

El Paso's GBC Scorecard Helpful Resources:

The Green Team

Question 1-4: Regarding a "Green Team"

- El Paso's Green Business Challenge Resource Guide: <http://elpasogbc.org/GBCResourceGuide.pdf>
- Green Teams: Engaging Employees in Sustainability: <http://www.greenbiz.com/sites/default/files/GreenBizReports-GreenTeams-final.pdf>
- Corporate Green Teams: Sustainable Business from the Bottom Up: <http://www.greenbiz.com/news/2008/06/07/corporate-green-teams-sustainable-business-bottom?page=0%2C2>
- How to Build a Green Team: The First Step to Sustainability: <http://www.greenbiz.com/news/2009/05/05/how-build-green-team-first-step-sustainability>

Leadership and Policy:

Question 5:

Question 6:

Question 7:

Question 8:

- "How to start and office recycling program": <http://www.inc.com/guides/2010/04/start-office-recycling-program.html>
- Easy paper calculator : <http://calculatas.com/paperweight/standard/>

Question 9:

- Business Guide to Paper Reduction: <http://www.nrdc.org/cities/living/paper/toolkit.asp>
- Use the paper calculator : <http://calculatas.com/paperweight/standard/>

Questions 10 – 11:

- Learn about buying recycled paper at Conservatree: <http://conservatree.org/public/pocketguide.pdf>
- Use the paper calculator <http://calculatas.com/paperweight/standard/>
- Consult EPA's Comprehensive Procurement Guidelines (CPG) and Recovered Materials Advisory Notices (RMANS), which recommend recycled-content levels for paper and paperboard for government procurement, in addition to many other recyclables: <http://www.epa.gov/osw/conserve/tools/cpg/index.htm>

Question 12: Regarding Anti-idling policy for company vehicles

- Idle Reduction Policy: http://www.afdc.energy.gov/conserve/idle_reduction_basics.html
- How Much Could You Save by Idling Your Light-Duty Vehicle Less? http://www.transportation.anl.gov/pdfs/idling_worksheet_light-duty.pdf
- Summary of tips: Prepare a Simple and Widely Deployable Approach:

Examples;

1. Watch the road, obey the law and drive safely (contributing to an accident will NOT save fuel).
2. Avoid speeds below ~20 mph and above ~60 mph (mpg progressively worsens in these regions).
3. Hold speed at a steady value in the 25-55 mph range (e.g., keep centered on or between the color bars).
4. Slow down by letting off on the gas rather than by using the brake, and do so early to minimize time at very low speeds.
5. Above 10 mph, accelerate slowly (so that at least 2–3 sec passes for every 10 mph increase in speed).
6. Turn off engine when parked (do not idle).

Baselines and Audits

Question 14:

- Get started with the benchmarking starter kit: http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/get-started-benchmarking?c=evaluate_performance.bus_portfoliomanager_benchmarking

Question 15:

Question 16:

- Energy Star Portfolio Manager: <http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>
- [Look for others too](#)
- <https://www.wegowise.com/home>
- <http://bge.apogee.net/comsuite/bizframe.aspx?url=/comcalc>

- Great Resource!!
http://www.energystar.gov/buildings/sites/default/uploads/tools/Guidelines%20for%20Energy%20Management%206_2013.pdf?95ec-43f9

Question(s) 17, 18, 19, 20

Water Saving Tips: Commercial, Industrial, and Institutional Water provided by *allianceforwaterquaility.org*¹

General Operations:

Conduct a facility audit to quantify water use.

- Understanding water use will indentify savings opportunities, allow appropriate savings targets to be established, and serve as a benchmark from which water savings can be tracked.
- This should be the **first step in a water efficiency program**. It may be cost-beneficial to hire a professional with expertise in industrial water use efficiency to carry out an on-site survey.
- Compare water use to industry benchmarks if available.
 - Water use benchmarks provide an estimation of the average water use for specific industrial sectors and can be used as a tool to evaluate current consumption patterns among peers.
 - For more information: See Appendix F of the Pacific Institute's report *Waste Not, Want Not: The Potential for Urban Water Conservation in California*, as it provides information on benchmarks in California.
- Learn from water saving success stories of industry peers.
 - Case studies from industry peers will provide insight into what works, what doesn't, and what efficiency solutions are most cost-effective. These details can often be found in sustainability reports or annual reports.
- Investigate the feasibility of the following general options in your operations.
 - Reduce the flow of water.
 - Modify the equipment or installing water saving devices.
 - Replace existing equipment with more water efficient equipment.
 - Water treatment, recycling, and reuse.
 - Change to a waterless process.
- Educate employees about the importance of using less water.

¹ Alliance for Water Quality: www.allianceforwaterquaility.org

- Creating a workplace culture that focuses and takes pride in efficiency can be a very beneficial component of a water conservation plan. Increased awareness will ensure more staff members are monitoring water use.
- Things that can be done include:
 - Give recognition to those who initiate water-efficiency procedures and processes.
 - Make resource conservation part of performance reviews, especially for line manager.
- Use non-potable water for industrial process use.
 - Potable water is often not required for many industrial uses and can be substituted with non-potable or reused water. Sources include but are not limited to air conditioner condensate, cooling tower blow down, and rainwater.
 - For more information and resources: See AWE Blow-down Water Introduction Page and AWE Condensate Water Introduction Page

Cooling:

- Improve cooling tower efficiency.
 - Cooling towers often represent the largest percentage of water consumption in industrial operations. Some ways to improve the efficiency of cooling towers and reduce water use include:
 - Eliminate once-through cooling.
 - Install a conductivity controller on each cooling tower.
 - Equip cooling towers with overflow alarms.
 - Use high-efficiency drift eliminators.
 - Install submeters to monitor make-up and bleed on each cooling tower.
 - Properly train and educate cooling tower operators.
 - For more information and resources: See AWE Introduction to Cooling Towers Page
- Replace water-cooled equipment with air-cooled equipment when feasible.
 - Water use is often a hidden component of industrial and commercial equipment as it is used for cooling purposes. Often this equipment is available with technology that uses air for cooling. The pros and cons of each should be determined before switching. A couple of factors to consider are energy efficiency and performance.
 - Equipment that falls into this category include:
 - Air compressors
 - Vacuum pumps
 - Ice machines
 - Refrigeration condensers
 - Hydraulic equipment
 - X-ray processing equipment
 - To review a list of products, visit the Air-Conditioning, Heating, and Refrigeration Institute *Directory of Certified Product Performance*

Steam:

- Retrofit steam sterilizers.
 - Steam sterilizers are utilized by hospitals, research institutions, and pharmaceutical manufacturing. Steps can be taken to reduce the water used by these devices:
 - Jacket and chamber condensate cooling modification
 - Ejector water modification
 - For more information and resources: See AWE Steam Sterilizers and Autoclaves Introduction Page

Cleaning:

- Make sure all hoses are equipped with an automatic shut-off nozzle.
 - Hoses that don't have an automatic shut-off nozzle and are left running can waste 8-12 gallons per minute.
- Dry sweep or use a water broom when possible, instead of using a hose to clean floors, sidewalks, or other hard surfaces.
 - Water brooms should be used only when traditional brooms are not able to clean the surface in a satisfactory manner. Additionally, water brooms are superior to hose and spray nozzles in both water efficiency and cleaning effectiveness.
 - For more information and resources: See AWE Water Brooms Introduction Page

Restrooms, Showers:

- Install water efficient fixtures in restrooms and showering areas.
 - Commercial and industrial facilities often have domestic water uses such as toilet flushing, sinks for hand washing, and showering facilities. These represent great opportunities for water savings.
 - Examples of fixtures that can be retrofitted include:
 - High-efficiency toilets - *See AWE Toilet Introduction Page*
 - High-efficiency urinals - *See AWE Urinal Introduction Page*
 - Faucet aerators in sinks used for hand washing - *See AWE Faucet Fixtures Introduction Page*
 - Efficient showerheads - *See AWE Bath and Shower Introduction Page*

Kitchens:

- Utilize efficient technology in kitchen areas.
 - Kitchen facilities are a likely candidate for reducing water use in any facility. The following items can be retrofitted:
 - Rinse dishes with an efficient pre-rinse spray valve.
 - Use a dishwasher that meeting Energy Star standards.
 - If a wok is used, retrofit it with a waterless wok.

- Install in-line flow restrictors for dipper wells.
Also look for new water-efficient dipper well technology.
 - Replace boiler-based food steamers with boilerless technology.
 - Use a strainer instead of a garbage disposal.
- For more information and resources: See AWE Commercial Food Service Introduction Page

Laundry:

- Manage on-site laundry facilities efficiently.
 - Many industrial and commercial facilities consume a considerable amount of water for laundering.
 - For residential-style washing machines, select a low water factor. As of January 2011, top and front loading Energy Star clothes washers must have a water factor of 6.0 or less. The federal standard is 9.5.
 - Set multi-load machines to run efficiently with separate settings for each cycle.
 - Assess the feasibility of installing a tunnel washer if large volumes of laundry are being processed.
 - Evaluate costs and benefits for using laundry systems that recycle water or use ozone technology.
 - For more information and resources: See AWE Commercial Laundry Facilities Introduction Page

Landscape:

- Landscape with water-wise landscaping principles.
 - Many commercial and industrial facilities have landscapes that require irrigation. Taking action to make this efficient can save a lot of water:
 - Use native plants or other plants that require little water to thrive in your region.
 - Plant turf grass only in areas where people will use it actively for recreation.
 - Organize your landscape into hydrozones. Hydrozones are areas of landscape with plants and vegetation that have similar water requirements. This prevents overwatering of some plants and avoids under-watering of others.
 - Keep soil healthy and add mulch to prevent water loss through evaporation.
 - If watering with a hose, make sure it has a shut-off nozzle.
 - Water landscapes in the morning to prevent water loss due to evaporation. Avoid watering when it is windy.
 - Use a rain barrel to collect water for use in the landscape.
- If an irrigation system is used, make sure it is properly set up and maintained.
- Irrigate hydrozones based upon the plants' water needs.
- Install weather-based SMART irrigation controllers.

- Regularly inspect the sprinkler heads to make sure they are not damaged or malfunctioning in any way.
- Adjust sprinklers so they are not spraying water on paved surfaces.
- Install and maintain rain sensors, either wireless or wired, on the irrigation controller if it does not have a built-in one.
- Have an irrigation professional design, install and maintain the irrigation system.
- Specify in professional services contracts and check regularly that landscaping maintenance employees/contractors follow landscape industry best management practices.
- For more information and resources: See AWE Landscape, Irrigation, and Outdoor Water Use Page

Additional Links:

- **Alliance for Water Efficiency**
 - **GE Water (2007) Solutions for Sustainable Water Savings - A Guide to Water Efficiency**
 - **New Mexico (1999) A Water Efficiency Guide for CII Users**
 - **North Carolina (2009) Water Efficiency Manual for CII Facilities**
 - **WaterSmart Guidebook for Businesses**
- **Air-Conditioning, Heating, and Refrigeration Institute**
- **Food Service Technology Center**
- **Pacific Institute**
- Conducting a waste stream audit:
<http://www.dep.state.pa.us/dep/deputate/airwaste/wm/recycle/facts/ComRec.htm>
- This Excel-based tool provided by the EPA website can be used by small- to medium-sized systems to conduct a utility bill and equipment analysis to assess individual baseline energy use and costs.
 - [Energy Use Tool Assesment Overview \(PDF\)](#)
 - [Energy Use Assessment Tool \(XLS\)](#)
(4.1MB - Right Click/Save As)
 - [Energy Use Assessment Tool with example Data \(XLS\)](#)
(4.25MB - Right Click/Save As)
 - [Energy Use Assessment Tool User's Guide \(PDF\)](#)
(67 pp, 1.5MB)
- If you're seeking assistance with any aspect of the audit process, contact the EPA:
<http://www.epa.gov/region09/waterinfrastructure/contact.html>

- System Water Audit Information: <http://water.epa.gov/type/drink/pws/smallsystems/upload/epa816f13002.pdf>
- Home Water Audit Checklist: <http://texaswater.tamu.edu/conservation/home-water-audit>

Question 21:

- Guidance On Conducting Employee Commute Options Survey: <http://www.deq.state.or.us/nwr/eco/guidance.htm>

Question 22:

- An easy way for your business to calculate its carbon footprint: <http://coolclimate.berkeley.edu/business-calculator>

Education and Community Outreach

Question 23:

- Examples of businesses promoting green topics for employees through newsletters, email, posters or other media outlets:

Cisco: http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps10195/white_paper_c11-509113.html

AMEC: http://www.amec.com/aboutus/sustainability/performance_and_engagement.htm

AT&T: <http://www.att.com/gen/landing-pages?pid=7735>

UPS: <http://thenewlogistics.ups.com/sustainable-business/>

Question 24:

- EPA blog "Turn Off The Lights!": <http://blog.epa.gov/blog/2011/02/turn-off-the-lights/>
- Energy Conservation Plans: <http://energy.gov/management/downloads/energy-conservation-plans>

Question 25: Examples of institutional janitorial sustainable policies

- Boston University: <http://www.bu.edu/facilities/who-we-are/operations-services/custodial-operations/>

- Southern Methodist University: <http://www.smu.edu/BusinessFinance/CampusServices/FacilityServices/Services/sustainability>

Question 26:

- American Petroleum Institute: <http://www.api.org/environment-health-and-safety/environmental-performance/public-private-partnerships/community-partnerships/community-clean>
- AT&T: [http://www.att.com/Common/about us/files/csr 2012/engaging employees in their communities.pdf](http://www.att.com/Common/about%20us/files/csr%202012/engaging%20employees%20in%20their%20communities.pdf)

Question 28: Examples

- City of El Paso, TX: [http://www.elpasotexas.gov/sustainability/ documents/2012%20Report%20Final%20-%2005-13-2013.pdf#view=fitH](http://www.elpasotexas.gov/sustainability/documents/2012%20Report%20Final%20-%2005-13-2013.pdf#view=fitH)
- Johnson Controls: http://www.johnsoncontrols.com/content/us/en/sustainability/reporting/business_sustainability.html
- AMEC: <http://www.amec.com/investors/ar2012/performance/sustainability-ar2012.htm>
- DuPont: <http://www.dupont.com/corporate-functions/our-approach/sustainability/performance-reporting/sustainability-reports.html>
- Walmart: <http://corporate.walmart.com/global-responsibility/environment-sustainability/global-responsibility-report>

Question 30:

- Green Apple Day of Service: <http://mygreenapple.org/>

Retrofits and Reductions:

Question 31:

- Energy Accounting: Track Your Utility Bills and Reduce Energy Costs <http://www.energy-accounting.com/>

- [Energy Star Guidelines for Energy Management:](http://www.energystar.gov/buildings/sites/default/uploads/tools/Guidelines%20for%20Energy%20Management%206_2013.pdf?95ec-43f9)
http://www.energystar.gov/buildings/sites/default/uploads/tools/Guidelines%20for%20Energy%20Management%206_2013.pdf?95ec-43f9

Question 32:

- Determining Energy Usage: http://water.epa.gov/infrastructure/sustain/energy_use.cfm
- Determine Baseline Energy Consumption:
http://www.nrel.gov/tech_deployment/climate_neutral/determine_baseline.html

Question 33 - 36:

- Office Building Water Efficiency:
http://www.allianceforwaterefficiency.org/office_buildings.aspx
- Water Faucets: http://www.allianceforwaterefficiency.org/Faucet_Fixtures_Introduction.aspx
- Water efficient toilets: http://www.allianceforwaterefficiency.org/toilet_fixtures.aspx
- Reduce Hot water use: <http://energy.gov/energysaver/articles/reduce-hot-water-use-energy-savings>
- Reduce hot water heating: <http://energy.gov/energysaver/articles/tips-water-heating>

Question 37:

- <http://energy.gov/energysaver/articles/lighting-controls>

Question 38:

- <http://www.ct.gov/deep/cwp/view.asp?A=2714&Q=324898>

Question 40 – 45:

- Small Business Association: <http://www.nfib.com/business-resources/business-resources-item?cmsid=51591>
- Green Office resource center: <http://www.green.harvard.edu/green-office>
- El Paso GBC Brochure: <http://www.elpasogbc.org/GBCResourceGuide.pdf>

Question 46:

- El Paso's own Green Business Challenge Resource Guide:
<http://www.elpasogbc.org/GBCResourceGuide.pdf>

- Profiles of Employer Sponsored Transportation Programs:
<http://www.ctaa.org/webmodules/webarticles/articlefiles/ProfilesofEmployer-SupportedTransportationPrograms.pdf>
- EPA:
http://www.epa.gov/otaq/stateresources/policy/transp/tcms/emplyer_transmgt_prog.pdf

Question 48:

- Employer's bike to work guide:
[http://www.mwcog.org/commuter2/employer/employer how to support biking to work.htm#showers](http://www.mwcog.org/commuter2/employer/employer%20how%20to%20support%20biking%20to%20work.htm#showers)

Innovation Points:

Question 49:

- Leadership in Energy and Environmental Design: <http://www.usgbc.org/leed>

Question 50:

- How to apply for EnergyStar certification: <http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification/how-app-1>

Question 51:

- Profiles of Companies who utilize "green fleet" vehicles:
<http://www.hybridcars.com/corporate-incentives/>

Question 52:

- Implementing a Telecommuting Policy for your company: <http://www.nfib.com/business-resources/business-resources-item?cmsid=51591>