



Greater Cincinnati
**Energy
Alliance**

Road to Energy Efficient Buildings & Sustainably Engaged Employees

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About Us



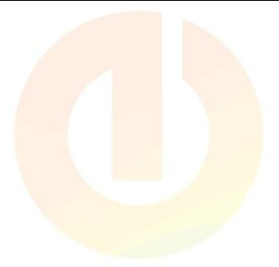
- Non-profit 501c3 organization
- Energy Efficiency/Renewable Energy Services
 - Education/Outreach
 - Project Management
 - Financing
- Market Focus
 - Residential
 - Non-profit Commercial



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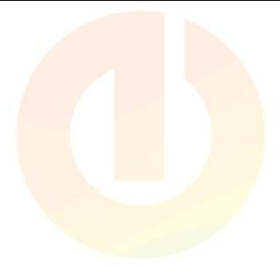


The Starting Point



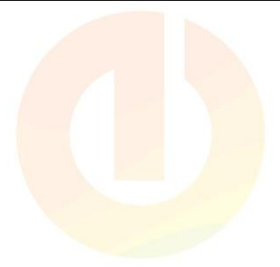
- Available Resources
 - Capital
 - Staff
 - Time
- Gather Current & Past Bills
 - Fuel
 - Electricity
 - Waste
 - Water
- Evaluate Employee Engagement
- Develop “Green” Team or Sustainability Team
- Professional Evaluation of Your Buildings Energy Use

Questions to Ask



- What have you been spending on fuel & electricity for past 2-3 years? Create spreadsheet and track.
- Is your facilities department maintaining or planning for upgrading efficiency of the building(s), HVAC systems, and lighting upgrades?
- What are your employees doing to help conserve?
- Do you have a “Green” Team or a Sustainability Team? Who can spearhead a sustainability plan?

The Building Envelope



- Hire Professional Auditors to evaluate building envelope and systems.
- Focus on HVAC, lighting, controls, energy use patterns, and other saving opportunities.
- Take advantage of available incentives and savings.



Improvement: Upgrade to new high-efficiency, lower maintenance boilers.

Results: In the 3 months, St. Antoninus experienced \$8,146 in energy savings

Tap the Power of your People

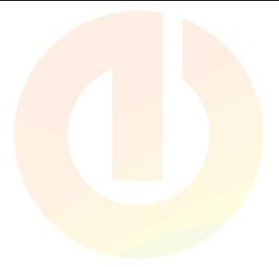


Establish “Green Team” or Sustainability Team with responsibility to reduce:

- ✓ Electricity
- ✓ Building Heating & Cooling
- ✓ Waste
- ✓ Water
- ✓ Office Supplies



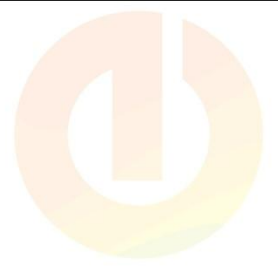
Solicit Employee Ideas



- This roadmap is a starting point or a guideline.
- Your employees will give you the best ideas for their engagement and opportunities for savings.
- Creative examples:
 - Recycling printer cartridges at work and for employees
 - Composting lunch scraps
 - Offer land for community garden instead of expensive landscaping
 - Implement car pooling or public transportation incentive

Best Practices

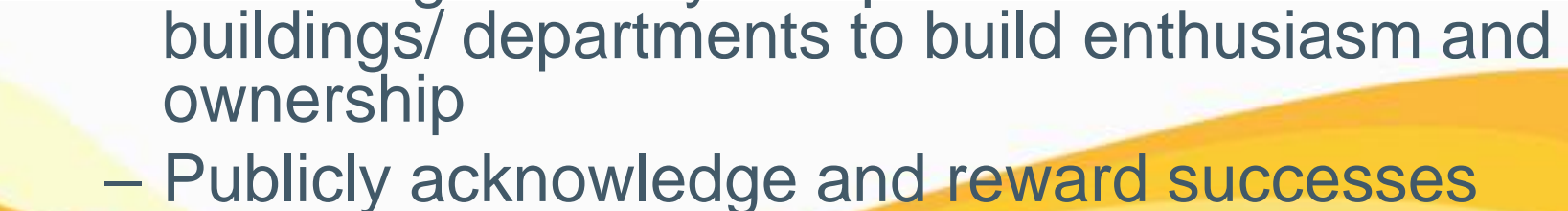
Create the “Green” Team



- Draw cross-functional team to be involved
 - Team should include those with responsibility related to building management; for example, Facilities and Purchasing departments
 - Allow employees with passion for sustainability to participate as well
- Designate leader who has the *authority* to make decisions and *budget* to implement plan
- Key: Executive team must publicly and vocally support “Green” Team’s efforts

Create Your Sustainability Plan



- Have team create a Sustainability Strategy
 - Make sure plan begins with obtaining benchmark data (current usage and spending)
 - Set achievable goals
 - Start with easy low hanging fruit (replacing bulbs and lighting fixtures)
 - Give employees leeway to implement plan
 - Encourage friendly competition between buildings/ departments to build enthusiasm and ownership
 - Publicly acknowledge and reward successes
- 

Components of the Plan



- Think about Behaviors, Efficiency, and Technology (BET) Practices
- Electricity: Excellent starting point for bang for the buck.
 - Behaviors:
 - Shut off lights in conference rooms, desk areas, and after hours
 - Eliminate Energy Vampires in the office with workstations, printers, monitors, speakers, cell phone chargers, coffee makers, CD players

Electricity Component



- Electricity: Efficiency & Technology
 - Upgrade all lights to CFLs or LEDs. 70% more efficient and will gain dramatic savings.
 - Use Advanced Power Strips to eliminate energy vampire workstations.
 - Reduce number of individual electronics per work station/areas (microwaves, coffeemakers, heaters, etc.) Educate staff on impact many of these items have on electric bill.
 - Identify which electronics should be OFF during non-working hours. Turning electronics fully off, vs. in “sleep” mode, will add up to large savings over time.
 - Use timers or light sensors to automatically shut down devices during non-working hours (vending machines, water coolers, shared printers, coffeemakers, etc.)

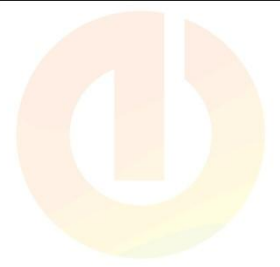
Building HVAC Component



- Schedule Professional Audit of building and systems
- Think about low tech solutions:
 - Temperature set backs at night
 - Reduce temperature in office in winter (dress in heavier layers)
 - Insulated window shades to block heat on summer days, cold on winter nights
 - Ceiling fans to make air feel warmer in winter, cooler in summer



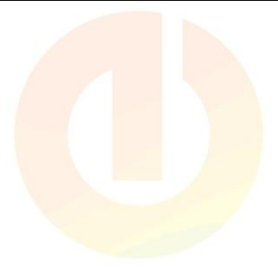
Waste Component



- Benchmark waste by taking inventory of how much paper, cans, compostable and recyclable materials are thrown out monthly
- Consider single stream waste management if possible and donate used furniture and materials
- Develop plan for recycling more and reducing waste
- Low hanging fruit:
 - Set all printers to default to double-sided printing
 - Encourage electronic distribution of documents vs. hardcopies for meetings and reviews
 - Give employees coffee mugs and water bottles to use instead of disposables



Water Component



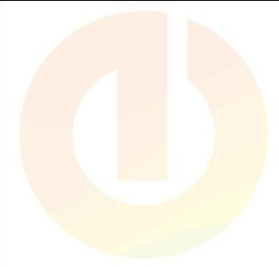
- Decrease water consumption by planning to retrofit fixtures & toilets
- Eliminate or decrease watering of landscape
- Conduct water audits to identify leaks and overuse
- Reduce temperature of hot water for rest rooms and kitchens
- Install water filtration systems in kitchens ~ eliminate bottled water delivered to office

Office Supplies



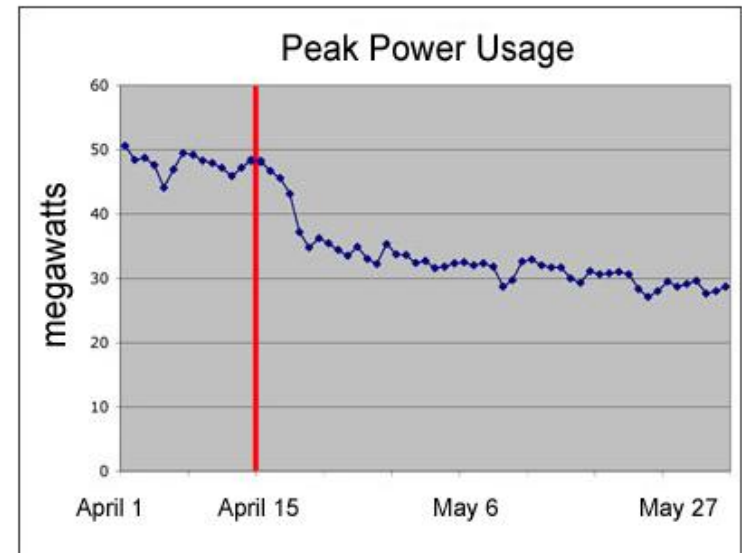
- Examine current cleaning products for hazardous materials and look into healthier alternatives.
- Inventory “disposable” office supplies and consider purchasing replacements made out of recycled materials.
 - Encourage mugs, plates, and silverware in lieu of paper, plastic, or Styrofoam products
 - Purchase toilet paper and paper towels from sustainably harvested or recycled sources.

Measures of Success

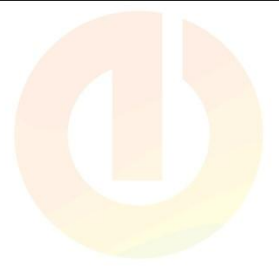


Reviews, Measures and Verification

- Include measures of verification of progress in plan. (Reduction in usage, \$\$)
- Must have Senior Management approval of strategy, implementation plan, and schedule
- Review the Strategy and Implementation Plan regularly and share status with the team

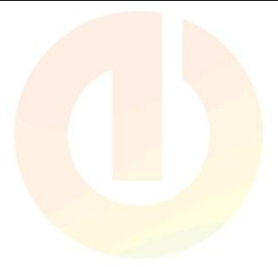


Summary



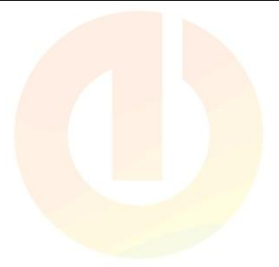
- Think about all aspects of your business and how you can reduce resources.
- Engage employees ~ allow time in their schedules for this work.
- Keep sustainability goals and status visible for entire organization.
- Start small, gain momentum with early wins ~ allow savings from those successes to fund larger capital projects.

Summary



- For assistance, direction, rebates, and planning, work with:
 - Energy Alliance, Steve Pohlman
Spohlman@greatercea.org
 - Sign your organization up at the website: www.greatercea.org
- Celebrate your Achievements!

Thank You



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