business, and in the process you will meet or exceed the President's goal for 20 percent energy savings in America's buildings. We invite your business to partner with EPA and ENERGY STAR, and join us in the fight against climate change today—to secure a safer, healthier, and more prosperous future for generations to come.

Sincerely,

Gina McCarthy
Administrator, U.S. Environmental Protection Agency

Introduction

Energy efficiency is the fastest, least expensive, and largest single solution for simultaneously saving energy and money, and preventing greenhouse gas (GHG) emissions. Through the market-based, voluntary, ENERGY STAR program, the EPA is helping businesses and individuals save money and protect our climate through superior energy efficiency. These efforts have helped create jobs, lower utility bills, and contribute to cleaner air and the protection of human health. Small businesses play a key role in in the national energy economy, as over 50% of the working population in the U.S. works in a small business (based on the *National Small Business Association 2011 Energy Survey*; http://www.nsba.biz/wp-content/uploads/2012/03/2011_energy_survey.pdf). You and your community have a lot to gain when you improve your energy efficiency.

Energy is a controllable cost and every business has some degree of energy waste. Thousands of American building owners and operators use ENERGY STAR tools and resources to realize significant energy and dollar savings, while reducing GHG emissions. To help companies like yours, EPA developed this free, online "ENERGY STAR Action Workbook for Small Business". Following the guidelines and suggestions in the Workbook will not only help you save money, but will also enable you to showcase an environmental commitment to staff and customers. If your businesses' percentage of operating costs for energy is greater your businesses' operating profit, anything you save in operating costs equals more profit for you. Energy savings are dollars that you would have to pay your utility. Why not save them for your business priorities?

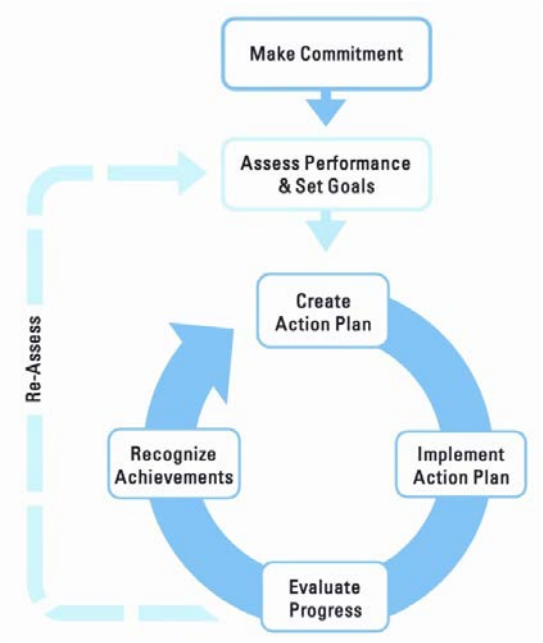

Figure 1. ENERGY STAR Guidelines for Energy Management

Small businesses come in a variety of sizes represented among America's industries. According to the U.S. Small Business Administration (SBA), 52% of small businesses are home-based. Others own or rent commercial building space. Whether you own your building, are a tenant, or work from home, you need lighting, heating, air conditioning, power for equipment, and other energy services. Small business owners are awakening to the potential savings from energy management. A recent poll conducted by the National Small Business Association (NSBA) showed that 82% of small businesses surveyed have already taken one or more steps to reduce energy use.

No matter how far along you are in managing energy for your small business, the easy, simple ENERGY STAR approach can help you do more with your limited resources. To get on the path to savings, start by building your own energy plan. Use the seven steps of the ENERGY STAR Guidelines for Energy Management (Figure 1) in this action workbook to provide a strategic approach to improving your

property's energy performance. The Guidelines are widely used and can help you build the most cost-effective and practical energy management system for a small enterprise. They have been proven effective by thousands of partners. In effect, the Guidelines are an "energy management system."

Many small business owners do not have a lot of extra time and money for complex projects. This workbook includes actions that will provide the greatest return on your time and expense investments. In fact, many require little or no investment at all. It is often the simple operation and maintenance improvements or behavioral changes that achieve some of the most significant savings.

This workbook also includes information on improving your property's water efficiency. Energy and water efficiency are closely tied together; efficient hot water use will decrease energy cost, as well as water cost. As you move through this workbook, you may want to consider water efficiency opportunities along with energy efficiency.

Accompanying appendices in a separate document are referenced throughout—they include more in-depth information on specific topics, such as lighting and water, as well as resources to help you look at energy savings opportunities throughout your property. They also contain sector-specific guidance for automobile dealerships, home-based businesses, offices (including tenants), restaurants, grocery and convenience stores, small and medium manufacturers, and hotels/motels. All of this information can get you on your way to improving the energy efficiency of your business. The full list of appendices includes:

1. Appendix A – Benchmarking your Property with Portfolio Manager®
2. Appendix B – Sure Energy Savers
    1. Lighting
    2. Building Envelope
    3. Office Equipment
    4. Kitchen and Food Service Equipment
    5. Heating, Ventilation, and Air Conditioning (HVAC)
    6. Water and the EPA WaterSense Program
3. Appendix C – Energy Audits and Professional Assistance
4. Appendix D – Project Financing
5. Appendix E – Working with Contractors
6. Appendix F – Restaurant/Food Service
7. Appendix G– Auto dealers
8. Appendix H – Lodging: Hotels, Motels, and Inns
9. Appendix I – Office Buildings for Owners and Tenants
10. Appendix J – Grocery/Convenience Stores
11. Appendix K – Small and Medium Manufacturers
12. Appendix L – Home-based Businesses
13. Appendix M – The US Small Business Administration (SBA)
14. Appendix N – EPA GreenPower Partnership
15. Appendix O – EPA Office of Small Business Programs

Step 1. Make a Commitment

While the prospect of increasing the energy efficiency of your business may seem daunting at first, your energy program can insulate your business against higher energy costs. This Small Business Action Workbook will help you create an energy management program with simple, manageable steps your business can implement incrementally. No matter the size or type of business, the first step of successful energy management is to make a commitment to saving. Begin your own energy management journey by joining the ENERGY STAR Small Business Network; visit ENERGY STAR to sign up at www.energystar.gov/joinbuildings. The ENERGY STAR logo is recognized by more than 85 percent of the American public—you can use it to show your customers and clients that you are committed to saving energy, and to being an environmental leader.

"Small businesses are the engine of the American economy, and they play a substantial role in safeguarding the integrity of our Earth. The Action Workbook proves that adopting green business practices is profitable, responsible, and sustainable. The SBA is ready to provide necessary incentives to steer our businesses into embracing environmental stewardship."
- SBA Administrator Maria Contreras-Sweet. For more information on SBA programs see Appendix M or go to www.SBA.gov

Businesses seeing the financial returns from superior energy management continuously strive to improve performance. Their success is based on regularly assessing energy performance and implementing steps to save money. This section will explain:

- Why energy efficiency is key to your business goals
- How to form a dedicated energy team
- How to implement an energy policy

1.1 Why Energy Efficiency is Key to Your Business Goals

"Energy efficiency? I don't have the time!" you may think. But, did you know that small businesses can typically save as much money and prevent as much pollution, per square foot of their property, as large corporations? The savings you achieve through efficiency measures may very well "pay you back" for time invested. "But I don't even own my building. What changes can I make and what impact will they have?" This workbook has information for tenants throughout, and *Appendix I* includes information to help tenants identify efficiencies in office facilities. Whether your business owns its own property or is a tenant, you can assess savings associated with perspective upgrades by using ENERGY STAR tools and calculators.

Money and Your Small Business

Energy management and the purchase of ENERGY STAR certified products can reduce energy costs without compromising customer satisfaction. The money saved on your utility bills can be redirected to other business initiatives. Also consider costs that can be avoided by extending the useful life of your property (or properties) and equipment.

The People: Employee and Customer Satisfaction

Sixty-eight percent of adults like to do business with companies that are environmentally responsible and more than 80 percent of workers are attracted by an employer with an environmental reputation (from ENERGY STAR Report, *Does Green Pay Off?*, 2008; http://www.energystar.gov/buildings/tools-and-resources/does-green-pay). The bottom line? Both your employees and customers appreciate your business' environmental responsibility. As you will learn in this workbook, you can demonstrate environmental responsibility through energy and water management while simultaneously improving the overall comfort and appearance of your business. Your business can be a model of energy efficiency in your community!

Good Earth Market, Billings, Mont: Efficiency on a Tight Budget

When the Good Earth Market, a local and organic foods cooperative, renovated their building (a former auto body shop), they utilized the existing space as much as possible. They spent money available on new mechanical, electrical, and plumbing systems to make the space as efficient as possible, but salvaged shelves and cases from a derelict grocery store. As they find financing, the store is incrementally improving the building envelope and replacing the few remaining single pane windows with ENERGY STAR certified ones.

The Environment

ENERGY STAR certified buildings are responsible for 35% fewer greenhouse gas emissions than their peers. You can help reduce energy related pollution, as you save money. Even if your property has minimal square footage, you can still make a difference.

1.2 Form a Dedicated Energy Team

Your energy efficiency program should be tailored to your business' culture and resources. It is important to make the program your own by taking advantage of existing resources or individuals who may already be implementing efficiency efforts. Behind most successful programs lies a core team of dedicated individuals. For most small businesses, two to three people may be the core of the team, while for larger businesses it could be five to ten people. Keep in mind that a small group can reach consensus and start working quickly.

A single individual may be the full "team" for a small, home-based business, and you may simply need to take advantage of those skills. If you are a "one person shop", think about ways to make ENERGY STAR a part of your team by using free ENERGY STAR technical trainings, materials, and resources.

Appoint an Energy Team Leader

Appointing an Energy Team Leader is a critical component of successful energy programs. The Energy Team Leader helps an organization achieve its goals by establishing energy performance as a core value.

Specifically, the Energy Team Leader helps set goals, tracks progress, and promotes the energy management program.

The Energy Team Leader is not always an expert in energy, water, or technical systems. However, this person should understand (or be willing to learn) how energy management helps the organization achieve its financial and environmental goals and objectives. Depending on the size of your business, this role can be a full-time position or an addition to other responsibilities. The Leader's key duties often include:

- Coordinating and directing the overall energy program
- Acting as the point of contact for senior management
- Increasing the visibility of energy management within the organization
- Drafting an Energy Policy
- Assessing the potential value of improved energy management
- Creating and leading the Energy Team
- Securing sufficient resources to implement strategic energy management
- Assuring accountability and commitment from core parts of the organization
- Identifying opportunities for improvement and ensuring implementation (including staff training)
- Measuring, tracking, evaluating, and communicating results
- Obtaining recognition for achievements.

AutoFair Companies, Manchester, N.H.: A Comprehensive Energy Program

AutoFair Companies, an automobile dealership group with four dealerships in New Hampshire, took the ENERGY STAR Challenge to reduce energy usage by ten percent annually. Their energy-efficiency program has continued to evolve and is overseen by the company's Green Committee which consists of representatives from each facility as well as the corporate CEO and CFO. Monthly meetings include project discussions, research review, vendor presentations, and review of cost-benefit analysis for all suggested projects. The result is a steady flow of projects that meet criteria for sustainable operation as well as for affordability and return-on-investment. All employees are invited to participate in the Green Committee's suggestion process.

Establish an Energy Team

People make decisions every day that affect energy use. The Energy Team executes energy management activities across different parts of your business, and ensures integration with your business operations. In addition to planning and implementing specific projects, the team measures and tracks energy performance and communicates with management, employees, and other stakeholders.

Depending on the size of your business, consider including a representative from each operational area that significantly affects energy use or that highlights your business, such as Engineering, Information Technology (IT), Purchasing, Operations and Maintenance, Building/Facilities Management, Environmental Health and Safety, Construction Management, Contractors and Suppliers, and Marketing and Publicity.

1.3 Institute an Energy Policy

An Energy Policy provides the foundation for a successful program by setting performance goals and integrating energy management. It formalizes management support and articulates the organization's commitment to energy efficiency for employees, the community, and other stakeholders. Your Energy Policy should include:

- **An objective.** State a clear and measurable objective that reflects your business' commitment, culture, and priorities.
- **A chain-of-command.** Establish accountability and define roles in the organization; this will provide the authority for personnel to implement the energy management plan.
- **Provisions for evaluating and updating the policy.** Ensure continuous improvement and reflect changing needs and priorities.
- **Performance goals.** Provide a context for setting goals by linking energy goals to overall financial and environmental goals of the organization.

1.4 Review - Make a Commitment

Step 1 gave you the tools you need to begin your energy efficiency program. You learned how this program will benefit your business; you learned how to create an energy team; and you learned how to institute an energy policy. Now it's time for you to turn your knowledge into action. Use the review steps below to measure your progress towards completing Step 1.

1. **Join the ENERGY STAR Small Business Network** at www.energystar.gov/joinbuildings. This simple action takes a few minutes and sets you on your way, with no obligation or cost. ENERGY STAR Small Business Network participants are plugged into the latest information on energy efficiency and have access to free technical support, case studies, tools, and public recognition of success.

2. **Form your energy team:** To establish your energy program, form a dedicated energy team that includes an Energy Team Leader; if you are a one person team then identify a planned time period each month to work on efficiency upgrades.

3. **Institute an energy policy:** Involve key people in policy development to formalize management support and articulate your business' commitment to energy efficiency that is understandable to employees and public alike.

Step 2. Assess Performance

2.1 Baseline, Benchmark, and Start Saving NOW

According to the Census Bureau, the smaller a company is, the more it pays per employee in utility costs. Understanding how your property is currently using energy will help determine where to focus your team's efforts. Think about your property. Do you know the last time routine maintenance was performed on your Heating, Ventilation, and Air Conditioning (HVAC) system? Do employees always turn off lights and equipment that are not in use? The answers to questions such as these should start to give you an idea of places where energy consumption can be reduced.

You have to begin somewhere. Your starting point is called a "baseline" of energy performance—a point from which to calculate improvements in your company's operations. Once you have established this baseline, you can "benchmark" your facility; put simply, benchmarking is the process of comparing your energy performance to something similar. "Something similar" might be internal, such as energy performance at the same time last year. Or it might be external, such as performance compared to similar facilities elsewhere. You can use the free ENERGY STAR Portfolio Manager® tool at www.energystar.gov/benchmark to baseline energy and water consumption, as well as GHG emissions. You can also use it to benchmark the performance of one property or a whole portfolio of properties, all in a secure online environment. Step 2 will show you:

- How to create your energy performance baseline through ENERGY STAR Portfolio Manager
- Why "benchmarking" is important
- The benefits of a technical walkthrough
- When to consider an energy audit.

2.2 Gather and Track Data (Baseline)

Your baseline provides a starting point from which your core team can plan, manage, and track improvement projects toward success. If you take one message from this section, remember: ***You can't manage what you don't measure.***

Using Portfolio Manager, you can not only calculate your property's baseline energy consumption, you can also track your property's energy and water use over time, and set goals for the future. Armed with this information, you will be able to help your business make informed decisions on energy-efficient investments and track your progress.

By entering details about the property and consumption data for energy and water you can:

- Assess whole building energy performance
- Track changes in energy, water, GHG emissions, and energy costs over time
- Track green power purchases
- Create custom project reports
- Share data with others.

Using Portfolio Manager

The following two steps show you how to set up your Portfolio Manager account. Refer to *Appendix A: Benchmarking your Property in Portfolio Manager*, for basic instructions on how to create an account and enter your data. For more detailed information, you can attend online Portfolio Manager training. Visit www.energystar.gov/buildings/training to sign up. As a new feature, ENERGY STAR has Express Videos which show users how to create a property, add meter data, share building data, and generate reports in five minute animated demonstrations. Access the videos at http://www.energystar.gov/buildings/training/express-videos.

Helping to Benchmark and Offer Support: Bartlett Area Chamber of Commerce TGZ, Bartlett, Tenn.

What is TGZ? Team Green Zone (TGZ) is a project of the Bartlett Area Chamber of Commerce. TGZ helps local businesses become more energy efficient working with them to create an energy baseline through entering their data into Portfolio Manager. Once a property has a baseline, TGZ sets goals and implements measures to decrease operational costs and increase energy efficiency. TGZ works with each client to create an action plan and helps them choose a contractor to perform the upgrades, if necessary.

STEP 1 - GATHER DATA ABOUT YOUR PROPERTY

In order to create your baseline, you will need to gather information about your property and its energy and water consumption. A years' worth of utility data will constitute your "baseline." A data collection worksheet to walk you through entering your property information into Portfolio Manager is provided in *Appendix A: Benchmarking your Property in Portfolio Manager*. A completed data collection worksheet will ensure that you have all your information at hand when you set up your Portfolio Manager account. It is a good idea to be clear about who will take the lead in setting up and managing the Portfolio Manager account and the associated data entry.

STEP 2 – SET UP YOUR PORTFOLIO MANAGER ACCOUNT

Appendix A: Benchmarking your Property in Portfolio Manager, provides step-by-step instructions to create a Portfolio Manager account. Once you have established an account and entered the information from your data collection worksheet, you will be able to generate custom reports, charts, and data sets that will help you analyze your property's energy and water consumption.

2.3 Analyze Data (Benchmark)

Analyzing data to determine energy and water use trends can help you gain a better understanding of the factors that affect energy and water performance, as well as identify steps you can take for reducing consumption. Meter data in your Portfolio Manager account can be updated every month; maintaining that data regularly ensures that progress reports remain current and relevant. Additionally, you can view your property performance results, including annual energy use, environmental performance, financial

performance, GHG emissions, and water use (if you have included your water utility data). You can also compare performance during two different time periods.

To benchmark your property, Portfolio Manager: **1)** performs calculations with your utility data; **2)** adjusts for the weather in your zip code; and **3)** includes specifics about the property systems, equipment, size, and use. In addition to displaying your property's performance results online, Portfolio Manager can adapt the data from your portfolio into a ready-made or custom report. These reports will be useful for presenting project results to your staff and customers, demonstrating the business' history of sustainability to potential lenders, or sharing your success with the community. These reports can also help prepare you for setting program and savings goals in Step 3.

> ***Cormack Construction Management (CCM), N.H.: Big Savings with Small Changes***
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> *When CCM Environmental Coordinator Colleen Cormack analyzed CCM's space for energy efficiency opportunities, she found an obvious first step—lighting. The lights were turned on in all areas of the wood shop when the first employee arrived and left on until the last employee left for the day. CCM management upgraded light bulbs and changed lighting use by installing CFLs and reducing demand; this simple step yielded great results: a 44% reduction in electrical usage at the wood shop.*

Depending on your property type, you may be eligible to receive an ENERGY STAR score—and those properties that score at least a 75 on the 1 – 100 ENERGY STAR score are eligible for ENERGY STAR Certification; read more at www.energystar.gov/buildingcertification. The ENERGY STAR score generated by Portfolio Manager shows you the energy efficiency of your property compared to your peers nationwide. You can then use this score to set goals for your property's energy efficiency, and work toward receiving recognition for improvements by qualifying for ENERGY STAR certification. Earning the ENERGY STAR indicates that your property is among the most efficient of its type in the U.S.

However, even if your property type is not eligible at this time to receive the ENERGY STAR, you can realize and accurately track significant savings using Portfolio Manager. For example, just achieving a 20% improvement can provide substantial savings. EPA prepared the DataTrends series to examine energy and water benchmarking trends for the thousands of buildings in Portfolio Manager. The results of this diverse sample of buildings offer insights into the key drivers of energy use and the savings potential of benchmarking. In particular, EPA found that buildings that consistently benchmark energy use save an average of 2.4 percent per year.

The DataTrends Series includes a broad overview of energy use benchmarking in Portfolio Manager, highlighting general trends observed in the data, as well as more detailed looks into the benchmarking data for several types of buildings.

2.4 Conduct a Technical Walkthrough and Implement Sure Energy Savers

Now that you have a better understanding of your energy use, it's time to walk through your property. There are many reliable, low-risk actions that your team and employees can take (Sure Energy Savers), most of which are low- and no-cost. You may be concerned that new, energy efficient technologies

won't work as well as old ones, or that they will affect customer satisfaction. There may be competing priorities, such as investing in costly high-profile improvements before low-cost/no-cost improvements. The appropriate sizing (and therefore the cost) of heating/air-conditioning or the payback on new windows, are all highly dependent on the baseline level of efficiency. This section includes the following subsections that describe the types of Sure Energy Savers you may consider for your property:

- Lighting
- Windows and Walls (Building Envelope)
- Office Equipment
- Kitchen and Food Service Equipment
- HVAC
- Water

Although most of the recommendations presented in in this section are low- or no-cost, some may require additional analysis to determine if they make financial sense for your business. You may consider obtaining a professional energy audit to identify further areas that can be improved.

The type of business you run will dictate what equipment and appliances you use most and how much energy you use. Figure 2, below, illustrates the differing energy demands of small businesses. This chart is based on Energy Use Intensity (EUI) of some common small business types. As you can see, the EUI is highest for those properties that rely on equipment for food service.

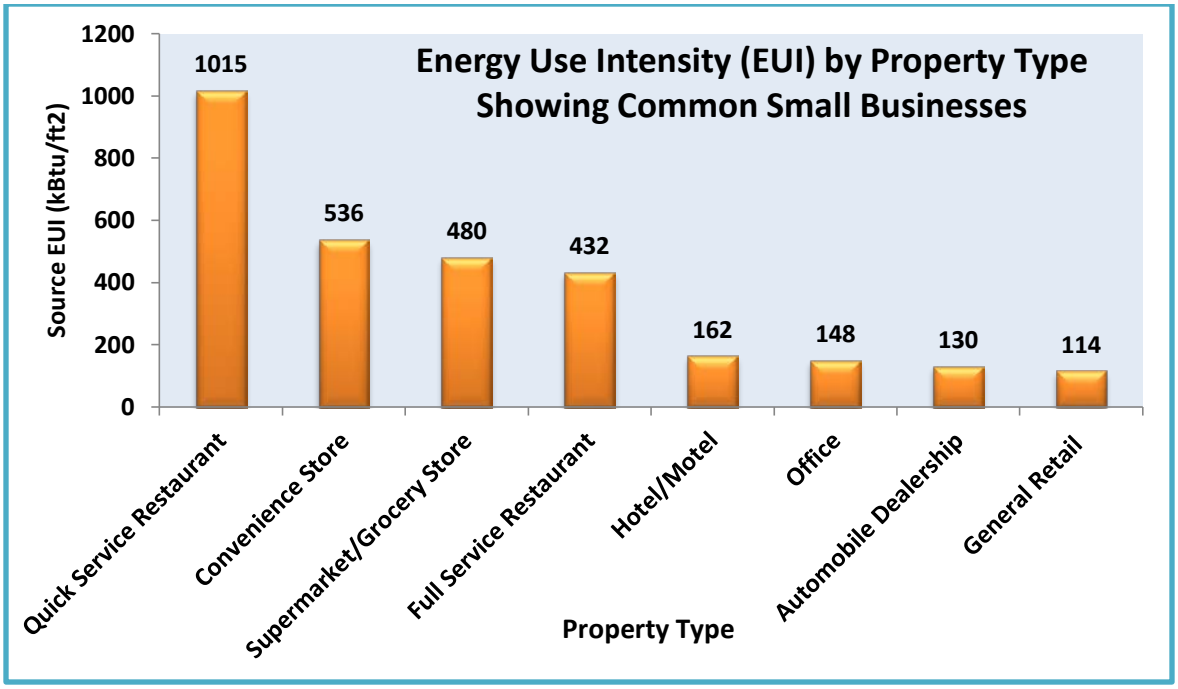

Figure 2. The Different Energy Demands of Small Business Types; Data from Commercial Building Energy Use Survey (CBECS 2013) at:
https://portfoliomanager.energystar.gov/pdf/reference/US%20National%20Median%20Table.pdf?cf85-6206

Sure Energy Savers: Lighting

Some small businesses—such as retail stores and offices—rely heavily on lighting, which may be your business' largest energy expenditure. In today's market, new energy-efficient, long-life bulbs offer a large number of features at affordable prices. This diversity provides multiple options for currently installed lighting equipment; replacement of outdated bulbs represents energy saving opportunities. You can achieve energy savings in your lighting system through two main pathways—installing more efficient equipment (bulbs and/or fixtures), and changing the way you operate lighting. *Appendix B.1: Lighting,* provides more information on specific activities. Basic guidelines to follow include:

- Turn off lights (and other equipment) when not in use
- Ensure that appropriate lighting levels are maintained. Too much light can be as bad as too little
- Replace incandescent bulbs with ENERGY STAR certified LEDs
- Upgrade older T12 fluorescent bulbs with magnetic ballasts to more efficient T8 or T5 fluorescent bulbs with solid-state electronic ballasts
- Install LED exit signs
- Install occupancy/vacancy sensors
- Install daylight-responsive lighting controls.

Full Spectrum Solar; Madison, Wis.: Using energy efficient and solar technology to create a zero-energy-cost facility

In addition to operating a zero-energy-cost facility through the use of solar panels, Full Spectrum Solar, a contracting office and warehouse, achieved an ENERGY STAR score of 100 by reducing their energy use through building envelope redesign, updating all the mechanical systems in the building, and careful use of energy throughout. The building incorporates daylighting to reduce the need for artificial lights; during the extensive renovations they constructed well-insulated walls and ceilings, installed LED lighting, and high efficiency heating, ventilation, and air conditioning equipment–including a boiler for heating.

Sure Energy Savers: Windows and Walls (Building Envelope)

Your property's building "envelope" or "shell" includes windows, walls, roof, and insulation. Addressing leaks that allow unwanted air infiltration into the building envelope can often eliminate a major energy drain. Outside air can enter a building through a variety of places, most commonly the windows, doors (for example, for automobile dealerships, air infiltration through open bay doors is a large concern; see *Appendix G* for more information), walls, and roof. At the same time, cooled or heated air will be lost. Outside fresh air can be good, but only as controlled ventilation, not as accidental infiltration. Investigate the following options to improve your building envelope then see *Appendix B.2: Building Envelope Assessment Guidance*, for more information.

- Plug air leaks
- Replace windows and window shadings
- Minimize unconditioned air flow through doors and windows.

Sure Energy Savers: Office Equipment

Office equipment presents an often-overlooked opportunity for significant energy and cost savings. This includes computers, printers, copiers, televisions, and even small appliances such as coffee makers. Evaluating your office equipment use will help your business realize energy and monetary savings. More information can be found in *Appendix B.3: Office Equipment Guidance* and *Appendix I: Offices*.

- Always buy ENERGY STAR products for your business when new equipment is needed
- Set computer power settings to save energy when not in use
- Replace cathode ray tube (CRT) computer monitors with LED monitors
- Utilize "Smart Power Strips".

Sure Energy Savers: Kitchen and Food Service Equipment

Restaurants use five to seven times more energy per square foot compared to other commercial buildings, such as office buildings and retail stores. High-volume quick-service restaurants may even use up to ten times more energy per square foot than other commercial buildings, so efficient food service equipment and good management practice are crucial to savings. Many other types of small businesses have kitchen areas where staff can prepare coffee, lunch, snacks, or dinner. Microwave ovens, coffee machines, stoves, and refrigerators are common in these areas and are important to consider when looking at overall energy use. See *Appendix B.4*: *Kitchen and Food Service Equipment,* for more information on general food service equipment, and *Appendix F* for equipment specific to restaurants.

- Purchase ENERGY STAR certified commercial food service equipment
- Check refrigerators for leaks and to see if a newer, more efficient model is available
- Have walk-in refrigeration systems serviced at least annually
- Use multiple refrigerators only when necessary
- Always buy ENERGY STAR certified vending machines and water coolers
- Turn off appliances (such as the coffee maker) when not in use.

Charlestown Wine and Spirits, Charlestown, R.I.: Internal and External Efficiencies

Charlestown Wine and Spirits has a building envelope made of Climate-Block expanded polystyrene panels that eliminate thermal bridging and installed a geothermal system to heat and cool the store–including beer coolers–by using the earth as its principle energy source. In addition to the building innovations, they have included non-invasive native landscaping, permeable paving stones, and dark-sky compliant lighting to contribute to low-impact development outdoors at their property.

Sure Energy Savers: HVAC

HVAC systems represent a significant portion of the utility bills for small businesses; in fact, small- and medium-sized businesses (depending on the type) typically spend the bulk of their energy budget on HVAC. It is important to control and monitor your energy use in order to reach optimal energy efficiency, and

therefore maximum savings. Review the following items to consider each HVAC suggestion as it may apply to your property, then see *Appendix B.5: Heating, Ventilation, and Air Conditioning (HVAC)*, for more information.

- Keep windows and exterior doors closed while running the HVAC
- Install a programmable thermostat to control the HVAC system
- Check the accuracy of the thermostats
- Change the filters monthly during "high use" seasons
- Clean heating and cooling coils twice a year
- Clear any clutter that is blocking vents or air intakes
- Use fans when a room/area is occupied
- Tune-up the HVAC system with an annual maintenance contract.

Sure Energy Savers: Water—Hot and Cold

Recall that energy and water efficiency are closely tied together. In most cases, electricity or natural gas is used to heat water, and this costs money. The more hot water your business consumes, the more it will save from optimizing water use. Additionally, treating and pumping water and wastewater may well be the number one use of electricity by your municipality. You can save water, energy, and money with the EPA's WaterSense program. The EPA created WaterSense to help American consumers and businesses use water more efficiently. Reducing water use lowers the costs associated with operating and maintaining equipment, as well as the energy needed to heat, treat, store, and deliver water throughout the property. WaterSense promotes water-efficient products and practices to help commercial and institutional facilities save water, energy, and operating costs. More information on the recommended actions below is available at http://www.epa.gov/watersense and in *Appendix B.6: WaterSense and Water Guidance*.

- Conduct a water assessment to identify major water uses within the property
- Find and fix leaks
- Insulate water heaters
- Purchase WaterSense certified products when replacing fixtures such as faucets, showerheads, toilets, and urinals
- Purchase an ENERGY STAR certified water heater when buying a new water heater
- Set water temperature only as hot as needed
- Optimize the amount of water used in heating and cooling systems
- Practice water-efficient landscaping.

2.5 Consider an Audit

After you and your team have gone through the Sure Energy Savers described in Section 2.4, an energy (and water) audit can help identify additional specific areas for improvement. An audit is basically a survey of your property's energy use and is typically conducted by a professional. It takes into account specific energy consuming items, rates of energy consumption, and energy costs. For more information on energy audits, including the types of audits available, how to decide when one may be needed, and information on managing the process, see *Appendix C: Energy Audits and Professional Assistance*.

There are different types of audits that can highlight energy use at your property in different levels of detail, from "walk through" to "investment grade". Depending on your business' expertise and the level of detail you would like to have done, your current staff or a member of your core energy team could perform an audit. In other cases, your business may need to hire a professional auditor. Usually professional audits make sense for larger properties with longer operating hours and more complex systems. For larger or more complex properties, an audit can identify ways to enhance the energy efficiency of current equipment, in addition to technically viable and cost effective investment projects that will reduce property energy use and operating costs.

Ask your utility and your state energy office if they offer free or low cost energy audits, financial incentives, or other technical support. See if there is an ENERGY STAR Service and Product Provider (SPP) in your area by visiting the ENERGY STAR SPP Directory at www.energystar.gov/sppmostactive. If your business belongs to a professional organization, contact them as well to see if they have a recommended list of auditors who have expertise with your property type. You may also have skilled or professional members of your business who can help with the audit, and may be willing to do it free of charge. Some things to consider when looking at an audit include:

- Sometimes the full cost of a professional investment grade audit will be free if you agree to implement the auditor's recommendations
- Another variation is called shared savings, in which there is no initial cost with the new equipment paid at a pre-agreed rate from monthly savings
- If affordable professional services are not available, you can still achieve big savings with free ENERGY STAR tools, training, and technical support.

2.6 Review - Assess Performance

Step 2 gave you the tools and ideas you need to assess your property's energy performance. You learned how to benchmark your property's energy and water consumption using the ENERGY STAR Portfolio Manager tool, and walk through your property to identify Sure Energy Savers. You can use the review list below to measure your progress towards completing Step 2.

1. **Gather and track data:** Use Portfolio Manager to baseline your business' energy and water consumption by entering a year's worth of utility data. Get started at www.energystar.gov/benchmark

2. **Analyze your data:** Accurately assess your property's current energy and water use, track it over time, and compare your energy consumption to that of like facilities with Portfolio Manager.

3. **Conduct a walk through survey:** Walk through your property to identify and implement Sure Energy Savers.

4. **Consider an audit:** Determine whether or not a professional audit would be beneficial, and if so, choose the type of audit you'd like and find funding to cover its expense.

Step 3. Set Goals

By this point you've created an energy team, become more familiar with your property's energy consumption, and established an energy benchmark using Portfolio Manager. Now it's time to evaluate your priorities and set goals. For a small business, performance goals are critical for understanding intended results, developing effective strategies, and reaping financial gains.

When setting goals, it is important to start by identifying the scope of the goal, especially to determine if it is organization-wide or specific to one aspect of the property. Your team should look at short and long term goals to see what work is most feasible at different time periods. Communicating and posting goals can also motivate the efforts of staff throughout your business.

Step 3 will walk you through:

- How to identify the scope of your energy program goals
- The steps of setting goals
- How to prioritize goals.

3.1 Determine the Scope of Your Goals

Determining the scope of your business' goals should take into account the size of your organization—as well as the various time periods necessary for the completion of each goal. For most small businesses, the goals will focus on a single property; you can even set goals for a section of the property if that provides a better fit. What is most important is that the goals you set match your needs.

Some helpful methods to determine the savings potential associated with a particular goal may include:

- **Benchmarking.** Benchmark the energy use of your property to provide a yard stick for evaluating opportunity when enough data is available to show trends in energy use—this can be of use for both short-term and longer-term goals. The Portfolio Manager tool includes sections specifically for planning and goal setting to help.
- **Evaluating past projects and best practices.** Evaluate your business' past projects and best practices over time to see what works for your property and organizational culture.
- **Reviewing technical assessments and audits (if applicable).** Identify the opportunities to reduce energy use identified during walkthroughs and audits of your property to serve as a basis for potential improvement.
- **Comparing goals of similar small businesses.** Review performance goals of other businesses. This can help to guide and inform you of the potential for your own business. If you have colleagues who are undertaking similar work, see if they will share their goals and any lessons learned from their own projects. Your utility may be able to provide you with case studies as well.

- **Ask your peers.** Reach out to your colleagues at the Chamber of Commerce, business franchisees, or at business and professional meetings to see if they have experience to share.

3.2 Set Goals

Once your energy team has set the scope of your goals and estimated the potential for improvement, you can put them into writing. Some examples of specific energy efficiency goals include:

- **Defined energy use reduction.** Goals are presented in terms of a specific quantity or percentage decrease in energy use, such as a 10 percent reduction as measured by Portfolio Manager.
- **Cost reduction.** A savings of a certain percentage on utility bills. Note that this goal is easier to measure on an annual basis due to changing energy use over the course of the year. Portfolio Manager uses weather-normalized data which ensures accurate reports.
- **Increased staff and customer awareness of energy efficiency.** This can be through educational campaigns within your business or marketing to your customers.

3.3 Prioritize Your Goals

Once your team has set its goals, you will need to prioritize them. You should include the managers and staff at your business throughout this process to evaluate how well the proposed project aligns with your business' priorities, and how far it moves the team toward accomplishing its goals. Prioritizing your energy efficiency goals can also help your team determine what may be feasibly accomplished in a specific time period—such as over the next year versus over the next five years.

Another important thing to consider when setting goals is cost. ENERGY STAR can help guide your financial decisions about energy efficiency, calculate the cost of delay, and meet your energy performance goals through the Cash Flow Opportunity (CFO) Calculator at www.energystar.gov/cashflow. ENERGY STAR also has online savings calculators for ENERGY STAR certified products at www.energystar.gov/purchasing.

3.4 Review - Set Goals

Step 3 walked you through the process of setting goals for your program prior to creating an action plan. These goals will be overall markers for achievement and by setting an action plan in the next step, you can choose specific projects to support these goals. You can use the review list below to measure your progress towards completing Step 3.

1. **Determine scope:** Your energy team can consider the scope of overall program goals you would like to set. It is important for your team to sit down with other decision makers and evaluate how well the goals align with your business' priorities.

2. **Set goals:** Work within your business to determine which goals will best meet its energy efficiency needs in the near term.

3. **Prioritize project goals:** Rank which goals are most important for initial implementation compared to potentially longer term goals.

4. **Think big:** Consider an "aspirational goal" such as being able to communicate a message to customers a year from now: *Doing our part for environmental protection through 25% energy reductions and emissions savings.*

Step 4. Create an Action Plan

Once your team has assessed the current energy use of your property by benchmarking in Portfolio Manager, walked through the building and implemented Sure Energy Savers, and has set longer term goals for improved efficiency, it is time to create an action plan to help you meet your program goals. This plan should outline selected projects and activities ready for implementation. Be sure to update your action plan regularly to highlight achievements, changes to the property, and/or shifting priorities and goals.

Include the different sectors of your business when creating this plan to take all perspectives into account. This will help with employee buy-in and most likely improve the implementation process if your staff has played a role in plan development. If you have a home-based business with no employees, focus on the technical and resource aspects of plan creation rather than the roles and responsibilities. Alternatively, projects at larger businesses may require a clear definition of roles and responsibilities across different business groups.

Step 4 defines the three key activities in creating an action plan:

- How to define projects
- What to consider when you determine roles and resources
- How to find funding for planned work

4.1 Define Projects and Timelines for Implementation

Based on the work accomplished in Steps 1 – 3, you should have a fairly clear picture of the energy use and requirements of your property. You know which systems or appliances are in good condition and which may need replacement soon. Choosing projects and defining the steps to accomplish them will help you put into writing what needs to be done. First, look at reports from Portfolio Manager or any audits and see how your energy baseline compares with the goals you have set for your property. Based on the gaps between your goals and your current situation, you can then identify what you need to do to meet your goals. This may be as easy as switching from incandescent light bulbs to LEDs, or a more complex project like replacing your heating system.

Once the steps for each project have been defined, you can now set timelines for project implementation. Creating concrete timelines (sometimes referred to as targets) allows you to have a clear idea of when you have accomplished a specific section of the action plan. The timelines should include specific milestones so it is clear when certain projects need to be complete. Establishing a tracking system to monitor the progress of your projects helps you meet your targets in a transparent manner.

4.2 Determine Roles and Responsibilities

For larger teams, you'll want to ensure that everyone is clear on what aspects of the action plan they should focus on and at what level. Depending on the size and structure of your business, your action plan may involve the Facility/Operations Manager, the Maintenance Department, Human Resources, IT, Purchasing, the Marketing/Communications Manager and/or the landlord, to ensure all sectors of your property and business are covered. For example, the Maintenance Department can provide information on the physical structure and appliances, while the Communications Manager can assist with a roll-out plan to inform your customers and staff of the work you are doing.

If you have a smaller business, your action plan implementation team may be just you and one other employee, or you alone. It is important to identify which steps of the action plan you implement internally and for which you will need external help—such as contractors, consultants, utility representative, etc.

4.3 Determine Resources and Find Funds

After you and your energy team determine which projects to undertake in the action plan and the order in which to implement them, you can estimate the cost for each item (both in terms of capital outlay as well as human resources), and then look at how best to fund those projects. This is a key component of any energy action plan. Knowing what funding is currently on hand, what could be raised quickly, and what could potentially be found elsewhere is important when deciding which projects are feasible and when to do them. It is a good practice to look at how funding availability fits into your business' overall property management plan.

If your team is focusing on smaller scale energy efficiency upgrades, you may be able to use funding from the general operations and maintenance budget, from funds already saved through efficiency, or from small fundraising projects. For projects that may require a larger investment, there are many traditional and nontraditional financial resources available. It is important for your team's financial representative to look closely at the best investments for your business over time. For more information on the different ways to finance upgrades, see *Appendix D: Project Financing*.

Winneshiek Energy District, Iowa: Providing Audits and Cost Sharing for Improvement in Energy Use

The Winneshiek Energy District in NE Iowa was formed to create a locally-led energy delivery system that helps and inspires people to make easy, cost-effective behavioral changes. The aim of the District is to reduce greenhouse gases, improve local economies, and create sustainable energy societies.

Founded in 2010, the Winneshiek Energy District provides in-depth audits to businesses and homes and then performs extensive follow-through and cost-share for making energy improvements. They also use ENERGY STAR tools such as Portfolio Manager to track energy use and publications to educate constituents.

4.4 Review - Create an Action Plan

Step 4 gave you information to help you complete the tasks below—use this list to measure your progress towards completing Step 4.

1. **Define technical steps and targets:** Based on your energy assessments, select projects to meet program goals and set targets for completion.
2. **Determine roles and responsibilities:** Once your targets are set, identify who is responsible for implementation for those projects.
3. **Determine if projects require funding and how best to secure it:** Cost-effective funding is key to a good return-on-investment. Savings from Sure Energy Savers may fund some projects, while others may require more significant capital investment.

Step 5. Implement the Action Plan

Having a regularly updated plan in place to manage your projects and track their progress will help your team stay organized. In your tracking system, you should record not only the human, financial, and physical resources committed to projects that are currently being implemented, but also routine maintenance activities for existing infrastructure. Keeping track of what's happening with both new and existing infrastructure and equipment will ensure that your business gets the most value out of the resources you have invested in your property.

The size and complexity of the energy efficiency projects your business undertakes will most likely be the main factor in deciding who will manage the project implementation. For something as simple as replacing HVAC filters or replacing incandescent lamps with LEDs, members of your team could complete the work. Depending on the skills of your team members, installing caulking and weather-stripping, ceiling fans, occupancy sensors for lights, LED exit signs, and programmable thermostats may be "do-it-yourself" projects not requiring outside help.

A more complex project, however, such as designing and replacing your property's entire lighting system, will most likely require the help of someone who has experience managing that type of project, such as an energy services company (ESCO) or a private energy contractor. In these cases, your team should keep a record of the contractor's progress, and periodically review how their progress compares to the tentative schedule in the contract. For more information on working with contractors, see *Appendix E*.

Step 5 will explain:

- How to create a communications plan
- Why you should raise awareness of your Action Plan
- How to effectively manage projects and keep them on time and on budget.

5.1 Create a Communication Plan

Although your team may be all set to move forward with project implementation, it is important to create awareness, educate, and motivate your staff regarding energy efficiency and the benefits of the proposed projects. This will help them understand the goals of each project and give them advance notice of possible changes to the property. The communications plan does not need to be complex—it could even be a one page plan—but should keep everyone in your business up to date on what the team has done, where projects currently stand, and what still needs to be accomplished. It is helpful to provide timelines and other visual highlights of project milestones, planned deliverables, and progress. ENERGY STAR has a Communications Toolkit at www.energystar.gov/communicate with many resources that can help you create and implement a communication plan. Ultimately you will have verified achievements to use for "green marketing" to your customers.

5.2 Raise Awareness of the Action Plan

The implementation of energy efficient practices and policies should involve individuals at all levels of your business. Effective programs make employees, managers, and other key stakeholders aware of energy performance goals, the projects undertaken to reach those goals, as well as roles in project implementation.

> ***The Lennox Hotel, Boston Mass; Achieving Significant Energy Reductions through Working with Staff***
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> *This ENERGY STAR labeled city center hotel is recognized as an industry leader with comprehensive environmental initiatives. To undertake this work, the hotel employs an Environmental Coordinator who is extensively educated on environmental issues and works with managers and employees to ensure that their daily business practices are as efficient as possible,*

Making people aware of how their everyday actions and activities at home and at work affect energy use and impact the environment is a key step to implementing your action plan. Increasing overall awareness can be an effective way to gain greater support for your business' energy program and its goals. Additionally, staff members or even managers at your business may have a limited understanding of energy performance and its impact on the organization and environment. Targeted efforts designed to increase awareness of program goals can help build support for each energy efficiency project. It is important to keep key stakeholders updated on progress by sharing Portfolio Manager reports as appropriate, providing general education on energy generation and use, and highlighting which equipment at your property uses the largest amount of energy. Staff members who are not directly involved with the costs of their business' energy performance may not be aware of how energy use affects the bottom line. Making managers aware of these impacts is a key way to build support for your program.

By investing time in ENERGY STAR free training and educational content, and promoting energy efficiency, you can better implement your action plan to increase your overall organizational capacity. Many businesses find that informed employees are more likely to contribute ideas, operate equipment properly, and follow procedures, helping to guarantee that capital investments in energy improvements will realize their potential.

5.3 Manage the Plan—Implement Energy Efficiency Projects

If you or other members of your business are implementing the projects to meet defined goals, your management of those tasks will consist of recording resources and deadlines, as opposed to micro-managing the project as a whole. Some projects may be grouped together to make them easier to accomplish, while others may be larger stand-alone work. To best manage the project(s), make sure you keep track of:

- **Who** is responsible for implementing each project
- **Where** (and in how many places) on your property the project upgrades should be implemented
- **What** your energy use benchmark was pre-project and how it has improved by using the ENERGY STAR Portfolio Manager tool to create a pre-upgrade baseline

- **What** financial resources are devoted to each project and how they are being spent
- **When** the project will be completed
- **How** to best motivate your staff to initially engage them and keep them involved throughout the project(s). This can be internal competitions, recognition, financial bonuses/prizes, or overall messaging on the financial and environmental benefits of this work.

Where you choose to store this information is up to you and your team; however, you should make sure that the project records are kept together to avoid fragmenting your knowledge of the progress made in your property's energy efficiency improvements.

As you continue to invest in energy efficient projects, the maintenance required at your business' property will also continue. All equipment—even new energy efficient equipment—will need regular maintenance to perform at peak levels and to achieve optimal equipment life. Managing your property's maintenance is an important part of making sure that the project upgrades continue to benefit the property. Keep consolidated and well organized records of the maintenance tasks for your property, the dates by which they must be performed, and verification that they were performed by those dates.

5.4 Review - Implement the Action Plan

In Step 5 you focused on implementing the action plan—both by selecting projects to meet energy efficiency goals and by communicating the work to your staff. Use the checklist below to measure your progress towards completing Step 5.

1. **Create a communication plan:** Use freely available ENERGY STAR information, tools, calculators, and materials to enhance your ability to "do it yourself" using onsite time and talents, and to help the staff understand when professional assistance is necessary.

2. **Raise awareness of the action plan:** Educate your staff on energy efficiency measures and practices for your property.

3. **Manage your action plan:** Establish a consistent method for tracking the progress of your projects and maintenance tasks.

Step 6. Evaluate Progress

After you have implemented projects, it is important to evaluate the progress of those individual projects through a formal review of both energy use data and the activities carried out as they compare to your performance goals. Monitoring progress can help your business look toward the future and create new action plans, evaluate which elements of your action plan worked and which didn't, and set new performance goals for your program. Custom reporting features in Portfolio Manager can help monitor progress of projects and goals, provide a clear picture of where your property is in relation to those goals, and set new performance goals.

Step 6 describes:

- How to track your progress
- Why and how to measure the results of your work
- When to review and modify your Action Plan.

6.1 Continue to Track Progress

It is good practice to continuously assess performance as your property implements energy efficiency projects. Update Portfolio Manager each month to track how your property's energy and water consumption has changed over time, how much money the business has saved and, correspondingly, how much GHG emissions have been reduced. Has your business met program goals? In addition, talk to your staff and customers about energy issues to see if they have noticed any changes in comfort, aesthetics, or usability experienced as a result of project upgrades and see what feedback and ideas they may have for future projects. This can also help highlight which projects provided the biggest impact not only on your bottom line, but also for employee and customer satisfaction.

6.2 Measure Results and Verify Savings

As you implement each project in your action plan, it is good practice to incorporate a means to measure and verify the energy savings that result. Once a project is complete, your team can do the measurement and verification, which includes a formal review of energy use data and the activities carried out to implement the project. Did projects help meet program goals? The results of this analysis will provide feedback on how new equipment is operating, the return on investment, and what new program goals can be set. The results may also highlight areas where further investment is warranted. Portfolio Manager is designed to make this type of analysis easy and effective.

How to Measure and Verify Savings

To measure how much energy your project has saved, you will need baseline energy consumption pre-upgrade, which you did when you first entered your data into Portfolio Manager in Step 2: Assess Performance. Portfolio Manager can run different savings data based on the project information entered, such as the amount of energy and water saved, reduced GHG emissions, dollars saved, and others. Your team can also generate a Statement of Energy Performance (SEP) report from the tool at any time. The SEP report communicates information about your property's energy performance that is concise and clear.

6.3 Review the Action Plan

After reviewing your results and overall performance data, it is wise to then look at what factors affected these results and the effectiveness of your action plan. Which projects were most successful both in terms of business operations as well as saving energy? Which ones were poorly received by staff and/or did not result in measurable savings? Some helpful steps in reviewing your action plan may include:

- **Getting feedback** from the energy team, staff, and customers
- **Gauging awareness** to assess changes in employee understanding of energy issues
- **Quantifying the side benefits** of your work including increased employee comfort, productivity improvement, impact on sales, and better public relations.

Taking the time to review the action plan and then taking steps to improve it can yield strong results for future initiatives at your property.

The Burlington Banking Center–a Comprehensive Approach to Efficiency, Burlington, Mass.

The Burlington Banking Center has been awarded the ENERGY STAR for nine years. They have followed a multi-pronged approach to optimizing building efficiency. When the old lighting system was causing employee complaints about glare and visual discomfort, the center installed new fixtures that both save energy and provide better lighting. This constant facility review and feedback combined with employee education, contests, and rewards, makes energy efficiency a key component of each employee's workday. The result has been a 19-percent reduction in energy usage over a 5-year period.

6.4 Review - Evaluate Progress

In Step 6 you reviewed the importance of project evaluation through tracking progress, measuring and verifying savings, and reviewing your action plan. It is important to understand the outcome of your team's labor to ensure that you are making the most of your investment. You can use the checklist below to measure your progress towards completing Step 6.

1. **Track progress:** Observe the benefits of your investments. Have discussions with your staff on how the improvements are affecting property comfort and usability in addition to the savings and emissions reductions.

2. **Measure and verify your savings:** Generate reports within Portfolio Manager and use the tool to assess the effect of the project on your property's energy consumption over time and to help you plan continuing improvement.

3. **Review your action plan:** Go through what worked and what didn't work so you can better plan your next project. Solicit feedback from staff and customers to get a fuller picture of the project.

After your energy team has completed these tasks, you may think you're finished with the process of improving your property's energy efficiency. Indeed, most of the hard work is done! All that is left to do is to receive appreciation and recognition for your team's efforts, and encourage others to practice energy efficiency with your story. Continue on to Step 7: Recognize Achievements, where you will learn how to share your business' story and gain official recognition for all of your team's hard work.

Step 7. Recognize Achievements

Providing and seeking recognition for your achievements sustains momentum and supports your energy program. Acknowledging the individuals who helped your business achieve results motivates employees and brings positive exposure to the energy management program. You and everyone who is part of your success can congratulate each other publically through reciprocal promotion. Recognition from outside sources validates the importance of your work to both internal and external stakeholders, and provides positive exposure for the organization as a whole.

Step 7 provides guidance on:

- How to recognize achievements internally
- How to solicit external recognition for your business.

7.1 Provide Internal Recognition

Recognizing the accomplishments of the energy team, as well as the employees in your organization, sustains momentum for your energy management program. Rewarding particular efforts defines what constitutes success and motivates your employees through increased job satisfaction. In order to provide recognition, first determine recognition levels, then establish recognition criteria, and determine recognition type.

Determine Recognition Levels

The decision about who should receive recognition in your organization will likely be shaped by the purpose for providing recognition and your organizational culture. Common recognition levels include:

- **Individual.** Acknowledge the contributions and accomplishments of specific people, such as your Energy Team Leader, or everyone who contributed to your success
- **Team.** Recognize the achievements of your Energy Team
- **Department.** If your business owns its own property, you can reward the performance of a department or an area of your business.

Shari's Café and Pies, Pacific NW: Highlighting Success through Recognition

Shari's Café and Pies is a restaurant chain in the Pacific NW that has a number of locations. To increase participation in their energy efficiency programs, they focus on both internal as well as external recognition. Internally, they distribute a bimonthly newsletter to managers and employees spotlighting locations that exceeded expectations on energy or water reduction–and employees can share success stories. Shari's has been recognized externally at both the local and national level for the energy- and water-efficiency programs implemented in their restaurants. They were awarded the Oregon Sustainability Award for 2013, were named the City of Richland's 2013 Green Business of the Year, and the Portland Business Journal honored Shari's with the BetterBricks Award–the first restaurant to win this title.

Establish Recognition Criteria

Create criteria for recognition and communicate these criteria and any process eligibility requirements. Recognition criteria might include thresholds of achievement such as: **1)** offered the best energy savings ideas; **2)** achieved the greatest energy use reduction; and **3)** increased savings by a certain amount.

Determine Recognition Type

There are a variety of ways to provide recognition and rewards. Forms of recognition can range from formal acknowledgements and certificates, to salary increases and cash bonuses, to simple forms of appreciation such as coffee mugs or energy program shirts. You may consider:

- Asking the owner or a senior manager to provide the recognition
- Using a formal means for providing recognition, such as an award ceremony
- Using progress evaluations to inform the recognition process.

7.2 Receive External Recognition

Good work deserves to be acknowledged. Recognition from a third party provides validation for your business' energy management program. Not only does it provide satisfaction to those involved in earning the recognition, but it can also enhance your business' public image. A solid reputation contributes to your competitive advantage by making your business more attractive to customers, current and potential employees, lenders, business partners, and other stakeholders.

> ***Super 8 Ukiah, Ukiah, Calif.: Recognition for all-around Waste Reduction***
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> *The Super 8 Ukiah, the only ENERGY STAR-certified hotel in Ukiah, focuses on efficient waste disposal and energy- and water-saving strategies at their property. They also use bio-degradable, recyclable, and organic products for as many tasks as possible. For this and other initiatives, they have received award recognition including the "Champion of Green" award from Wyndham Hotel Group, the "Award of Excellence" from Tripadvisor.com, the "Pride of Super 8 & Spirit of Super 8" from Super 8 Worldwide, Inc., and the "Business of the Year Award" from Chamber of Commerce, Inc.*

Communicate, communicate, communicate! Others cannot recognize what they don't know. Tell your success story through Facebook, YouTube, Twitter/Vine, and other social media. You can use the ENERGY STAR Resource on Planning a Communications Strategy and/or the ENERGY STAR Communications Toolkit which can be found at www.energystar.gov/communicate. The toolkit has a number of valuable resources to help your business share its work and results. Additionally, ENERGY STAR posts success stories on its website that showcase exceptional results and would be pleased to work with you to share your story. If you are interested in working on a success story to showcase your business' efforts, you can contact the ENERGY STAR Team at energystarsmallbiz@energyandsecurity.com.

Other ways to gain recognition for your business' energy management efforts can include:

Partnership Programs. Participate in established groups, such as government agencies, trade associations, or regional energy conservation groups to demonstrate commitment to achieve results. Join the ENERGY STAR Small Business Network at www.energystar.gov/joinbuildings.

Performance Standards. Meet widely recognized standards of performance, such as those established by ENERGY STAR, that reflect superior performance.

- **ENERGY STAR Certification for Existing Buildings.** Some facilities as highlighted in Step 2: Assess Performance, are eligible to receive the ENERGY STAR when the Portfolio Manager tool scores the energy use of the building at 75 or higher on EPA's 1 – 100 ENERGY STAR scale. The integrity

of the score is assured by the requirement that all data be verified by a licensed Professional Engineer or a Registered Architect. For more information, see www.energystar.gov/buildingcertification.

- **Designed to Earn the ENERGY STAR for New Construction.** Your business may have the opportunity to do-it-right the first time by insisting on new building design and construction that addresses the costs and benefits of energy and water efficiency in a business-like bottom-line approach. The incremental cost of optimal energy and water efficient design, materials, and systems for new construction is much smaller than having to retrofit poor design and cheaper equipment that costs more to operate in the long run. EPA works closely with the American Institute of Architects, and with its participation created online tools to help architects design for optimal energy performance and long-term cost savings. Based on this partnership, design projects that receive an EPA energy performance score of 75 or higher from the online Target Finder tool at www.energystar.gov/targetfinder are eligible for "Designed to Earn the ENERGY STAR" recognition.

Awards, Challenges, and Competitions. Participate in ENERGY STAR Competitions and Challenges to see how much energy and water your property can save—with opportunities to earn recognition from ENERGY STAR for your successes.

- **ENERGY STAR National Building Competition.** Energy managers at commercial buildings in every state compete to see who can save the most energy and water. Competitors will work off the waste through improvements in energy and water efficiency and can receive recognition for achieving specific reductions. More information is available at www.energystar.gov/battleofthebuildings.
- **ENERGY STAR Challenge for Industry**. This challenge is designed to help energy managers and industrial sites improve energy performance and set goals. Industrial sites participate by committing to the pre-established goal of reducing energy intensity by 10 percent within 5 years or less. To learn more about participating, see www.energystar.gov/industrychallenge.
- **ENERGY STAR Guide to Energy Efficiency Competitions.** If your business is interested in setting up or participating in a competition, see the ENERGY STAR Guide to Energy Efficiency Competitions at www.energystar.gov/competitionguide which can take you step-by-step through the process.

7.3 Review - Recognize Achievements

In Step 7, you looked at different ways to recognize key individuals and the team of people that created and executed your business' energy management program. You also learned various ways to share your business' story and solicit external recognition. Use the checklist below to measure your progress towards completing Step 7.

1. **Provide internal recognition:** Publically recognize those who made the energy program succeed.
2. **Tell your story:** Share your team's results with other businesses through traditional and social media, such as local newspapers, community "bulletin board" websites, Twitter, and Facebook.
3. **Contact ENERGY STAR about writing a success story featuring your business:** To receive a fill-in format, or to learn more, contact us at: energystarsmallbiz@energyandsecurity.com.
4. **Plan an energy efficiency competition in your workplace:** Enter a competition that supports a good cause and inspires excellence. Check out the *ENERGY STAR Guide to Energy Efficiency Competitions* guide at: www.energystar.gov/competitionguide. All buildings can participate in EPA's National Building Competition at www.energystar.gov/battleofthebuildings.
5. **Apply for ENERGY STAR certification:** More than 85% of American households recognize the ENERGY STAR. Your community will appreciate your business' contribution to environmental protection. Go to: http://www.energystar.gov/buildingcertification and learn more about eligibility.

Next Steps

Now that you're familiar with the ENERGY STAR Action Workbook, we invite you to explore or download the Workbook Appendices from www.energystar.gov/smallbiz and review the worksheets, checklists, and assessment tools for office equipment, lighting, heating/cooling, and other building systems. You will also find guidance on getting started with Portfolio Manager, energy audits, working with contractors, project financing, and additional online resources. Don't forget—you can find frequently asked questions or email your own questions anytime to ENERGY STAR tech support at www.energystar.gov/buildingshelp. Good luck and let us know about your success!