

Staff Report

FY 2013-14 Sustainability Report

July 22, 2014

This report provides an update of the FY 2013/14 activities and accomplishments related to the Sustainability Advisory Services contract between the City of Ames and Iowa State University.

Background

On July 1, 2010, the City entered into a contract with Iowa State University to utilize the services of its fulltime Director of Sustainability. Initial Scope of Services focused on the reduction of electric consumption. The expectation was that the primary focus would be to provide City staff assistance to the three committees in implementing the Task Force's recommendations. During FY 2013/014, in keeping with the Council's direction, Scope of Services targeted five Priority Areas related to energy consumption reduction:

1. Develop a program and related communications materials for businesses, non-profit and civic facilities entitled "Five Ways to Start Saving Energy".
 - o As part of this program, develop an awards/recognition component branded around the City's 150th Anniversary and or Sesquicentennial.
2. Review of the City's building codes as it pertains to energy efficiency requirements and a report to the City Council regarding how the City compares other municipalities within the State of Iowa and nationally.
3. Advise the City on updating the Smart Energy page on the City's website to provide a better customer experience.
4. Work with Iowa State University professors and students to develop a residential energy consumption comparison tool.
5. Work with Public Works and Electric to educate the ISU community and all residents on waste diversion and reuse as related to promoting the City's waste to energy program.

Progress on Scope of Services:

- 1. Develop a program and related communications materials for businesses, non-profit and civic facilities entitled "Five Ways to Start Saving Energy".***

As part of this program, develop an awards/recognition component branded around the City's 150th Anniversary and or Sesquicentennial.

Through discussions with City staff related to long-term goals and opportunities for engagement and empowerment of community businesses, non-profit and civic facilities in energy reduction, the focus of this priority area became the development of a Smart Business Challenge.

<http://www.cityofames.org/index.aspx?page=1781>

Accomplishments include the following for Priority Area #1:

- Development of a ten tier Smart Business Challenge Checklist. Tiers were chosen to offer an overarching consideration of and commitment to sustainability and building and nurturing a sustainable community (inclusive of environmental, economic, and social sustainability) and include: policy and planning, conservation (energy and water), transportation, indoor environment, outdoor environment, purchasing, waste diversion, carbon footprint, customer relations, and community relations).
- Compilation of an online resource list to assist businesses in increasing sustainability efforts and impacts. The resources are applicable and relevant to both businesses participating and not participating in the Smart Business Challenge.
- Creation of a branding strategy for the Smart Business Challenge, that allows the Challenge to continue even after the Sesquicentennial year.
- Creation of marketing materials including a Smart Business Challenge website, challenge logo, and recognition decals for participating businesses and those achieving bronze, silver, gold, and platinum status.

- Recruitment and hire of a Smart Business Challenge Intern with the Electric Department to act in a liaison and resource role to businesses participating in the Challenge through organizing and facilitating participant meetings, assisting with energy audits and follow-up goals and action plans, creating and maintaining participant files and spreadsheets to track correspondence, resources, and deadlines, and responding to requests for information and resources - as well as recruit new participants.
- Outreach to and recruitment of community businesses and organizations through tabling at the Annual Chamber of Commerce Dinner and Awards Ceremony, presenting to business associations, and meetings with local business owners.
- Collaboration partners: Electric Services – Steve Wilson; Public Relations Officer – Susan Gwiasda; Purchasing – Derek Zahn, Chamber of Commerce; and Assistant City Manager Melissa Mundt.

2. Review of the City's building codes as it pertains to energy efficiency requirements and a report to the City Council regarding how the City compares to other municipalities within the State of Iowa and nationally.

The following is the report for Priority Area #2:

- Staff requested the Inspections Division to determine what the current municipal code requires.
- In October 2013, Seana Perkins noted that as the City was working through the most recent round of updates to the Building Code and that originally they were looking to adopt the 2012 International Energy Conservation Code(IECC), along with all of the other 2012 Building Code updates, and the Building Board of Appeals recommended approval of that Code to the City Council. The IECC regulates the design and construction of new buildings for the effective use of energy. This code applies to both residential and commercial buildings and is compatible with the other Codes that the City has adopted which dictate the installation of mechanical, electrical, and plumbing systems. (International Mechanical Code, International Fuel Gas Code, National Electrical Code, Uniform Plumbing Code)
- Compliance with the 2012 IECC requires verification from the contractor to the City of Ames that the design will comply with the 2012 IECC. For a comparison

by States, here are the adoptions of the 2012 IECC as of July 2014:
<http://www.iccsafe.org/gr/Documents/stateadoptions.pdf>

- The City of Ames followed the State of Iowa's 2012 IECC adoption process which mandated that all new residential and commercial construction be in compliance with the 2012 IECC by June 1, 2014. The City has also adopted the International Existing Building Code (IEBC) which is used for the design of alterations, renovations, additions, etc. of *existing* commercial buildings and is also compatible with the other Codes adopted by the City. There are varying levels of alterations and categories for additions, occupancy change, etc. but the basis for this code is any alteration or addition must comply with the IECC without requiring the entire building or structure to comply with the energy requirements of the IECC. Existing buildings and building systems can, for the most part, continue to be used as is with no upgrades other than to keep systems in safe working order. This can also be used for one and two family dwellings, but anything new in those buildings must comply as if it were new construction.
- Existing buildings are exempt from the IECC unless repairs, alterations, etc. are made to the building which would require the new to comply.
- New buildings that meet the requirements of a low energy building or buildings that do not contain conditioned space are exempt from the IECC.
- The 2012 IECC is a State of Iowa mandated Code. The Inspection Division is not aware of a jurisdiction that has adopted a more restrictive Code or more restrictive addendums to the 2012 IECC.
- The Sustainability Task Force had been seeking the City to move toward a more holistic sustainable design and to incorporate more LEED related requirements into the Code, which would be above what is currently adopted.

3. Advise the City on updating the Smart Energy page on the City's website to provide a better customer experience.

In consideration of the expanded focus of Priority Area 1 and the establishment of the Smart Business Challenge, an expanded focus was also given to this priority area to include all of the EcoSmart web pages and not be limited to Smart Energy.

<http://www.cityofames.org/index.aspx?page=990>

Accomplishments include the following for Priority Area #3:

- Collaboration with Iowa State University's College of Business to offer "live" case study projects to Management 370 (students during both fall and spring semesters) related to completing an analysis of current EcoSmart program websites, meeting with City staff to discuss goals and objectives, gathering feedback from customers, and providing recommendations focused on increasing education, engagement, and empowerment of website users.
- Delivery of twenty-two formal business proposals offering customer feedback and perspective gathered through survey results and focus groups as well as "shovel-ready" recommendations were provided to City staff for review and implementation.
- Delivery of two additional proposals, specifically focused on the City of Ames ISU Students webpage.
- Confirmation of additional opportunities for collaboration with the College of Business during the 2014-2015 academic year, related to continued website development and/or additional areas of focus.
- Collaboration partners: Electric Services – Steve Wilson; Public Relations Officer – Susan Gwasda; Management Analyst – Brian Phillips; Parks and Recreation – Keith Abraham, Water and Pollution Control – John Dunn; Iowa State University College of Business; and Assistant City Manager Melissa Mundt.

4. Work with Iowa State University professors and students to develop a residential energy consumption comparison tool.

This priority area specifically focuses on a targeted action item identified by the Residential Sector of the Sustainability Task Force and discussed in the City of Ames Sustainability Plan for Electrical Consumption Reduction: Creating an On-line, Self-guided Data System to Track Personal Electrical Usage and Compare Usage to Similar Households. <http://www.cityofames.org/index.aspx?page=1144>

Accomplishments include the following in Priority Area #4:

- Collaboration with Iowa State University's Colleges of Engineering and Liberal Arts and Sciences to offer senior software engineering and design students a software design and programming consultation project opportunity (including

spring 2014 and fall 2014 semesters) related to meeting with City staff to discuss goals and objectives, researching and collecting energy performance benchmark and goal-setting data and formulas, and gathering feedback from customers, and creating an online interactive residential energy consumption reduction tool.

- Delivery of an interactive online, self-guided data system to track personal electrical usage and compare usage to similar households (provided spring semester 2014) that will be developed into a full prototype, evaluated, and finalized fall semester 2014. The final product will serve as a modification to the web interface currently available for Ames Electric Utility customers allowing customers to see energy consumption information on a relative basis as well as compare themselves to other customers with similar household space and electrical need.
<http://www.thecityofames.org/php/home.php>
- Confirmation of additional opportunities for collaboration with the College of Engineering during the 2014-2015 academic year, related to online tools and interactive initiatives.
- Collaboration partners: Electric Services – Steve Wilson and Mike Wheelock; IT Services – Stan Davis and Miriam Carlson; The Energy Group; Iowa State University Colleges of Engineering and Liberal Arts and Sciences; and Assistant City Manager Melissa Mundt.

5. Work with Public Works and Electric to educate the ISU community and all residents on waste diversion and reuse as related to promoting the City's waste to energy program.

Although much of the progress related to this priority area has been accomplished through the expanded focus of Priority Area #3, as noted above, additional focus was also given to this area.

Accomplishments include the following in Priority Area #4:

- Development of a “Green Your Iowa State Adventure” handout, in collaboration with City staff, highlighting the diversity of waste diversion opportunities offered to Iowa State University students.
- Dissemination of the handout, in conjunction with the City of Ames display, at Iowa State University's Destination Iowa State event for all incoming students as

well as other student events offered by the Office of Sustainability throughout the 2013-2014 academic year.

- Creation of a “Follow Your Trash” webpage on the Live Green! website, focused on increasing awareness of and education about waste management at Iowa State University and the City of Ames’ waste to energy program.
<http://www.livegreen.iastate.edu/programs/facilities-services-and-operations/waste-diversion-and-recycling>
- Establishment of an Organic Waste Working Group (including City of Ames Public Works and Water and Pollution Control departments and Prairie Rivers RC&D) to discuss, research, and strategize opportunities related to diversion of organic waste, and in support of the FOG (fats, oils, and grease) Initiative, which includes but is not limited to composting is still being worked upon and will be part of the 2014/2015 program.
- Collaboration partners: Electric Services – Don Kom; Public Relations Officer – Susan Gwiasda; Parks and Recreation – Keith Abraham, Public Works – Gary Freel, Bill Schmidt, and Lorrie Hanson; Water and Pollution Control – John Dunn; Prairie Rivers RC&D; and Assistant City Manager Melissa Mundt.



Smart Business

Applicant Name (Name of Business): _____

This business has completed an energy audit with a certified entity (consultant, energy provider, government agency, etc.). Please note verification of an energy audit is required to take part in the Green Business Checklist Program.

Yes	No	If yes, list date and provider

Tier Level Section 1 - Policy and Planning

Yes No Pending

Description of Tier Activities
(Planned or Current)

Gold	Environmental policies, goals, practices, and accomplishments are publicized in employee updates, customer newsletters, annual reports, and media advisories.	Yes	No	Pending	
Silver	A formal tracking and reporting system of energy/utility/waste/water usage is used to identify trends and unusual changes in usage.	Yes	No	Pending	
Bronze	An awareness program for is in place for energy conservation including regular communication to employees about wasteful practices and encourages turning off lights and electronics when not in use. Reminder signs are posted. There is a system in place that allows employees to provide feedback and suggestions for new ideas and improvements.	Yes	No	Pending	

Examples of policies and plans include: luncheon and learns for employees, procedure manual update to reflect best practices, mission statement identifying sustainable practices as a priority, etc.

Tier Level Section 2.1 - Energy Conservation - Lighting

Yes No Pending

Description of Tier Activities
(Planned or Current)

Gold	Energy efficient lighting practices are required and in place in all applications, except those where no low-energy options are available.	Yes	No	Pending	
Silver	Energy efficient lighting practices and incorporating them (when possible) are a priority.	Yes	No	Pending	
Bronze	Energy efficient lighting options and opportunities are included in an awareness program. Information is provided about energy efficient lighting practices and how to incorporate them.	Yes	No	Pending	

Examples of energy efficient lighting practices include: audit of lighting use and system functionality, CFL, LED, T5, and T8 lighting applications, motion detectors, occupancy sensors, timers, and zone or individual workspace lighting control options.

Tier Level	Section 1 - Policy and Planning	Yes	No	Pending	Description of Tier Activities (Planned or Current)
	Section 2.2 - Energy Conservation - Equipment	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Energy efficient equipment use and practices are required and in place for all equipment, except those where no conservation options are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Energy efficient equipment use and practices and incorporating them (when possible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Energy efficient equipment use, practices and incorporation are included in an organizational awareness program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Examples of energy conservation practices include: use of Energy Star products, computers and non-essential office equipment turned off at the end of the work day and on weekends, all computers and non-essential office equipment programmed for auto power down and standby modes to take effect within 30 minutes of inactivity, reduction of personal office equipment toward communal equipment (printers, scanners, coffee pots, refrigerators, etc.), and work stations with multiple devices are powered through power strips that are turned off at the end of the work day and on weekends.

	Section 2.3 - Water Conservation - Indoor Water	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Indoor water conservation practices are required and in place in all applications, except those where no options are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Indoor water conservation practices and incorporating them (when possible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Indoor water conservation options and opportunities are included in an awareness program. Information is provided about water conservation and how to incorporate it into business operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Examples of water conservation practices include: audit of water use and system functionality, low flow faucets and showers, auto shut-off or timed, faucets and showers, low flow or dual flush toilets, waterless urinals, auto shut-off or timed water features, and personal responsibility and behavioral commitment.

	Section 2.3 - Water Conservation - Outdoor Water	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Outdoor water conservation practices are required and in place in all applications, except those where no options are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Outdoor water conservation practices and incorporating them (when possible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Outdoor water conservation options and opportunities are included in an awareness program. Information is provided about water conservation and how to incorporate it into business operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Tier Level	Section 1 - Policy and Planning	Yes	No	Pending	Description of Tier Activities (Planned or Current)
	<i>Examples of practices include: low or no maintenance and irrigation landscaping, (if not prohibited) irrigation plan consisting of time of day and length of time, landscape maintenance plan noting schedule of maintenance and specific maintenance completed, stormwater capture and reuse, written stormwater management plan, mowing practices that promote water retention, and adopting City seasonal water conservation recommendations (up to and including dormancy of green space).</i>				

Tier Level	Section 3 - Transportation	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Sustainability-minded transportation opportunities and practices are required and in place, except when no opportunities are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Sustainability-minded transportation opportunities and practices (when possible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Sustainability-minded transportation opportunities and practices are included in an organizational awareness program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>Examples of transportation practices include: develop incentives and create an environment to encourage employees to carpool (i.e. designated parking), use mass transit (i.e. subsidized bus passes), and ride their bikes to work (i.e. bike storage space and access to showering facilities); track and compare annual vehicle miles traveled and gallons of fuel consumed for company business; develop a plan and provide criteria for buying energy efficient vehicles; develop delivery routes and schedules to minimize driving time and fuel consumption; hold meetings via telecommunications and facilitate carpooling for offsite meetings where teleconferencing is not an option.</i>				

Tier Level	Section 4 - Indoor Environment	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Indoor environmental quality and energy efficiency practices and incorporating them are required and in place, except when no opportunities are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Indoor environmental quality and energy efficiency practices and incorporating them (when feasibly possible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Indoor environmental quality and energy efficiency practices and incorporating them are included in an organizational awareness plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>Examples of practices include: HVAC energy efficiency operations plan, programmable thermostats or thermostat adjustment plan, inventory of indoor use hazardous chemicals and educational signage noting chemical name, uses, and safe handling and cleanup procedures, low or no phosphate detergents, proper disposal of fats/oils/greases, low VOC, and/or low emission paints, stains, cleaning supplies, and furnishings (carpet, furniture, etc), reduced or non-chemical pest control programs, and (if not prohibited) smoking is confined to a separate and emissions-controlled and monitored area.</i>				

Tier Level	Section 5 - Outdoor Environment	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Outdoor environmental quality and energy efficiency practices and incorporating them are required and in place, except when no opportunities are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Tier Level	Section 1 - Policy and Planning	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Silver	Outdoor environmental quality and energy efficiency practices and incorporating them (when feasible) is a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Outdoor environmental quality and energy efficiency practices and incorporating them are included in an organizational awareness plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Examples of practices include: use of environmentally-sensitive maintenance and lawn products (deicer, cleaning products, fertilizers, herbicides, fungicides, etc.), reduced or non-chemical pest control programs (pesticides, insecticides, rodenticides, etc.), inventory of outdoor use hazardous chemicals and educational signage noting chemical name, uses, and safe handling and cleanup procedures, and (if not prohibited) smoking is confined to a separate and emissions-monitored area.

Tier Level	Section 6 - Purchasing	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Sustainability-minded purchasing processes and products for business operations and services are required and in place, except when no opportunities are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Sustainability-minded purchasing processes and products for business operations and services (when feasible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Sustainability-minded purchasing processes and products for business operations and services are included in an organizational awareness plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Examples of practices include: products that are made from recycled content, reusable, non-disposable, recyclable, green manufactured, local, energy efficient, utilize reduced packaging, and have a green certification (Green Seal, Energy Star, etc.), on-site recycling, "swap" opportunities for office supplies and equipment, donation policy for unneeded office supplies and equipment, leasing options for new equipment, and paperless procurement and inventory system.

Tier Level	Section 7 - Waste Diversion and Responsible Waste Management	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Waste diversion and responsible waste management practices and incorporating them are required and in place, except when no opportunities are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silver	Waste diversion and responsible waste management practices and incorporating them (when feasible) are a priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bronze	Waste diversion and responsible waste management practices and incorporating them are a part of an organization awareness plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Examples of practices include: waste diversion plan for all waste generated on-site or as a result of products or services provided, on-site or participate in diversion (including reuse, recycling and/or composting), in-house or intra-company "swap" opportunities for business supplies and equipment, and donation policy for unneeded business supplies and equipment.

Tier Level	Section 1 - Policy and Planning	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Tier Level	Section 8 - Carbon Footprint	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	A carbon footprint assessment has been completed for the business and a carbon emission reduction plan has been put into place with specific time-sensitive goals and action step requirements.				
Silver	A carbon footprint assessment has been completed for the business and a carbon emission reduction plan has been put into place with specific time-sensitive goals and action step priorities.				
Bronze	A carbon footprint assessment has been completed for the business and a carbon emission reduction plan with goals and action steps is a part of an organizational awareness program.				
Tier Level	Section 9 - Customer Relations	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Sustainability-minded customer service practices are required and in place, except when no opportunities are available.				
Silver	Sustainability-minded customer service practices (when feasibly possible) are a priority.				
Bronze	Sustainability-minded customer service practices are included in an organizational awareness program.				
<p><i>Examples of practices include: discounts for reusable bag use, minimal product packaging, paperless ordering, return, and/or accounting, environmentally--conscious products/merchandise (recycled content, reusable, recyclable, green manufactured, local, energy efficient, etc.), on-site recycling, and education and awareness resources about green business practices (website, in-store/business signage, public events, newsletters, publications, etc.).</i></p>					
Tier Level	Section 10 - Community Relations	Yes	No	Pending	Description of Tier Activities (Planned or Current)
Gold	Collaborative community opportunities related to sustainability-minded activities and awareness are required and in place, except when no opportunities are available.				
Silver	Collaborative community opportunities related to sustainability-minded activities and awareness (when feasibly possible) are a priority.				
Bronze	Collaborative community opportunities related to sustainability-minded activities and awareness are included in an organizational awareness program.				

Tier Level	<i>Section 1 - Policy and Planning</i>	Yes	No	Pending	Description of Tier Activities (Planned or Current)
	<i>Examples of opportunities include: events (hosting, planning, facilitation, or volunteerism), education materials and resources, charitable contributions (in-kind or monetary), and community service.</i>				

Tier Level	<i>Section 11 - Additional or Innovative Actions</i>	Yes	No	Pending	Description of Tier Activities (Planned or Current)
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Attach any additional information describing condition(s) or activity(ies) that you believe should be taken into account in the evaluation that is not otherwise covered in this checklist. This might include actions that are unique to your facility or industry, industrial process improvements, significantly lower emissions or discharge than permitted levels, land conservation, product life cycle analysis, super-efficient HVAC systems such as geo-thermal, environmental advocacy, etc. Points may be awarded commensurate with the scope and value of such additional actions.

I verify that the information provided above is accurate and representative of our business practices.

Signed (please print name) _____
 Title _____
 Signature _____
 Date _____
 Contact Address _____
 Contact City, State, Zip _____
 Phone and Email _____

SMART
BUSINESS
REDUCING OUR FOOTPRINT



FOUNDING MEMBER

Creating a sustainable Ames through increasing efficiencies and implementing business strategies that grow our economy while helping the environment.