### CITY OF EL PASO, TEXAS REQUEST FOR COUNCIL ACTION (RCA)

**DEPARTMENT:** Environmental Services

AGENDA DATE: May 1, 2012

CONTACT PERSON/PHONE: Mary Howell, Sustainability Manager, (915) 541-4925

### DISTRICT(S) AFFECTED: All

#### **SUBJECT:**

Discussion and action on the Annual Sustainability Plan progress update.

#### **BACKGROUND / DISCUSSION:**

An annual overview which will outline the progress towards goals established in the City's Sustainability Plan and consideration of modifying those goals that are inappropriate based on experience.

#### **PRIOR COUNCIL ACTION:**

Approved City's Sustainability Plan on September 15, 2009 Approved City's 2010 Annual Sustainability Report Card on April 20, 2010. Approved City's 2011 Annual Sustainability Report Card on April 19, 2011

#### **AMOUNT AND SOURCE OF FUNDING:**

N/A

### **BOARD / COMMISSION ACTION:**

N/A

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FINANCE: (if required) \_\_\_\_\_

DEPART	MENT	HEAD	
DEFALL	VIEINI	nead:	

(Example: if RCA is initiated by Purchasing, client department should sign also) Information copy to appropriate Deputy City Manager

**APPROVED FOR AGENDA:** 

CITY MANAGER: \_\_\_\_\_

DATE:\_\_\_\_\_



### **CITY OF EL PASO**

# SUSTAINABILITY 2012 REPORT





This Space Also Accommodates Persons With Disabilities



**City of El Paso Sustainability Program** 

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### **Report Card Summary**

### Grade

- <u>City-Wide Goals</u>
- C Increase sustainability awareness to world-class levels by 2013
- A Embed sustainability into City processes and procedures by 2016
- B Train City staff in sustainability impacts and programs by 2012.

#### <u>Air Goals</u>

- A Complete greenhouse gas inventory and establish the 1990 baseline
- C Develop a plan to reduce greenhouse gas emissions
- B Reach attainment of federal air quality standards by 2019.
- B Reduce the number of days with poor AQI by 25%.

#### Community Goals

- B Increase civic pride by 30% by 2013.
- A Increase participation in sustainability programs by 25% by 2013.
- B Increase understanding of general sustainability principles by 20% by 2013.

#### Development & Buildings Goals

- B Become one of the least car dependant city in the southwest.
- A Establish green building practices as normal business case in El Paso.
- C Achieve international recognition for habitat preservation.
- D Complete a biodiversity inventory by 2011.
- C Identify and prioritize habitat that will be protected by 2012.

### <u>Energy Goals</u>

- A Reduce total City of El Paso energy consumption by 30% by 2014.
- A Implement 20 renewable energy projects by 2015.
- A Move 20% of City energy use to renewable sources by 2020.
- A Move 10% of Community energy use to renewable sources by 2020.
- B Create a clean energy core business sector in El Paso.

### Transportation Goals

- A Maximize fleet efficiency.
- C Become nationally recognized as an innovative leader in efficient fleet services

#### Waste & Resources Goals

- B Achieve residential waste diversion rate of 25% by 2013.
- A Reduce waste produced by City departments 10% by 2011.
- C Increase environmentally friendly products purchased by 5% by 2011

### **B** Overall Grade

### **City-Wide Goals**

### We will increase sustainability awareness to world-class levels (defined as 80% of top two ratings on a five-point scale) by 2013

The results from the 2011 Customer Service Survey indicate that El Pasoans have a serious awareness of sustainability and environmental issues. In support of this goal, City staff conducted extensive educational outreach in 2011 on recycling, energy efficiency, sustainability concepts, conservation, solar power potential and livability. Specific examples include:

- State Department Climate Change Fellows Exchange Program
- Earth Day Outreach Event
- Party for the Planet
- America Recycles Day
- Greening Transportation on the Border workshop
- Reenergize the America's Conference
- Clardy Fox library energy retrofits press conference
- Sun Metro green fleet press conference
- Main Library solar system press conference



💕 Environmental Services Department 🛞



Several sets of questions related to sustainability were included in the City's 2011 Customer Service Survey. The questions were designed to assess the relative importance that El Pasoans give to sustainability issues and the basis for the weight they assigned to those issues. The results from the survey are summarized on Figures 1 and 2 below.

### Figure 1. The Importance of Adequacy of Information on Environmental Topics



### Figure 2. The Importance of City Involvement in Environmental Policies



As indicated in Figure 1, the overwhelming majority of respondents felt that each of these issues was important. Results suggest that the environmental issues addressed by this survey are important to City households. Households were also asked to rate the importance of City involvement in environmental initiatives in order to

- improve the environment,
- create energy self-reliance, or
- save costs for taxpayers.

As shown on Figure 2, the results were similar for each of the three variables, with the overwhelming majority of respondents feeling that City involvement is very important.

### All City processes will employ TBL (Triple Bottom Line) concepts by 2016 and 50% of City procedures account for TBL concerns by 2016.

The City has made significant strides towards integrating sustainability into departmental processes and procedures. The text below showcases efforts by individual departments to integrate sustainability into their plans, procedures and projects.

The **Fire Department** supports the City's sustainability goals through the use of advanced equipment and efficient buildings. Fire Station #33 is the first City building to implement the use of a state of the art geothermal heating and cooling system which has increased station comfort while lowering costs. Fire Station #33 has used approximately 40% less in utilities than a similar sized station since its construction in 2006. The Fire Department has also pioneered the use of compressed air foam systems which use 1/3 less water than a normal system, creates less contaminated runoff and allows for lighter equipment.

The **Municipal Clerk's Office** implemented video arraignment systems at the Mission Valley, Pebble Hills and Westside Police Regional Command Centers. These systems allowed defendants to avoid travel to the Municipal Court in the northeast. In total,

2,363 defendants used the system, reducing the required driving for those residents by 86,442 miles. This system is significantly reducing congestion and improving air quality while saving time and money.

The **General Services Department** (GSD) is aggressively pursuing fleet and facility efficiency projects in support of the City's Sustainability Plan goals. GSD has completed over \$27M in energy efficiency retrofits to City buildings, indoor pools, traffic signals, and street lights in an effort to reduce the City's energy consumption. The department has also significantly reformed the City's fleet. GSD added over 70 hybrid vehicles, 29 propane fueled



vans, one all electric vehicle and one natural gas powered trash truck to the City's vehicle fleet in the past two years. The Department is also managing the installation of electric vehicle charging stations in a city-wide partnership with UTEP, El Paso Community College, Sun Metro, the Housing Authority and the El Paso International Airport. GSD has also pursued utilization of "Big Belly" solar-powered trash cans in City Parks and along Scenic Drive to reduce fuel usage and improve cleanliness. In support of the City's waste reduction goals, the Department recently began a trial project testing the collection of recyclables at a City Park.

The **Planning and Economic Development Department** recently completed revision



and approval of "Plan El Paso", the City's Comprehensive Plan. The plan is a major element in the City's movement towards a more livable, sustainable community. The EPA presented a National Award for Smart Growth Achievement to the city "for using innovative approaches to create healthier, safer and more economically and environmentally sustainable places to live." Soon after adoption of the plan, a national web site related to urban design ran an article entitled "How El Paso Ended up with America's Best Smart Growth Plan."<sup>1</sup> The department also created and conducted a course for City employees to learn the fundamentals of new urbanism and prepare for the Congress of the New Urbanism's accreditation exam. To date, approximately 70 employees, department heads and senior staff, have prepared for and passed the CNU accreditation exam. Over 90 private design professionals are currently preparing for the May 2012 exam.

In 2011, the **Public Health Department** championed the approval of a groundbreaking resolution that required the City to:

- City policies promote access to healthy food and increased opportunities for physical activity.
- Complete a "Health Impact Study" for new large developments that would study the potential effect of a development project on physical activity, availability of nutritious foods, and other potential impacts on population health in the area of the development project.
- Review and revise all policies that might erect unnecessary barriers to use of local parks, recreation facilities, physical activity programs or any related activities.
- Review and revise all policies and practices that might erect unnecessary barriers to breastfeeding, community gardening, farmers' markets, or related activities.
- Identify any transportation barriers to accessing supermarkets or farmers' markets and determine where there are opportunities to increase access to healthy food through public transportation.

- Review existing City building beverage, snack, and food service contracts, and upon renewal, revise these contracts to reduce access to sugar-sweetened beverages and food high in sugar and fat, and replace them with beverages and food that support good health and nutrition.
- Enhance the municipal employee wellness program emphasizing improved nutrition, physical activity, and safety.



In support of the goal to become a livable City that promotes healthy lifestyles, the **Parks & Recreation Department** is implementing a community garden and nutrition project with grant funding from the Paso Del Norte Health Foundation. The department developed a healthy nutrition curriculum for use in Parks Department after school, summer school and day care programs. The department also researched best practices for community gardens located at City facilities and is recently opened bids for construction of a pilot community garden at the Vista del Valle Park in collaboration with the Cielo Vista neighborhood association.



In recognition of the City's concerted efforts to improve transit service, **Sun Metro** received the 2011 Outstanding Transportation System award from the American Public Transit Association. Specific achievements recognized by the award were: completion of four new transfer centers, two safety awards, 21 percent increase in ridership, installation of nearly 200 new shelters, and significant progress has been completed towards implementation of four Bus Rapid Transit corridors, including completion of Alternative Analysis for all four corridors and plans are in place for both the Alameda and Mesa corridors to open in September of 2013.

### All City workforce will be trained in sustainability impacts and programs by 2012.

The City is progressing towards accomplishing this goal. Specifically, the City has Trained 1690 (47%) of the City's civil service employees on the City's Sustainability Plan, programs and goals to date.

A sustainability training element was created for all new employees as part of the City's new employee orientation program.

A smart growth, new urbanism training course was created to ensure that City staff are aligned with City Council's goals to transform El Paso into a more livable community. To date, approximately 70 employees, department heads and senior staff, have completed the course, prepared for and passed the Congress of the New Urbanism accreditation exam.

### Air Goals

### *Complete greenhouse gas inventory and establish the 1990 baseline for the entire City by 2011.*

The City's Carbon Footprint Report was completed in 2011 using activities from 2009 as the baseline, or beginning measurement. The City is in the process of updating the inventory using 2011 data to assess the impacts of the City's recent energy efficiency and recycling efforts.

The City is also collecting data for use in compiling a community-wide inventory that would reflect emissions from activities throughout the region.



#### Figure 3. City of El Paso Greenhouse Gas Emissions

### Develop a plan to reduce greenhouse gas emissions to meet Kyoto protocol guidelines by 2011.

The City has not progressed in completion of a comprehensive Climate Action Plan for City operations. Figure 4 is an illustration of the City's draft Climate Action Plan. The draft plan shows that current City efforts are an excellent start towards meeting the City's carbon reduction goals, but those efforts will need to be sustained over the long term for enduring success.



### Figure 4. City of El Paso Draft Climate Action Plan

### Reach attainment of federal air quality standards by 2019.

El Paso continues to remain in compliance with federal air quality standards with the exception of PM-10. Portions of the City are designated as a "moderate" nonattainment area for PM-10. Recent modeling studies show that El Paso could meet the NAAQS if not for its proximity to Cuidad Juárez. On January 25, 2012, the City and State of Texas adopted a revised PM10 control plan required controls for streets and alleys. The revised agreement removed the requirement for the City to pave alleys at the rate of 15 miles per year and added the following new requirements:

- all new alleys shall be paved;
- unpaved alleys may not be used for residential garbage and recycling collection;
- reclaimed asphalt pavement (RAP) may be used as an alternate means of dust control for alleys; and
- City streets will be swept three times per year in the city limits and from six times per week to four times per week in the central business district.

The EPA is considering lowering the standard for ozone. If the EPA lowers the ozone standard, El Paso will also be out of compliance for ozone.

### Reduce the number of days with poor AQI by 25%.

El Paso experienced 12 days with an Air Quality Index (AQI) that was rated as "Unhealthy for Sensitive Groups" or worse. Figure 5 shows the trend in local air quality over the past 5 years.





AQI is a blended indicator of air quality, based on air pollutants that have adverse effects on human health and the environment. The specific pollutants included in the index are

- 🔹 Ozone,
- Fine particulate matter (PM10 and PM2.5),
- Nitrogen dioxide (NO2),
- Carbon monoxide (CO),
- Sulphur dioxide (SO2) and
- Total reduced sulphur compounds.

Figure 6 details the air quality measurements in El Paso for 2011.



### **Community Goals**

### *Civic pride will increase by 30% above baseline levels by 2013.*

Several questions were included in the 2011 Customer Service Citizen Survey to collect a baseline measure for this goal. The results of those questions are summarized below in Figure 7.



### *Participation in sustainability outreach programs will increase by 25% above baseline levels by 2013.*

Over 8500 El Pasoans, over 300% more than 2010, participated in sustainability related events since April, 2010 (2,580 participated in 2010). Some of the larger events included:

- Party for the Planet at the El Paso Zoo
- Earth Day event at the Municipal Service Center
- America Recycles Day at EPCC
- Texas Forest Service Emerging Communities Workshop
- UTEP Engineering Professional Training and Development Course
- Re-Energize the Americas Conference
- Border Energy Forum



### *Understanding of general sustainability principles will increase by 20% above baseline levels by 2013.*

The baseline for this goal was collected with questions included in the 2011 Customer Service Citizen Survey. As detailed in Figure 8, El Pasoans place significant weight on environmental topics and many residents would like more information on these topics.



### Figure 8. The Importance of and Adequacy of Information on Environmental Topics

### **Development & Buildings Goals**

### Become one of the least car dependant city in the U.S. by promoting smart growth and integrated user-friendly transit systems.

This goal continues to remain one of the highest City priorities. The recently adopted "Plan El Paso" includes the following comprehensive goal:

The City of El Paso wishes to become the least car-dependent city in the Southwest through meaningful travel options and land use patterns that support walkability, livability, and sustainability. Over time, El Paso will join the ranks of the most walkable and transit-rich metropolitan areas in the country.

El Paso is aggressively pursuing all forms of alternative transportation to reduce car dependencies. Topics range from increased bus service, street cars, a downtown circulator, and to increase the availability of bike and hike paths. The City has pursued the following specific initiatives in pursuit of this goal:

- Implementation of four Rapid Transit System corridors
- Approval of a trolley system as a transportation priority
- Approval of the City's first Smart Growth amendments to Title 19
- Adoption of ITE's "Designing Walkable Urban Thoroughfares: A Context Sensitive Approach" as the standard for new construction
- Adoption of "Connecting El Paso"
- Unanimous adoption of "Plan El Paso"

The City also purchased the Northgate shopping center and recently completed demolition of the disinvested shopping center with plans to develop the property as a demonstration transit-oriented development project.

The following article, excerpted from the Institute for Sustainable Communities' "Low Carbon Transportation Resource Guide" is an excellent summary of the City's efforts to reduce car dependency and pursue livability.

http://www.iscvt.org/who we are/publications/Low Carbon Transportation Resource Guide.pdf

### El Paso Sets Sights on Reducing Auto Dependence

*El Paso is working to create a new BRT system that will provide reliable, affordable transportation, and is pursuing smart growth strategies that include Transit-Oriented Development and form based code. With the goal of becoming the least car dependent city in the southwest, El Paso has taken a series of steps to build support for an integrated approach to transportation and land use.* 

Like many cities, El Paso once had a streetcar system serving walkable neighborhoods. However, decades of sprawling development, low density subdivisions, and strip malls have created a development pattern that is no longer conducive to efficient public transportation. By 2006, the city's bus system, Sun Metro, reached a peak of dysfunction: it lacked proper financial systems and procedures, preventive maintenance was inadequate, and the quality of the service had suffered as a result of not adapting to changes that had occurred over the past 20 years.

From this low point, El Paso charted a new course to reinvent its public transportation system and create a more sustainable city. The first step was to revitalize the Sun Metro system. In 2006, the city contracted with First Transit to manage bus service and to modernize the system, focusing on the basics of good service while maintaining a flat budget. Within a year, Sun Metro's ridership increased by 7.8%. By 2008, 95% of the buses were on time, less than 1% missed service, and Sun Metro received the "Outstanding Metropolitan System" Award from the Texas Transit Association.

To further improve transportation options in El Paso, the City is now implementing four Bus Rapid Transit (BRT) lines: the Mesa Corridor, Dyer Corridor, Alameda Corridor, and Montana Corridor. The BRT concept was first introduced by the El Paso Metropolitan Planning Organization (MPO) and was included in its 2007 long-range transportation plan, TransBorder 2035. In 2010, the El Paso City Council, which also serves as the Mass Transit Department Board, approved BRT as the locally preferred alternative in all four corridors. The Alameda and Mesa BRT will be implemented first, currently scheduled for fall 2013, and all lines are expected to be in operation by 2017.

The El Paso BRT service will primarily operate in mixed traffic rather than in dedicated bus lanes. An Alternatives Analysis conducted by the MPO indicated most of the ridership and mobility benefits could be attained at less expense using Transportation Service Management (TSM) strategies such as signal prioritization and queue jump lanes to maintain bus speeds and reduce delays. The system will also include pre-board fare collection, level-platform boarding, real-time bus schedules, fewer stops (stations are approximately 1 mile apart), and bus and station branding to differentiate from local buses. City officials believe that BRT can provide many of the benefits of light rail including improved speed and reliability—but at a much lower cost of implementation. They anticipate using federal grants to fund the Mesa, Montana, and Dyer lines and will use local funds for Alameda.

To attain the desired ridership levels, El Paso officials recognize the need to implement smart growth principles that increase density and create transitoriented development (TOD). As a first step toward innovative land use planning, El Paso adopted a SmartCode in 2008. This form-based zoning code is currently provided as an alternative to El Paso's traditional Euclidean-based zoning and provides flexibility that will allow for creative mixed-use, high density TOD. The City also developed a land use plan, "Connecting El Paso," focused specifically on five sites along the BRT corridors with significant redevelopment potential. Conceptual plans for each site demonstrate the application of the SmartCode and the benefits of the well-designed development that it allows. These site-specific plans will also be used to guide future municipal investment in infrastructure.

In January 2011, the City Council unanimously approved "Connecting El Paso", which provides strong support for creating a multi-modal transportation system. Among the many supporting arguments found in the plan is the concept that a robust public transit system will reduce the cost of living for El Paso residents. A 2009 report by the Center for Neighborhood Technology (CNT) found that while housing costs are relatively low, many El Paso residents are burdened by high transportation costs. Many households in the region spend more than 28% of their income on transportation and, in some areas, transportation was more costly than housing. The City Council has adopted CNT's H+T Affordability Index as the measure of affordability for new El Paso developments.

Despite the progress to date, the City continues to struggle with changing the "car culture." Travel times are still faster for cars than transit, and people still prefer the reliability and freedom of driving. Michael Medina, a TXDOT Transportation Planner in the El Paso District, predicts the next step will be changing the business model for developers: "We need to sell developers on the new economic model to build differently, because in the end it's about them making a profit. The City of El Paso can help steer them away from the old model by showing the benefits of a smart growth approach and traditional neighborhood design"

### Establish green building practices as normal business case in El Paso.

The City and local green building stakeholders have made serious inroads towards realizing this vision. In 2010, 53% of the new homes were Energy Star rated. Figure 9 illustrates the recent growth in Energy Star new home construction in El Paso.



#### Figure 9. Energy Star Home Growth

Currently, 10 local building projects have received certification from the USGBC or Green Globes. Another 88 local construction projects are pursuing various "green" certifications. Fort Bliss accounts for the majority of those buildings (60). The City of El Paso recently completed construction of three buildings that are awaiting Leadership in Energy and Environmental Design (LEED) certification and has another seven buildings registered for certification.



The City completed construction and received LEED Gold recognition for the Cielo Vista Library, which included enhanced energy performance and utilized regional recycled materials and resources including concrete, steel, carpet, ceramic tile, countertops and insulation. The library design will utilize 35% less energy than a typical building built to meet minimum code requirements.

The Housing Authority of the City of El Paso (HACEP) recently completed the "Green Paisano Project", the greenest affordable housing development in the country". This 73-unit, LEED Platinum, senior housing neighborhood represents a bold new direction in affordable housing. One of the key aspects of this project, are the net zero energy and fossil fuel Free goals — through exceptional design and the use of solar technology, the project will produce as much energy over a calendar year as the occupants use, meaning no utility bills for tenants or the Housing Authority.



### Achieve international recognition for successful preservation of our Chihuahuan desert natural heritage for all time.

The recently adopted Plan El Paso lays out a blue print for preservation of natural open space in both the Sustainability and the Land Use elements. Specifically, the seven Open Space "sectors" defined in the Future Land Use Map and the goals and policies identified in Section 10.8 provide the tools necessary to begin to address habitat in El Paso.

As the first step in this process, the City will be completing a comprehensive arroyo inventory for the City and crafting a definition for "critical" arroyos.

Plan El Paso also included the following overarching sustainability goal:

Secure the viability of environmental resources for El Paso's people, flora, and fauna so that future generations may experience a constantly improving environment that is always more resilient than that of the previous generation.

In support of that goal, the plan also includes the following language:

Arroyos should be conserved or restored to a state that closely resembles their native, pristine condition. Rather than channelize them into concrete ditches, they should be left wide and impervious. Rather than place the backs of houses along them, they should be fronted by public walkways and the front façades of houses and other buildings. Consider the network of natural and wild places, where they exist, as permanent and irreplaceable. Defend the interconnectivity of habitats with the same fervor with which the interconnected network of streets is defended.

El Paso Water Utilities completed improvements to the 9 acre Saipan park pond. It's the first park pond partnership with El Paso Water Utilities and the City of El Paso. It will manage stormwater runoff from while providing much needed recreation opportunities.

### Complete a biodiversity inventory by 2011.

While a biodiversity inventory has not yet begun, Plan El Paso includes the following language in the Sustainability element goals and policies:

The City should produce or commission a plan for biological corridors and habitat that identifies existing habitats and corridors and candidate sites and routes for restoration. The plan should acknowledge that the ecosystems that constitute the Chihuahuan Desert, wildlife corridors, and migration routes are independent of political boundaries such as state and county lines or the national border with Mexico.

### Identify and prioritize habitat that will be protected by 2012.

The City continues to make small but incremental progress towards this goal. The El Paso Water Utility is diligently implementing the open space aspects of the Stormwater Master Plan and Plan El Paso includes detailed policies related to habitat preservation.

A key element in this process will include the City's approach to arroyo preservation. As part of the implementation of Plan El Paso, the City will be completing a comprehensive arroyo inventory for the City and crafting a definition for "critical" arroyos.

City Council is in the process of revising the Northwest Master Plan. As part of this process, Council elected a development scenario that includes the preservation of 800 acres of natural open space in the far northwest. The selected development alternative will also include the following elements:

- Bridges will be used to cross arroyos rather than box culverts
- Pocket parks and linear parks are being considered in place of large neighborhood or regional parks
- Arroyos will be bordered with linear parks to minimize encroachment
- Arroyos will be left in a natural state rather than lined with concrete.
- The El Paso Water Utilities (EPWU) implemented the Basin G and Featherlake II projects which increased available water habitat.

### **Energy Goals**

### Reduce total City of El Paso energy consumption by 30% by 2014.

The City is making excellent progress towards accomplishing this goal. Figure 10 illustrates the City's energy use over the past five years. In fiscal year 2011, the City used 23% less energy than fiscal year 2008. Specifically, the City used 12% less energy in fiscal year 2011 than in 2010.



### Figure 10. City Energy Use

### Implement 20 renewable energy projects by 2015.

The City is on schedule to exceed this goal. The City currently has eleven renewable energy systems operating, with another four systems planned for completion in the next two years.

The City completed installation of the following three (3) renewable energy projects in 2011:

- 20 kw solar photovoltaic power system on Main Library
- 20 kw solar photovoltaic power system on the Animal Shelter
- 167 kw solar photovoltaic power system on the Municipal Service Center (pictured here)



The City completed installation of the following eight (8) renewable energy systems in 2009 and 2010:

- Seven (7) solar hot water systems for indoor pools
- Kalahari Research Station demonstration solar and wind project at the El Paso Zoo

El Paso Water Utilities will start up three wastewater biogas recovery systems in 2012. The Environmental Services is installing a landfill gas recovery system at the Clint Landfill that may produce power in 2013.

### 20% of City energy use will be renewable by 2020.

Approximately 1% of City energy use in 2011 was produced from renewable sources. The City's new solar and biogas systems that were recently completed will increase the City's renewable energy supply to approximately 5%. The City has plans to complete projects in the next three to five years that would increase this to 13%. The City will need to aggressively pursue future renewable energy opportunities to meet this goal.

### 10% of Community energy use will be renewable by 2020.

While less than 1% of the community's energy supply is currently derived from renewable sources, there are both short and long-term plans in place that could accomplish this goal. In the near term, El Paso Electric is currently seeking approval from the Texas Public Utilities Commission for construction of a 2.5 MW solar plant that

would be located at the their Newman power plant. The City is working on implementation of biogas recovery projects at the Greater El Paso Landfill and the City's wastewater plants that will create over 2.5 MW of generation capacity. The Army is also pursuing construction of a 20 MW solar facility on Fort Bliss by the end of 2012.

Long-range plans at Fort Bliss that would require in-depth collaboration for success include a 140 MW waste-to-energy facility, a 3-5 MW geothermal power project, a 50 MW wind project and over 5 MW in distributed rooftop solar projects.

### *Clean energy will become a core business sector in El Paso through the aggressive use of partnerships and incentives.*

As a means to accomplish this goal, the City, El Paso Electric, the Regional Economic Development Corporation and the Army's Energy Initiatives Task Force recently created the El Paso / Southern New Mexico Regional Clean Energy Initiative. The Initiative envisions a cohesive regional strategy to cultivate an "advanced energy economy" in the region.

The overarching goal of the Initiative is to create jobs and economic opportunities and to meet regional energy. The first step is to develop a Regional Clean Energy Plan that represents the widest possible consensus (shared interests) among regional stakeholders. The Plan will focus on those initiatives where joint action can capture opportunities, create synergies, remove barriers or create momentum and develop regional support beyond the capabilities of any individual stakeholder.

Utilizing a portion of the franchise fees collected by El Paso Electric, the City provided start up funding for the "Hub of Human Innovation" (the "Hub") (<u>http://hubofhumaninnovation.org/</u>) and the Regional Cyber and Energy Security Center (RCES). The "Hub" is a clean energy technology incubation program modeled after the Austin Clean Energy Incubator that has identified a pipeline for over 200 clean energy companies, incubated 15, helped those companies attract external capital investment totaling nearly \$20 million, and created partnerships for five companies with the local electric utility.

The "Hub" and UTEP's Center for Research Entrepreneurship & Innovative Enterprise are working help with 23 separate clean technology companies grow in El Paso.

The RCES center's goals include development of methods to secure commercial and energy systems in the West Texas/Southern New Mexico region against cyber attacks, equipment failures and natural threats. The center expects to create 85 new high paying jobs and an ancillary impact of over \$12M in within six years.

The City currently has approximately ten clean energy, or clean technology companies that employ approximately 100 employees.

### **Transportation Goals**

### *Maximize fleet efficiency by adopting a Green Fleet Policy by 2011 and implement the major elements of the policy by 2015.*

The City is making excellent strides towards accomplishing this goal. The General Services Department has continued to implement their policy to purchase hybrid or alternative-fueled vehicles whenever those options are available.

The City fleet includes the following efficient vehicles:

- 72 hybrid vehicles (up from 45 in 2011)
- 25 propane-fueled vans
- 1 natural gas-fueled trash truck
- 1 electric vehicle



The General Services Department is also managing the installation of 32 electric vehicle charging stations in a city-wide partnership with UTEP, El Paso Community College, Sun Metro, the Housing Authority and the El Paso International Airport.

### Become nationally recognized as an innovative leader in efficient fleet services by 2015.

The General Services Department was awarded a State Energy Conservation Office grant to support alternative fuel vehicle fleet.

### Waste & Resources Goals

### Achieve residential waste diversion rate of 25% by 2013 to become a leader among Texas cities.

The City's diversion rate has been stagnant the past several years after the initial success of the curbside recycling program. The City's diversion rate for 2011 decreased from 15.8% to 15.3%. Figure 11 illustrates the City's waste diversion rates since inception of the "Drop it in the Blue" curbside recycling program.



### Figure 11. El Paso Recycling Rate

In response to the stagnate diversion rates, the City launched the "Know What to Throw, Recycle Right" program, an extensive media campaign in an effort to increase recycling rates and reduce the amount contamination in the recycling program.

To increase diversion rates and help meet this goal, the City also began a green waste mulching program this year to put green waste that had been landfilled to beneficial use.



### Reduce waste produced by City departments 10% by 2011.

The City has exceeded this goal. In 2011, City facilities recycled a total of 216 tons of material, an increase of 42% above 2009 levels. In pursuit of this goal, the City trained janitorial staff to ensure that recyclables were being recycled. To maximize recycling, the City will soon be placing recycling containers in the public spaces of City Hall and a Central Recycling location for cell phones, toner cartridges, and batteries.

### Increase environmentally friendly products purchased by 5% by 2011

The City's Environmental Services Department and Purchasing Division are defining the criteria to use for procurement of more environmentally friendly products and projects. The City recently utilized the "Best Value" bid system in a bid for waste tire disposal to

give added weight to vendors that utilized processes that met or exceeded Texas tire disposal regulations.

Specifically, the City's is developing criteria that would be incorporated into most City procurement processes to account for environmental factors. Features that would be weighed include:

- Use of durable, long-lasting content
- Use of recycled or recyclable content
- Use of renewable content
- Products that are free of mercury and lead and eliminate the use of other persistent bioaccumulative toxic chemicals where possible,
- Use of energy efficient equipment
- Provision for returning equipment to vendor for recycling at the end of the product's life



## Sustainability Report Card

City Council May 1, 2012

Marty Howell, P.E. Sustainability Manager



## Progress on Goals

- 3.08 GPA
- Energy use reduced by 23% since 2007
- City Facilities Recycling increase 42% since 2009
- Over 8500 El Pasoans attended sustainability outreach events
- Installed Solar Systems in first three buildings
- Achieved recycling diversion rate of 15.26%



## Highlights

- Council adopted "Connecting El Paso Plan"
- Cielo Vista Library awarded LEED Gold
- Completed 2<sup>nd</sup> round of building retrofits
- Currently retrofitting LED street lights
- 99 hybrid or alternative fuel vehicles
- Municipal Clerk's Video Arraignment (avoided 86,000 miles of travel)





## Next Step

- Better Buildings Challenge
  - National leadership initiative calling on leaders to make a significant commitment to building energy efficiency.
  - Goal to make American buildings 20 percent more energy efficiency by 2020
  - 7 cities, 2 States already registered