

Spotlight

A publication of Spotts, Stevens and McCoy



SPOTTS | STEVENS | MCCOY

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Our work touches everyday life.

From the water you drink to the air you breathe to the buildings and communities where you live, work and play.

Spotts, Stevens and McCoy is a family-owned regional engineering, environmental, and surveying firm serving local and global clients. We engineer solutions for a better world. Our work touches everyday life; from the water you drink, to the air you breathe, to the buildings and communities where you live, work and play.

EXPERTISE

- Building Engineering
- Site and Civil Engineering
- Survey, Data Capture and Modeling
- Water and Wastewater Engineering
- Construction Phase Services

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A Sustainable Budget

Wondering how to impact the bottom line while also engaging your community and stakeholders in making the world a better place? The answer: start including energy efficiency in your budget. The best time to start? Now.

Municipal governments as well as industries and corporations engage every year in strategic planning and writing budgets. Our recommendation is to make sure energy efficiency is a top priority on your budget for the next year.

Here's what you should budget for first: Energy Audits. This assessment on one or all of your buildings looks at the primary energy use systems like heating, air conditioning, lighting and ventilation. Additionally, the assessment explores the operational practices that can be modified at low or no cost to better manage energy consumption, not to mention save you money.

Whether it's small operational changes or larger capital expenses, a result of the audit is that you know where your best opportunities are now and in coming years. Some utility companies are even offering better than ever incentives. We want to help you take advantage of them. Just wondering, what could you do more of with 10%, or even 20% in your operating budget? Would it be worth the energy assessment if you could gain back costs you had to cut, or green light initiatives you have yet to be able to start? The answer is easy.

Budgeting for an energy assessment now also opens the door for clear and articulate strategic plans for years to come. Energy audits outline your greatest opportunities for future savings as well as the feasibility of your long-term goals.

Start with step one, budget for your initial energy assessment. Then, give us a call and we'll help you find your opportunities. [We're here to help.](#)

Practical Energy Solutions

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Practical Energy Solutions (PES) provides municipal energy consulting and design services. We support municipalities in developing and implementing energy initiatives.

CHESTER COUNTY | The County hired PES after receiving an EECBG grant from the Department of Energy in 2010. PES performed energy audits on 38 local municipal facilities, and presented those audits to the township/borough administrators.

DELAWARE COUNTY | Also receiving EECBG funding, the County hired PES to develop an energy and environmental plan for all County facilities, and a Municipal Energy Toolbox for municipal managers for technical support when managing their own facilities, and when developing longer term energy initiatives. While in that process, the County received a \$700,000 grant to distribute among up to 36 individual municipalities, and hired PES to develop a program, solicit participation, provide technical support to each municipality to select projects, and to review and approve grant requests.

CITY OF PHILADELPHIA | PES has been providing energy consulting and design services for the City Energy Office through the Mayor's Office of Sustainability since 2011. Projects have included energy audits, operational assessments, development of standard practices and master specification templates for building renovations such as HVAC, Controls, Lighting, and Building Envelope, community engagement at city libraries and rec centers, design of high efficiency HVAC and lighting systems, and support for policy initiatives through testimony to City Council.



ENERGY SAVING



Small Changes Mean Big Savings

According to the US EPA, energy efficiency has a positive impact on the environment from lowering green house gas emissions and pollutants to decreasing water usage. But saving energy is also great for decreasing costs associated with operations. There are many steps, big and small, your organization can take to become more energy efficient.

1. **Use less energy.** Did you know that your operations may use less energy if you stagger the way you turn on your lights and equipment? When is the last time you calibrated your systems so that the schedule of energy use is aligned to the actual use of the building? If you don't know where the biggest energy expenditures happen in your facilities, an energy assessment is a simple first step to answer that question.
2. **Invest in smart energy technologies (thermostats, lights, plugs).** Utilize auto-adjusting temperature settings to lower the thermostat when there are no people in the building and automate lights when rooms are not occupied.
3. **Explore rebate programs.** Utilities often offer incentives or rebate programs related to improved energy efficiency. In some cases, you might even be paying fees that allow those rebates to happen. Make sure you're getting your use out of these opportunities! The programs reward reductions per kilowatt hour usage.
 - PECO Trade Ally
 - PJM Interconnection Programming
4. **Consider ways to secure energy prices.** Solar power is often a cost-effective decision as it drastically decreases your electric bills, even if your solar system doesn't produce 100% of your consumed energy. Plus, it can help prevent paying for rising energy costs. Switching to solar is also beneficial to the environment and your local utility companies. Your switch can offer less stress on utilities' infrastructure and contribute to less carbon emissions produced by the generation of electricity via power plants. (Plus: they usually reward you for it!)
5. **Leverage financing and incentive opportunities.** At SSM, we have a team of staff members that are familiar with incentives available on the state and federal level as well as grant and low-interest financing opportunities. We can provide services to you that help you complete the required documentation and coordination to receive these incentives.
 - Solar Array Funding
 - Low-Interest Financing
 - Grant Programs
 - Guaranteed Energy Savings Agreement
 - Commercial Property Assessed Clean Energy (C-PACE)

We pride ourselves on supporting investments in all sides of the energy market, including both where energy comes from and how it's used in the buildings.

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CASE STUDY

County Government Gets a Triple Win with 3 Practical, Actionable Energy Projects

When a County government with more than half a million residents and 49 geographically diverse municipalities received a \$3.7-million federal Energy Efficiency + Conservation Block Grant, they turned to multiple contractors for renewable energy installations, transit programs, and other support.

Master Facilities Plan

Provided a master energy plan for 2 of the county's 3 primary campus operations. The plan included in-depth demonstration projects that focused on HVAC re-tuning, refining of BAS-controlled lighting schedules, justifying central plant HVAC deferred maintenance projects, maximizing fleet management efficiency, reducing laundry facility energy use, and conducting an employee Energy Conservation + Awareness Program. These projects alone will produce energy savings of up to 20% (\$480,000), even though the County recently participated in a large scale capital ESCO project, and sets the County on a cost-effective and energy-efficient trajectory for the years ahead.

Energy Efficiency Grant Program

Created, implemented and managed a \$700,000 municipal energy efficiency grant program that produced annual energy savings >\$150,000 in 33 small municipalities. Nearly two-thirds of the projects were interior/exterior lighting upgrades with average paybacks of 2 years without grant funds. Annual CO2 savings total over 1.5 million pounds. The program illustrated the multiple benefits of energy efficiency projects for municipalities with budgetary constraints. Services included municipal energy consultations, grant program creation/management, contractor support, and federal Davis-Bacon/Buy American enforcement.

Multiple Energy Management Toolbox

Created a practical, actionable Municipal Energy Management Toolbox containing targeted and proven actions that small local municipal governments can take to reduce energy use and create more sustainable communities. The Toolbox contains a menu of 50 building, transportation, infrastructure, water treatment/processing, and renewable energy initiatives tailored to this County, with clear guidance for implementation — including case studies, sample policies, model programs from other local governments across the country, and code reviews/recommendations.

SERVICES PROVIDED:

- Master Facilities / Fleet Energy Plan
- M + V / Energy Tracking
- HVAC / BAS Re-tuning
- Municipal Energy Efficiency Grant Program Creation/ Management
- Municipal Energy Management Toolbox

RESULTS:

This client was provided with a strong foundation of energy efficiency and conservation — a critical, cost-effective, and often overlooked aspect of any smart energy vision.



Winter is Coming

As the weather starts to cool, fall is the right season to start your energy-saving preparations for winter.

1. Switch the direction of your ceiling fan to clockwise to better distribute warm air.
2. Let the sun shine in. Trim the branches that might be blocking your windows in order to take advantage of the natural warmth the sun provides.
3. Use insulating shades at night to keep the warmth inside.
4. Check for drafts around windows and doors. Check weather stripping and replace or caulk inside and out, where necessary. All of these help to keep heat from escaping.
5. Make the switch to LED bulbs. These bulbs require much less energy- 75% less- to create the same amount of brightness as traditional incandescent bulbs; and they last longer.



Opportunities at SSM - join the team!

Visit ssmgroup.com for more information about these opportunities:

Survey Technician to operate all field surveying instruments including robotic survey instruments, GPS surveying instruments, and auto-levels.

Site/Civil Engineering Designer with responsibilities for preparation of base plans; design and layout of site improvements including roadway geometry, grading, utilities, construction details, profiles, and E&S plans.

Senior Water/Wastewater Design Engineer with eight or more years of water/wastewater experience to support our work on projects such as municipal treatment facilities, distribution systems, collection systems, sanitary and storm sewers.

Mechanical Engineer with at least seven years of experience in the design of HVAC, process piping and plumbing systems in industrial, commercial, and R&D type facilities.

Systems Administrator with 8 - 10 years' experience in an IT role, and a minimum of 5 years systems administration experience to join our Information Technology department.



Staff News

Carolyn Rodino | Manager, Water Resources

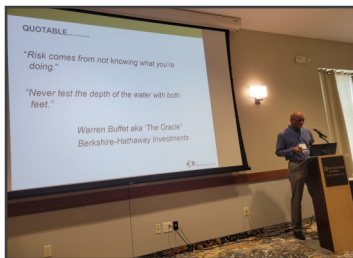
Carolyn Rodino has been promoted to the role of Manager, Water Resources. In this role she will be responsible for daily operations of the department and execution of the department's strategic assignments. Her experience includes watershed and regulatory assistance to drinking water systems, and assistance with development of source water protection plans for water systems across Pennsylvania. As an advocate of clean drinking water, Lyn participates on the Planning Committee for the Schuylkill Action Network and serves on the Education and Source Water Protection Committees for the Berks County Water & Sewer Association. She is a graduate of The Pennsylvania State University, College of Human Development/Business and has completed the American Water Works Association, Utility Risk and Resiliency Certificate Program.



Catherine Bell | Retired, Vice President of Facility Engineering

Congratulations to Kitty Bell on her retirement! Kitty has shared with SSM many years of leadership, determination, and tenacity. She has served our communities and clients with the values SSM prides itself on: Pride, Quality, Teamwork, and Integrity. We are very grateful for the many years of dedication she gave to SSM.

Where we were this month



Annual Conference

Water Works Operators Association of PA

We were thrilled to join the WWOAP conference in Boalsburg, PA for the theme "Expect the Unexpected"- being prepared for any type of situation that might arise within a public water supply system.

Darryl Jenkins, PE, Vice President Environmental Services and Chief Engineer presented *Manual Plant/Well Operations* and Serena DiMagno, Senior Environmental Consultant provided a *Legislative Update*.

Where we'll be



Lancaster County Association of Township Supervisors Annual Convention



Berks Nature State of the Environment Breakfast



Eastern PA Water Pollution Control Operators Association Meeting & Plant Tour at the Berks-Montgomery Municipal Authority