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# Town of Loomis

## Strategic Energy Resources Report

### Public Review Draft

Town Council Meeting  
March 10, 2015

Presentation by: Sierra Business Council  
Supported by: Pacific Gas and Electric Company

# Agenda

- Who is the Sierra Business Council?
- Evolution of the Strategic Energy Resources Report (SERR)
- Why Prepare a SERR?
- Report Contents
- Energy Savings
- Goals, Strategies, Actions
- Implementation

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# Genesis of the Report

- 2011/2012 - Inventories and Forecast
- 2013 - Decision to Develop a SERR
- 2014 - Energy Use Forecast
- 2014 - SERR Preparation and Outreach

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# Why Prepare a SERR?

- Weather Affects Energy Use
- Flexibility in Meeting Energy Needs
- Energy Savings (\$) Spent Locally
- Potential New Businesses
- Respond to State Directives
- Potential Access to Funding







# GOAL: 19% and 4%

## Reduction

Energy Use	2005 Baseline	2020 BAU without the SERR	2020 BAU with the SERR	Percent Difference
Electricity	48,280,962 kWh	54,168,668 kWh	43,707,285 kWh (-10,461,383 kWh)	19% reduction from 2020 BAU
Natural Gas	1,306,513 Therms	1,478,600 Therms	1,419,351 Therms (-59,249 Therms)	4% reduction from 2020 BAU



# Annual Savings by Strategy Area

Strategy Area	2020 Annual Energy Savings		2020 Annual Cost Savings	
	kWh	Therms (natural gas)	Electricity	Natural Gas
Existing Structures	1,448,429	39,195	\$ 367,322	\$ 137,184
New Construction	724,366	13,624	\$ 183,699	\$ 47,685
Renewable Energy	8,203,799	6,430	\$ 2,080,483	\$ 22,504
Municipal Operations	29,730	--	\$ 7,539	--
Water Conservation	55,059	--	\$ 13,963	--
<b>Total</b>	<b>10,461,383</b>	<b>59,249</b>	<b>\$2,653,006</b>	<b>\$207,373</b>



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# GOALS, STRATEGIES, ACTIONS



# Energy Reduction Focus Areas

1. Existing Structures
2. New Construction
3. Renewable Energy
4. Municipal Operations
5. Water Conservation

Overarching Goals

Strategies

Actions

Performance Indicators

Targets

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## GOALS

1. Increase Energy Performance in Existing Structures
2. Increase Energy Performance of New Construction
3. Increase Renewable Energy
4. Increase Energy Efficiency in Municipal Structures and Operations
5. Increase Community Water Conservation to Reduce Associated Energy Use

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## STRATEGIES

- **Expand Public Outreach**
- **Increase Public Education**
- **Promote Existing Programs**
- **Access to No Cost Trainings**
- **Provide Technical Support**
- **Provide Incentives**
- **Evaluate Feasibility and Cost Effectiveness**

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## ACTIONS

- Partner with Outside Entities
- Utilize Town's Website
- Provide Training Opportunities
- Identify Energy Efficiency Incentives
- Evaluate Community-Wide Solar Potential
- Evaluate Streetlight Upgrade Benefits/  
Costs



# CASE STUDY #1

## BLUE GOOSE EVENT CENTER

3550 Taylor Rd. Loomis, CA 95650



<b>BLUE GOOSE EVENT CENTER</b> SNEW Energy Efficiency Upgrades	Event Center
PROJECT TYPE	Light Bulb Retrofit / Swap
KILOWATT HOUR (KWH) SAVINGS	1,604.20 kWh / year
ESTIMATED YEARLY SAVINGS	\$272.71
TOTAL COST	\$1,095.21
INCENTIVE	\$437.44
% COVERED	40%
FINAL COST	\$657.56
SIMPLE PAYBACK PERIOD	Under 2.5 years

### ENERGY SAVINGS HIGHLIGHTS

*"[The lights we upgraded to] give a better, brighter light with lower wattage, so lower energy use has been good."*

*"The education has to be there to show people what they can save...I think it's good that the Town is working towards that."*

*- Pat Brechtel, Building and Events Manager*



# CASE STUDY #2

## SHEPHERD OF THE SIERRA PRESBYTERIAN CHURCH

5400 Barton Rd. Loomis, CA 95650



<b>SHEPHERD OF THE SIERRA</b>	
SNEW Energy Efficiency Upgrades	
DATE COMPLETED	December 2014
FACILITY TYPE	Church Campus
PROJECT TYPE	Light Bulb Retrofit / Swap (5 projects)
KILOWATT HOUR (KWH) SAVINGS	30,552.90 kWh / year
ESTIMATED YEARLY SAVINGS	\$5,194
TOTAL COST	\$17,613
INCENTIVE	\$5,364
% COVERED	30%
FINAL COST	\$12,249
SIMPLE PAYBACK PERIOD	Under 2.5 years

### ENERGY SAVINGS HIGHLIGHTS

- Average gas & electricity bill decreased from \$1892.18 in 2013 to \$54.11 in 2014
- May 13, 2014, the church began reversing electricity use and avoided rate increase by solar production from 2013 to 2014 (6.54%)
- Current cost of energy (per kWh) is \$0.30 summer, \$0.10 winter, and \$0.04 wholesale refund for energy generation

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# Implementation

- Report designed to be **IMPLEMENTED!**
- Built-In Mechanisms:
  - Matrix outlining 3-year program
  - Responsible department(s) identified
  - Emphasis on collaboration
  - Lists of information and funding sources
  - Identification of no-cost programs
  - SBC assistance with Kick-Off





# COMMENTS AND QUESTIONS

**Contact Information:**

Nicholas Martin, Program Director  
nmartin@sierrabusiness.org



Photo Credit: [geographicallyyourwelcome.blogspot.com](http://geographicallyyourwelcome.blogspot.com)

**Rick Angelocci**

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**From:** Martinez, Shawna <smartinez@sierracollege.edu>  
**Sent:** Wednesday, February 25, 2015 5:25 PM  
**To:** Rick Angelocci  
**Subject:** Town of Loomis Strategic Energy Resources Report

*Dear Town Manager,  
Please print this email and submit to the Town of Loomis Planning Commission and Town Council as public comment in response to the Town of Loomis Strategic Energy Resources Report.*

Dear Loomis Planning Commission and Town Council:

As a member of the nearby community of Penryn, I support the work that the Town is completing with the Sierra Business Council to promote strategies for the entire community to reduce its energy use and increase its energy efficiency. Besides saving energy it will also save businesses and residents dollars on their energy bills. Every dollar saved on energy bills could be spent at our local businesses.

I understand this report was prepared at no cost to the Town, and with our limited resources, we should take advantage of this opportunity and the Planning Commission should recommend adoption of this report to the Town Council and the Town Council should adopt it.

Thank you for your consideration,

**Shawna Martinez**  
**Professor of Biology**  
**Sierra College**  
2332 Lynnwood Ln.,  
Penryn, CA 95663

To: Rick Angelocci, Town Manager  
From: Pat Miller, Planning Commissioner  
February 24, 2015  
Re: Town of Loomis Strategic Energy Resources Report

This report is very exciting. It makes me feel that we can do great things! This report represents Loomis looking at its future head-on and being pro-active in its responsibility to steer and shape the wisest use of its resources. (Applause all around)

It herein recognizes and embraces the emerging economic opportunities that are unfolding around us, especially:

- \*California has more patent registrations in clean technology than any other state!**
- \*Jobs within California's Core Clean Economy increased by 20% in the last decade while the total state economy increased 2%!**
- \*California's clean manufacturing jobs over the last decade were up 53% while total state economy manufacturing fell by 21%!**

How exciting to be part of that; to take our place amidst the emerging actions and activities that must occur in order to create a meaningful and prosperous future.

Just a few things I'd like to also recommend:

1. Move the energy efficiency of water conservation timetable to top priority in 2015. 99.8% of California is in severe drought, and PCWA has declared a drought emergency months ago. Our reservoirs are all way below our needs, and all projections are bleak. Groundwater is becoming increasingly difficult to reach by pumping. California is regulating groundwater for the first time in history. Coupled with the information about the energy savings aspect, I think this demands priority attention.
2. Create an advisory, or implementation, or communications committee of some sort to encourage and activate these goals, to be sure this stays in the forefront before professionals and citizens, and to keep up the momentum.
3. Include the Public Works Department in Title 24 trainings, public education, and water efficiency programs. Along with the Town Manager's office and the Planning Department, Public Works has much exposure in the field every day; such employee development and cross-training is not only good for employees, it's good for the whole town as all staff will then have the knowledge and background to participate fully in the Town's success.

Lastly, a few nit-picky details:

P.6-7: LOVE the "Economic Opportunities" section! Absolutely!



P.16, Goal 2: Change “Improve compliance”... to “Comply”

P.17: Outreach could include PG&E, SPMUD, PCWA, propane providers, County tax bills, firewood suppliers, wood stove sellers.

P.22: says “Cost to resident/business owner: None. Can this be true?”

P.24: Under “performance indicator”, could add, “Contact residents and non-residential users at least two (2) times with educational materials, to ensure that all have heard about the programs. Target: 100%

Potential Funding Sources: Add mPower, banks, credit unions, contractors, PG&E, tax credits.

P. 28: Funding sources: Add all energy providers, also PCWA, well drillers, plumbers, County Stormwater Program, County Resource Conservation Service, County Master Gardeners, nurseries, gardeners, farmer’s markets, and landscapers.

P. 46: Change to Sacramento Tree Foundation.

Again, this is a great document. It is interesting that our energy uses are almost evenly divided between residential (49.5%) and non-residential (50.5%) demands. That tells us that it is appropriate and important that our efforts be targeted to all users, and everyone can benefit from participating in these programs and activities.

Thank you for the opportunity to submit my comments.