

Summit Smithville

Sustainable Smithville Plan



April 2012

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2012 SECO Sustainable Smithville Plan

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Summit Smithville

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History and Background

The City of Smithville is located in Central Texas, within two or three hours from some of the largest cities in the state: Austin, Houston, San Marcos, San Antonio, and Dallas. Many of our residents have retired to the “heart of the megalopolis” from major companies like Dell, IBM, MD Anderson and from the state university system. In addition, Smithville has grown and attracted an educated group of people of working age who appreciate the City’s tradition of service to the community and sense of caring about each other. Many of these individuals have stepped forward with some terrific ideas about what technology can do for a small, rural area (population about 4,000).

In June 2010 Smithville was awarded a small American Recovery and Reinvestment Act (ARRA) formula grant through the Texas State Energy Conservation Office (SECO), which paid for energy efficient lighting at several public buildings and a SkyStream Wind Turbine. It is located at the windiest place in Smithville on city property—at the Willow Creek Wastewater Treatment Plant located on the north side of Hwy 71 opposite the highway from the Seton Smithville Hospital.

With the successful implementation of this alternative energy solution, we applied and were approved for another SECO grant. In April 2011, the State Energy Conservation Office officially gave the green light to move forward with the second Smithville grant contract, which provided the majority of the funds needed for a solar array on City Hall’s rooftop. That project required matching funds, most of which was met by paying city staff for in-kind work related to sustainability issues involving renewable energy and recycling, as well as developing a training program that promoted skills in these industries. The Grants Administrator and other staff and volunteers were required to spend time towards investigating and developing a “Sustainable Smithville Plan,” a Feasibility Study to show how the Plan might become a reality, a Training Plan, and a Case Study Manual that documented the entire process. This report is one of the four deliverables that were promised as a result of that grant award (see Appendix 1 for a summary of all four deliverables). It is presented as Deliverable #1 Sustainable Smithville Plan:



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The Sustainable Smithville Plan will:

- Establish the commitment of city leaders and community members to a Sustainable Smithville in various aspects of renewable energy, reduction in energy needs, and other issues in sustainability.
- Discuss the potential for bringing in solar, biomass thermal, and other renewable energy sources into the city.
- Outline the future of energy production in Smithville.
- Examine training and economic development opportunities (such as eco-tourism to show others how Smithville was able to become the “most sustainable little town in Texas”).

The City of Smithville has a long history of reaching for innovative solutions and working with a talented, educated volunteer base that makes everything possible here. We also have a strong tradition of public input and take the comprehensive planning process very seriously. Despite the great costs associated with implementing these projects, we are confident that our small town can excel in this endeavor.

City Leadership Commitment

Smithville’s Mayor and City Council members have shown their commitment to the concept of saving resources and taxpayer money by going green where the return on investment makes the most sense and where the City can use grant funds to offset any higher costs of newer technology. They are also very interested in “leading by example”—the City is taking on projects that might be risky to an individual, and these projects will help show the reality of how well different alternatives work.

Like many municipalities, Smithville currently derives most of its general revenue from selling electricity to city residents and businesses. As we promote greener, renewable energy and facilitate energy production at the building site, this source of revenue may slowly decline. Several individuals have indicated that they do not believe the City truly supports this energy model because it may substantively mean a drastic reduction in the budget for city services down the road.

The Sustainable Smithville component of the 2011 Comprehensive Plan reflects that commitment (see Appendix 2 for the full text of the Plan component). In brief, the 2011 Comprehensive Plan calls for:

- Creating “How to” guides for recycling and alternative energy
- Establishing a broad outreach and informational program for residents for the long term
- Signing the Zero Waste Resolution and Interlocal Agreement with the Zero Waste Alliance
- Continually seeking innovative methods of generating “green” benefits



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Some of the alternative sources of revenue and energy currently under investigation include:

- A facility that recycles tires (more details are provided in the feasibility study)
- A partnership with a local nursery to sell compost and mulch that the Smithville Independent School District and the City of Smithville would partner to create (more details are provided in the feasibility study)
- A waste-to-energy plant (this is not in the feasibility study as it only recently was suggested)

In addition, seeking ways to save energy and money are always on the radar as well. For example, the Feasibility Study includes a project that would replace our downtown historic streetlights with a model that has a solar panel, which would eliminate the need to replace the failing electrical system and would save on energy costs. City leadership is very open to making a leaner budget through cuts that do not affect people, and this kind of project would do just that.

Community Support and Partnerships

The community in Smithville has been very supportive of these efforts. The Summit in June and the November EXPO! were well attended, and people have been very interested in the most visible of our efforts—the solar panels on the roof at City Hall. Over 100 people have been informed about the solar panels, from people who ask various staff members about what they are about to presentations about them in a number of community meetings. Despite a few people who grumble that this is not a good use of taxpayer money, the community on the whole has been very receptive and interested in this program. Several have volunteered to take on a number of tasks related to sustainability in Smithville, like developing a guide-book or primer (as described in the Feasibility Study and the Case Study).

Summit Smithville and EXPO!

The Grants Administrator and the Director of the Public Library convened a “Summit Smithville” workshop in June 2011, inviting everyone who had been involved with the Comprehensive Planning process that year as well as opening it up to the public and to other individuals and organizations they thought might be interested in the topic.

Twenty-six people attended the “Summit Smithville” in June, and from this group, an eight-member task force was formed. The task force determined that a single EXPO event would be a better use of time and resources, and would likely be better attended than several targeted workshops, and therefore set a date in November to bring speakers and vendors to Smithville. The Smithville Times was very supportive of this program and provided news coverage to promote the event and to report on it after it was over.



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Partnerships with Local Organizations

In addition to the Summit Smithville public activities, other important partnerships have been developed. Particularly useful has been the partnership established with Technology for All, Keep Bastrop County Beautiful (KBCB), and the Lower Colorado River Authority (LCRA).

In December of 2011, Jack Ranney, Economic Development Specialist I with LCRA, met with Mayor Mark Bunte and Grants Administrator Jill Strube to discuss the possibilities open to Smithville to work on sustainability with regard to waste disposal. From these meetings, an economic paradigm has been suggested. The "Sustainability Model for Economic Development," which pairs industries that take in recyclable materials with industries that use recycled materials (for example, a business that shreds tires paired with a business that uses shredded tires in products it sells), is now being pursued as a long-term goal for the City to bring in new industries and grow the job market. Jack has offered to develop a business recruitment strategy seeking a tire processing company to Smithville. They can perform market analysis and a target industry analysis profile as part of this strategy. They have been given authorization to do so and will begin a formal study in summer 2012.

In addition, these meetings with Jack Ranney have become the foundation upon which a broader plan for waste at the County level will be developed. LCRA has agreed to work with the County and its communities to develop a Community Waste Assessment for the future of solid waste, recyclables, and Household Hazardous Waste such that the County can evaluate what kind of long-range program and collection method are needed and feasible with existing resources. It will also provide information about the potential for other resources, and will provide a road map to get to a realistic goal for solid waste management.

Potential for Renewable Energy Sources and Sustainable Practices

Through grant funds provided by the State Energy Conservation Office (SECO), the City of Smithville has been fortunate in its ability to provide two models for renewable energy in this area: a wind turbine at the Willow Creek Wastewater Treatment Plant and solar panels on the roof of City Hall. These projects have generated a great deal of interest in the community.

The Feasibility Study discusses seven potential projects that were determined to be important to work

- Project 1: Industrial Park on Hwy 71
- Project 2: Tire Shredding Facility and Economic Development Partnership
- Project 3: Mulch and Composting Compound
- Project 4: Household Hazardous Waste Collection Event and Community Assessment
- Project 5: Assistance to Home and Business Owners
- Project 6: Main St. Street Light Program
- Project 7: Weatherize Public Buildings



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In March 2012, the public was asked to respond to an internet survey (see the results in Appendix 3). The request was made via the Comprehensive Plan Newsletter (which reaches approximately 70 people), the City Blog, and email and personal requests. A total of 24 people responded by the time this report was due, and results were largely supportive of the City's work in researching and seeking funds for green industry programs. Although the response rate is not high enough to indicate the public's real reception to this program, it does indicate that a few people in town are engaged in this program, and could help to shape it as it moves forward.

Future of Energy Production

Alternative energy is by no means a cheap program to follow. It is imperative to find other sources of funding through grants and foundations if Smithville is to continue down the sustainable path. The Smithville Independent School District has implemented a number of energy-saving devices, like motion detector lights in classrooms, and is very interested in finding a grant to fund solar panels on the roof of the administration building, given the success of the panels on the roof at City Hall.

In addition, the City Manager is interested in a number of energy alternatives, for example a waste-to-energy plant and a bio-thermal generator system. As time and funds allow, research will determine whether these and other alternatives would make sense for Smithville to pursue, and various potential funding sources will be undertaken for those that could help the town as a whole reduce our carbon footprint. The public appears generally supportive of the forays into wind and solar that the City has undertaken, and, provided any other programs can avoid taxpayer dollars, are generally supportive of seeking more green energy projects.

Funding for certain projects, especially those that could be replicated in other rural areas, might be obtained through the following institutions:

- The Energy Foundation (http://www.ef.org/app_guidelines.cfm): Although the Energy Foundation has very restrictive language about what it will fund (no demonstration projects, no local projects unless they are designed to be replicated, more support for regionally-intended projects), it should not be discounted as a potential source for the right project.
- The US Housing and Urban Development (HUD) Community Development Block Grant (CDBG) (http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs): Several programs administered through HUD might provide funds for a renewable energy project including the Renewal Communities / Empowerment Zones / Enterprise Communities program and the state administered CDBG program. Some work would be required to get the project on the state's radar as a priority for funding.
- The Texas State Energy Conservation Office (SECO) (<http://www.seco.cpa.state.tx.us/>): The City of Smithville may also consider looking towards the office that funded the two renewable



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energy projects currently on line. Periodically, grants and loans that might apply to some of these projects are announced, and should be monitored.

Training and Economic Development

Finally, it is extremely important that these changes help support the town's economy and families that live here. Ultimately, this effort is about improving the quality of life locally and reducing our weight globally. The "Sustainability Model for Economic Development" pairs industries that take in recyclable materials with industries that use recycled materials, and also seeks to convince businesses related to green energy that Smithville would make a great home base. Part of that solution is to provide potential employees that already have the skills needed to produce a high quality project. These final issues are discussed in more detail in the Training Plan and the Feasibility Study. Some highlights include:

- The work that Jack Ranney's team at LCRA will begin in summer 2012 to help develop aspects of a business plan and identifies potential business partners through the scrap tire program;
- Working with other governmental entities in the County, Smithville will be one of the hubs for sustainably managing waste including recycling and renewable resources, and household hazardous waste;
- The training program as envisioned would be an amenity that we can sell to prospective green industries, thus providing good jobs for local people and growing our capacity for economic development; and
- The training program will teach the skills needed for a workforce from Smithville that will help people make their careers in the jobs for the future.

Conclusion

The City of Smithville is committed to green solutions to several local and global challenges, including economic development and job training, energy production, and quality of life. Smithville is a town where "everything is possible," and where people love a good challenge.



Appendix 1: Deliverables Summary

The Sustainable Smithville Plan will:

1. Establish the commitment of city leaders and community members to a Sustainable Smithville in various aspects of renewable energy, reduction in energy needs, and other issues in sustainability.
2. Discuss the potential for bringing in solar, biomass thermal, and other renewable energy sources into the city.
3. Outline the future of energy production in Smithville.
4. Examine training and economic development opportunities (such as eco-tourism to show others how Smithville was able to become the “most sustainable little town in Texas”).

The Feasibility Study will help show how this Plan can become a reality. It will:

1. Identify at least five renewable energy and sustainability projects.
2. Provide details on implementation and budget for these projects.
3. Identify potential funding sources and partnerships, and other resources needed to bring the projects to fruition.

The Training Plan will:

1. Establish partnerships in educational institutions and city facilities (such as the Library and the Recreation Center) needed to make training possible.
2. Identify the groups in need of training, such as the unemployed and underemployed, as well as students first entering the workforce.
3. Develop initial ideas for training curricula, and seek resources that may already have outlined curricula in various fields.
4. Develop strategies to reach out to potential students.
5. Work to establish a training schedule to begin at the culmination of the year.

The Case Study Manual will:

1. Collect papers and procedures, as well as public input related to the process and any procedures that go into the success of the above documents.
2. Organize these into a case study manual of how Smithville was able to accomplish its goals.
3. This case study would be available on the internet, and will provide a useful tool for other communities and neighborhoods wishing to use Smithville as a model in sustainability.

Leadership partners include city and county officials, school officials, LCRA, Keep Smithville Beautiful, the Smithville Chamber of Commerce, and a variety of community groups like the Bastrop Workforce Development program, Smithville Community Network, Smithville Community Fund, Noon Lion’s Club, and many others. In addition, many community members are interested and excited about the possibility of renewable energy in this small town, and many will want to take part in this program. Several commercial business owners on the historic Main Street are interested in the possibility of solar energy on their rooftops, and a pilot project on a city-owned building will help promote the possibility and inform each owner of its reality.



Appendix 2: Related Elements in Smithville's 2011 Comprehensive Plan

NOTE: *This is from the March 2011 Draft, which was not adopted at the time of this writing.*

Environmental Sustainability

Introduction

One area that was not addressed in the original Comprehensive Plan was the issue of environmental sustainability. This has become a growing priority for the community, and this update reflects that increased interest and attention. The current focus of attention is on solid waste management; however, the concern for environmental sustainability extends to water and energy issues. The City should continue its focus on sustainability and continue to build public awareness and support for the challenge. The Expo was a tremendous opportunity to spread the word about sustainability and should be continued on an annual basis. The key is to find funding and support and to ensure it remains a meaningful event, not just a space filler on the calendar.

Short Term Recommendations

There are a couple of activities the City can undertake for minimal cost to raise awareness of reducing waste. The benefit will be longer term in reducing the City's cost of landfill operations. Public outreach and education should be a priority moving forward. The opportunities include:

- Create 'How to' Guides for Recycling and Alternative Energy for Residents and Businesses
- Sign the Zero Waste Resolution and Interlocal Agreement with Zero Waste Alliance

Create 'How to' Guides for Recycling and Alternative Energy for Residents and Businesses

Citizens can be empowered to regulate and change their individual behavior, and this should be the first step. If residents have the information to make smart choices, they usually will. The City should partner with other area communities to develop brochures that can educate residents on the benefits of recycling, the resources available to do so, and why it is important. The same type of brochure can be developed for renewable energy. Many municipal and cooperative electric providers have significant rebate opportunities for energy improvements. There are also potential Federal tax savings. Many residents may not be aware of these programs and the cost savings they will see. The City should take a leadership role in educating residents on the importance of environmental sustainability and the steps they can take to move Smithville forward.



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Sign the Zero Waste Resolution and Interlocal Agreement with Zero Waste Alliance

Zero waste signifies that essentially all municipal solid waste is diverted from landfills through aggressive recycling and composting efforts. It takes a significant investment from the City and, critically, from residents to be successful. The City should carefully weigh the costs and benefits of signing on to a Zero Waste commitment because of the potential investment required.

The first step would be to gauge community interest. While the attendees of Summit Smithville identified this as a priority, it may be that the rest of the community is not interested. A targeted outreach effort should be conducted to ensure this will be supported because it requires such citizen participation to be successful. If community support is there, the City can move forward with implementing the project.

Conclusion

Environmental sustainability, by definition, is an on-going, long term effort. The City should lay a foundation for success through a broad outreach and education effort. Residents will be more supportive if they understand how it will benefit them directly. It can be difficult to generate much enthusiasm from the general public on vague 'environmental benefits'; however, if they see a financial savings in their utility bills, or savings in their taxes, they will be much more supportive.



Appendix 3: Results of 2012 Alternative Energy Internet Survey

In March 2012, the public was asked to respond to an internet survey. The request was made via the Comprehensive Plan Newsletter (which reaches approximately 70 people), the City Blog, and email and personal requests. A total of 24 people responded by the time this report was due, with the following responses:

Summit Smithville March Survey (24 Respondents)	Number	%
Smithville is working on developing a training program in alternative energy. Do you want more information about it?	16	66.7%
Were you aware of the wind turbine at the Willow Creek Wastewater Treatment Plant?	10	41.7%
Were you aware of the Solar Array on City Hall's roof?	20	83.3%
More Solar	22	91.7%
More Wind Turbines	18	75.0%
Reduce energy consumption/Conserve energy	19	79.2%
Geothermal	9	37.5%
Biomass Energy	8	33.3%
Biodiesel Fuel	10	41.7%
Human power (for example, bikes at the recreation center that get energy from the person pedaling)	12	50.0%
Other	2	
Public Transportation		
"By All Means"		

What is your general opinion about alternative energy?

- Needs more development in making it cheaper and easier to use.
- I think if alternative energy truly saves money, INCLUDING THE COST OF PURCHASE AND INSTALLATION OF PRODUCTS, in a relatively short period of time, we should definitely use it. However, if it's going to be a 99-year payback or something, we should wait until they have come out with cheaper alternatives.
- Has much potential. Would benefit from less propaganda from those who oppose it and more education from those who are in favor of it.
- I like the idea but am concerned about the cost of changing over to it. I know it would be cheaper to use it and have no problem with it.
- It rocks need more of it.
- Vitally important, both for the sustainability of our community (and planet) and for the attraction of new green businesses and earth friendly residents. In addition, if it can help reduce energy costs for residents, I think it would receive much more support!

- We need more!
- Very practical and necessary for the future.
- Think it's a great new energy source that we need. All for it!!
- We, the world, need to be proactive in pursuing alternative energy options. We need to be better stewards of this planet and its resources as we look to the future for our children's children. Our family has often times looked for inroads to using alternative energy in our daily lives.
- I believe we are behind in developing alternative energy sources. We should capitalize on renewable energy and reduce our dependency on fossil fuels.
- I think alternative forms of energy should be investigated by private industry. This country was built on the private industry taking ideas and finding a way to make them profitable and bring them to the public at an affordable price. As has been in the news lately, the feds' involvement has been shown to fail in the form of Solyndra and the Chevy Volt. I am in favor of exploration of alternative sources of energy in conjunction with increasing oil production in the USA which would also add jobs to the economy.
- If more were spent on research and design of alternative energy, new, lower cost technologies would become available. That's difficult in a political climate of "drill baby, drill."
- Fabulous. Teach us more so we can all go "off the grid".
- I think it is the only way we are to survive as a species.
- This country needs more affordable alternative ways to become less dependent on fossil fuels for energy.
- It's great - just needs to be more affordable.
- I think it's about time we (society in general) started using what God has given us to our advantage and for each of us to do our part to preserve the planet for future generations.
- I think it is imperative that technology moves in and "alternative" direction that the path we are on. It is a shame that the question like this has to be asked because the term "Alternative Energy" carries a negative connotation to some people. I am thrilled to see the leaders of Smithville not buy into that trap and lead our community in this direction and set an example for other communities.
- Alt energy will become increasingly important in the years to come. In my opinion, energy and water are issues we owe our children and grandchildren to address now. We can start today by simply addressing our energy/water use habits.
- Alt energy will become increasingly important in the years to come. In my opinion, energy and water are issues we owe our children and grandchildren to address now. We can start today by simply addressing our energy/water use habits.
- Renewable energy is the future. The Smithville leaders and townsfolk should be commended for their forward thinking and open-mindedness. Hats off to you!!

What would you like Smithville to consider looking into for alternative energy solutions?

- Look into it, but be sure it is cost effective.
- Not sure right now, since I don't keep up with this technology. If it fits my above criteria (payback in a short period of time), we should definitely consider it. Otherwise wait until technology catches up with our needs.
- Is there any way that running water can create a significant amount of energy? We have a



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river.

- More solar, possibly bio-mass. More human power like bike riding for instance. Maybe a human powered taxi service (rickshaws).
- Wind and solar mainly.
- ?
- Solar & Wind Generators!
- Collaborating with the schools to convert them to alternative energy users, maybe solar power. What an example for our kids and what a way to make a significant impact on the long-term school dollar's power to educate. Saving/investing in an alternative energy supply for the schools frees much needed funds to be more directly used to our enhance children's educational experiences.
- Primarily solar; based on geographical location. Biodiesel for county/city vehicles. Increase education program on conservation; enable citizenry to reduce consumption by offering rebates/reduced rates for decreased consumption.
- Whatever does not cost the taxpayer additional money is fine with me. In regards to the questions below, how much money are we going to spend on implementing alternative forms of energy while reducing income for city utilities?
- I would like to see the city provide periodic data on the programs they have invested in and if possible, have The Times do a story. Citizens need to know what is good/bad about the investment. Would also like to see the city do more of what they've been doing. Also, composting, recycling - especially glass. A small thing, but the monitor in the lobby at city hall that has the solar data on it - that can be turned off at night.
- Conservation first. Encourage living in smaller homes, driving less in smaller more fuel efficient cars. WALK or BIKE. How about geothermal?
- I WOULD LIKE FOR SMITHVILLE TO HELP WITH REBATES AND GRANTS FOR HOMEOWNERS AND BUSINESSES TO INSTALL ALTERNATIVE ENERGY METHODS. I AM INTERESTED IN WIND AND SOLAR FOR MY USE. HOWEVER, THE COSTS ARE SO EXPENSIVE THAT IT WOULD TAKE DECADES TO RECOOP THE EXPENCES. THANK YOU, RAYMOND CHAVEZ
- ?
- Wind and solar are great starts. Affordable solutions that the individual homeowners can use to help reduce their reliance on traditional energy sources would be nice (energy buy back programs). Community composting of kitchen and garden waste would be nice as well (if it doesn't already exist and I just don't know about it!).
- Love the solar panels on city hall and would like to see Smithville actively promote solar and wind energy. I would like to see more done with rain water harvesting and recycling. The recycling center is good, but could be better. Other areas I would like to see is the promotion of car pooling or mass transit. Most of us commute to Austin so it would be great to have a way to do that with a smaller environmental footprint.