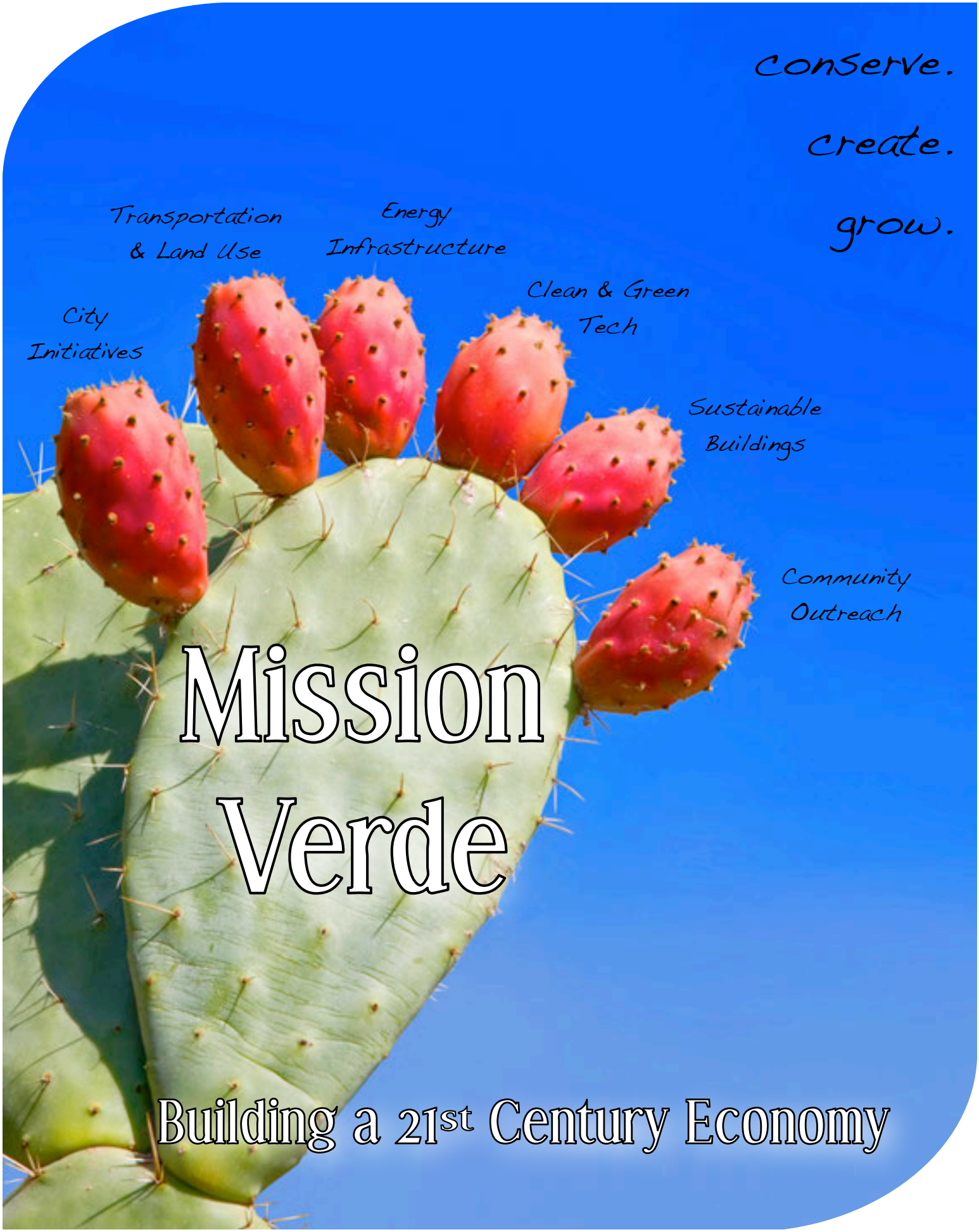
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Building a 21st Century Economy

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Introduction

We live in a world of volatile energy prices, increasingly scarce resources, vigorous world competition and technological innovation. Such rapid changes touch the lives of every San Antonian. How we respond to these changes will define us as a city and determine the quality of our lives and our economic fate. They represent perhaps the greatest challenge facing our city.

This plan, Mission Verde, speaks to this challenge. It is based on a simple principle: in meeting our needs today we cannot compromise the ability of future generations of San Antonians to meet their needs. This is sustainability. It is more than an environmental policy; it is an economic one. Saving energy saves money. Renewable energy creates economic self-reliance. Fewer cars on the road mean less pollution, which carries its own economic costs. A green infrastructure, powered by green technology, creates jobs.

This economic approach runs deep. It is being embraced around the world, from the European Union to China, from Singapore to Dubai. It is driving new technologies, new opportunities, and new jobs. It is expressed in the writings of the best-selling author and columnist Thomas Friedman and the noted economist Jeremy Rifkin, who both see this change as nothing less than the beginning of the Third Industrial Revolution and the future of the U.S. economy. It will be one of the most dramatic economic changes in world history.

San Antonio cannot afford to be left behind. We must invest in green technology, energy conservation, renewable energy, efficient transportation, and smarter buildings. We must build a new energy infrastructure that transforms our city from reliance on centralized power to distributed power. We must create a multi-modal transportation system that is integrated and efficient. We must bring venture capital to invest in new green businesses and technology. We must conserve, create, and grow.

With Mission Verde, San Antonio has a plan to do this. This plan not only allows San Antonio to participate in this new economy, but sets an example for others to follow. We can bring unique and innovative approaches to green infrastructure, green retrofitting, green jobs programs, and green venture capital. We can position ourselves to compete successfully in a 21st Century global economy. We can transform our city and improve the lives of all San Antonians. With Mission Verde, we control our destiny.

The Plan—A Summary

Mission Verde was drawn up after close study of the economic conditions in San Antonio and pays careful attention to the city's assets and challenges in building a sustainable economy. The intent of the plan, as shown by Appendix One (Initial Estimates: the Scope of Mission Verde's Benefits), was to invest in energy saving initiatives that would save the

consumer and the community money, and serve as a catalyst for job creation and innovation. The plan is comprised of interlocking parts that successfully work in harmony. For example, the plan calls for the creation of a multi-tech venture capital fund. This is needed to help seed businesses that will drive new green and clean tech technology and business models. A Green Jobs program, also recommended in the plan, is designed so that those businesses will not falter due to lack of workers. As the City leads by example, another initiative of the plan, the City's policy choices will also create and test the market for green businesses. The plan is mindful of San Antonio resources ranging from its people to natural resources and financial building blocks, and it builds on those strengths in logical, achievable steps. It is designed not to be static, but to contain elements, such as the city's Office of Environmental Policy and the Green One-Stop Center, that can respond to changing conditions in San Antonio.

While the focus of this plan is energy, this is not to diminish the importance of other parts of a sustainable economy, such as water and open spaces. San Antonio has made great strides in both areas. In water, San Antonio is a national leader in conservation, thanks to the efforts of the San Antonio Water System (SAWS). San Antonio uses the same amount of water today as it did 20 years ago, even though the population of San Antonio has increased by 50%. Because of this, SAWS has saved $550 million by not having to acquire new water resources. This has helped keep our water rates low and our conservation programs funded. In open spaces, San Antonio is developing an extensive linear park system, anchored by the 13-mile San Antonio River Improvement Project. San Antonio uses part of its sales tax for an innovative program to preserve sensitive aquifer features, which serves the dual purpose of creating parkland and preserving our aquifer. San Antonio also is developing a world-class park in Voelcker Park, a new 311-acre park that creates precious green space in a heavily developed part of town.

But it is energy that drives our economy, our foreign policy, and our environmental future. It is why President Obama said during the presidential campaign that energy was the number one domestic issue facing our country. It is why energy—how we create, move, manage, and use it—is at the heart of Mission Verde.

The table below is a graphic summary of the initiatives in Mission Verde.

Mission Verde Initiatives, Overview

	Initiative	Description	Near Term Action Steps	
Energy Infrastructure	**#1: Build a 21st Century urban energy infrastructure in San Antonio with distributive energy**	Generate energy from renewable energy sources such as solar, wind, biomass and geothermal, originated from buildings and homes, stored until needed and connected with a multi-directional grid	☑ Dec 08 ☐ Feb 09 ☐ Mar 09 ☐ Apr 09 ☐ Apr 09	Conference call with lead consultant Hire Jeremy Rifkin & his team Bring consultant team to SA Receive plan from team Begin implementation
Clean and Green Technology	**#2: Create a multi-tech venture capital fund in San Antonio**	Build a regional fund headquartered in San Antonio, capitalized at $100 million and managed by Brooke Private Equity Advisors	☑ Nov 08 ☑ Dec 08 ☐ May 09 ☐ Fall 09	Feasibility study Commission Market Assessment Complete Market Assess. report Capitalization
	#3: Create a Green Jobs Program in San Antonio	Collaborate with employers and educators to match training for existing and emerging green and clean jobs with employer needs.	☑ Nov 08 ☐ Feb 09 ☐ Apr 09	Assessment of needs Hire consultant Implement program
	#4: Use the City's economic development strategies to foster development of a 21st Century sustainable economy	Use tax abatements, cluster development strategies, business attraction and retention programs focused on clean and green tech companies.	☑ Nov 08 ☐ Ongoing	Target the clean/green tech industry Pursue clean/green tech businesses
Sustainable Buildings	**#5: Adopt a green, high-performance building code for new residential and commercial construction**	Move in phases toward building codes that produce zero carbon by 2030	☑ Jul 08 ☑ Jan 09 ☐ Mar 09 ☐ Jan 10	Task Force Recommend new code Adopt Recommendations New Code effective
	#6: Build a Green Retrofit Program for existing homes and buildings	Expand free weatherization program combined with retrofit program paid for by a "Pay As You Save"® surcharge	☑ Jan 09 ☐ Mar 09 ☐ Spring 09	Green Retrofit report completed Design & implement pilot program Consolidate/expand programs

	Initiative	Description	Near Term Action Steps	
Transportation and Land Use	**#7: Create an integrated, efficient multi-modal transportation system for San Antonio**	Pursue and fund light rail, high capacity rail and multiple transportation options	☑ July 08 ☑ Jan 09 ☐ Feb 09 ☐ Feb 09 ☐ Mar 09 ☐ May 09	Convene Task Force Recommendations Begin regional planning Pursue Austin-SA rail funding Combine RMA & VIA Secure local option funding
	#8: Create new sustainable real estate development that is mixed-use, mixed income, walkable and transit-oriented	Utilize real estate investment funds to advance walkable, infill neighborhoods	☑ July 08	Invite Star Fund
Community Outreach	**#9: Create a Green One-Stop Center to coordinate sustainability efforts and to provide information to residents and businesses**	Centralize sustainability groups, facilitate their efforts, demonstrate sustainability, and offer one source of information to residents and businesses	☐ Ongoing ☐ Apr 09 ☐ Jul 09	Stakeholder planning sessions Programmatic design finalization Finalize conceptual plan
City of San Antonio: Leading by Example	**#10: Address sustainability and resource efficiency across City departments**	The Office of Environmental Policy and Sustainability Task Force will facilitate energy efficiency, waste reduction and vehicular emission improvements	☐ Spring 09 ☐ Mar 09 ☐ Apr 09	Expand OEP capacity Launch website Issue sustainability directive
	#11: Maximize the Energy Efficiency of all City Facilities	Audit and implement lighting, HVAC, energy and water improvements at city facilities	☐ Jan-Apr ☐ Feb 09 ☐ May 09	Audit and Assess Implement Phase 1 – internal funds Implement Phase 2 – external funds

Energy Infrastructure

Initiative #1: Build a 21st Century urban energy infrastructure in San Antonio with distributed energy.

The hallmark of a 21st Century urban energy infrastructure will be distributed energy. This is a world where energy is generated through renewable energy sources such as solar, wind, biomass, and geothermal, originated from thousands of sources such as buildings and homes, stored until needed, and connected with a smart, multi-directional grid. This world will replace our current energy infrastructure, which is based on large, mostly fossil-fueled generating plants that transmit energy to consumers on a one-way grid.

It will be one of the most dramatic economic transitions in world history. The noted economist Jeremy Rifkin, who spoke of this new world at the CPS Energy Summit in the summer of 2008, calls this transition the "Third Industrial Revolution," which will bring a "new era of 'distributed capitalism' in which millions of existing and new businesses and homeowners become energy players. In the process, we will create millions of green jobs, jumpstart a new technology revolution and dramatically increase productivity, as well as mitigate climate change."

This transition is inevitable. It has already started in Europe, Asia, and the Persian Gulf. It is now coming to the United States. The question for San Antonio is whether we will lead,

join, or simply wait for others to make the transition while San Antonio falls irretrievably behind.

CPS Energy has spoken. It wants San Antonio to lead. On January 20, 2009, the CPS Energy Board adopted a Sustainable Energy Policy Statement that specifically endorsed the transition from a centralized power model to a distributed energy one. The Board also endorsed, as the means to achieve the transition, Jeremy Rifkin's Four Pillars approach—renewable energy, buildings as positive power plants, energy storage, and smart grids/plug-in vehicles.

It is time for the City of San Antonio to join with CPS Energy to make San Antonio a leader in this new energy world. By moving toward a distributed energy model now, San Antonio can become a flagship Energy City for the United States, create thousands of green jobs, foster new technologies and industries for San Antonio, and prepare our city to compete and lead in a 21st Century global economy. It is an opportunity San Antonio cannot miss. The question is how to begin this transformation.

On December 19, 2008, Mayor Hardberger hosted a conference call with Jeremy Rifkin, his Global CEO Roundtable, and the CPS Energy leadership. On the call representing Rifkin's team were architects, engineers, corporate CEO's, sustainability consultants, and renewable energy experts from around the world. His team included representatives from IBM, Siemens, Philips, GE, the Alliance to Save Energy, the GridWise Alliance, the US Green Building Council, CH2M Hill, and the Solar Energy Industries Association. Rifkin and his team represent a unique collaboration. Their message to San Antonio: they want to bring their unique collaboration of vision, expertise, and resources, to our city to transition San Antonio to a distributed energy model and make San Antonio, in Rifkin's terms, a flagship Third Industrial Revolution city. It is an unprecedented opportunity for our city.

Action

Move to transform San Antonio to a distributed energy system. Partner with CPS Energy to hire Rifkin and his team to develop step-by-step guidelines for implementing a distributed energy model in San Antonio.

Timetable

February 2009:	Hire Rifkin and his team.
March 2009:	Bring Rifkin and his team to San Antonio.
April 2009:	Receive plan from Rifkin; begin implementation.

Related documents:

CPS Energy Board of Trustees Sustainable Energy Policy Statement, adopted January 20, 2009

Jeremy Rifkin, *Leading the Way to the Third Industrial Revolution and a New Distributed Social Vision for the World in the 21st Century*

Jeremy Rifkin, *A Brief Summary of the Four Pillars of the Third Industrial Revolution*

Clean and Green Technology Development

Initiative #2: Create a multi-tech venture capital fund in San Antonio.

The key to creating the innovation and entrepreneurship needed to support a 21st Century sustainable economy is venture capital. Venture capital fosters new technologies, new companies, and new jobs. It energizes a community, moves it forward, and creates the foundation for sustainable economic growth. It is essential for a healthy, growing urban economy.

For San Antonio to achieve its full potential in biotechnology, high technology, clean and green technology, companies and entrepreneurs in San Antonio must have access to venture capital. The best way to do this is to create a multi-tech venture capital fund headquartered here in San Antonio.

We are well on our way toward achieving that end. In June, 2008, Mayor Hardberger commissioned a report on the feasibility of creating such a fund in San Antonio. The team assembled to do the report was Sustainable Systems (Oakland, CA), Economic Innovation International (Boston, MA), and Strategic Development Solutions (Los Angeles, CA). Together, these three firms have created more than 30 venture capital firms across the U.S. and around the world.

In November, 2008, the team issued a feasibility assessment report which concluded that San Antonio should pursue a multi-tech venture capital fund. The team recommended that the fund should be a regional fund headquartered in San Antonio and that it should be capitalized at $100 million. It also recommended that the fund manager should be Brooke Private Equity Advisers, a world-class Boston-based private equity firm with close ties to Advent International, one of the world's largest private equity firms. (The head of Brooke Advisors, Peter Brooke, is the founder and chairman of Advent.)

On December 4, 2008, the San Antonio City Council appropriated $75,000 to the fund building team to conduct the next phase, a market assessment report. When the market assessment report is done, the Fund will be ready for capitalization. Once it is capitalized, the Fund, with the leadership of the world-class fund building team and fund manager, will be able to put national venture capital to work in San Antonio, support local venture fund efforts, and accelerate the emergence of clean and green technology in San Antonio.

Action

Finalize the creation of a Multi-Tech Venture Capital Fund in San Antonio; move rapidly to capitalization.

Timetable

May 2009: Market Assessment Report
Fall 2009: Begin capitalization

Related documents:

San Antonio Multi-Tech Venture Fund Feasibility Assessment Report, November 2008.

Initiative #3: Create a Green Jobs Program in San Antonio.

The transition to a distributed energy model, the creation of a $100 million multi-tech venture capital fund, and the launching of a large-scale retrofitting program will generate thousands of green jobs that span many industries. These jobs will create new opportunities for San Antonians. To ensure that San Antonians, particularly the unemployed and underemployed, take advantage of these opportunities, we must provide training to match employer needs as they evolve. We must coordinate our workforce development resources and find funding to provide this training. This is the rationale for a deliberate, systematic Green Jobs Program.

In October 2008, the City of San Antonio hired Sustainable Systems to assess and make recommendations about the creation of a Green Jobs Program in San Antonio. Sustainable Systems partnered with the Council for Adult and Experiential Learning (CAEL), a leading national workforce intermediary based in Chicago with substantial experience designing and implementing workforce programs for cities, states, corporations, and industry sectors. Both came to San Antonio in November, 2008, and met with Workforce Solutions Alamo, Alamo Community Colleges, the University of Texas at San Antonio, the P-16 Plus Council of Greater Bexar County, CPS Energy, SAWS, and a variety of green employers. They concluded that San Antonio has the resources to create a Green Jobs Program, that it should do so, and recommended a set of action steps for creating such a program.

Now is the moment to create such a program. We need to design a comprehensive, large-scale Green Jobs Program which brings together key educators and employers in defined roles. The plan must respond to rapidly-changing conditions in the current workforce and anticipate new demands based on policy changes. We must move toward rapid implementation in order to put San Antonians to work in good-paying jobs with a future. By doing so, we will ensure that our new sustainable economy creates opportunities for all San Antonians.

Action

Design and implement a comprehensive, large-scale Green Jobs Program based on the CAEL and Sustainable Systems action steps.

Timetable

February 2009: Hire consultants to work with local partners to design program.
April 2009: Begin implementation.

Related documents:

Report on Establishment of a Green Jobs Program in San Antonio, January 2009.

Initiative #4: Use the City's economic development strategies to foster development of a 21st Century sustainable economy.

Traditional economic development strategies apply to the development of a 21st Century sustainable economy. Tools such as tax abatements, cluster development strategies, and business attraction and retention programs can be targeted and tailored for green businesses. The City of San Antonio, for the most part, already has these tools in its business development toolbox. In 2005, San Antonio did a cluster analysis which identified leading clusters here, including Environmental or "clean and green" Technology, defined as companies that create jobs that improve environmental quality. This can involve remediation, improvement of the natural environment, conservation and efficient use of resources. It includes business activities in the research, development, services or manufacturing of products such as pollution control devices and systems, waste treatment processes and storage facilities, clean energy products and services, green building products and services, alternative transportation products and services, recycling, and site remediation technologies.

In November, 2008, the City Council approved clean and green technology as one of the targeted industries available for funding under the Economic Development Incentive Fund. Recently the City also approved tax abatement guidelines that favored green building practices, such as meeting Leadership in Energy and Design (LEED) Green Building Rating standards or participating in CPS Energy renewable energy programs.

The City now must use these tools to aid local businesses and attract new ones. There will be fierce competition for green technology businesses across the country. San Antonio must be prepared to compete and aggressively seek such businesses, as it has successfully done in other areas, such as healthcare, financial, and automotive manufacturing. Just as Toyota brought many auto suppliers in its wake, so can the next successful green technology businesses have a ripple effect on San Antonio's economy.

Action

Use the City's business development toolbox to attract and support new green technology businesses.

Timetable

Ongoing.

Related documents:

Economic Development Incentive Fund Guidelines

Tax Abatement Guidelines, December 2008

Sustainable Buildings

Initiative #5: Adopt a green, high-performance building code for new residential and commercial construction.

Any strategy for significant electricity savings must address buildings. Buildings represent almost 75% of the electricity consumption in the country, and over 90% in San Antonio. Different approaches apply when dealing with new construction as opposed to existing buildings. The best way to address new construction is to develop a code that meets the specific needs of San Antonio by combining minimum standards, voluntary standards, and incentives.

To achieve this, in July, 2008, Mayor Hardberger appointed the Mayor's Task Force on Sustainable Buildings. It is chaired by Ed Kelley, the former head of real estate at USAA and currently an advisor to the Pearl Brewery development. The Task Force has over 40 members from the community represented on its Executive and Advisory Committees. The membership is diverse, with elected officials, city staff, architects, builders, engineers, developers, and environmentalists. Stakeholders include the City of San Antonio, CPS, SAWS, the Real Estate Council, the Greater San Antonio Builders Association, the San Antonio Apartment Association, the AIA, the U.S. Green Building Council, and the Sierra Club. Technical support is provided by Lockheed Martin, the Energy Systems Lab at Texas A & M, Build San Antonio Green, AACOG, and the City's departments of Environmental Policy and Development Services.

After months of work, this comprehensive group has made the following recommendations for a new green, high performance building code in San Antonio:

- New residential/commercial construction must achieve overall energy savings of 15% over current San Antonio energy codes.
- The improved code will take effect on January 1, 2010.
- Builders have flexibility to meet this new standard by using several different methods of measurement or certification.
- In 2012, the interim goal is a code that produces 30% savings over current energy codes.
- In 2030, the goal is new buildings that are net-zero carbon.
- CPS will provide incentives to provide 30% or more savings over current code, with greater incentives for greater energy savings.

These recommendations represent a smart, stepped approach to energy efficiency and new construction. As builders adjust to a new standard, they can use incentives to reach a higher voluntary standard. As more homes and buildings are built to this new voluntary standard, it will become easier to move to a new higher minimum standard. This process can continue in a measured, continuous way until the City achieves the ultimate goal in 2030 of a net-zero carbon building.

Action

The San Antonio City Council should adopt the recommendations of the Mayor's Task Force and create a new green, high performance building code for new construction.

Timetable

March 2009: Adoption of recommendations by City Council
Jan. 1, 2010: Effective date of new code

Related documents:

Recommendations of Executive Committee of the Mayor's Task Force on Sustainable Buildings, January 2009

List of members of the Executive and Advisory Committees of the Mayor's Task Force on Sustainable Buildings

Initiative #6: Build a Green Retrofit Program for existing homes and buildings.

The largest electricity use in San Antonio is in existing homes and buildings. The challenge is how to make these homes and buildings more energy efficient without mandating retrofitting. CPS Energy already has extensive incentives, and is developing more, for the retrofitting of homes and buildings. But CPS Energy cannot do it alone. To take advantage of CPS's incentives, owners and residents must have access to the capital needed to retrofit their homes and businesses. But often San Antonians do not have access to this capital, particularly in these hard times.

To address this issue, Mayor Hardberger commissioned Sustainable Systems (Oakland, CA), Strategic Development Solutions (Los Angeles, CA), and Economic Innovation International (Boston, MA), to develop a business model for large-scale green retrofits in San Antonio's buildings and homes. Later, the Environmental Defense Fund provided a $25,000 grant to assess the feasibility of the Pay As You Save® (PAYS®) platform, developed by the Energy Efficiency Institute (Vermont), as a business model for retrofits in San Antonio.

The two teams combined their efforts and recommended a two-prong approach to retrofitting in San Antonio. First, use a free weatherization program for retrofitting of low and mixed income neighborhoods. While San Antonio already has a limited amount of free weatherization, these programs could be consolidated and expanded, and take advantage of additional federal support for weatherization.

The second approach, for government, institutional, commercial, and higher income homeowners, is to use the PAYS (Pay As You Save) system. This system has several benefits:

- It requires no upfront payments.
- Retrofitting costs are paid through a surcharge on the CPS bill.
- The surcharge is less than the estimated energy savings from the retrofitting.
- The surcharge lasts for a specific time, but no longer than the useful life of the measures.
- Available incentives, such as from CPS or the manufacturer, can lower the retrofitting costs.

The Retrofitting team recommended that the City start a pilot program, using City buildings and possibly one commercial and multi-family building, and a few homes, to test the PAYS system. Lessons from the pilot can then be used to expand the system throughout the City. This system has the potential, working in tandem with the free weatherization program, to dramatically increase the energy efficiency of our existing building stock and create another essential part of a 21st Century sustainable economy in San Antonio.

Action

Consolidate and expand the weatherization programs in San Antonio and begin a pilot program to test the PAYS system.

Timetable

Spring 2009: Begin design and implementation of pilot program and consolidate and expand weatherization programs.

Related documents:

Report on Formation of a Green Retrofit Program, January 2009

Transportation and Land Use

Initiative #7: Create an integrated, efficient multi-modal transportation system for San Antonio.

One of the foundations of a 21st Century sustainable urban economy is an integrated, efficient multi-modal transportation system, something San Antonio currently does not have. In July 2008, Mayor Hardberger and County Judge Nelson Wolff appointed a 12-person task force to address this issue in San Antonio.

In January 2009, the task force made findings and recommendations. The findings are sobering:

- Our transportation needs outstrip our funding.
- New state and federal funding will favor mass transit.
- To be economically competitive, we must offer efficient public transit options.
- Of the nation's ten largest cities, San Antonio is the only one without public rail transit.
- San Antonio has essentially no comprehensive transportation plan or shared vision for our transportation future.
- Our various transportation entities do not coordinate well.

- Global conditions will favor communities with multiple transportation options over those with a single mode or fuel source.

But the task force also made recommendations that can eventually get us to the transportation system needed in San Antonio:

- Seek local option funding legislation from the State Legislature.
- Aggressively pursue federal funding of local and regional "high capacity transit."
- Consolidate the Regional Mobility Authority and VIA Metropolitan Transit.
- Have VIA begun planning, funding, and development of an enhanced public transit system, including light rail.
- Support the Greater Austin San Antonio Corridor Council to create transportation options that can link the two cities and create the potential for larger industry clusters.
- Begin a community-based regional planning process.

The ultimate goal of the task force is to create a "Roadmap," a transportation master plan for San Antonio that will create a sustainable transportation system for San Antonio.

Because San Antonio lags behind in transportation, we must waste no time in implementing these recommendations to develop the transportation system we need to support our expanding economy.

Action

Move as quickly as possible on the recommendations of the task force.

Timetable

February 2009: Begin the public transit planning at VIA and the regional planning process. Pursue federal funding for Austin-SA "high capacity" rail with help from the SA-Austin Corridor Council.

May 2009: Secure state legislation for local option funding and consolidation of the RMA and VIA.

Related documents:

Recommendations to the Mayor and County Judge of the San Antonio/Bexar County Transportation Task Force, January 2009.

Housing and Transportation Affordability in the San Antonio Metropolitan Region, December 2008

Initiative #8: Create new sustainable real estate development that is mixed-use, mixed income, walkable, and transit-oriented.

Land use affects energy consumption, public health, economic development, and air and water quality. The Transportation Task Force found that there is a "strong relationship" between land use and transportation: dense, mixed-use, walkable, and transit-oriented development reduces vehicle travel. San Antonio is not known for this kind of development, but it has several emerging examples:

- The Pearl Brewery—an adaptive reuse of 22 acres bordered by the San Antonio River just north of downtown, that is creating a mixed use development with residential, retail, educational, entertainment, office and recreational uses;
- River North—a mixed use development around the San Antonio River also just north of downtown that is linked by walkable streets and a trolley and is based on a form-based code;
- Verano—the first large-scale new urbanist community planned for San Antonio. It will be the home for the new Texas A & M campus and will fuse green building and operations with sustainable pedestrian-oriented community design and best practices in land use, waste management, and transit.

The City of San Antonio also has one of the most progressive Uniform Development Codes in the country with its alternative use patterns such as mixed-use Traditional Neighborhood Development, Transit Oriented Development, In-Fill Development, Commercial Retrofits, and Form Based Development.

San Antonio has the tools to create sustainable real estate development. What is needed is capital. In July 2008, the same fund building team that is working on the Venture Capital Fund and the Green Retrofit Program brought the Star Fund of Texas to San Antonio. The Star Fund is a real estate investment fund based in Dallas that is dedicated to investing in sustainable development. As a result of the Mayor's Mission Verde effort, the Star Fund is now working with developers in San Antonio to provide equity capital, technical help, and gap financing for sustainable real estate development in San Antonio.

Action

Take advantage of the Star Fund of Texas and other similar funds to invest in sustainable development for San Antonio.

Timetable

Ongoing.

Related documents:

Report on the Star Fund of Texas, December 2008.

Community Outreach

Initiative #9: Create a Green One-Stop Center to coordinate sustainability efforts and to provide information to residents and businesses.

San Antonio has a large number of groups working on different aspects of sustainability. These include CPS, SAWS, the City's Office of Environmental Policy, and AACOG, as well as stakeholders such as Build San Antonio Green, Solar San Antonio, and the Clean Tech Forum. With Mission Verde, there will be community-based sustainable efforts, such as the Green Retrofit and Green Jobs Program. It will be essential to coordinate these various sustainability groups and efforts and to create one central source of information for sustainability.

A Green One-Stop Center could house sustainability groups, coordinate their efforts, demonstrate sustainability, and provide one central and accurate source of information to

residents and businesses. It could be a City-owned facility or an independent non-profit that works with or is under contract to the City.

A committee has been formed under the leadership of the ACC and the Clean Tech Forum to explore the creation of a sustainability center called the Alamo Clean Tech Learning Center. The committee has representatives from the City, SAWS, CPS, the Pearl Institute, ACC, the Clean Tech Forum, Southwest Research Institute, Incarnate Word University, Solar San Antonio, as well as business and community leaders. The center could teach, coordinate, demonstrate and provide information on sustainability. Possible locations for the center include the Pearl Brewery and, ultimately, the new sustainable ACC development that will be built at the Playland site just north of downtown.

The efforts of this group should be the genesis of a public private partnership between the City and various stakeholders to create a sustainability center in San Antonio.

Action

Work with public and private stakeholders in creating a center to coordinate sustainability efforts and provide a central source of information for sustainability.

Timetable

April 2009: Finalize programmatic design
July 2009: Finalize conceptual plan

City of San Antonio: "Leading by Example"

Initiative #10: Address sustainability and resource efficiency across City facilities and departments

The City has organized two new tools to advance sustainability - the Office of Environmental Policy (OEP) and the Sustainability Task Force. The OEP facilitates the City's coordinated movement toward energy efficiency, waste reduction, and vehicular emission improvements. The Sustainability Task Force brings key department directors together to spread best practices throughout the City. The Task Force consists of the City directors of Capital Improvements, Management Services, Finance, Fleet Maintenance and Operations, Office of Management and Budget, Purchasing and Contract Services, Solid Waste Management, and is chaired by the City's Chief Information Officer and staffed by the OEP.

The goals of the Sustainability Task Force are:

- Increase accountability for efficient use of resources, support local economic development, and assist in protecting the environment;

- Maximize interdepartmental collaboration and knowledge sharing, and capture City wide efficiencies and cost savings;
- Integrate and improve existing operations;
- Provide a forum for communicating the City's sustainability efforts to the larger community;
- Assist the City to become a leader and a model to other communities in the application of sustainable technologies and practices.

The OEP has taken the lead to accelerate energy upgrades to City facilities. The Sustainability Task Force has recommended a key water saving project at HemisFair Park in partnership with SAWS, a plug-in hybrid research program in partnership with CPS Energy, a new Administrative Directive to house key sustainability policies relating to greening the City fleet, Environmentally Preferable purchasing, recycling in City facilities, and Telework.

Action

Take advantage of all opportunities to improve sustainability within City operations and track the best practices and policies that are being implemented so that those outside the City may learn from those examples.

Timetable

February – May 2009: Implement planned staff improvements to OEP in order to expand capacity.
March 2009: Launch a website hosting a best practices section and build an exchange mechanism with major businesses and other public entities within the region.
April 2009: Issue sustainability directive.

Initiative #11: Maximize the Energy Efficiency of all City Facilities.

A large number of technology enhancements in areas such as lighting and HVAC have become available since most City facilities were constructed and began operations. A systematic audit of opportunities for energy and water improvements followed by implementation of these improvements, using a range of financing options, will improve energy and water efficiencies, workplace quality, and generate cost savings. OEP has initiated this work with audits and implementation plans for lighting improvements in police substations. Preliminary audit results show an average of a 1.5 year payback for lighting improvements.

A plan and schedule is in place to complete audits of all older facilities and prioritize upgrades according to those with the most to gain in efficiencies from lighting improvements.

Next, OEP will evaluate the potential for a full range of possible sustainability and resource efficiency services and benefits for City properties. For example, using strategically located City properties for car sharing locations, tree planting, and/or urban gardens expand benefits to the community beyond the core services offered at the properties.

Moreover, the City will partner with CPS Energy and SAWS as early adopters of efficiency and conservation programs developed by the utilities. As CPS Energy and SAWS roll out advanced metering initiatives, the City will integrate the new meters and related technology to help speed integration and effective use throughout the city.

The City will analyze new methods for integrating and financing distributed renewable energy. As new bond funding tools become available such as Qualified Energy Conservation Bonds (QECB) and Clean Renewable Energy Bonds (CREB), the City will take steps to use such tools to facilitate the use of renewable energy in City facilities and possibly for the community at large.

The City will broadly disseminate best practices and pilot findings as learning opportunities for everyone.

Action

Pursue new financing tools to accelerate energy and water efficiency improvements in City facilities as well as the community at large.

Timetable

February 2009: Conduct feasibility study of QECB and CREB bonds.
Ongoing: Coordinate with CPS Energy and SAWS in rolling out the Advanced Metering Initiative
Ongoing: AIM (Audit, Implement, Measure) for energy and water efficiency improvements in City Facilities
Ongoing: Identification and implementation of additional sustainability and resource efficiency opportunities in relation to City facilities.

Conclusion

San Antonio is at a crossroads, a choice of paths. The path of sustainability is a path that leads to the future, one in which San Antonio invests in itself, generates its own energy, creates its own jobs, and builds a vibrant, 21st Century economy. Mission Verde is this path. Its many pieces fit together as one. The commitment of this city and community to sustainability, and the comprehensive, economic approach laid out in this plan are what has drawn the internationally known Jeremy Rifkin to see San Antonio as an ideal site to develop a model energy infrastructure. It is what has drawn world-class fund builders and fund managers, nationally recognized workforce development organizations, and cutting-edge sustainability experts to San Antonio. They see the potential for San Antonio to become a leader in a new world. All that remains is for us to act on that potential.

Appendix 1: Initial Estimates: the Scope of Mission Verde's Benefits

Initiative	Assumptions	Annual energy savings/generation			Local job creation		Annual greenhouse gas reduction	
		Megawatt-hours (MWh)	Equal to powering how many San Antonio homes?	Direct financial impact of energy savings	Permanent local jobs	Total annual salaries	Tons CO_2 equivalent	Equal to taking how many cars off the road?
Multi-Tech Venture Capital Fund	$100M invested in attracting multi-tech businesses to San Antonio	--	--	--	3,000	$100M	--	--
Solar distributed generation	9 jobs per MW, PV panels on 50,000 homes (3kW) and 6,000 businesses (16kW) → create 250MW capacity	400,000	30,000	$30M	1,000	$40M	250,000	40,000
Residential Green Retrofit	Benefits calculated for 2015 for 30% of San Antonio homes retrofit, 15% average household energy savings	300,000	20,000	$25M	300	$10M	200,000	35,000
City Facility Green Retrofit	All city facilities retrofit by 2015, 12% average facility energy savings	30,000	1,500	$2M	20	$0.5M	35,000	6,000
CPS energy efficiency goals	Achieve 2020 demand reduction potential of the "aggressive incentive scenario" in Nexant's study	250,000	15,000	$20M	5,500 jobs; local and non-local	Uncertain	150,000	25,000
Task Force on Sustainable Buildings, 15% energy reduction mandate by 2010	Benefits calculated for 2015, the 5th year of the new codes	250,000	15,000	$20M	--	--	150,000	25,000
Task Force on Sustainable Buildings, 30% energy reduction goal	Benefits calculated for 5th year of achieving 30% energy reductions	450,000	35,000	$35M	--	--	300,000	50,000

Note: This analysis offers an estimate of the scope of benefits achievable through the programs outlined in this plan. Only the direct benefits of Mission Verde initiatives have been calculated; there are significant additional benefits due to the economic multiplier effects of local job creation and investment of capital into green initiatives. Furthermore, programs that reduce energy demand allow San Antonio to avoid costs related to new energy generation and infrastructure (power plants, transmission lines, electrical substations, etc.). For example, CPS' energy efficiency efforts are estimated to avoid $1.4B in energy generation and infrastructure, per analysis conducted by energy consultant Nexant.