

Second Annual Report from Statewide Local Government Energy Efficiency Best Practices Coordinator

March 2012

Introduction

This is the second of three annual reports from the Statewide Local Government Energy Efficiency Best Practices Coordinator (Coordinator) on tracking, on a statewide level, progress towards meeting the local government goals in the California Long-term Energy Efficiency Strategic Plan (Strategic Plan). The Statewide Coordinator position was established in Decision 0909-47, which was adopted in September 2009. It is funded by the investor owned utilities (IOU), but is embedded in and reports to ICLEI – Local Governments for Sustainability (ICLEI), the Institute for Local Government (ILG) and the Local Government Commission (LGC). The Statewide Coordinator is an employee of the Local Government Commission.

The decision calls for the Coordinator to “facilitate a statewide focus both in gathering exemplary policies and practices, and tracking progress on a statewide level on government facility energy use, retrofits, and strategic plan metrics to be developed ... The [C]oordinator should also work to advance and track progress on local government Strategic Plan strategies, and assess progress toward market transformation on local government building retrofits, reach codes, etc.”

In order to “advance” the strategies, the Coordinator should develop typologies of local governments (based on current expertise, size, and location) and suggestions for how to reach them, what Strategic Plan work is most ripe and relevant for them, and identify barriers to implementation and opportunities to overcome them.

Chapter 12 of the Strategic Plan is devoted to local governments, although there are responsibilities for local governments in other chapters as well. The Strategic Plan identifies five goals for local governments:

1. Local governments lead adoption and implementation of “reach” codes stronger than Title 24 on both mandatory and voluntary bases.
 - At least 5% of CA’s local governments (representing 5% of CA population) each year adopt ‘reach’ codes.
 - By 2020, the majority of local governments have adopted incentives or mandates to achieve above-code levels of energy efficiency (or DSM) in their communities, or have led statewide adoption of these higher codes.
2. Strong support from local governments for energy code compliance enforcement.

- The current rate of non-compliance with codes and standards is halved by 2012, halved again by 2016, and there is full compliance by 2020.
3. Local governments lead by example with their own facilities and energy usage practices.
 - The energy usage footprint of local government buildings is 20% below 2003 levels by 2015, and 20% below 1990 levels by 2020.
 4. Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.
 - By 2015, 50% of local governments have adopted energy efficiency/ sustainability/ climate change action plans for their communities and 100% by 2020, with implementation and tracking of achievements.
 5. Local government energy efficiency expertise becomes widespread and typical.
 - By 2020, 100% of local governments have in-house capabilities devoted to achieving all cost-effective energy efficiency in their facilities and stimulating the same throughout their communities.

Research Plan

To gather the information to track Strategic Plan implementation, the Coordinator has several avenues including direct contact with local government energy staff, the semi annual report the investor owned utilities provide on Strategic Plan activities of their local government partners and recipients of strategic planning grants, information gathered by the three non-profit members of the Statewide Energy Efficiency Collaborative, an on-line survey, the California Energy Commission's (CEC) web page of local 'reach' codes, and the local government planning documents collected by the Governor's Office of Planning and Research.

The Coordinator has a goal of meeting in person with each of the IOUs' local government partnerships (LGP). The purposes of the meetings are to introduce the Coordinator and his duties; and to understand the interests, goals and needs of the LGPs related to the Strategic Plan and other energy issues related to the partnership. The Coordinator also has used these visits to generate ideas for the best practices fact sheets which are also called for in the Decision. In 2010 and 2011, the Coordinator made visits to 40 of the 53 IOU LGPs.

The IOUs provide public goods charge (PGC) funding to their LGPs to take action on the Strategic Plan. PG&E and Southern California Edison have additional funds for innovator pilot programs and strategic planning activities, respectively. These additional funds are available to all local governments in their territories, whether or not they are LGPs. A menu of activities, from which local governments can choose, was developed by the IOUs, the Statewide Coordinator, and Energy Division staff with input from LGPs at two workshops in 2009. The IOUs as part of their contract oversight of LGPs provide semi annual reports to the CPUC on the PGC-

funded Strategic Plan activities of their partners and other PGC funds recipients. These semi annual reports are also provided to the Coordinator to assist in developing this annual report. While the IOUs are reporting on individual LGP activities to ensure that the PGC funds are expended in an appropriate manner, the Coordinator's report has a different focus. The Coordinator is reporting on how well all local governments, whether or not they are LGPs, are doing toward implementing the Strategic Plan. For example, for the first goal above, the Coordinator will try to measure if 5% of local governments are adopting reach codes each year.

The Statewide Energy Efficiency Collaborative (SEEC) consists of ICLEI, ILG and LGC along with the four IOUs. Each of the non-profits is providing Strategic Plan support to local governments through its partnership activities. For example, ICLEI is providing workshops, guidebooks and software to develop greenhouse gas inventories and climate action plans. ILG's Beacon Award recognizes cities and counties that reduce their energy use and greenhouse gas emissions by employing Strategic Plan strategies among other things. LGC coordinates networking meetings, webinars and an annual energy efficiency forum for local governments. The SEEC non-profits share the information they collect as part of the collaborative with the Coordinator.

The Coordinator also used the CEC's Title 24 web page to identify communities that have adopted local ordinances that exceed the State's minimum energy standards and have gained approval from the CEC, and the Office of Planning and Research's (OPR) *Book of Lists*, which includes all the Energy Elements and Climate Action Plans adopted by local governments.

The Coordinator also administered an online survey in 2011 to gather information from local governments that are not part of IOU partnerships. Coordinator will administer another survey to inform the last report in this series.

Status of Local Government Strategic Plan Activities

This section includes the best information the Coordinator was able to collect regarding implementation of each of the five goals in the Local Government Chapter of the Strategic Plan. The information was gathered from LGP visits and other communications, the September 2011 IOU semi annual report on strategic planning activities, the CEC's Title 24 web page, OPR's *Book of Lists*, and the first online survey instrument.

The biggest barrier to Strategic Plan implementation has been the financial constraints of local governments. This has also served to make tracking of Strategic Plan progress more difficult. Many local governments have reduced staff, resulting in the remaining staff having to take on more responsibilities. Also, if a city or county has to decide between funding an energy efficiency project or keeping a public safety person employed, public safety wins.

Goal 1: Reach Codes

The metric for this goal is 5% of California cities and counties (representing 5% of California's total population) adopt reach codes each year. There are 540 cities and counties (482 cities, 58 counties); 5% equals 27 cities and counties. California's population according to the 2010 census is 37,691,912; 5% equals 1,885,000.

According to the CEC's website

(<http://www.energy.ca.gov/title24/2008standards/ordinances/>), as of December 31, 2011, 40 cities and counties had adopted local ordinances, approved by the CEC, to exceed Title 24 minimum standards. Santa Monica's reach code was approved by the CEC in February 2012. In addition, the IOUs' semi annual report also identified one additional county (Napa) that had adopted a High Performance Building Ordinance that requires LEED Silver certification for new buildings larger than 30,000 ft², incentives for going 15% and 30% beyond Title 24, and early adoption of CalGreen. Napa County is also working on a retrofit ordinance.

List of cities and counties with 'reach codes' with their 2010 Census populations are below. Only Malibu is not part of a utility/local government partnership.

Belmont	26,000
Burlingame	29,000
Chula Vista	244,000
Cotati	7,000
Daly City	101,000
Fremont	214,000
Goleta	30,000
Hayward	144,000
Healdsburg	11,000
Los Altos	30,000
Malibu	13,000
Manhattan Beach	35,000
Menlo Park	32,000
Morgan Hill	38,000
Mountain View	74,000
Napa	77,000
Oakland	391,000
Pacifica	37,000
Palo Alto	64,000
Petaluma	58,000
Portola Valley	4,000
Redwood City	77,000
Richmond	104,000
San Anselmo	12,000
San Carlos	28,000
San Francisco	805,000

San Jose	946,000
San Mateo	97,000
San Rafael	58,000
Santa Monica	90,000
Santa Rosa	168,000
Sebastopol	7,000
Simi Valley	124,000
Sonoma	11,000
Tiburon	9,000
Union City	70,000
West Sacramento	49,000
Windsor	27,000
	4,341,000
Marin County	252,000 *
Napa County	136,000
Santa Clara County	1,782,000
Sonoma County	<u>195,000</u>
	1,057,000
Total Cities & Counties	5,398,000

These numbers indicate that for 2011, 7.8% of cities and counties (42 total) representing 14.3% of California's total population goal have adopted reach codes . If counting starts with the first full year after adoption of the Strategic Plan (2009), then 80 local governments should have adopted reach codes, and that goal would not have been met. However, the population goal (15% or 5,655,000) almost would have been met. One of the utility partnerships, San Mateo County, has a goal of all 21 jurisdictions adopting a reach code, 8 of which have done so to this point.

Most of these adopted reach codes are local green building ordinances. Many of the IOUs' local government partners are working on green building policies and ordinances, which may translate into reach codes in the future. The survey results showed several communities that have adopted voluntary green building codes and/or provide incentives to do so (San Bernardino County, Berkeley, San Diego County, Encinitas).

One advantage that local governments currently have, but did not have in the past, is the provision by the IOUs of cost effectiveness studies for exceeding Title 24 by 15% for each of the 16 climate zones in California. Cities and counties no longer have to contract for these studies.

* note these county figures include the entire county populations, including the cities, not just the unincorporated areas of the counties, minus the cities within these counties that have adopted their own reach codes.

The economy is probably reducing the amount of time that staff can devote to developing a reach code, as well as the place on the priority hierarchy that such work would receive.

Recommendation

California’s Title 24 is updated on three-year cycles: the 2008 update was effective as of January 1, 2010. Each time a new version of Title 24 is adopted, cities and counties have to re-apply to the CEC for approval of their ordinances to exceed State minimum standards. *This may work against achieving this goal in the long term because every three years local governments that had adopted reach codes would have to go through the process once again.*

Since Proposition 13 was passed in 1978, some local governments have been competing for development, both residential and commercial, in order to garner property and sales tax revenues. Having more energy efficient buildings than the state requires may prove beneficial to some communities as a way to attract residents and businesses. This may balance perceived negative impacts from a reach code adoption. Some agencies have addressed the perceived unlevel playing field by adopting regional codes.

Goal 2: Title 24 Compliance

Title 24 compliance is the responsibility of local governments in their land use and building construction regulation authorities. The Strategic Plan goal for Title 24 compliance is that the rate of non-compliance is halved (from the rate in 2008) by 2012, halved again by 2016, with full compliance by 2020.

Work being done through local government partnerships includes conducting workshops on Title 24, or sending staff to IOU and other groups’ trainings. LGP activities to increase Title 24 compliance from the IOUs’ September 2011 report are:

	Planned	Done
• LGPs doing Title 24 workshops/trainings	16	11
• LGPs improving compliance process	6	3

The number of cities/counties sending staff to Title 24 compliance workshops reported by LGPs in the 2010-12 PGC cycle is 38.

A number of the respondents to the online survey indicated that actions are underway to ensure or improve compliance with Title 24 (T24) energy requirements. Seven indicated that building department staff members undergo regular training when T24 is periodically updated, and three require higher than T24 energy performance with documentation that the savings are genuine. Still this is a small sample from over 500 local governments in California.

The *Eastern Sierra Energy Leader* partnership is evaluating enhancements to Title 24 that better address the heating challenges of the Alpine environment in Mammoth Lakes and Mono County.

While providing this type of education and training is important to ensure building department staff understand the requirements when checking plans and inspecting work, they alone do not measure improved compliance. In the 1990s, CEC staff suggested that T24 compliance was low. Coordinator checked with the CEC in 2011 to see if any recent studies had been done or are planned. The CEC response was:

“There have not been any studies to establish a baseline of compliance with the standards. Therefore, it will be difficult to try to document any factual increases in compliance. Until resources are identified to conduct such a survey we are working on activities that *should* result in an increase in compliance.” (emphasis added)

Coordinator also found this in the CEC Draft Report: *Achieving Energy Savings in California Buildings: Saving Energy in Existing Buildings and Achieving a Zero-Net-Energy Future* (CEC-400-2011-007-SD) that came out in July 2011:

“Achieving compliance with the Energy Efficiency Building Standards (Standards) is challenging. It is estimated that at least 30 percent of the energy savings potential of the Energy Efficiency Building Standards is lost to noncompliance, including failures to install HVAC systems and seal air ducts properly. California has agreed to develop a plan to achieve a 90 percent compliance rate with its Building Energy Efficiency Standards by 2017 in exchange for stimulus funds. To meet this aggressive goal, the Energy Commission needs to develop a method to determine the level of compliance, enforcement, and quality of installations throughout the industry and use this information as a benchmark against which to determine 90 percent compliance. Without this benchmarking, efforts to increase compliance cannot be effectively targeted or assessed.”

Recommendation

Coordinator is at a loss as to how to measure progress on this goal. If the resources of the CEC are not enough to track compliance even though they recognize the need, then Coordinator certainly will not be able to do so. What can be tracked are the efforts to improve compliance (attendance at utility T24 trainings, CalGreen trainings, other local government efforts). But being able to show actual improvement in compliance may not be possible.

Goal 3: Municipal Energy Reduction

The energy usage footprint of local government buildings is 20% below 2003 levels by 2015, and 20% below 1990 levels by 2020.

In addition to taking advantage of utility rebates, and design and technology assistance, there are a number of Strategic Plan activities that local government partners can choose to work on. As of the September 2011 semi annual IOU report on their partners' activities, the following activities were reported.

	LGPs Planned	LGPs Done	# cities/ counties
• Benchmarking	22	10	30
• Utility management software	12	7	18
• Revolving energy funds	10	4	4
• Municipal energy plans	22	2	2
• Municipal 'reach' policies and programs	5	1	1
• (Retro)Commissioning of municipal facilities	9	0	0

Benchmarking

The 2009 Decision calls for all commercial (including local government facilities) that receive IOU incentive funding to be benchmarked. This issue underwent review at the CPUC and resulted in setting aggressive numerical benchmarking requirements for the IOUs instead of requiring every incentive recipient to benchmark.

Over 100 cities and counties in LGPs are planning to benchmark their facilities. So far, 18 have completed benchmarking of some facilities and many more are in some stage of the process.

Valley Innovative Energy Watch (VIEW) developed, "Benchmarking Made Easy" a user's guide to benchmarking facilities and adopting supportive policies at the local level. To date, the partnership has completed the upload and registry with Automated Benchmarking Services for the City of Hanford, and portions of Tulare County and the City of Tulare. The remaining four local governments are in the process of assessing their energy portfolios and cleaning the records with the partnership implementer. The original goal of the project of 20% of municipal building benchmarked by the end of 2012 will be far exceeded, as all electric and gas accounts are being uploaded into the system for portfolio management ease.

Utility Management Software

In addition to the 12 LGPs using PGC funding to manage their energy consumption, 12 cities and counties indicated they use a computer program to track municipal energy use. Four of these 12 are LGPs, but had not chosen this as a strategic plan menu item, and an additional six cities are part of regional LGPs. Only one community that is not part of a utility-local government partnership answered this survey question positively, and it has a local municipal utility.

Most local governments are using either US EPA's Portfolio Manager or a program called Utility Manager, and a few have in-house programs. Los Angeles County has developed the Enterprise Energy Management Information System, which is being made available for other cities and counties to use.

In order to continue the South Bay cities' momentum of energy efficiency building retrofits that produce energy and cost savings, the SBCCOG is partnering with Los Angeles County to provide Enterprise Energy Management Information System (EEMIS) to those cities choosing to participate. SBCCOG is also coordinating utility tracking services using EEMIS through a Memorandum of Understanding with LA County. To date 13 cities have signed release forms for data.

Revolving Energy Funds

At least six communities (Alameda County, Arvin, El Cerrito, Long Beach, San Jose and Visalia) have implemented revolving energy funds outside of any utility partnership strategic planning activity funds. Coordinator created best practices fact sheets on two of these revolving fund programs.

At least 10 local governments have created revolving funds, including the four LGPs in the September 2011 IOU reports. Six more LGPs intend to create the funds. Some of these are very small (El Cerrito and Mendocino each started with \$15,000), others are larger (San Diego County started with \$400,000).

Napa County Energy Watch (NCEW) is developing a portfolio of municipal financing options, and developing language for climate action plans. It is also focused on developing financing for small commercial and non-profit organizations.

The *San Luis Obispo Energy Watch* partnership has completed research of successful revolving fund models and has undertaken initial steps to develop a Draft Revolving Fund Policy, which may be considered by local municipalities as a starting point for adoption. The County of San Luis Obispo and a few of the smaller cities will be invited to participate in the development of the draft policy.

Municipal Energy Action Plans

Given the severe budget constraints facing cities and counties, funding from the utilities to complete energy action plans and/or climate action plans has made it possible for more cities and counties to undertake these projects. All SCE partners must develop, and eventually adopt, Energy Action Plans (EAP) as part of the Energy Leader Program. SCE has 22 LGPs, which include 124 local governments, which should result in the same number of EAPs. PG&E and SDG&E encourage but do not require EAPs of their partners.

In addition to the LGPs reporting municipal plans as part of their IOU PGC funded work, an additional seven cities and counties reported such plans in the online survey; each of these are in IOU partnerships. Santa Monica and Berkeley in particular have good examples of Action Plans (that include both municipal and community energy and climate change activities) that are available on line and have regular 'report cards' of how well the community is doing. Santa Monica's report card is at: <http://www.smgov.net/Departments/OSE/progressReport/default.aspx>, and Berkeley's reporting is at: <http://www.cityofberkeley.info/climate/>.

These municipal plans are closely related to municipal facilities policies and programs that either encourage or require higher energy performance than State law, and to Climate Action Plans. A community may have such a policy or program, or a broader community Climate Action Plan, and not report it as a municipal energy action plan but as one of the other categories.

Municipal Facility Energy "Reach" Policies and Programs

Only five LGPs selected higher energy requirements for municipal facilities as part of their partnership activities, however, a number of cities and counties are leading by example in this area. The survey showed that seven communities require better than State minimum energy performance, and eight encourage it.

Most municipal requirements apply to new construction or major remodels only.

Municipal Commissioning and Retro-commissioning

Nine cities and counties (all part of LGPs) reported they are doing retro-commissioning.

Recommendations

Pursuing these activities should help to reduce the amount of energy consumed by local government facilities, however, they do not provide a measurement for how much reduction has occurred. That will require some reporting, either from the city or county itself if it is measuring its energy reduction for a climate action plan for example, or from the utilities that service them. SCE's Energy Leader Program has

recognition and incentive levels based on municipal and community energy reduction; the platinum level is reached when both the community and municipal operations achieve 20% reduction. This could be used to help measure the progress of cities and counties in SCE's territory.

Another issue this goal raises is the years (2003 and 1990) against which this reduction is to be measured. In discussions with utilities, local governments and ICLEI, finding energy consumption data that is accurate before 2003 is problematic. Perhaps a more easily measurable goal could be developed with the CPUC, utilities, local governments and ICLEI that would satisfy the spirit of this goal.

Goal 4: Community Leadership

By 2015, 50% of local governments have adopted energy efficiency/ sustainability/ climate change action plans for their communities and 100% by 2020, with implementation and tracking of achievements. There are 482 cities and 58 counties in California for a total of 540. Therefore, 270 should have action plans by 2015 if this goal is to be met.

Climate, Energy, Sustainability Plans

The Governor's Office of Planning and Research (OPR) collects local government plans addressing climate change (<http://www.opr.ca.gov/>). The following is a list of plans and initiatives adopted by California cities and counties to address greenhouse gas (GHG) emissions through 2011. These plans usually involve setting emission reduction goals and adopting implementation measures to achieve those goals. According to OPR, this is a representative list of local government plans, but is not comprehensive and does not include adopted General Plan goals, policies, and objectives. ICLEI also provided a list of its members and former members that have completed Climate Action Plans. The ones not on the OPR list are highlighted in red.

City of Alameda – *Climate Protection in Alameda*

City of Albany – *Climate Action Program*

City of Aliso Viejo

City of American Canyon

City of Antioch

Town of Apple Valley – *Climate Action Plan*

City of Arcata – *Community Greenhouse Gas Reduction Plan*

City of Beaumont

City of Belmont

City of Benicia – *Climate Action Plan*

City of Berkeley – *Climate Action Plan*

City of Beverly Hills

City of Brawley

City of Burbank – *Sustainability Action Plan*

City of Burlingame – *Climate Action Plan*

City of Calistoga

City of Chico

City of Chula Vista – *Climate Action Planning*

City of Citrus Heights

City of Corona

Town of Corte Madera

City of Cotati

City of Cupertino

City of Daly City

Town of Danville

City of Davis – *Greenhouse Gas Emissions Inventory*

City of Desert Hot Springs

City of Dublin

City of East Palo Alto

City of El Cerrito

City of Emeryville – *Climate Action Plan*

City of Encinitas

City of Escondido

Town of Fairfax

City of Fontana

City of Fort Bragg – *Greenhouse Gas Emissions Inventory*

City of Foster City

City of Fresno – *Fresno Green*

City of Fullerton

City of Garden Grove

City of Gilroy

City of Hayward – *Climate Action Plan*

City of Healdsburg

City of Hemet

City of Hermosa Beach

City of Hesperia – *Climate Action Plan*

City of Hillsborough – *Hillsborough Climate Action Plan 2010*

City of Indian Wells – *Getting Greener: Indian Wells' Path to Sustainability*

City of Irvine – *Sustainability Strategic Plan*

City of Lafayette

City of Laguna Beach – *Climate Protection Action Plan*

City of Lakewood

City of Larkspur

City of Livermore

City of Lodi

City of Los Altos

City of Los Angeles – *Green LA Plan*

City of Manhattan Beach – *Green Report*

City of Martinez – *Climate Action Plan*

City of Menlo Park – *Climate Change Action Plan*

City of Merced

City of Monterey – Climate Action Plan
City of Monrovia
City of Moraga
City of Mount Shasta
City of Murrieta
City of National City
City of Newark – *Climate Action Plan*
City of Novato
City of Oakland
City of Ontario
City of Palm Desert
City of Palo Alto – *Climate Protection Plan*
City of Perris
City of Piedmont – Climate Action Plan
City of Pinole
City of Pleasanton
City of Port Hueneme
City of Redlands
Redwood City – *Community Climate Action Plan*
City of Riverbank
City of Riverside – Green Riverside Action Plan
City of Rohnert Park – *Greenhouse Gas Emission Reduction Action Plan Analysis*
City of Roseville
Town of Ross – *Climate Action Plan*
City of Sacramento – Sustainability Implementation Plan
City of Saint Helena
Town of San Anselmo
City of San Carlos – *Climate Action Plan*
City of San Clemente
City of San Diego – *Climate Protection Action Plan*
City of San Dimas
City and County of San Francisco – *Climate Action Plan*
City of San Jose – *San Jose Green Vision*
City of San Leandro – *Climate Action Plan*
City of San Luis Obispo
City of San Mateo
City of San Rafael – *Climate Change Action Plan*
City of San Ramon – *Climate Action Plan*
City of Santa Ana
City of Santa Clarita
City of Santa Cruz – *Climate Action Program*
City of Santa Monica – *Sustainable City Plan*
City of Santa Rosa
City of Santee
City of Sebastopol – Sustainable Sebastopol
City of Signal Hill

City of Simi Valley – *Green Community Action Plan*
City of Sonoma
City of Stanton
City of Sunnyvale
City of Temecula
Town of Tiburon
City of Tracy
City of Union City
City of Vallejo
City of West Hollywood
Town of Williams
Town of Windsor – *Greenhouse Gas Emissions Reduction Action Plan*
City of Woodland – *Greenhouse Gas Inventory*
Town of Yountville

Butte County
Contra Costa County – *Municipal Climate Action Plan*
Humboldt County
Kings County
Marin County – *Greenhouse Gas Reduction Plan*
Mendocino County
Monterey County
Napa County
Riverside County
San Diego County
San Luis Obispo County
Santa Clara County – *Climate Action Plan for Operations and Facilities*
Santa Cruz County
Sonoma County – *Climate Protection Campaign*
Sutter County

There are 136 cities and counties on this list, representing approximately 25% of the 540 cities and counties in California. If the pace of adoption continues at this rate, then meeting the 2015 goal should not be a problem. That may not be the case, however, as severe budget constraints may limit the ability of local agencies to complete the plans, especially without utility funding.

General Plan language

In the online survey to counties and to cities with utility partnerships, seven respondents indicated that municipal energy use was addressed somewhere in their General Plan, not necessarily in an Energy Element, and nine reported that community-wide energy use was addressed. One county (Sonoma) reported that energy policies are part of the Land Use Element of its General Plan and another (San Bernardino) said they are in the Conservation Element; both of these counties

are LGPs. Another county (Kern) indicated that its Energy Element deals with resource management and protection, and not energy efficiency.

Each year OPR compiles the *California Planners' Book of Lists* (<http://www.opr.ca.gov/index.php?a=planning/publications.html#pubs-C>), which contains valuable local government planning information. Below is a list of cities and counties that have adopted an Energy or Sustainability Element as part of their General Plan. The year the Element was adopted is also included. Energy Elements are optional (required elements are Land Use, Circulation, Conservation, Housing, Noise, Open Space, Safety and Air Quality).

Alameda 1979
Alturas 1993
Apple Valley 2009
Arcata 2008
Banning 2006
Beaumont 2007
Belvedere 2004
Benicia 1999
Big Bear Lake 1999
Buellton 2007
Calabasas 1995
Cathedral City 2002
Corona 2004
Corte Madera 2009
Davis 2001
Desert Hot Springs 2000
Downey 2005
Emeryville 2009
Escondido 2001
Fort Bragg 2008
Fremont 2011
Gilroy 2002
Indian Wells 2009
Irvine 1999
La Puente 2004
Laguna Woods 2003
Loma Linda 2009
Los Gatos 1985
Lynwood 2003
Ontario 2010
Orland 2003
Palm Desert 2004
Palo Alto 1998
Paradise 1994
Pasadena 1983

Petaluma 2008
Pleasanton 2009
Portola 2001
Poway 1991
Rancho Cucamonga 2010
Rancho Mirage 2005
Rosemead 2010
San Bernardino 2005
San Clemente 1993
San Francisco 1982
San Jose 1994
San Luis Obispo 1981
Santa Ana 1982
Shafter 2005
Taft 2010
Ukiah 1995
West Hollywood 1988
Wheatland 2006
Yucca Valley 1995

Alameda County 1994
Alpine County 1999
Glenn County 1993
Humboldt County 2011
Kern County 2004
Lassen County 1993
Madera County 1995
Marin County 2007
Modoc County 1993
Mono County 1993
Monterey County 1982
Placer County 1994
Sacramento County 1979
San Diego County 1977
San Joaquin County 1992
San Luis Obispo County 1995
Santa Barbara County 1994
Santa Cruz County 1994
Shasta County 2004
Sierra County 1996
Siskiyou County 1993
Solano County 2008
Ventura County 1988
Yolo County 1982

According to OPR, 77 cities and counties have adopted Energy Elements. Note that some of these elements date from the 1980s and early 1990s when the CEC had funding to help local governments develop and adopted them. Many of the rural counties' elements focus on protecting energy resources (biomass, geothermal, etc.) and not energy efficiency. Energy efficiency is often incorporated into required elements, such as the Conservation Element, instead of in a separate Energy Element.

Coordinator looked at these Energy Elements (the ones available on line) in 2011. Many focused on preserving energy resources (biomass, petroleum, etc.), few had more than a policy or two, and barely qualify as energy elements. There were about fifteen that had good policy and implementation language that the coordinator shared with LGPs working on General Plan language. That document is included at the end of this report.

Local Government Partnership Activities

A number of LGPs have chosen to work on energy or climate action plans as part of their partnership strategic planning work. PGC funding is limited to working on the building energy efficiency portions of these plans. ICLEI's assistance through SEEC is also increasing the ability of all local governments statewide to develop these plans. The Institute for Local Government's Beacon Award program also may serve as an incentive for more cities and counties to prepare climate action plans.

Twenty LGPs are working on energy/climate action planning in their partnerships with the utilities. The following LGPs are regional partnerships working on Climate Action Planning and represent more than one local government: AMBAG (21), Mendocino County (6), Napa County (6), Redwood Coast (8), San Diego Association of Governments (16), San Joaquin Valley (8), San Mateo County (21), Santa Barbara County (9), South Bay Cities COG (15), and Western Riverside COG (11). These efforts will have much larger impact as the projects include the members of the regional agencies as well.

The *South Bay Cities* partnership reported in September 2011, that it had completed the EAP template and the first draft of the EAP for all 15 jurisdictions. San Mateo County has completed its EAP template. The San Joaquin Valley partnership has four EAPs underway. And other partnerships have been making progress on their efforts.

In 2011, *AMBAG* completed its successful regional GHG inventory pilot project in partnership with PG&E. This regional approach to conducting municipal GHG inventories yielded:

- 2005 local government operations and community-wide baseline GHG inventories,
- GHG Forecasts through 2050, and

- 2009 community-wide GHG inventory updates for twenty jurisdictions in the Monterey Bay Region using the ICLEI tools and protocols.

AMBAG is also working to identify and analyze cost-effective energy efficiency measures for inclusion in the energy efficiency elements of climate action plans, which AMBAG staff will prepare for member jurisdictions. AMBAG staff is utilizing the suite of tools developed by ICLEI for the Statewide Energy Efficiency Collaborative (SEEC) to facilitate this work element, which will be completed in 2012.

The *Great Valley Center* (GVC) has assisted ten local governments in the development of GHG Emissions Inventories, which help governments to assess their “carbon footprint” as a starting point for emission reduction. During this time, GVC staff and interns from local universities were sent to local government offices to collect data, calculate the data into emission figures, and report the results back to the local governments. GVC staff and interns received training by ICLEI representatives, who also provided the tools and software critical to the development of these inventories. One of the five interns trained in this program has obtained a full-time position as a result.

An Energy Action Plan template was created by the *Kern Council of Governments* partnerships with SCE, SoCalGas and PG&E. The participants have begun data collection and greenhouse gas analysis and started customizing the Energy Action Plan template to their communities. The city partners and the County of Kern are engaged in conducting energy inventories, which will be used to create Energy Action Plans.

The primary focus of *SANDAG’s Energy Roadmap Program* is to provide assistance to its 16 member agencies that do not have their own local government partnerships with SDG&E. SANDAG works with each city to develop a customized, comprehensive Energy Roadmap that addresses saving energy in city operations, and saving energy in the community. Energy assessments at each municipal site include analysis of electricity, natural gas and related GHG emissions. Baseline electricity and natural gas data, and EPA Energy Star Portfolio Manager benchmarks have been prepared for over 150 municipal sites at nine cities in San Diego County. Each city has its facility energy data online now through SDG&E Energy Waves and EPA Portfolio Manager.

In addition, Pacific Gas & Electric has a goal of helping each of the local governments in its service territory to complete greenhouse gas inventories and eventually Climate Action Plans.

Of the 14 LGPs working on General Plan language, ten are regional partnerships: Community Energy Partnership (7), Mendocino County (6), Redwood Coast (8), San

Joaquin Valley (8), San Luis Obispo County (8), Santa Barbara County (9), Sierra Nevada (39), Sonoma County (10), and Ventura County Regional Energy Alliance (10). Again, once they complete their strategic planning processes, many more local governments will have adopted this language.

Currently, Plumas County and Mendocino County have General Plan updates that are awaiting adoption. Others are in some stage of preparation/adoption. General Plan adoptions usually take more than one year.

Valley Innovative Energy Watch (VIEW) completed “Energy Efficiency and Your General Plan.” The Partnership reviewed General Plan models at regional, state, and national levels, and reviewed all current VIEW local government plans on record. Additionally, VIEW worked with the Smart Valley Places collaborative, a regional planning effort funded by HUD, to gather regional best practices. Research resulted in the recommendation of two categories of focus: Air Quality; and Energy Efficiency/ Green Building. Under Air Quality, one goal with eight policy options, and under EE/ GB three goals and 15 policy options were offered to local government participants in an online survey. The municipalities were asked to consider the policies and provide feedback as to the action-ability of the options for the region. Based on survey results and feedback, five specific goals with three policy options per goal were selected for inclusion in the “EE and Your GP” handbooks. Each local government will receive a customized copy; energy data for each jurisdiction will be included as an addendum to the document.

Recommendations

Using existing data collection activities of the SEEC partners (ICLEI and ILG) and the State (OPR) may provide the most complete documentation of these planning activities. The LGP visits, on line survey and SEEC partners may provide the best avenue for collecting best practices examples to share.

Goal 5: Competency Building

By 2020, 100% of local governments have in-house capabilities devoted to achieving all cost-effective energy efficiency in their facilities and stimulating the same throughout their communities.

The CPUC and IOUs do not allow the LGPs to use public goods charge funds to do competency building, however, being in a partnership requires some interaction with the utility to coordinate the energy work. The level of engagement varies greatly among the partnerships, with some very involved partners taking an active role in developing and implementing programs and others simply being grateful to have the utility take the lead on upgrading municipal facilities.

While many local governments recognize the value of having in-house staff that could work on reducing the energy use, greenhouse gas emissions and utility bills of the municipality and its constituents, this is a difficult economic time for them. For those communities that can afford to develop this capacity (through revolving energy funds for example) or that have invested in these positions in the past, remaining financially competitive will be easier than for those that have not.

There is value in having local government energy capacity in place. For example, by having its 'base-load' funding for energy efficiency service covered by the partnership with PG&E, *Redwood Coast Energy Authority* (RCEA) has been able to create capacity and build relationships to respond to new program opportunities and the needs of its members. RCEA is implementing local outreach for Energy Upgrade California in its region. It has also been able to leverage PGC funding as a match for other opportunities, including a Renewable Energy Secure Communities grant from the CEC and an Electric Vehicle Infrastructure planning grant.

San Mateo City and County Association of Governments received grant funding from the Bay Area Air Quality Management District (BAAQMD) to support the adoption of the San Mateo County Energy Strategy by every city in San Mateo County, and the completion of GHG emission inventories for government operations and community-scale for every city in San Mateo County. The grant deliverable also included the establishment of a *San Mateo County Energy Watch* (SMCEW), the local government partnership between C/CAG and PG&E.

And a number of regional partnerships were instrumental in helping smaller jurisdictions apply for ARRA funding from the California Energy Commission, which they otherwise would not have had the time or expertise to do.

Measuring progress on this goal comes anecdotally and from the Survey. Several cities and counties have had staff and programs dedicated to energy reduction for years, and in some cases decades. From the survey and Coordinator's visits and prior knowledge, the following local governments have existing or are building internal energy efficiency capacity. The asterisks (*) indicate municipal electric or gas utilities.

Cities

- Alameda*
- Anaheim*
- Azusa*
- Bakersfield
- Beaumont
- Berkeley
- Burbank*
- Chula Vista

El Cerrito
Fresno
Glendale
Healdsburg*
Huntington Beach
Irvine
Long Beach*
Los Angeles*
Oakland
Palm Desert
Palo Alto*
Pasadena
Richmond
Riverside*
Roseville*
San Diego
San Jose
Santa Barbara
Santa Clara*
Santa Monica
Simi Valley
South Gate
Turlock*

Counties

Alameda County
Imperial County*
Inyo County
Kern County
Lake County
Lassen County*
Los Angeles
Marin County
Mendocino County
Merced County*
Napa County
Riverside County
Sacramento County*
San Diego County
San Francisco City and County
San Luis Obispo County
San Mateo County
Santa Barbara County
Santa Clara County
Shasta County*
Sonoma County

Tulare County
Ventura County
Yolo County

Fifty-five cities and counties (10%) have or are developing internal capacity to implement energy efficiency programs. In addition, there are regional entities (COGs, energy offices) that are providing joint energy capacity for their member constituents, which may be a more cost-effective delivery system for energy efficiency programs. The 26 regional local government partnerships (those below minus ABAG, CCSE and Great Valley Center) provide assistance and/or services to 300 local governments in California.

Association of Bay Area Governments
Association of Monterey Bay Area Governments
California Center for Sustainable Energy
Coachella Valley Association of Governments
Community Energy Partnership (The Energy Coalition)
East Bay Energy Watch
Eastern Sierra Energy Leader
Great Valley Center
Kern County Council of Governments
Lake County Energy Watch
Marin County Energy Authority
Mendocino County Energy Watch
Napa County Energy Watch
Orange County Local Government Partnership
Redwood Coast Energy Authority
San Diego Association of Governments
San Gabriel Valley Council of Governments
San Luis Obispo County Local Government Partnership
San Mateo Energy Watch
Santa Barbara County North
Santa Barbara County South
Sierra Nevada Energy Watch
Silicon Valley Energy Watch
Sonoma County Energy Watch
South Bay Cities Council of Governments
Valley Innovative Energy Watch
Ventura County Regional Energy Alliance
Western Riverside Council of Governments
Yolo County Energy Watch

In addition, the work of the Statewide Energy Efficiency Collaborative is helping to build internal capacity for cities and counties. ICLEI's free trainings, guidebooks and software for example, allow local government staff members with the time and internal direction to pursue climate action planning to do at least some of the work

themselves, and not rely totally on contractors. The Institute for Local Government's Beacon Award, webinars and on-line resources, which include best practices case stories and a climate action plan framework, also help build competency. And the Local Government Commission's networking opportunities (local government partnership meetings and annual statewide forum) and webinars are also designed to increase the amount of program, policy and other idea sharing between local governments in California.

Recommendations

Allow LGPs to invest in staff development, it will pay off in the long run for the cities and counties, but also for the State's goal of reducing energy use.

Encourage development of regional energy agencies so that this capacity, and the cost of providing it, can be shared.

AMBAG Energy Watch works with jurisdictions to identify obstacles that kill energy efficiency projects, remove those obstacles, and assist the jurisdictions as extended staff to see the projects are undertaken and completed. Its staff is perceived throughout the region as the regional energy efficiency office. AMBAG staff identified the energy projects for 16 of its jurisdictions to be able to apply for ARRA funding through the CEC, then wrote the grant proposals to obtain the funding, and in some cases managed all the grant reporting for jurisdictions. Because of this approach, 16 major bundles of energy efficiency projects were completed that otherwise would not have been undertaken. Over 90 municipal energy retrofit projects are being completed in the 2010-2012 program cycle. Together, these projects will save approximately 6 million kWh. This roughly translates to \$750,000 in annual energy costs.

The *East Bay Energy Watch's Municipal Implementation Team (MIT)* Program specializes in municipal building energy efficiency audits and implementation. The program provides free energy assessments of municipal buildings, implementation assistance of recommended energy efficiency measures, and financial incentives to PG&E municipal customers in Alameda and Contra Costa Counties.

The *Kern Council of Governments* partnership assisted California City with submission of an Energy Efficiency and Conservation Block Grant (EECBG) Phase 2 grant application for lighting retrofits. The retrofits were identified through the energy efficiency audits of the city facilities through partnership technical assistance.

The *Marin Energy Management Team* (MEMT) acts as an “energy manager” for a collaboration of public sector agencies including all local governments, school districts and special districts. MEMT leverages and integrates state, utility, and private energy efficiency programs, filling resource gaps, and addressing specific barriers as needed to provide as comprehensive and seamless delivery of services as possible.

The City of Trinidad in Humboldt County that has a population of 367 (2010 census). It could never employ an energy manager, but it receives energy management services from the *Redwood Coast Energy Authority* (RCEA). In rural areas, regional energy efforts can also be used to support local energy contractors and businesses.

PG&E is partnering with the *Sierra Business Council* to implement the Green Prosperity Initiative Innovator Pilot which includes three components: 1) establishing an Energy and Climate Leadership (ECL) Institute for the purpose of developing grassroots leadership; 2) providing an Energy Efficiency Training Program (EETP); and, 3) enhancing energy use information and management for small businesses and municipalities.

Typologies

The 2009 CPUC decision states:

In order to “advance” the strategies, the Coordinator should develop typologies of local governments (based on current expertise, size, and location) and suggestions for how to reach them, what Strategic Plan work is most ripe and relevant for them, and identify barriers to implementation and opportunities to overcome them.

Coordinator has worked with ICLEI, ILG and LGC, the IOUs, LGPs and CPUC to set up the typology. A report will be developed in 2012 to be included in the Coordinator’s final annual report.

Statewide Coordinator Activities in 2010 & 2011

One of the most useful methods to help local government partners and to track their activities has been the personal visits the Coordinator has made to the LGPs. They have served to introduce the Coordinator to those who may not have known him before, to ensure the LGPs understand the purpose of the position and types of assistance the Coordinator could provide, and to give the Coordinator a better understanding of what the LGPs hope to accomplish in their Strategic Planning activities. Coordinator visited 40 LGPs in 2010 and 2011.

Partner Visits

- ABAG
- AMBAG Energy Watch
- Balboa Park Cultural Partnership
- Beaumont
- Chula Vista
- Community Energy Partnership
- CVAG (Desert Cities Partnership)
- Eastern Sierra Energy Watch
- Fresno Energy Watch
- Kern County Energy Watch
- Lake County Energy Watch
- Marin County Energy Watch
- Mendocino County Energy Watch
- Napa County Energy Watch
- Orange County Cities
- Port of San Diego
- Redlands
- RCEA – Humboldt County Energy Watch
- Riverside County
- San Bernardino County
- SANDAG Partnership
- San Diego City
- San Diego County
- San Francisco
- San Gabriel Valley COG
- San Joaquin City
- San Joaquin Valley Innovative Energy Watch
- San Luis Obispo Energy Watch
- San Mateo County Energy Watch
- Santa Barbara County Partnership (SCE)
- Santa Clara Energy Watch
- Sierra Nevada Energy Watch
- Silicon Valley Energy Watch
- Simi Valley Partnership
- Sonoma County Energy Watch
- South Bay Cities COG
- South Gate
- VCREA Partnership
- Yolo County Energy Watch

Speaking Engagements and other meetings

Coordinator was invited to participate in conferences, workshops, meetings and webinars.

Speaking

- Community Energy Partnership Team Leaders webinar on *Statewide Local Government Energy Efficiency Best Practices Position*
- Joint Venture Silicon Valley panel on *Revolving Energy Funds*
- League of CA Cities Annual Conference on *Local Government Facilities Energy Efficiency Programs*
- PG&E Networking meeting on *Statewide Local Government Energy Efficiency Best Practices Position*
- SANDAG meeting on *Statewide Local Government Energy Efficiency Best Practices Position*
- SCE/SCG Networking meeting on *Statewide Local Government Energy Efficiency Best Practices Position*
- SDG&E mixer on *Statewide Local Government Energy Efficiency Best Practices Position*
- SEEC webinar on Funding (host)
- 2010 and 2011 SEEC Annual Forums (host)
- UC Davis Energy Seminar Series on *Community-Based Energy Efficiency Programs*
- Utility Energy Forum on *Policy Drivers Past and Future*

Meetings

- CARB – introduce Statewide Coordinator position, CARB’s Local Government Toolkit
- CEC – workshop on AB 758
- CCSE – introduce Statewide Coordinator position
- CPUC – discuss utilities’ annual energy forum, California Long-term Energy Efficiency Strategic Plan tracking, and Zero Net Energy program
- City of Riverside – introduce Statewide Coordinator position
- Energy Network meetings (2010 & 2011)
- PACE Solutions Seminar
- SCE/SCG Networking meetings (2010 & 2011)
- SDG&E mixers (2010 & 2011)
- Yosemite Conference (2010 & 2011)

Best Practices Fact Sheets

Coordinator produced 12 best practices fact sheets in 2010 and 2011, and researched several more. The completed fact sheets were:

- Alameda County’s *Revolving Energy Fund and Municipal Utility Surcharge*
- AMBAG’s *Regional Inventory Collaborative*
- Berkeley’s *Financing Initiative for Renewable & Solar Technology (FIRST)*
- Chula Vista’s *Free Resource & Energy Business Evaluations (FREBE)*
- *Energy Managers*
- *Local Ordinances Exceeding State Building Energy Efficiency Standards*
- San Diego’s *Peer-to-Peer Regional Street Lighting Working Group*

- San Jose's *Energy Fund*
- San Rafael's *Green Building Ordinance*
- Sierra Nevada's *Local Green Jobs*
- Sonoma County *Energy Independence Program (SCEIP)*
- Valley Innovative Energy Watch *Benchmarking Guide*

The over-burdened staffing issue above has also affected the development of these case studies. Several draft case studies have been waiting for months for local government edits and additional input. Also, the Coordinator is trying to highlight local governments from around the state, and of varying levels of experience. For example, Coordinator is trying to highlight more Southern CA examples and some of the second tier adopters (not just Santa Monica, Berkeley, etc.). Many of the new LGPs do not yet have a full enough story to tell. That should change as their partnerships mature.

Engage360 Web Portal

Coordinator was asked to administer the local government pages of the *Engage360* web site. *Engage360* is the CPUC's energy efficiency marketing campaign that is replacing *Flex Your Power*. Coordinator started working with the web site in March 2010, and provided ideas to the site developer for making it more user friendly. Coordinator invited a few local government energy staff to Beta-test the site, although only one actually did. When the site went public for energy professionals in October 2010, Coordinator sent an email inviting local government energy professionals to join the site.

Coordinator has used the site to post the best practices fact sheets, workshop announcements for the SEEC partnership (and others), and program announcements.

In September 2011, the CPUC froze Engage360, and the Coordinator could no longer post information there. In December, Coordinator developed a new website (www.EECoordinator.info), which went live in January 2012. This new site will house all of the information the Coordinator had been placing on Engage360, and more.

Other Assistance - emails

From February 2010 until the end of 2011, Coordinator sent email alerts on 417 different topics (sometimes reminders were sent for particular events, but the event was counted only once). Most of the emails related to upcoming events (workshops, conferences, webinars, etc.). This list serve was used to provide peer-to-peer advice on such topics as templates for energy consultant Requests for Proposals, energy job descriptions, and advice on doing energy efficiency upgrades on a building with historic designation. There were 40 peer-to-peer requests in 2010 and 2011.

Summary of emails (Feb 19 – Dec 31, 2011)

• Event Announcements	168
• Job Announcements	70
• Program Announcements	64
• Peer-to-Peer Requests	40
• Publication Announcements	47
• Funding Announcements	16
• Other	12

For 2012, Coordinator has created a website to house this information, and will be sending weekly announcements that link to the information on the website, instead of individual emails for each item.

CURRENTS: An Energy Newsletter for Local Governments

The Coordinator has written *CURRENTS: An Energy Newsletter for Local Governments* since 1998. During 2010 & 2011, Coordinator wrote 8 issues of the newsletter. In January 2012 statistics were gathered on the number of visits to the *CURRENTS* web site.

Number of visits¹ to:

• Main CURRENTS page in 2010	2192
• Main CURRENTS page in 2011	2020
• Winter 2010 Issue	1400
• Spring 2010 Issue	1404
• Summer 2010 Issue	1093
• Fall 2010 Issue	1694
• Winter 2011 Issue	819
• Spring 2011 Issue	849
• Summer 2011 Issue	748
• Fall 2011 Issue	546

Most Visited Articles (October 2010 – October 2011):

- Upcoming Events (every Issue)
- ICLEI Assistance to CA Local Governments (Fall 2010)
- Solar Power – More Reliable than You Think (Fall 2010)
- ‘Buy Local’ Energy Programs in Chula Vista (Summer 2011)
- Upcoming Climate & Energy Webcasts for State & Local Governments (Fall 2010)
- Second Annual Statewide Energy Efficiency Best Practices Forum (Spring & Summer 2011)

¹ The number of visits to a particular page increases with time, for example, the Fall 2011 issue had only been on the site for 3 months, while the Winter 2010 issue had been on the site for 24 months.

- Guide Makes Solar Power Accessible to Small Businesses and Local Governments (Summer 2011)
- Local Government Green Procurement Tools (Fall 2010)

The most popular story after “Upcoming Events” which is updated in each issue, was the ICLEI Assistance story. The Chula Vista ‘Buy Local’ story in the Summer 2011 issue was only on the website for 4 months, but was the fourth most popular story.

Good Examples of Energy Language in General Plans

The following were taken from General Plan documents available on the internet. They were found by doing an internet search for the city/county name and general plan. Coordinator only looked at these for cities and counties on the Governor's Office of Planning and Research's list of local governments with Energy Elements.

Corte Madera Resource Conservation and Sustainability Element (2009)

3.8 GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS FOR ENERGY CONSERVATION

GOAL RCS - 2

Reduced consumption of non-renewable energy sources in Corte Madera.

POLICY RCS-2.1

Ensure that basic energy services are available to all Town residents.

Implementation Program RCS-2.1.a: Estimate Energy Demands

Continue to coordinate with Pacific Gas and Electric to identify projected energy demands for residential, commercial, industrial, and other land uses.

Responsibility: Planning and Building Department

Timeframe: On-going

Resources: General Fund; Application Fees

POLICY RCS-2.2

Increase energy conservation and efficiency within Corte Madera.

Implementation Program RCS-2.2.a: Energy Conservation and Efficiency

Identify opportunities for creating energy conservation and efficiency programs for application in all Town facilities, schools and local businesses.

Responsibility: Administrative Services

Timeframe: On-going

Resources: General Fund

Implementation Program RCS-2.2.b: Water Conservation

Institute a water conservation program for all Town facilities, to include the installation of waterless urinals and low-flow toilets, sinks and showers. Include funding for these improvements in the CIP.

Responsibility: Public Works Department

Timeframe: On-going

Resources: CIP Budget

Implementation Program RCS-2.2.c: Public Facilities Conservation

Strongly encourage the use of recycled water and drought-resistant landscaping in Town facilities, public roadway landscape, and in new development.

Responsibility: Planning/Building & Public Works Depts.
Timeframe: On-going
Resources: General Fund; CIP Budget; Application Fees

Implementation Program RCS-2.2.d: Energy-Efficient Models

Require energy-efficient models for all new Town equipment purchases.
Responsibility: Public Works Department
Timeframe: On-going
Resources: CIP Budget; General Fund

Implementation Program RCS-2.2e: Energy Efficient Town Facilities

Manage Town facilities in the most energy efficient manner feasible.
Responsibility: Administrative Services
Timeframe: On-going
Resources: General Fund

Implementation Program RCS-2.2f: Cooperate with Regional Energy Programs

Cooperate with regional energy programs such as the Marin County Energy Watch Partnership to promote energy efficiency in Town facilities, residences, and commercial buildings.

Responsibility: Administrative Services
Timeframe: On-going
Resources: General Fund

Implementation Program RCS-2.2g: Conduct Energy Audits

Continue to conduct energy audits of Town facilities, and implement energy efficiency recommendations from those audits. Seek funding from available state sources and grant opportunities, as well as the CIP.

Responsibility: Administrative Services
Timeframe: On-going
Resources: General Fund

Implementation Program RCS-2.2f: Heat Islands

Minimize heat islands and the resulting increase in energy use for cooling, by avoiding the use of materials such as some types of artificial turf that have excessive heat reflection characteristics, and by using cooling techniques such as landscape shading where reasonably feasible.

Responsibility: Planning & Building Department; Public Works Department
Timeframe: On-going
Resources: General Fund

POLICY RCS- 2.3

Develop programs to increase energy conservation within Corte Madera residences.

Implementation Program RCS-2.3.a: Utility Energy Efficiency Programs

Encourage homeowners to utilize programs offered by the utility services when

designing plans for residences as a means of reducing energy demands and costs.

Responsibility: Planning and Building Department

Timeframe: On-going

Resources: Application Fees

Davis Community Resource Conservation Element (2001)

(See the Energy Chapter)

Irvine Energy Element (2006)

(see full document)

Los Gatos Environment and Sustainability Element (2010)

Goals, Policies, and Actions

Goal ENV-16 To foster development that reduces the use of nonrenewable energy resources and expands the use of renewable resources and alternative fuels.

Policies

Policy ENV-16.1 Encourage the use of energy conservation techniques and technology in existing and proposed developments to improve energy conservation.

Policy ENV-16.2 Protect existing development from loss of solar access.

Policy ENV-16.3 Encourage the use of renewable energy sources and alternative fuels.

Policy ENV-16.4 Promote, incentivize, and recognize energy efficiency efforts of local non-residential uses.

Policy ENV-16.5 Require new subdivisions to examine the feasibility of incorporating site layouts that allow for passive solar heating and cooling.

Policy ENV-16.6 Encourage new development to incorporate measures that reduce energy use through solar orientation by taking advantage of shade, prevailing winds, landscaping, and sun screens.

Actions

Action ENV-16.1 Continue to adopt the following energy saving steps for Town facilities and operations:

- a. Conduct, with assistance from PG&E, a thorough energy audit of all Town

facilities to identify cost effective opportunities for conservation and use of solar energy system

- b. Establish realistic yearly goals for reductions in Town energy costs and keep Town personnel aware of program status.
- c. Establish a fuel conservation program for the Town vehicle fleet and require Gas Cap driver training for all employees who use fleet vehicles.

Action ENV-16.2 Study possible measures to improve energy and water efficiency in existing buildings as part of the development of a Climate Action Plan.

Goal ENV-17 To promote green buildings that minimize consumption of energy and natural resources.

Policies

Policy ENV-17.1 Require new construction and remodels to use energy- and resource-efficient and ecologically sound designs, technologies, and building materials, as well as recycled materials to promote sustainability.

Policy ENV-17.2 Require higher levels of energy efficiency as house size increases.

Policy ENV-17.3 Encourage reductions in the use of nonrenewable resources in building construction, maintenance, and operations.

Policy ENV-17.4 Encourage new multi-family construction to include green roofs and common space for community gardens.

Policy ENV-17.5 Require all new homes to follow the Town's adopted GreenPoint Rated Building Guidelines.

Policy ENV-17.6 Provide incentives, such as giving priority in plan review, processing and field inspection services, for projects that achieve a LEED-Silver or higher rating or comparable GreenPoint rating.

Policy ENV-17.7 Encourage LEED certification or comparable certification for new non-residential buildings over 5,000 square feet.

Policy ENV-17.8 Provide expedited permit processing for new construction or substantial remodels that exceed Title 24 requirements by at least 20 percent.

Policy ENV-17.9 New Town-owned facilities shall serve as examples of sustainable development by utilizing recycled and renewable resources, water conserving fixtures and landscaping, and energy efficient systems and appliances.

Policy ENV-17.10 Continue to promote the weatherization of all homes through publicizing available utility energy audit and financing programs and investigate the

possibility of contracting with PG&E to identify participants.

Policy ENV-17.11 Provide public education and publicity about energy efficiency and emissions reduction programs and incentives.

Policy ENV-17.12 Provide green building information, marketing, training and technical assistance to property owners, development professionals, schools and special districts.

Policy ENV-17.13 Coordinate with other local governments, special districts, nonprofits and other public organizations to share resources, achieve economies of scale and develop green building policies and programs that are optimized on a regional scale.

Policy ENV-17.14 Provide permitting-related and other incentives for energy efficient building projects, for example by giving energy efficient projects priority in plan review, processing and field inspection services.

Actions

Action ENV-17.1 Develop policies, incentives, and design guidelines that encourage the public and private purchase and use of durable and nondurable items, including building materials, made from recycled materials or renewable resources.

Action ENV-17.2 Amend the Town Code to establish regulations, in addition to Title 24 requirements, that promote and require the conservation of energy and the use of renewable energy sources.

Action ENV-17.3 Establish outdoor lighting standards in the Town Code to address energy efficiency.

Action ENV-17.4 Consider adopting the Santa Clara County Cities Association recommendations or regional standards/recommendations for green building requirements.

Action ENV-17.5 Train all plan review and building inspection staff in green building and energy efficiency materials, techniques and practices.

Action ENV-17.6 Identify and remove regulatory or procedural barriers to implementing green building practices in the Town, by updating codes, guidelines, and zoning, and identifying incentives for LEED certification.

Action ENV-17.7 Study the feasibility of requiring LEED certification for all or certain new projects.

Pleasanton Energy Element (2009)

(see full document)

San Bernardino Energy and Water Conservation Element (2005)

(see full document)

San Luis Obispo Conservation and Open Space Element (2006)

(see full document)

Taft Open Space & Conservation Element (2010)

Note: Taft has an Energy Resources Element devoted to energy production

CONSERVATION POLICIES: ENERGY CONSERVATION

The reader should also consult the Energy Resources Element: Energy Conservation policy group for additional policies relating to energy conservation.

Policy C-41: Support development practices that conserve energy.

Action C-41a: Establish a program to achieve 65 percent of electricity from alternative energy sources by 2015 and 90 percent by 2030.

Policy C-42: Promote energy conservation and efficiency measures.

Action C-42a: Operate City-owned buildings and facilities in an energy efficient manner without endangering public health and safety and without reducing public safety or service levels.

Action C-42b: Integrate appropriate alternative energy and clean generation technologies into existing and new City facilities.

Policy C-43: Require public and private development including homes, commercial, and industrial uses to exceed Title 24 of the California Building Code standards by 15 percent.

Action C-43a: Develop and adopt energy conservation standards to augment the California Energy Code for new construction.

Action C-43b: Collaborate with energy providers to educate the community about energy-efficient programs and practices.

Policy C-44: Retrofit existing City buildings with energy-saving features, such as insulation, glazing, and fluorescent lighting fixtures, and participate in programs to encourage private property owners to do the same.

Action C-44a: Use energy-efficient models when replacing all municipal equipment.

Action C-44b: Seek sources of funding for implementing energy-efficient improvement and utilities infrastructure renewal projects, including federal and

state budget appropriations, federal, state and private sector grant opportunities, utilities, and other unique public/private sector financing arrangements.

Policy C-45: Encourage rehabilitation and reuse of buildings whenever appropriate and feasible to reduce waste, conserve resources and energy, and decrease construction costs.

CONSERVATION POLICIES: GREEN BUILDING

The reader should also consult the Energy Resources Element: Alternative Energy Development policy group for additional policies relating to energy conservation.

Policy C-46: Incorporate green building practices into the planning, design, construction, management, renovation, operations, and demolition of all facilities that are constructed, owned, managed, or financed by the City.

Policy C-47: Encourage the conservation and reuse of building materials and resources and promote the use of sustainable recycled and locally sourced materials in development projects.

Policy C-48: Encourage energy-efficient “green buildings” as certified by the U.S. Green Building Council’s LEED (Leadership in Energy and Environmental Design) Program at a minimum certification level of Silver or equivalent.

Action C-48a: Develop an implementation strategy for a mandatory Green Building Program that includes performance standards, guidelines, review criteria, incentives, and implementation schedules for private sector development with criteria tailored to project types, size, and location.

Action C-48b: Identify and provide incentives to encourage projects that incorporate green building practices and site design.

Action C-48c: Identify and provide incentives for Zero Net Energy Buildings.

Action C-48d: Provide information, technical assistance, and training to promote Green Building to property owners, building, design, and planning professionals, school districts, and special districts.

Policy C-49: Continue participation in the Climate Smart program.

Policy C-50: Consider participation in the Bakersfield and Kern County Energy Watch program and any other future programs that encourage energy and/or water conservation.

Policy C-51: Minimize obstacles to energy conservation and encourage use of sustainable energy sources and technologies such as solar and wind while promoting the economic benefits of conservation in its regulation of private activities.

Action C-51a: Provide expedited review of sustainable energy projects.

Policy C-52: Employ the best available practices in materials procurement, use,

reuse, and recycling, where feasible, and encourage individuals, organizations, and other agencies to do likewise. “Best available practices” means behavior and technologies that, considering available equipment, life-cycle costs, social and environmental side effects, and the regulations of other agencies, use the least amount of newly refined materials for a desired outcome, direct the largest feasible fraction of used materials to future uses, and avoid undesirable effects due to further use of materials.

Policy C-53: Require facilities in new developments to accommodate and encourage recycling.

Policy C-54: Encourage zero waste for all development.

Action C-54a: Coordinate with the California Integrated Waste Management Board and other organizations to develop programs to reduce, reuse, recycle.

Action C-54b: Educate the public about how to achieve zero waste.

Marin County The Built Environment Element (2007)

GOAL EN-1

Decreased Energy Use. Reduce total and per-capita nonrenewable energy waste and peak electricity demand through energy efficiency and conservation.

Policies

EN-1.1 *Adopt Energy Efficiency Standards.* Integrate energy efficiency and conservation requirements that exceed State standards into the development review and building permit process.

EN-1.2 *Offer Effective Incentives.* Continue to offer incentives such as expedited permit processing, reduced fees, and technical assistance to encourage energy efficiency technology and practices.

EN-1.3 *Provide Public Information and Education.* Continue to provide information, marketing, training, and education to support energy efficiency and energy conservation.

EN-1.4 *Reduce Energy Use in County Facilities.* Continue to integrate energy efficiency and conservation into all County functions.

Implementing Programs

EN-1.a *Establish a Permanent Sustainable Energy Planning Process.* Integrate sustainable energy resource planning and program implementation (including climate protection, water resources, and other overlapping topics) into long-range and current planning functions and other related County divisions. Establish and

maintain a process to implement, evaluate, and modify existing programs. Work with PG&E and local and State agencies to estimate current and future energy demand countywide, conduct integrated resource planning, determine how energy sources and delivery systems can conserve resources and reduce demand in Marin, and promote energy conservation, efficiency, and use of renewable resources.

EN-1.b *Adopt Energy Efficiency Standards for New and Remodeled Buildings.* Develop and implement building standards that exceed Title 24 for residential and commercial buildings based on appropriate criteria for the county's specific climate zones, sustainability goals, and other appropriate criteria. Establish technical and financial feasibility criteria by which the standards can be periodically improved.

EN-1.c *Implement the Single-Family Dwelling Energy Efficiency Ordinance.* Continue to require that all new and remodeled homes larger than 3,500 square feet comply with the Marin County Single Family Dwelling Energy Efficiency Ordinance through energy efficiency techniques and/or use of renewable energy. Review and revise the standard periodically to account for changes in Title 24, and technical and financial advances in energy efficiency and renewable technologies.

EN-1.d *Explore Energy Efficiency Standards for Existing Buildings.* Explore and, if appropriate, adopt energy efficiency standards for existing residential and commercial buildings upon substantial remodel. Consider requiring energy efficiency inspections, disclosure, and retrofits at change of ownership based on cost-effective and commercially available energy efficiency measures.

EN-1.e *Offer Information, Technical Assistance, Training, and Incentives.* Continue to expand energy efficiency information, marketing, training, and technical assistance to property owners, development professionals, schools, and special districts. Review and revise, as needed, existing incentives for incorporating energy reducing practices in remodels and new development, including fee reductions and expedited processing.

EN-1.f *Explore Regional Collaboration, Financing, and Other Incentives.* Explore regional and countywide collaborations among local governments, special districts, and other public organizations to share resources, achieve economies of scale, and develop plans and programs that are optimized on a regional scale. Evaluate and implement opportunities for supporting new programs and promoting sustainable energy practices through financing mechanisms (e.g., pooled project financing, low-interest loans, Community Choice Aggregation, other local government joint ventures, and State funds earmarked for energy efficiency and renewables).

EN-1.g *Support Key Legislation.* Monitor and support State and federal legislation that promotes energy efficiency and renewable energy sources.

EN-1.h *Support Low Income Weatherization.* Review and ensure that adequate low-income weatherization programs are being implemented in Marin, and all available

State and federal funds and programs are being used to the fullest extent possible. Provide information, training, and technical assistance to owners and tenants who may have incentives for implementing energy efficiency in low-income rental properties.

EN-1.i *Reduce Energy Use in Processing Operations.* Work with local commercial, industrial, and agricultural operations to identify opportunities for energy efficiency in the storage, transport, refrigeration, and other processing of commodities, and require such operations to provide energy efficiency analyses in conjunction with required County approvals.

EN 1.j *Reduce Energy Use in County Facilities.* Continue to reduce energy in County facilities, utilize innovative energy efficiency technologies, and provide leadership and technical assistance to other agencies.

GOAL EN-2

Increased Renewable Resource Use. Utilize local renewable energy resources, and shift imported energy to renewable resources.

Policies

EN-2.1 *Protect Local Renewable Resources.* Preserve opportunities for development of renewable energy resources.

EN-2.2 *Adopt Renewable Energy Building Standards.* Integrate technically and financially feasible renewable energy requirements into development and building standards.

EN-2.3 *Promote Renewable Energy.* Facilitate renewable technologies through streamlined planning and development rules, codes, processing, and other incentives.

EN-2.4 *Provide Public Information and Education.* Provide information, marketing, training, and education to support renewable resource use.

Implementing Programs

EN-2.a *Map Local Renewable Energy Resources, Utility Systems, and Demand Areas.* Use Geographic Information Systems (GIS) to map and assess local renewable resources, the electric and gas transmission and distribution system, community growth areas anticipated to require new energy services, and other data useful to deployment of renewable technologies.

EN-2.b *Protect Renewable Resources.* Identify possible sites for production of energy using local renewable resources such as solar, wind, small hydro, biogas, and tidal;

evaluate potential land use, environmental, economic, and other constraints affecting their development; and adopt measures to protect those resources, such as utility easement, right-of-way, and land set-asides.

EN-2.c *Protect Solar Access.* Continue to require the protection of passive or active solar design elements and systems from shading by neighboring structures and trees.

EN-2.d *Facilitate Renewable Energy Technologies and Design.* Continue to identify and remove regulatory or procedural barriers to producing renewable energy in building and development codes, design guidelines, and zoning ordinances. Work with related agencies such as fire, water, and health that may impact the use of alternative technologies. Develop protocols for alternative energy storage such as biodiesel, hydrogen, and/or compressed air.

EN-2.e *Provide Incentives for Alternative Energy Production.* Continue to provide incentives such as fee reductions and expedited processing for facilities that use renewable sources for energy production. Work with State and federal agencies to secure tax exemptions, tax rebates, or other financial incentives for such facilities.

EN-2.f *Use Renewable Energy in County Facilities.* Continue to develop and employ renewable energy and clean generation technologies such as solar, wind, biogas, tidal, cogeneration, and fuel cells to power County facilities using tax-free low-interest loans and other available financial options. Evaluate the feasibility of purchasing renewable energy certificates to reduce Marin County government's contribution to greenhouse gas emissions.

EN-2.g *Explore Community Choice Aggregation.* Evaluate and pursue implementation of Community Choice Aggregation (CCA) if it proves to be a cost-effective and low-risk strategy to accelerate the use of renewable energy resources.

EN-2.h *Provide Information and Technical Assistance.* Offer technical assistance for renewable energy and clean distributed generation as part of the program under

EN-2.i *Explore Renewable Energy Financing Options.* Evaluate and implement as feasible local government financing options such as low-interest loans, pooled project financing, and joint ventures with other agencies with financing authority, such as the water districts.

EN-2.j *Coordinate with the Special Districts on Energy Use.* Work with MMWD, NMWD, and sanitary and other special districts to assess and develop joint initiatives for energy and water resource planning, resource conservation, and energy development.

EN-2.k *Explore Regional Collaboration.* Explore regional collaborations among local governments, special districts, nonprofits, and other public organizations to share

resources, achieve economies of scale, and develop renewable energy policies and programs that are optimized on a regional scale.

GOAL EN-3

Adopt Green Building Standards. Integrate green building requirements into the development review and building permit process.

Policies

EN-3.1 *Initiate Green Building Initiatives.* Encourage and over time increasingly require sustainable resource use and construction with nontoxic materials.

EN-3.2 *Offer Effective Incentives.* Continue to offer incentives that encourage green building practices.

EN-3.3 *Incorporate Green Building in County Facilities.* Integrate green building practices into all County facilities.

EN-3.4 *Provide Public Information and Education.* Continue to provide information, marketing, training, and education to support green building.

Implementing Programs

EN-3.a *Require Green Building Practices for Residential Development.* Require residential development and major remodels that are subject to design review to utilize the Marin Green Building Design Guidelines (see the Introduction, “Technical Background Reports and Other Supporting Documents”) or other County-approved rating systems. Affordable housing projects are encouraged but not required to integrate the Marin Green Building Design Guidelines or other County-approved rating systems. Additional technical assistance and public funding should be provided for that purpose.

EN-3.b *Require Green Building Practices for Nonresidential Development.* Consider incentives and/or the discretionary permit process to require new nonresidential development and remodels to utilize the U.S. Green Building Council’s LEED rating system.

EN-3.c *Divert Construction Waste.* Continue to implement and improve the Construction and Demolition Waste Recovery Ordinance, requiring building projects to recycle or reuse a minimum of 50% of unused or leftover building materials.

EN-3.d *Encourage Fly Ash in Concrete.* Provide incentives and consider regulations requiring new building projects that use a substantial amount of concrete to incorporate at least 25% fly ash to offset some of the energy use and greenhouse gas emissions associated with the manufacturing of cement.

EN-3.e *Offer Information, Technical Assistance, Training, and Incentives.* Continue to expand green building information, marketing, training, and technical assistance to property owners, development professionals, schools, and special districts. Include green building guidelines in residential design guidelines. Review and revise, as needed, existing incentives for incorporating green building practices in remodels and new development, including fee reductions and/or expedited permit processing.

EN-3.f *Facilitate Green Building Practices.* Continue to identify and remove regulatory or procedural barriers to implementing green building practices in Marin, such as updating codes, guidelines, and zoning.

EN-3.g *Support Green Building Professional Certification.* Support minimum green building certification requirements for architects, contractors, and other building professionals. Provide ongoing training to meet the minimum requirements. Maintain County membership in the United States Green Building Council.

EN-3.h *Adopt LEED Gold Standards for Public Buildings.* Implement where feasible the LEED (Leadership in Energy and Environmental Design) Gold certification requirements or a higher standard for development and major remodels of new public buildings.

EN-3.i *Explore Regional Collaborations.* Explore regional collaborations among local governments, special districts, nonprofits, and other public organizations to share resources, achieve economies of scale, and develop green building policies and programs that are optimized on a regional scale.

EN-3.j *Support Key Legislation and Initiatives.* Monitor and support State and federal legislation and programs that promote green building.

EN-3.k *Evaluate Carbon Neutral Building Incentives.* Evaluate the feasibility of incentives and regulations to achieve carbon neutral buildings.

Sacramento Housing Element (2008)

Sub-Strategy VII-A: Promote the Efficient Use of Energy and Reduce the Long-Term Operational Cost of Housing Objective

Reduce home energy usage by increasing energy efficiency.

Policy

HE-59. *Whenever feasible, incorporate energy-efficient site design, such as proper orientation to benefit from active and/or passive solar heating and cooling, into master planning efforts.*

Programs

HE-59(b): The County will develop Community Plans, Specific and Comprehensive Plans, Corridor Plans and Residential Design Guidelines that incorporate energy efficient configuration and design as primary goals.

HE-59(c): The County will continue to provide a 25 percent density bonus to residential development projects if the following two conditions are met:

1. The project would result in an energy savings beyond those obtained with conventional design and construction techniques.
2. The amount of increased density is proportional to the amount of increased energy efficiency achieved that exceeds adopted regulations.

Policy

***HE-60.** The County will encourage residential developers/builders to maximize energy efficiency through building design and through the use of energy efficient materials, equipment, and appliances.*

Programs

HE-60(a): The Building Division will continue to require a Residential Title 24 Energy Analysis and enforce these requirements as part of building plan check procedures. Title 24 requires new residential buildings to meet a comprehensive set of standards for energy efficiency.

HE-60(b): The County will develop a comprehensive Green Building Program. This program will consider Green Building rating systems as optional standards for builders to use for their energy analysis. This program will consider incentives for builders to construct homes that exceed Title 24 standards [See HE-61 (e)]. Also, there will be an educational component to this program [See HE-61 (d)].

HE-60(c): The County will develop a web page that will advertise the GreenPoint rating program and/or equivalent rating system. The web page will highlight residential developments that have homes that are certified by a third party to have exceeded requirements of Residential Title 24 Energy Analysis. For instance, a GreenPoint Rated residential development reflects construction practices that exceed California's building and energy code requirements. A GreenPoint Rated home is graded on 5 categories – energy efficiency, resource conservation, indoor air quality, water conservation and community. If the home meets minimum point requirements in each category, it earns the right to bear the GreenPoint Rated label.

HE-60(d): The County will participate in educating residents about Green Building and the promoting the use of Green Building rating systems.

HE-60(e): The County will consider offering incentives (e.g. density bonus, expedited process, fee reduction/waiver) to residential projects that attain rating of being a “Green Building” through independent third-party verification. Incentives will be considered and adopted through the County’s Green Building Program.

HE-60(f): The County, in partnership with SMUD, will develop and distribute pertinent information about the benefits of energy conservation and available energy efficiency incentive programs to residents and developers and builders of housing.

HE-60(g): As part of the plan-check process for single-family and multifamily residential (3 stories or less), the Planning and Community Development Department will provide a line item to indicate whether the applicant is participating in SMUD’s Advantage Home rebate program, to achieve a 20 percent margin above the State’s Title 24 energy efficiency standards.

HE-60(h): If a project’s applicants conducted a Residential Title 24 Energy Analysis and the project exceeded Title 24 energy efficiency standards, then Planning staff will report this in the staff report and during presentations to hearing bodies. Planning staff will report the percentage that a project exceeds the State’s standards.

San Diego County Energy Element

GOAL 3

MAXIMIZE ENERGY CONSERVATION AND EFFICIENCY OF UTILIZATION.

RESOURCES INFORMATION AND COORDINATION

Policy RIC-1 Promote public information on the issues that surround energy and on methods for conserving energy.

Action Program RIC-1.1 Actively encourage existing Federal, State, and private public information programs, advising on substantive content as deemed necessary.

Action Program RIC-1.2 Promote educational programs in County schools on energy conservation, new energy technologies and other timely topics related to energy.

Action Program RIC-1.3 Provide information on energy related topics to residents of the County.

Policy RIC-2 Promote demonstration of conservation techniques and new energy technologies on County facilities.

Action Program RIC-2.1 Promote the demonstration of conservation techniques and their effectiveness in County owned or operated facilities.

Action Program RIC-2.2 Promote the demonstration of new energy saving or supply technologies such as solar energy technologies on County facilities and the dissemination of information on their relative effectiveness and operating costs.

Action Program RIC-2.3 Study the feasibility of connecting major County facilities with a telecommunications system as a means of reducing vehicle trips between geographically separated facilities.

Action Program RIC-2.4 Reduce gasoline consumption of the County fleet by at least 10% by:

- a. Placing a three year moratorium on the purchase of new vehicles;
- b. Requiring that the purchase of replacement vehicles be limited to compact cars having maximum available engine fuel efficiencies; and
- c. Expanding and improving the existing shuttle bus system between key County and City government facilities.

Action Program RIC-2.5 Reduce energy consumption levels in existing County buildings by 20% by 1985 from 1975 energy consumption levels:

- a. Placing into operation the innovative system for computerized control of energy consuming equipment in our major facilities; systems controls, time-of-day operation of lights and equipment, space temperatures, energy demands;
- b. "Economy cycle" controls in buildings not now equipped so as to optimize use of outside air and minimizing need for mechanical cooling;
- c. Modernizing existing heating, cooling, and ventilating systems as is now being done at the County Administration Center;
- d. Installation of heat pumps where applicable;
- e. Replacement of pilot lights with igniters to reduce consumption of natural gas;
- f. Utilization of solar hot water heating to the maximum extent possible for buildings and swimming pools;
- g. Reduce consumption of water to conserve the electrical energy used in pumping;
- h. Purchasing and installing the most energy efficient equipment available in lieu of a lower cost equipment by adopting life cycle cost specifications;
- i. Development of new energy usage rates (total energy per square foot) to provide an effective way to compare energy usage for specific facilities; and
- j. Insulation of remodeled and new facilities based on local conditions.

Action Program RIC-2.6 Reduce energy consumption levels in new County buildings by 45% by 1985 from 1975 energy consumption levels:

- a. Design all new buildings and major building remodels to equal or exceed guidelines established for new buildings by American Society of Heating, Refrigeration, and Air Conditioning Engineers;
- b. Install solar water and space heating systems to the maximum extent feasible; and

- c. Life cycle energy costing of new building designs.

Policy RIC-3 Promote cooperation and coordination with Federal, State, regional, and local governmental and private agencies in seeking to formulate and implement energy planning programs.

Action Program RIC-3.1 Maintain an awareness of energy planning techniques, legislation, supplies, and related problems in other jurisdictions.

Action Program RIC-3.2 Coordinate County efforts with other governmental and private agencies through open forum discussions, dissemination of information, and technical assistance where necessary.

Action Program RIC-3.3 Request the Chamber of Commerce, Building Contractors Association, Labor Council, and other industrial and labor organizations to work with the County to develop energy conservation programs and projects such as weatherization and insulation of homes using local subcontractors and Federal Title VI CETA and Community Action Partnership (CAP) funds.

Action Program RIC-3.4 Work cooperatively with San Diego Gas and Electric and the private sector to implement and/or improve the following conservation programs:

- a. Insulation of residential buildings;
- b. Establishment of an insulation information center; and
- c. Development of an educational program to promote energy conservation methods.

Action Program RIC-3.5 Establish an Office of Energy and Resources Conservation to provide coordinated energy planning, implementation of plans and public information.

Action Program RIC-3.6 Prepare an Implementation Plan and Schedule for implementing the Energy Element.

CONSERVATION POLICIES

UT - User Technology

Policy UT-1 Encourage conservation in residential and commercial space heating. (Performance Expectation - 6.8%)

Action Program UT-1.1 Encourage public information programs on energy conservation in residential and commercial space heating.

Action Program UT-1.2 Amend County Building Codes to require insulation and weatherstripping against heat loss in new residential and nonresidential development based on local conditions.

Action Program UT-1.3 Amend County Building and Plumbing Codes to require the use of more efficient heating appliances (such as heat pumps) and improved building design using passive conditioning systems where practical in accordance with residential, nonresidential and appliance efficiency standards being established by the State Energy Commission.

Action Program UT-1.4 Encourage State legislation which would remove tax disincentives on capital investments in insulating materials and solar space heating equipment.

Policy UT-2 Encourage energy conservation in residential and commercial space cooling (air conditioning). (Performance Expectation - 1.1%)

Action Program UT-2.1 Amend County Building Codes, in accordance with local conditions and State Energy Commission standards for both residential and nonresidential buildings, to include insulation requirements against heat infiltration, in new construction.

Action Program UT-2.2 Amend County Building Codes which would require the use of reversible heat pumps or more efficient air conditioners in new structures in accordance with appliance efficiency standards set by the ERCDC.

Action Program UT-2.3 Encourage State legislation which would remove tax disincentives on capital investments in solar space cooling equipment.

Action Program UT-2.4 Amend County Building Codes to remove unnecessary obstacles to implementing conservation technology.

Policy UT-3 Promote energy conserving measures in residential and commercial water heating. (Performance Expectation - 1.5%)

Action Program UT-3.1 Advocate State legislation and/or consider County ordinances which would phase out the use of natural gas to heat swimming pools by stopping hookups to new swimming pools and increasing utility rates on natural gas use to heat existing swimming pools. Special consideration would be given to cases where the restriction against new natural gas hookups for swimming pools can be shown to be unreasonable due to extreme life cycle costs, technical causes, or health reasons.

Action Program UT-3.2 Amend County Building and Plumbing Codes, in accordance with ERCDC standards, to require the installation of more efficient water heating appliances and plumbing installation in new development.

Action Program UT-3.3 Encourage State legislation which would remove tax disincentives on capital investments in solar water heating equipment.

Policy UT-4 Promote restrictions on the use of electricity and fossil fuels for advertising and decorative purposes. (Performance Expectation - 1.3%)

Action Program UT-4.1 Consider a County ordinance which would ban or restrict the use of existing, nonessential decorative uses of energy, consistent with the Conservation and Public Safety Elements of the General Plan, and amend the County Plumbing Codes to restrict installation of new systems.

Action Program UT-4.2 Consider a County ordinance which would ban or restrict the use of existing nonessential advertising uses of energy, consistent with the Conservation and Public Safety Elements of the General Plan, and amend the County Plumbing and Building Codes to restrict installation of new systems.

Action Program UT-4.3 Amend the County Plumbing Code to ban decorative lighting or advertising uses of any form of combustible gases within San Diego County.

Policy UT-5 Encourage reduced levels of nonessential lighting in all sectors. (Performance Expectation - 1.2%)

Action Program UT-5.1 Encourage public information programs on nonessential lighting.

Action Program UT-5.2 Demonstrate lighting load conservation techniques in County facilities.

Action Program UT-5.3 Consider an ordinance which would require reduced levels of lighting where not required for work or safety purposes and restrict lighting of office buildings and businesses during nonoperational hours.

Action Program UT-5.4 Encourage an amendment to County standards which would reduce or eliminate lighting of residential and Circulation Element streets where not required for safety or other purposes.

Policy UT-6 Encourage more efficient utilization of industrial process steam and waste heat. (Performance Expectation - 2%)

Action Program UT-6.1 Encourage industrial cogeneration of steam and electricity or other similar efficient technologies through County endorsement of private projects and demonstration on County facilities where practical.

Action Program UT-6.2 Study an ordinance which would require a thorough investigation of additional uses that process steam or waste heat could be put to permit granting process.

Action Program UT-6.3 Encourage the use of heat pumps, "total energy" systems,

fuel cells, and other efficient technologies.

Policy UT-7 Encourage energy conservation in the industrial sector.

Action Program UT-7.1 Amend County Building Codes to require an engineering review of processes and equipment in new industrial development to determine ways of reducing energy consumption, as a condition of project approval.

Action Program UT-7.2 Investigate methods for reducing or eliminating the penalty imposed by property tax assessment on capital improvements which are energy conservant such as energy management control systems.

Policy UT-9 Encourage efficiency standards and labeling of major appliances.

Action Program UT-9.1 Advocate Federal and State legislation setting minimum efficiency standards for appliances and labeling appliances with them.

Action Program UT-9.2 Encourage public education on what efficiency standards mean in terms of energy use.

Policy UT-10 Encourage total energy life cycle costing as one of the criteria for determining the cost of new structures.

Action Program UT-10.1 Encourage approximate calculations of the economic and energy life cycle costs of new residential structures, prior to construction, to be reported in the Department of Real Estate's Subdivision Report and thereby made available to potential home buyers.

Action Program UT-10.2 Encourage approximate calculations of the economic and energy life cycle costs of new nonresidential structures to be made prior to construction.

Policy UT-11 Encourage realty associations to include, on residential listing agreements, information regarding energy saving amenities included in new and used structures.

Policy UT-12 Promote strict County water conservation and recycling measures as a means of conserving energy.

Action Program UT-12.1 (From County General Plan Conservation Element, Policy 4, Action Program 4.2 and 4.3) Reduce local reliance on imported water by initiating a water conservation education program and initiating a program to identify water conservation measures that can be instituted by the County of San Diego.

Action Program UT-12.2 (From County General Plan Conservation Element, Policy 11) The County will encourage projects which will promote the reclamation and

reuse of wastewater. Such projects will be given funding priority in all water management programs.

Action Program UT-12.3 Encourage water districts serving San Diego County to exercise their State mandated powers in enforcing water conservation measures as a means of reducing wasteful water use by customers.

Action Program UT-12.4 Consider adoption of a County ordinance which would require conservation of water through the use of low-water consuming plants in the landscaping of homes, apartments, commercial areas, schools, and other public buildings.

Action Program UT-12.5 Consider implementing incentives, within the County, which would encourage County growers to install or convert to drip or trickle irrigation systems.

Action Program UT-12.6 Consider amendments to the County Plumbing code which would require all new toilet installations to have a dual-flush system or other water conserving system.

Policy UT-13 Consider the development of a plan, with the cooperation of the Convention and Visitors Bureau, and other local business and labor organizations, whereby local businesses, currently open seven days a week, would convert to a six day work week which could result in energy savings of at least 5%.

US - Urban and Site Design

Policy US-1 Encourage innovative building design and orientation techniques which conserve energy.

Action Program US-1.1 Advocate amendments to the State Administrative Codes (Building Codes) to add conservation criteria to building design and orientation.

Action Program US-1.2 Encourage American Institute of Architects initiatives in energy conserving design techniques.

Action Program US-1.3 Utilize innovative energy conservant building design and orientation techniques in future County facilities.

Action Program US-1.4 Advocate State legislation and/or consider amendments to the County Building and Plumbing Codes which would require new residential and nonresidential buildings to have the structural and design capability to later incorporate solar water heating, space heating, or cooling systems able to assume the domestic loads of the building. Specified should be adequate plumbing, storage space, and other necessary means to accomplish minimal initial construction and retrofitting costs for such systems.

Action Program US-1.5 Consider a County ordinance which would declare invalid building and land deed restrictions which prohibit installation of solar collector panels or other solar structural systems on buildings and other structures.

Action Program US-1.6 Consider a County ordinance which would declare invalid building and land deed restrictions which prohibit installation of clothes lines (drying yards).

Action Program US-1.7 Consider amending the County Building Code to require, as a condition of building permit issuance, natural passive ventilation and cooling of new buildings, through such techniques as external shading, openable windows and building orientation, unless nonpassive systems can be demonstrated to be necessary, as a means of discouraging windowless buildings.

Action Program US-1.8 Encourage the State and school districts to observe and comply with County energy policies and ordinances, in those areas where they would not otherwise have to.

Action Program US-1.9 Encourage Federal legislation that would create energy saving criteria that would be applied to existing and the construction of new mobile homes and would keep pace with residential standards.

Policy US-2 Encourage Administrative Code (Building Code) standards for total energy use in buildings.

Action Program US-2.1 Advocate State amendments to the Administrative Code (Building Code) to institute standards for total energy consumption in buildings.

Action Program US-2.2 Adopt these energy use standards into County codes following State adoption.

Policy US-3 Encourage increased development densities when consistent with other General Plan policies and the Regional Growth Management Program.

Action Program US-3.1 Investigate the feasibility of increasing density levels within new developments in conformance with other General Plan Elements and the Regional Growth Management Program.

Action Program US-3.2 Emphasize attached residential units in new development.

Action Program US-3.3 Encourage infilling or urban areas where public service infrastructure currently exists, in cooperation with local incorporated jurisdictions.

Policy US-5 Promote changes in technology utilization construction practice that will reduce energy consumption in new development.

Action Program US-5.1 Encourage construction industries to utilize technologies, such as heat pumps, total energy systems, or unconventional energy technologies and structural design techniques in new development, which are energy efficient and conservant and cost effective.

San Joaquin County Resources Element (1992)

Objectives

0. To minimize the consumption of nonrenewable energy.
1. To encourage the development and use of alternative energy sources.

Policies

Site and Building Design

5. New residential subdivisions shall be required to provide maximum opportunities for passive heating and cooling.
6. Cluster developments and common walls in residential or nonresidential units shall be encouraged.
7. Parking lots should be shaded in the summertime but allow winter solar access to adjacent buildings and sidewalks.
8. Energy conservation measures, such as insulation and weather-stripping, shall be promoted in existing residential structures.
9. Energy efficiency of industrial processes shall be supported.
10. The County government shall serve as an example to its citizens by considering use of conservation methods in its existing buildings and operations.
11. Commercial operations shall be encouraged to incorporate natural daylighting by the use of windows and skylights to reduce demand for lighting.
11. Industrial operations that require large amounts of hot water shall be encouraged to incorporate active solar systems in the design of buildings.

Implementation

2. Energy Information Program. Energy conservation and renewable energy resource development techniques suitable for use in existing residences shall be publicized by County government through its library system and educational systems.
3. Energy Regulations. The County shall continue to enforce State energy regulations governing energy consumption and use of solar and other renewable energy resources in existing and new development.
4. Industrial Design Standards. The County shall explore the possibility of establishing design standards to increase the opportunity for future use of renewable energy sources for industrial uses. These standards may include orientation of structures for solar energy use, orientation or provision of adequate structural support for solar collectors, or use of cogeneration facilities.

5. Review of County Energy Consumption. The County shall review its own energy consumption performance and develop programs to increase its energy efficiency.

San Luis Obispo County Conservation and Open Space Element (2010)

Goal E 1 The County will have an environmentally sustainable supply of energy for all county residents.

Policy E 1.1 Meeting energy needs

Meet our electricity needs through the following prioritized measures:

- a. Increased conservation and efficiency in all sectors of energy use.
- b. Development and use of locally appropriate sources of renewable resources from both distributed and large-scale projects. Examples include wind, tidal, wave, solar, microhydroelectric, biomass, and geothermal.
- c. Development of non-renewable sources of energy.

Policy E 1.2 Local control

Assert more local control of energy decisions and sources.

- Implementation Strategy E 1.2.1 Evaluate Community Choice Aggregation

Determine if Community Choice Aggregation (CCA) or a similar program is a cost-effective and low-risk strategy to increase use of renewable energy, and realize a low-carbon, local energy portfolio. Evaluate CCA for the ability to develop local energy resources that can feasibly supply heat and electricity to the county; determine the financial framework that provides the lowest cost funding for this portfolio; take actions necessary to provide access to the funding; and create public-private partnerships to construct, operate and maintain the new energy resources as public works projects

- Implementation Strategy E 1.2.2 Update the Countywide Emergency Energy Contingency Plan

Update the existing Countywide Emergency Energy Contingency Plan to meet peak electricity and natural gas needs of essential facilities within the county at all times. The plan should evaluate and determine essential energy priorities and establish a strategy for meeting these priorities during periods of energy shortage.

- Implementation Strategy E 1.2.3 Use of tax assessments to retrofit residential and commercial properties

Consider implementation of an “[AB 811](#)” or municipal financing program that would enable the County to use tax assessment districts and provide low-interest loans to

property owners for the installation of energy efficiency improvements and renewable energy sources that are permanently fixed to existing real property within the county. Develop the program as directed by AB 811.

Implementation Strategy 1.2.4 Renewables Portfolio Standard

Assess local renewable energy resources and establish a countywide goal for renewable energy sources in conjunction with other counties. The goal will take maximum advantage of available renewable energy resources.

Policy E 1.3 Renewable energy and County facilities

Seek to use renewable energy to power County facilities.

- Implementation Strategy E 1.3.1 Use of renewable energy at County facilities

Retrofit existing County facilities with appropriate renewable energy and clean technologies such as L.E.D. lighting, solar, wind, biofuel, cogeneration, and fuel cells.,.

- Implementation Strategy E 1.3.2 Fund renewable energy at County facilities

Seek tax-free, low-interest loans, and other available financial options or grants to fund renewable energy projects.

- Implementation Strategy E 1.3.3 Assess County's use of renewable energy sources and set a target

Within 12 months of adoption of this Element, identify the County's use of renewable sources for energy use using 2006 as the baseline year and set a target for use of renewable and clean distributed generation sources by 2020.

- Implementation Strategy E 1.3.4 Renewable Energy and Clean Distributed Generation Plan

Upon identification of a baseline and target for the County's use of renewable sources for energy use in County facilities, develop a plan to achieve the 2020 target.

Policy E 1.4 Methane

Increase the use of methane as an energy source from wastewater treatment plants and active and inactive, closed landfills.

- Implementation Strategy E 1.4.1 Capture methane from landfills and wastewater treatment facilities

Encourage landfill and wastewater treatment operators to capture and use methane

for energy production where feasible. Land use permit applications for landfill expansions, new wastewater treatment facilities, and amendments to previous permits shall propose the capture and use of methane for energy production where feasible.

Policy E 1.5 Waste burning

Encourage waste-burning biomass facilities and conversion technologies as methods of producing electrical energy without endangering resource recovery programs where environmental and air quality are protected and the facility is compatible with adjoining uses.

Goal E 2 Energy consumption at County facilities will be reduced by 20% from 2006 levels by 2020.

Policy E 2.1 Energy efficiency

Become a model of energy efficiency and conservation in the provision of services and the maintenance of County facilities and equipment to:

- a. demonstrate to County residents and businesses the benefits of energy efficiency and conservation,
- b. reduce costs of government,
- c. reduce dependence on imported fossil fuel energy, and
- d. improve air quality.

- Implementation Strategy E 2.1.1 Apply Energy Use Policy to all County facilities

Amend the Energy Use Policy for County buildings and facilities operated, managed, or leased by General Services to apply to all buildings and facilities operated by the County. The amended Energy Use Policy should identify energy conservation, energy efficiency, demand reduction, distributed generation, and renewable energy strategies consistent with this Element.

- Implementation Strategy E 2.1.2 Use of Life Cycle Costing

Budget for capital improvements using life cycle costing (LCC) to identify long-term energy costs, environmental benefits, and cost savings for the life of projects.

- Implementation Strategy E 2.1.3 Energy efficiency in project management

Revise project management (PM) processes to incorporate energy efficiency and emissions reductions on all viable projects.

Policy E 2.2 Energy consumption

Decrease energy consumption at all County facilities by 20% using 2006 as a

baseline year.

- Implementation Strategy E 2.2.1 Monitor and report energy use

The Departments of General Services, Public Works, Social Services, Library Services, Fire, and Sheriff shall continue, or immediately implement, annual monitoring and reporting of energy use in County buildings and facilities to the Department of Planning and Building.

- Implementation Strategy E 2.2.2 Implement energy efficiency activities and improvements

The Department of General Services will:

- a. Continue to audit existing County facilities to identify potential energy efficiency improvements.
- b. Implement cost-effective energy-efficient design and technology enhancements in existing buildings based on the energy audits.
- c. Allocate funding and staff time annually for energy efficiency upgrades for existing County facilities.
- d. Budget for energy-efficient technology in all new County facilities.
- e. Seek funding to incorporate renewable energy and energy efficient technology in County facilities.
- f. Turn off the lights in County buildings at night.

Policy E 2.3 Energy and water

Promote water conservation for all water users in the county to reduce the amount of energy used to pump and treat water and wastewater at public water and wastewater treatment and distribution facilities.

- Implementation Strategy E 2.3.1 Amend Annual Resource Summary Report: Water Conservation

Include water conservation as a measure in the Annual Resource Summary report of the Resource Management System. Convene collaborative groups of water purveyors in major groundwater basins (e.g., the Nipomo Mesa Water Conservation Area and the Paso Robles Groundwater Basin) to discuss and resolve issues of concern, such as uniform water conservation measures in all local jurisdictions and small water systems.

Goal E 3 Energy efficiency and conservation will be promoted in both new and existing development.

Policy E 3.1 Use of renewable energy

Ensure that new and existing development incorporates renewable energy sources

such as solar, passive building, wind, and thermal energy. Reduce reliance on non-sustainable energy sources to the extent possible using available technology and sustainable design techniques, materials, and resources.

- Implementation Strategy E 3.1.1 Incorporate renewable energy systems in new and existing development

Where feasible, incorporate on-site renewable energy systems (i.e., solar or wind powered) in new and existing development. Collaborate with stakeholder groups, including business and property owners, wineries, and other agricultural operations to increase awareness of renewable systems, to streamline the permitting process, and to identify incentives.

Policy E 3.2 Energy efficient equipment

Require the use of energy-efficient equipment in all new development, including but not limited to Energy Star appliances, high-energy efficiency equipment, heat recovery equipment, and building energy management systems.

- Implementation Strategy E 3.2.1 Develop energy efficiency program for new development

As part of a Green Building Program, develop an energy efficiency program for new development, retrofits, and renovations.

- Implementation Strategy E 3.2.2 Energy Efficiency Retrofit Program

Develop and adopt an Energy Efficiency Retrofit Program to increase energy efficiency in existing commercial, residential, governmental, and industrial facilities. As part of the program, collaborate with the incorporated cities in the county to develop and implement a countywide Energy Audit Upon Sale requirement that would require sellers to provide interested buyers with evidence of a certified energy audit at the time of sale.

Policy E 3.3 Use of renewable energy for water and wastewater

Promote the use of renewable energy systems to pump and treat water and wastewater.

- Implementation Strategy E 3.3.1 Evaluate installation of renewable energy systems at water facilities

The San Luis Obispo County Flood Control and Water Conservation District and the Water Resources Advisory Committee shall investigate the feasibility of installing renewable energy systems at water facilities that pump and treat water and wastewater.

Policy E 3.4 Incentives for energy conservation

Offer incentives to conserve energy.

- Implementation Strategy E 3.4.1 Voluntary energy efficiency and conservation

Encourage and assist voluntary actions by owners of existing commercial and residential buildings for energy efficiency retrofits, such as the installation of solar panels, wind turbines, green roofs, cool roofs, natural lighting, and other long-term, permanent energy conservation installations.

- Implementation Strategy E 3.4.2 Amend ordinances: energy conservation

Amend ordinances, plans, and procedures as feasible to create incentives and standards that reduce energy consumption.

- Implementation Strategy E 3.4.3 Encourage energy and water efficiency improvements

Encourage homeowners, landlords, and tenants to install energy- and water-efficient fixtures and equipment and drought-tolerant landscaping.

- Implementation Strategy E 3.4.4 Energy efficiency and conservation education: public

Seek grants and partnerships to sponsor energy education programs to increase public awareness about the benefits of energy conservation, energy efficiency, and recycling.

- Implementation Strategy E 3.4.5 Energy efficiency and conservation training and education: County staff

Provide training and support to County staff regarding renewable energy, energy conservation, and efficient technology.

Policy E 3.5 Demonstration projects

Provide community demonstration or pilot projects to educate the community about the effectiveness of renewable energy.

- Implementation Strategy E 3.5.1 Collaborate to provide demonstration projects

Work with PG&E, CalPoly, and other organizations or businesses as appropriate to sponsor demonstration projects for community solar photovoltaic power, wind energy, and LED lights for roads and parking lots.

Policy E 3.6 Energy conservation in agriculture

Promote state-of-the-art energy conservation and efficiency in agriculture.

- Implementation Strategy E 3.6.1 Sponsor energy education to agriculture community

Seek grants and partnerships to sponsor energy education programs to increase awareness in the agricultural community about the benefits of energy conservation, energy efficiency, and waste reduction.

Goal E 4 Green building practices will be integrated into all development.

Integrate green building practices into the design, construction, management, renovation, operations, and demolition of buildings, including publicly funded affordable housing projects, through the development review and building permitting process.

- Implementation Strategy E 4.1.1 Continue partnerships for green building education

Continue to educate staff and the public about green building through partnerships with local nonprofit organizations (SLO Green Build), professional planning, and building organizations (USGBC C4), and local agencies.

- Implementation Strategy E 4.1.2 Develop Green Building Program

Develop a mandatory Green Building Program in collaboration with stakeholders that includes performance standards, guidelines, review criteria, incentives, and implementation schedules based on building type, size, and location. Amend existing ordinances as necessary to implement the Green Building Program using the California Green Building Code as a minimum standard. Perform an annual review of the Green Building Program for consistency with state requirements and amend as necessary.

- Implementation Strategy E 4.1.3 Use of Green Building Checklists

Prior to adoption and implementation of a Green Building Program, require applications for the following projects to include a green building checklist (LEED, Build It Green, or Green Builder, among others) in their development applications: 1) nonresidential projects with 5,000 or more square feet of gross floor area; 2) residential projects with 3,000 or more square feet of gross floor area or more than four dwelling units (applies to multi-family, mixed-use, planned development, or subdivision projects); and 3) land divisions or other residential projects of 5 or more dwelling units. Use checklists to determine consistency with this Element and to inform environmental impact analyses where applicable.

- Implementation Strategy E 4.1.4 Collaborate to develop uniform Green Building Codes

Work with local governments, nonprofit organizations, special districts, and other public organizations to develop uniform green building policies and programs.

- Implementation Strategy E 4.1.5 Encourage green affordable housing

Encourage the implementation of green affordable housing practices by developing partnerships between developers, nonprofit organizations, and local jurisdictions. If possible, seek additional funding programs in support of green development practices (such as the Enterprise Green Communities program).

Policy E 4.2 Green building incentives

Offer incentives to encourage green building practices in all development projects, including retrofits of existing buildings.

- Implementation Strategy E 4.2.1 Remove disincentives to green building

Collaborate with stakeholders to remove regulatory or procedural disincentives to implement green building practices, and identify incentives to encourage green building practices.

- Implementation Strategy E 4.2.2 Provide expedited permitting for green building projects

Implement an expedited or “fast track” permitting process for green projects in all County departments that review development applications.

Policy E 4.3 Green County facilities

Incorporate green building practices into the planning, design, construction, management, renovation, operations, and demolition of all County buildings.

- Implementation Strategy E 4.3.1 Prepare a Green Building Checklist for County facilities

Prepare a green building checklist of an established green building certification program such as LEED, Build It Green, Green Builder, or as otherwise directed by the County’s Green Building Program. Achieve a score that would allow at least the baseline certification level of a rating system, for example, LEED Silver for the LEED rating system.

- Implementation Strategy E 4.3.2 Apply Green Building Operations and Maintenance to all County operations

Develop green building operations and maintenance guidelines for all County operations and maintenance practices undertaken by the County or its contractors. The guidelines shall, include, at a minimum, use of:

- Recycled-content, formaldehyde-free fiberglass insulation
- Cellulose insulation, or other natural insulation products
- No- or low-Volatile Organic Compounds (VOC), formaldehyde-free paints, stains, and adhesives
- No- or low -VOC, furniture, particleboard, and cabinetry
- Exposed concrete as a finished floor.

Implementation Strategy E 4.3.3 Support Green Building Accreditation for County staff

Offer green building training and support green building professional accreditation for County capital project managers, architects, building plans examiners, building inspectors, building officials, planners, and other staff as applicable in the Departments of Planning and Building, General Services, and Public Works.

Policy E 4.4 Solar exposure

Orient new buildings to maximize solar resources, shading, ventilation, and lighting.

Implementation Strategy E 4.4.1 Amend ordinances and plans to maximize solar resources

Amend design plans, guidelines, and other documents to promote the following design techniques to maximize solar resources:

- a. Passive solar design, thermal mass, and insulation to reduce space heating and cooling needs;
- b. Shading on east, west, and south windows with overhangs, awnings, or deciduous trees; and
- c. Sustainable site design and landscaping to create comfortable microclimates.

Implementation Strategy E 4.4.2 Amend ordinances and plans to mitigate urban heat island effect

Amend design plans and guidelines to encourage projects in urban areas to avoid or mitigate the urban heat island effect. Design techniques include:

- a. Minimizing use of dark materials on roofs, parking lots, and roads.
- b. Maximizing vegetation, particularly shade trees, to cool air temperatures.
- c. Reducing the area of large surface parking lots.
- d. Using light-colored aggregate in new road construction and repaving projects adjacent to existing cities and in some of the communities north of the Cuesta Grade. (E 27.1)

Policy E 4.5 Healthy indoor environments

Encourage healthy indoor environmental quality in new and renovated buildings, including publicly funded affordable housing projects and County buildings, using healthy building materials, finishes, paints, and products.

Implementation Strategy E 4.5.1 Amend ordinances to encourage healthy building materials

Amend design plans and building ordinances to encourage the use of the following materials, products, and techniques:

- Recycled-content, formaldehyde-free fiberglass insulation, cellulose insulation, or other natural insulation products
- No- or low-Volatile Organic Compounds (VOC), formaldehyde-free paints, stains, and adhesives
- No- or low-VOC, furniture, particleboard, and cabinetry
- Use of exposed concrete as a finished floor
- Appropriate low-E windows, when possible
- Natural, recycled-content, and low-VOC carpet
- Natural light.

Goal E 6 The use of renewable energy resources will be increased.

Policy E 6.1 Sustainable energy sources

Promote the development of sustainable energy sources and renewable energy projects through streamlined planning and development rules, codes, processing, and other incentives.

Implementation Strategy E 6.1.1 Eliminate obstacles to renewable energy use in the County

Revise County policies and regulations as needed by the end of 2010 to eliminate barriers to or unreasonable restrictions on the use of renewable energy.

Policy E 6.2 Commercial solar and wind power and other renewable energy systems

Encourage and support the development of solar and wind power and other renewable energy systems as commercial energy enterprises.

Implementation Strategy E 6.2.1 Review of large solar projects

Evaluate large-scale commercial solar projects (i.e. over 10 MW) to favor technologies that maximize the facility's power production and minimize the physical effects of the project. Physical effects include, but are not limited to, noise,

area of land disturbance and water use.

- Implementation Strategy E 6.2.2 Encourage development of wind power facilities

Encourage the development of wind power in areas where wind speeds make commercial wind power feasible. Focus should be placed on locations near existing power facilities and existing transmission lines.

- Implementation Strategy E 6.2.3 Use of disturbed sites

Examine the potential for use of previously disturbed sites such as former mine sites, or disturbed urban areas such as parking lots.

- Implementation Strategy E 6.2.4 Use of existing energy generating sites

Collaborate with local and State agencies and energy facility operators to develop renewable energy resources at existing energy generating sites.

Policy E 6.3 Small-scale renewable energy resources

Develop renewable energy resources in the county, including the safe, effective, and efficient use of small wind energy systems, solar power systems, passive solar buildings, and other renewable energy systems designed for onsite home, farm, and commercial use.

Policy E 6.4 Solar electric power facilities

Use solar electric power generating facilities, especially in areas remote from utility services and in places where such systems can meet specialized power needs cost effectively.

Policy E 6.5 Geothermal resources

Use geothermal hot water for heating spas, greenhouses, or other beneficial applications that appropriately dispose of waste.

- Implementation Strategy E 6.5.1 Existing energy facility sites

Collaborate with operators of existing energy facilities to study the potential for geothermal development.

Policy E 6.6 Distributed energy

Encourage distributed energy resources to increase the efficiency of the power and transmission system and use of local renewable fuel sources.

Policy E 6.7 Cogeneration facilities

Encourage cogeneration facilities as a method of reducing overall energy use.

- Implementation Strategy E 6.7.1 Cogeneration facility guidelines

In cases where a cogeneration facility does not meet the criteria for an exemption from an environmental determination review the project both for environmental and fiscal impacts of development consistent with the following guidelines:

- a. Cogeneration facilities should be built and operated in conjunction with existing facilities whenever possible.
- b. The risk of public exposure to hazardous materials should be minimized by using the least hazardous materials feasible, engineering safety systems, and state-of-the-art safety management practices.
- c. The cogeneration project will not change performance standards regarding air pollution, noise, traffic, or other possible nuisances to nearby property owners.
- d. The proposed facility shall comply with emission standards for harmful air pollutants, as determined by the San Luis Obispo Air Pollution Control District and the California Energy Commission, when appropriate.
- e. The applicant shall demonstrate that sufficient buffers exist to protect the housing units on adjacent properties from all hazards.

Policy E 6.8 Renewable Energy Resources

Designate and protect areas that contain renewable energy resources such as wind, solar, geothermal, and small hydroelectric.

- Implementation Strategy E 6.8.1 Mapping of resources

Use state, federal, or other available data to map areas that contain renewable energy resources.

- Implementation Strategy E 6.8.2 Renewable energy combining designation

Amend the Framework for Planning, the Area Plans, and the Land Use Ordinance (LUO) by establishing and applying a Renewable Energy (RE) combining designation based on the mapping in Energy Implementation Strategy 6.8.1. The RE designation and implementing LUO standards are to:

- a. Encourage the development of renewable energy while maintaining a high level of environmental quality;
- b. Avoid areas that are not appropriate for renewable energy due to existing incompatible uses; and
- c. Protect areas of renewable energy resources, as well as existing and expanding renewable energy projects, from encroachment by incompatible land use categories and development.

Policy E 6.9 Commercial Renewable Energy Facility Siting

Renewable energy is developed most effectively where sufficient renewable energy resources exist (e.g., solar energy requires a certain amount of sunlight to be efficient and wind energy requires a certain amount of wind.) In areas where renewable energy resources have been identified and mapped pursuant to Policy E 6.8, renewable energy development is dependent on the mapped resource and shall be given high priority while balancing the protection of other environmental resources.

Santa Barbara County Energy Element (republished 2009)

GOAL 1: GOVERNMENTAL FACILITIES AND OPERATIONS - Provide for cost-effective and efficient use of energy in the facilities and operations owned by the County of Santa Barbara to reduce operating costs, mitigate adverse environmental impacts and set a good example in the community.

POLICY 1.1: LENDING PROGRAM - The County shall expand its efforts to finance greater energy efficiency of County facilities and operations where a reasonable return on investment can be realized.

Internal Action 1.1.1: The County shall establish a lending program to fund energy-efficient improvements to County facilities and operations (e.g., retrofitting facilities, additional costs for purchasing equipment that is more energy efficient, etc.) where improvements offer full return on investment in 5 years or less by way of energy savings.

Internal Action 1.1.2: The County shall actively pursue alternative financing (e.g., grants and loans) or funding allocations within its own budgetary process to support the lending program.

POLICY 1.2: RETROFIT GOVERNMENTAL BUILDINGS - County facilities shall be retrofitted to improve energy efficiency where improvements offer full return on investment in 5 years or less by way of energy savings.

Internal Action 1.2.1: The County should utilize the lending program described in Policy 1.1.

Internal Action 1.2.2: The County shall audit all of its facilities to identify and prioritize potential energy-efficient improvements.

Internal Action 1.2.3: The County shall retrofit governmental facilities with energy-efficient equipment and designs that provide a payback time of 5 years or less. At a minimum, retrofits should include: efficient lighting, plumbing fixtures (energy savings to water heating, pumping and wastewater treatment), and solar designs (including solar water heating and day lighting opportunities).

Internal Action 1.2.4: Periodically, the County shall monitor energy-savings and paybacks in a random selection of retrofitted governmental buildings, with a third-party verifying results. The County shall disseminate this energy savings information to the Board of Supervisors and public, and shall compare these results with those observed by other local governments.

Internal Action 1.2.5: For facilities that are not managed by General Services, the County should explore and implement incentives to encourage County departments to improve the energy efficiency of these facilities.

Internal Action 1.2.6: The County should join programs which encourage and support energy-efficient lighting retrofits and other measures (e.g., Environmental Protection Agency Green Lights Program).

Internal Action 1.2.7: The County, in conjunction with the Central Coast Chapter of the International Maintenance Institute, Inc., should participate in the monthly meetings with facilities managers from businesses, institutions, governments and other interested parties throughout the county to exchange information on technologies, funding sources, new code requirements, and other issues.

POLICY 1.3: ENERGY EFFICIENT DESIGNS - Promote a reduction in artificial lighting, heating and cooling, and other energy use in all new or major remodeling of County structures by using passive solar design and other techniques.

Internal Action 1.3.1: The County shall continue to design new County facilities, such as the Santa Barbara County Social Services Building, with energy-efficient equipment and passive solar design (e.g., orientation of building to maximize natural heating and cooling, solar water heating, use of daylighting, and placement of trees to aid passive cooling, protection from prevailing winds, and maximum year-round solar access), provided that additional capital costs are offset by estimated energy savings during the first 5 years of operation. Other improvements with longer payback periods should be considered.

Internal Action 1.3.2: The County should utilize the lending program described in Policy 1.1, if necessary, to the Board of Supervisors and public, and shall compare these results with those observed by other local governments.

POLICY 1.4: ENERGY-EFFICIENT PURCHASING - The County shall promote purchasing of energy-efficient equipment based on a fair return on investment, and shall use energy-savings estimates as one basis for purchasing decisions for major energy-using devices.

Internal Action 1.4.1: Annually, the County shall distribute guidelines to factor the costs and benefits of energy-efficient equipment into purchasing decisions. These costs and benefits analysis must be based on relatively simple computations to assure easy implementation. All information should be supplied by the distributor for each item.

Internal Action 1.4.2: The County's specifications for bids on major energy-using devices shall require energy-saving estimates.

Internal Action 1.4.3: The County should consult with the appropriate utility company to take advantage of cost-saving opportunities related to purchasing energy-efficient items through utility rebates.

POLICY 1.5: GOVERNMENTAL VEHICLE EFFICIENCY - The County shall purchase fuel-efficient and alternatively fueled vehicles for the County fleet, to the maximum extent feasible.

POLICY 1.5: GOVERNMENTAL VEHICLE EFFICIENCY - The County shall purchase fuel-efficient and alternatively fueled vehicles for the County fleet, to the maximum extent feasible.

GOAL 2: BUILDINGS - Foster development whose location, design, construction, and systems reduce the use of non-renewable energy resources in buildings and urban services.

POLICY 2.1: VOLUNTARILY GOING BEYOND STATE BUILDING ENERGY STANDARDS - Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of the California Building Code (Title 24)³⁶ in new and existing buildings by implementing energy efficiency measures.

Public Service 2.1.1: The County shall establish an Innovative Buildings Review Committee, empowered by the county Building Official. The Innovative Buildings Review Committee shall comprise professionals with specific expertise in energy-efficient building, including the gas and electric utilities, architects, and energy specialists. The committee shall function on a voluntary basis. Its membership shall be approved by the county's Building Official. The Committee shall provide the following services:

(a) Provide counseling to developers free of charge during the early stages of designing a development on cost-effective methods to meet one or more of the following targets:

TARGET 1 – Exceed Title 24 standards by 20% and earn 4 energy points from the County's approved menu of additional energy-efficient features;

TARGET 2 – Exceed Title 24 standards by 30% and earn 12 energy points from the County's approved menu of additional energy-efficient features;

TARGET 3 – Exceed Title 24 standards by 40% and earn 30 energy points from the County's approved menu of additional energy-efficient features;

(b) Review developmental plans of consenting developers, free of charge, to verify that the proposed design will meet one or more of the targets listed above.

(c) Stamp those plans that can feasibly meet one or more of the targets stipulated above with a *Santa Barbara County Innovative Building Award*.³⁷

Developers shall not be required to submit to counseling or review by the Innovative Buildings Review Committee; however, the county encourages developers to take full advantage of the free services listed above. As further incentive, all development plans with a *Santa Barbara County Innovative Building Award* from the Innovative Buildings Review Committee shall not be required to

undergo any additional Plan Check review by the county Building Official for Title 24 purposes. The *Santa Barbara County Innovative Building Award* will reduce the Energy Plan-Check Fee and will expedite the Building Review process by alleviating Title 24 consistency-reviews. [Cross-reference: *Energy Element*, Regulatory Incentive 6.1.7.]

The County shall evaluate the energy-efficient targets periodically to consider other innovative strategies for increasing efficient use of energy in specific projects, to assure equitable application to all participants in the program, and to assure that the targets balance participation with energy efficiency in the program.³⁸

Public Service 2.1.2: The County shall promote the voluntary use of the Innovative Buildings Review Committee early in the planning process (e.g., including an informational sheet about the Committee with all initial permit applications, disseminate sheet at the permit zoning counter and at pre-application meetings) so that developers, architects, and home-builders may benefit from the free advice, incentives, and energy-savings.

Public Service 2.1.3: The County should seek an agreement with the California Energy Commission to provide technical assistance to support the Innovative Building Review Committee.

Public Service 2.1.4: The County should coordinate with the public utilities to formulate incentives for developers, owners, contractors, architects and engineers to receive financial incentives for projects that exceed Title 24 as stipulated in Policy 2.1. [Cross-reference: *Energy Element*, Public Service 6.1.2.]

Encouragement 2.1.1: Covenants, Codes and Restrictions (CC&Rs) for new subdivision developments, should not include measures that restrict non-reflective and non-obstructing solar thermal panels and other energy-efficiency measures.

Internal Action 2.1.1: The County shall continue to provide information and training to maintain high-quality building inspections and implementation of state-of-the-art measures.

POLICY 2.2: ASSIST EXCHANGE OF INFORMATION TO PROFESSIONALS - Assist architects, builders, and others in using state-of-the-art energy technology, design and spatial orientation for more efficient buildings.

Public Service 2.2.1: The County, in conjunction with utility companies, architects and contractors, and educational institutions, should facilitate training programs for developers, builders, architects, engineers and others to share information on designing and constructing structures that could cost-effectively exceed Title 24 (including high-efficiency equipment and appliances and passive solar design techniques).

POLICY 2.3: PUBLIC INFORMATION - Provide information and education to the general public, businesses, and organizations on the importance of energy conservation, and available programs, products, and incentives regarding energy efficiency and alternatives.

Public Service 2.3.1: The County should work with public utilities, private businesses, organizations (e.g., California Solar Industries Association) and governmental agencies to develop guidelines on energy-efficient designs. These

guidelines should be disseminated as early in the planning process as possible (e.g., including the guidelines with all initial permit applications, disseminate at the permit zoning counter and at pre-application meetings). The guidelines should include:

- (a) information on the benefits of energy-efficient and passive solar designs (increase profits for businesses, increase disposable income for families, a more productive and healthier environment to work or live in because of the natural light and fresh air, etc.);
- (b) a list of major energy-using appliances and the related energy-efficiency options, including efficient lighting fixtures, and solar and other renewable energy technologies;
- (c) a list of regionally-based stores that supply energy-efficient, solar and other renewable energy appliances and fixtures;
- (d) a list of regionally-based manufacturers that provide energy-efficiency and renewable energy products;
- (e) information on rebate and funding programs;
- (f) phone numbers and addresses of agencies or people that can provide more detailed information.

Public Service 2.3.2: The County should work with public utilities, University of California, K-12 schools, community Colleges, adult education, County departments, city departments, and others that have existing outreach programs designed to disseminate materials about energy conservation and projects available to the general public.

Public Service 2.3.3: The County should work with public utilities and the private sector to develop outreach programs designed to inform small businesses about the cost and benefits of energy efficiency, including technical options, funding, and incentive programs.

Public Service 2.3.4: The County should work with the public utilities to distribute information to the general public about conserving energy, including potential distribution of stickers that read “Conserve energy - turn lights off when not in use”.

Internal Action 2.3.1: Educate County employees about simple methods to avoid energy waste; provide educational materials to County employees to encourage energy conservation at work and home.

POLICY 2.4: PASSIVE SOLAR DESIGNS - Encourage increased use of passive, solar design and daylighting in existing and new structures.

Public Service 2.4.1: The County shall develop an informational sheet that describes passive solar designs (e.g., orientation of buildings, vegetative shading, light-colored roofs, daylighting, etc.) and other energy-efficiency features. This sheet

would be disseminated early in the planning process (e.g., including the sheet with all initial permit applications, disseminating at the permit zoning counter and at pre-application meetings), and the sheet should refer applicants to the Innovative Buildings Review Committee for further information and guidance. [Cross-reference: *Energy Element*, Policy 2.1]

Public Service 2.4.2: The County shall encourage projects to install solar energy systems for heating swimming pools.

Encouragement 2.4.1: The County shall consider a solar-access ordinance that addresses the dedication of solar-access easements. The ordinance would address new construction or vegetation recommending that it not obstruct sunlight from reaching south-facing glass or solar collectors (except for deciduous trees because they may shade south-facing glass).

POLICY 2.5: MAINTAIN AND IMPROVE ENFORCEMENT OF STATE BUILDING ENERGY STANDARDS - The County shall maintain and strengthen the existing training of Planning & Development, Building & Safety Division personnel to remain proficient in reviewing plans for compliance with the energy code.

Internal Action 2.5.1: The County shall continue attending courses with CEC, California Building Codes Institute (CBCI), and California Building Officials (CALBO), and other agencies, and local experts on state energy regulations.

Internal Action 2.5.2: The County may use contract plan reviewers to check special designs.

POLICY 2.6: RETROFITTING BUILDINGS: AUDIT/REBATE PROGRAMS -

Encourage homeowners, and commercial and industrial building owners to improve energy efficiency upon renovation of buildings.

Public Service 2.6.1: In order to identify cost-saving potential on energy-efficiency retrofits, the County shall provide homeowners and building-owners with information on cost/benefit analysis for energy-efficient measures and available audit and rebate programs. The information would be disseminated early in the planning process (e.g., including it with all initial permit applications, disseminating at the permit zoning counter and at pre-application meetings).

POLICY 2.7: SHADE TREES - The County shall maintain and expand the tree population to enhance the cooling benefits.

Public Service 2.7.1: The County shall support the efforts and work cooperatively with Santa Barbara Beautiful and other community tree planting organizations.

Encouragement 2.7.1: Landscape plans shall include shade trees in parking lots and street trees, where appropriate.

Encouragement 2.7.2: The selection of tree species shall be reviewed by the County to insure that appropriate species are chosen (e.g., deep-rooting, low-maintenance, drought-tolerant, native, etc.).

Encouragement 2.7.3: Existing trees on a proposed project site shall be assessed to determine compatibility with landscaping, shading and solar access goals, and should be protected to the maximum extent feasible.

GOAL 3: TRANSPORTATION AND LAND USE - Provide a composition of land-uses and transportation programs that reduces dependency on automobiles.

POLICY 3.1: ALTERNATIVE TRANSPORTATION AND SUPPORT FACILITIES - Enhance opportunities for alternative transportation.

POLICY 3.2: TELECONFERENCING TELECOMMUTING/ELECTRONIC COMMUNICATION - The County should continue to research and support opportunities for telecommunication and computer-based communication that reduce the need for travel.

POLICY 3.3: VOLUNTARY PREPARATION OF A TRIP REDUCTION PLAN - Reduce vehicular miles traveled and peak traffic trips by encouraging employers to voluntarily prepare and implement a Transportation Demand Management Program for their employees. (This policy is focused at areas not governed by Tier 3 of the TDM Ordinance.)

POLICY 3.4: RECREATION NEAR HOMES - Encourage coordination of scheduling recreational events (e.g., organized sports, arts and handicrafts for minors) at locations that would reduce recreation-related transportation by automobile.

POLICY 3.5: BIKEWAYS AND SUPPORT FACILITIES - The County shall consider centers, work locations, schools, parks and mass transit facilities to be a high priority for promoting the use of the bicycle as an alternative mode of transportation.

POLICY 3.6: PEDESTRIAN-ORIENTED DESIGNS - The County shall improve the convenience, comfort and safety for pedestrians.

POLICY 3.7: MIXED-USE DEVELOPMENTS - Planning efforts shall focus on mixed-use development to reduce vehicular trips, where appropriate.

POLICY 3.8: EMPLOYMENT DENSITY NEAR MASS TRANSIT - The County shall coordinate office, commercial and industrial developments with mass transit service and existing or proposed bikeways.

POLICY 3.9: HOUSING DENSITY NEAR MASS TRANSIT - The County shall coordinate high density residential developments with mass transit service and existing or proposed bikeways.

GOAL 4: WATER USE AND SOLID WASTE - Increase the efficiency of water and resource use to reduce energy consumption associated with various phases of using resources (pumping, distribution, treatment, heating, etc.).

POLICY 4.1: CONSTRUCTION - Encourage recycling and reuse of construction waste to reduce energy consumption associated with extracting and manufacturing

virgin materials.

POLICY 4.2: RECYCLED MATERIALS - The County shall require adequate areas for collecting and loading recyclable materials in development projects, and shall further address recycling logistics in its zoning ordinance.

POLICY 4.3: REUSE OF ASPHALT - Promote reuse of asphalt removed from roads and paved structures within the county and use of recycled materials in roadway and paved surface construction.

POLICY 4.4: PROCUREMENT OF RECYCLED PRODUCTS - The County shall procure products made from recycled materials to the maximum extent feasible, and as budget constraints allow.

POLICY 4.5: WASTE COLLECTION AND RECYCLING PROGRAMS - The County shall continue to support the programs associated with efficient waste collection and recycling, public school education, and composting.

POLICY 4.6: WATER/ENERGY-EFFICIENT IRRIGATION - AGRICULTURE - The County shall continue to support the programs of the Soil Conservation Service, Resource Conservation District, U.C. Cooperative Extension/Farm Advisor, utility companies, and others that address efficient irrigation because of their associated energy benefits.

POLICY 4.7: INTERIOR WATER-EFFICIENT PLUMBING FIXTURES - The County shall encourage water purveyors and water customers to continue their efforts to install more efficient options to increase energy benefits associated with reduced pumping, distribution, heating and treatment of water and wastewater.

POLICY 4.8: WATER EFFICIENT LANDSCAPING - The County shall require (per Government Code, Section 65590, Article 10.8) water-efficient landscape design and irrigation systems in new and renovated developments and at public parks and facilities. [Energy-savings are accrued through reduced water pumping and treatment, and reduced disposal and maintenance.]

GOAL 5: ALTERNATIVE ENERGY - Encourage the use of alternative energy for environmental and economic benefits, and encourage opportunities for businesses that develop or market alternative energy technologies.

Full Life-Cycle Environmental Effects: The reasonably anticipated adverse and beneficial environmental, health, and safety effects of an energy source (including fuel-cycle and temporal aspects), beginning from its development and application and continuing through to its end.

Embedded Energy: The total amount of nonrenewable energy expended during the full lifecycle of the energy source.

POLICY 5.1: ENVIRONMENTAL ANALYSIS - In the consideration of alternative

energy, the County shall consider the full life-cycle environmental effects and embedded energy requirements to provide such alternative energy. The County shall encourage the use of those alternatives determined to present sufficient environmental benefits.

POLICY 5.2: ALTERNATIVE ENERGY TECHNOLOGIES - The County shall encourage the use of alternative energy technology in appropriate new and existing development.

POLICY 5.3: COGENERATION - The County shall encourage installation and use of cogenerating systems where they are cost-effective and appropriate.

POLICY 5.4: SOLAR PHOTOVOLTAIC EQUIPMENT - The County shall use solar photovoltaic equipment in county applications when it is cost-effective on a life-cycle cost basis.

POLICY 5.5: METHANE RECOVERY SYSTEM AT LANDFILLS AND SEWAGE TREATMENT PLANTS - The County shall continue to investigate means to install methane recovery systems at landfills and sewage treatment plants, where appropriate.

POLICY 5.6: ALTERNATIVE FUEL REDUCTION CREDITS - Provide regulatory flexibility for use of mobile source Emission Reduction Credits in meeting County clean air goals.

POLICY 5.7: ALTERNATIVE ENERGY MITIGATION - During the regulatory review of a proposed project, when appropriate, use mobile alternative energy projects as mitigation for impacts to air quality.

POLICY 5.8: ELECTRIC SHUTTLE PROGRAMS - Support the efforts of transit providers to develop electric shuttle programs.

POLICY 5.9: ELECTRIC VEHICLE CHARGING FACILITIES - Encourage electric vehicle recharging infrastructure.

POLICY 5.10: ALTERNATIVELY FUELED VEHICLES - The County shall encourage the use of alternatively fueled vehicles by individuals.

POLICY 5.11: FUEL CELL APPLICATIONS - Encourage the use of fuel cells in appropriate new development, consistent with sound community planning principles. Hotels, resorts, condominiums, apartments, governmental and industrial facilities are potential candidates for fuel cells.

POLICY 5.12: ALTERNATIVE ENERGY STATUS - Provide feedback to the Board of Supervisors on the effectiveness of alternative energy program in the Energy

Element.

POLICY 5.13: ALTERNATIVE ENERGY TECHNOLOGY BUSINESSES - Among broader county-wide efforts to attract businesses, the County shall initiate planning efforts to pursue desired businesses that develop or market alternative energy technologies.

GOAL 6: INCENTIVE PROGRAM - Employ a design approach which takes maximum advantage of incentive-based policy measures.

POLICY 6.1: INCENTIVE PROGRAM - The County shall prepare an Incentive Program for implementing the incentive-based policies in the Energy Element.

Public Service 6.1.1: The County shall make itself accessible to explain the incentives available for energy-efficient projects.

Public Service 6.1.2: The County shall coordinate with the public utilities to formulate incentives for developers, owners, contractors, architects and engineers to receive financial incentives for projects that exceed Title 24 by 25% and 15% for commercial/industrial and for residential development, respectively.

Public Service 6.1.3: The County should support establishment of federal and state funds to provide low-interest loans for alternative energy technology.

Public Service 6.1.4: The County shall create incentives for projects which utilize alternative energy sources.

Public Service 6.1.5: The County should create a list of local, state, and federal tax incentives, credits, and deductions currently available, or that the Board of Supervisors or Legislators could create for energy-efficient policies. The list could be disseminated to businesses to demonstrate the cost/benefit ratio to the local economy.

Public Service 6.1.6: The County should continue to explore and offer new, creative, and appealing incentives for various energy-efficiency programs.

Regulatory Incentive 6.1.1: The County should amend the Goleta Growth Management Ordinance (GGMO) and the Montecito Growth Management Ordinance (MGMO) to provide for additional "points" for Residential, Commercial, and Industrial projects in the County that employ greater energy efficiency.

Regulatory Incentive 6.1.2: The County should establish a Deferral Plan for Processing Fees to be used as an incentive for projects that implement energy-efficiency policies and actions.

Regulatory Incentive 6.1.3: The County should consider modifications to specific development standards as an incentive for projects that implement energy-efficient policies and actions.

Regulatory Incentive 6.1.4: As an incentive, the County should reduce parking requirements for commercial and industrial uses that implement policies and actions that reduce vehicular miles or trips, as long as reduced parking requirements do not pose any significant parking impacts (e.g., redirects parking along nearby residential streets).

Regulatory Incentive 6.1.5: The County shall seek funding for preparation of Programmatic Environmental Impact Reports to assess environmental impacts of

infrastructure for generation and use of alternative energy, to reduce the processing period and fees for project proposing environmentally favorable alternative energy.

Regulatory Incentive 6.1.6: The county should consider revisions to its zoning ordinances that would reduce parking requirements for new commercial and industrial development if the developer guarantees certain measures that induce use of alternative transportation.

Regulatory Incentive 6.1.7: As incentives, the County shall reduce the Energy Plan-Check Fee and expedite the Building Review process for projects that receive the pre-approval *Santa Barbara County Innovative Building Award* from the Innovative Building Review Committee.

Regulatory Incentive 6.1.8: The County should continue to develop and implement feasible credits for mobile source emissions. Reduced emissions are necessary to meet the requirements of equipment or process control rules established by the Air Pollution Control District.

Regulatory Incentive 6.1.9: The County should encourage state legislation to allow counties to relieve tax assessments (e.g., property tax deductions) for installation of fuel cells, as appropriate.

GOAL 7: INTER-JURISDICTIONAL COORDINATION - Implement applicable federal and state energy policy in cooperation with cities and communities.

POLICY 7.1: COORDINATION WITH ALL LEVELS OF GOVERNMENT - Maintain awareness of national and state legislation and rulemaking, as well as energy policies of other local jurisdictions and private organizations, to keep the county's energy policies up-to-date.

Research 7.1.1: The County shall monitor national and state rulemaking, such as (but not limited to):

(a) The 1992 - 1993 California Energy Plan, California Energy Commission, California Home Energy Rating System, Inc., and others working together to develop a market-driven, uniform home energy rating and labeling program.

(b) National Energy Policy Act of 1992:

Section 105. Energy-Efficient Mortgages;

Section 271. Voluntary Rating Guidelines (5) [that states] establish procedures to ensure that residential buildings can receive an energy efficiency rating at the time of sale and that such rating is communicated to potential buyers;

Section 125. Energy-Efficiency Information for Commercial Office Equipment;

Section 127. Report on the Potential of Cooperative Advanced Appliance Development.

Research 7.1.2: The County shall monitor pertinent policies and programs in cities and counties statewide, through the California Energy Commission, and nationwide through the Urban Consortium Energy Task Force.

Research 7.1.3: The County shall coordinate with cities on implementation of energy-efficient policies across jurisdictional lines.

GOAL 8: IMPLEMENTATION AND EVALUATION - Assure maximum success of this Element.

POLICY 8.1: IMPLEMENTATION PLAN - The County shall approve and activate the Implementation Plan for this Element and shall evaluate this plan biennially.

Research 8.1.1: The County shall conduct an biennial review with public input to evaluate the progress being made under this element, and an biennial progress report shall be presented before a noticed Board of Supervisors hearing.

POLICY 8.2: ELEMENT EVALUATION - Santa Barbara County shall periodically review and assess the effectiveness of the Element's policies for modifications.

Research 8.2.1: As needed, the County shall report statistics regarding Energy Element policies and programs; the policies shall be reevaluated and adjusted to meet the overall objective of increasing energy efficiency and the use of renewable and other alternative energies.

Siskiyou County Energy Element (1993)

(see document)

Solano County Resources Element (2008)

Goals

RS.G-5: Ensure availability of affordable energy supplies and require efficiency and conservation measures to minimize energy consumption.

Policies

RS.P-49: Ensure energy conservation and reduced energy demand in the county through required use of energy-efficient technology and practices.

RS.P-50: Provide incentives for city and county residents and businesses to produce and use renewable sources of energy.

RS.P-51: Promote Solano County as a model for energy efficiency and green building.

RS.P-52: Ensure adequate and affordable supplies of energy to meet the energy needs of the county.

RS.P-53: Enable renewable energy sources to be produced from resources available in Solano County, such as solar, water, wind, and biofuels to reduce the reliance on energy resources from outside the county.

RS.P-54: Reduce Solano County's reliance on fossil fuels for transportation and other energy-consuming activities.

RS.P-55: Require responsible extraction, storage, and transportation of natural gas resources that minimize the impact on the natural environment.

RS.P-56: Provide information, marketing, training, and education to support reduced energy consumption, the use of alternative and renewable energy sources, green building practices, recycling, and responsible purchasing.

RS.P-57: Encourage the use of technology or siting to minimize adverse impacts from energy production facilities on the environment, including wildlife and agricultural resources.

RS.P-58: Require the siting of energy facilities in a manner compatible with surrounding land uses and in a manner that will protect scenic resources.

RS.P-59: Encourage on-site renewable energy production and use and energy conservation measures.

Implementation Programs

Regulations

RS.I-38: Require all new and remodeled residential, commercial, industrial, institutional, and civic construction to exceed current (2008) Title 24 state energy-efficiency requirements by at least 20 percent, and require that all new residential homes and major renovations comply with the guidelines for the California Energy Star Homes Program. If the state increases the requirements of Title 24, examine the feasibility of increasing County energy efficiency requirements. Adopt an energy efficiency ordinance that requires upgrades as a condition of issuing permits for substantial remodels or additions. Require disclosure of the energy consumption of a home during the sale or lease of a residence or building.

RS.I-40: Require all County operations to use renewable energy for 50 percent or more of their energy needs.

RS.I-41: Require that all new County buildings and major renovations and additions achieve LEED certification or meet equivalent performance standards. A LEED Silver certification level and reduced operational costs are preferred outcomes.

RS.I-42: Replace existing County vehicles with alternative fuel vehicles such as electric, hybrids, natural gas, and fuel cell powered vehicles. New County vehicles must be alternative fuel vehicles.

RS.I-44: Partner with community services agencies to fund energy efficiency projects, including heating, ventilation, air conditioning, lighting, water heating equipment, insulation, and weatherization for low-income residents.

RS.I-45: Execute an Energy Savings Performance Contract with a private entity to retrofit public buildings. This type of contract allows the private entity to fund all energy improvements in exchange for a share of the energy savings over a period of time.

RS.I-46: Require residential development of more than six units to participate in the California Energy Commission's New Solar Homes Partnership and to construct LEED-certified units or meet equivalent performance standards. For new affordable housing projects, performance standards shall be established pursuant to the requirements of the funding source(s). Require new construction or major renovation of commercial and industrial buildings over 10,000 square feet in size to incorporate renewable energy generation to provide the maximum feasible amount of the project's energy needs. Commercial buildings shall incorporate renewable energy generation to provide at least 20 percent of the project's needs.

RS.I-47: Require the use of Energy Star rated appliances and the most energy-efficient Energy Star rated water heaters and air conditioning systems that are feasible in the construction of new homes, in all substantial remodels when appliances are being replaced, and in any case where a permit is needed to install or replace appliances (e.g., water heaters, air conditioning).

RS.I-48: Require all commercial, institutional, and industrial development to reduce potential urban heat island effect by using U.S. EPA-Energy Star rated roofing materials and light colored paint, using light colored paving materials for internal roads and parking, and using shade trees to shade south and west sides of new or renovated buildings and to achieve a minimum of 50 percent shading for all parking lots surfaces. Continue to ensure compliance with existing state building requirements for energy-conserving roofing materials on nonresidential buildings in new construction and reroofing. Amend the County Zoning Ordinance to encompass these requirements.

RS.I-51: Adopt a County "green building program." Require all new and renovated commercial, office, and institutional buildings over 10,000 square feet in size to achieve LEED certification, or meet equivalent performance standards. Amend the County Zoning Ordinance to encompass these green building requirements. Provide permitting-related and other incentives for building projects that exceed the County's energy efficiency standards by greater than 5 percent.

RS.I-52: Require that development projects use landscaping and site design techniques that minimize energy use. These may include designing landscaping to shield or expose structures to maximize energy conservation or acquisition; and taking advantage of orientation, sun-shade patterns, prevailing winds, landscaping, and sunscreens. Amend development standards to require such techniques.

RS.I-55: Require the design and orientation of all buildings to maximize passive solar heating during cool seasons, avoid solar heat gain during hot periods, enhance natural ventilation, and promote effective use of daylight. Orientation should optimize opportunities for on-site solar generation.

RS.I-56: Where feasible, include appropriate facilities in new buildings to support the use of low/zero carbon fueled vehicles. This may include charging stations for electric vehicles which use green electricity sources.

RS.I-57: Investigate the feasibility of using solar (photovoltaic) streetlights instead of conventional streetlights.

RS.I-58: Protect the viability of renewable energy generation within the county by protecting resources such as solar access on buildings and high value wind energy sites. Facilitate the development of renewable energy generation in the county through the provision of streamlined permitting processes.

RS.I-59: Promote public awareness of energy conservation and efficiency through the development of a publicity program. This program shall include information describing how residents can retrofit existing homes for increased energy efficiency. Encourage the use of low-carbon and renewable fuels and zero emissions technologies.

RS.I-63: Require energy and water efficiency audits for new construction or substantial remodels of commercial, industrial, and institutional buildings. Examine existing usage and potential reductions related to heating, ventilation, air conditioning, lighting, water heater equipment, insulation, weatherization, and water usage by buildings and landscaping. Require energy and water audits of all County buildings.