# **Yolo Energy Efficiency Project-2**



# A Local Information-Only Market Transformation Program for Yolo County

This program is one of two proposals that constitute the City of Davis portfolio. The companion program – YEEP-1 – is a hardware/incentive program serving Yolo County.

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# **Section 1. Program Overview**

# A) Program Concept

Brief description of program (1 paragraph)

The Yolo County partnership of Davis, West Sacramento, Woodland, Winters, the County of Yolo and Valley Energy Efficiency Corporation (a 501(c)(3) non-profit corporation), submits this proposal to extend energy efficiency services to all Yolo County residents and businesses. Following an approach used in Yolo County for the delivery of other county-wide services, the City of Davis will host the county-wide effort. We propose to replicate the most successful energy information and market transformation strategies initiated in Davis during 2002-03, and transition to the *Yolo Energy Efficiency Project (YEEP)*, serving all of Yolo County. Our portfolio includes two proposals: this proposal for YEEP-2, for information and market transformation, and a companion proposal, YEEP-1, a hardware incentive program. We continue to emphasize a regional cross-cutting strategy that serves residential, multi-family, and commercial customers and with information and education on energy efficient practices, equipment and incentives available from all implementers. We also extend our market transformation work through three "incubator projects" that target natural cooling, energy / water savings in multi-family buildings, and local energy policy (codes and standards).

# **B)** Program Rationale

Basis and need for program. If program was funded during 2002/03, discuss evidence that program was successful and that demand for program services persists.

#### **YEEP-2** Rationale

Our successes and lessons learned during the 2002-03 Davis Energy Efficiency Project (DEEP) provide a basis for extending energy information and education to hard-to-reach markets throughout Yolo County. Furthermore, we were able to achieve market barrier breakthroughs by pioneering new energy measures that we understand have been adopted by PG&E. In this section, we first discuss our successes, and then the continued need and demand for the energy services we propose to provide with YEEP.

In 2002-03, we successfully provided information to every household in Davis using outreach and advertising. We made more than 10,000 direct personal contacts, of which approximately 25% were hard-to-reach based on income and language. Using City mailing lists we reached every household through utility bill messages and direct mail pieces, taking advantage of the City's reputation as a trusted information provider.

We have made a practice of bringing information out into the community rather than asking people to come to us. This meant a presence at the local Farmers Market and grocery stores, as well as, community presentations and canvasses. We were also successful at generating news coverage of issues in the local newspaper, worth much more than advertising in generating interest in our program offerings and energy efficiency as a whole.

Furthermore, we developed the local energy efficiency infrastructure by enlisting local contractors in our duct repair program. Eight local contractors learned the latest duct testing and sealing techniques, and became "Listed" contractors eligible to do rebate work for our program. In addition, we distributed a newly available, technically improved window evaporative cooler to 100 low-income residents. As a result of our efforts, PG&E will use the same product in the Energy Partners program. A similar "EEM incubator" approach resulted in our multi-family pool and spa pump EEM, which is also being adopted by the Statewide program.

In 2002-03 many thousands of residents and hundreds of business owners used our DEEP website, requested fact sheets, visited our education booth, and stopped by our energy center with questions about how to conserve. Phone calls and e-mail requests for information have been a daily occurrence. We provided a great deal of information about incentives available through PG&E, and through the EGIA/City of Davis/PG&E residential clothes washer water/energy rebates.

There is an even greater need for energy efficiency information in Yolo County outside of Davis where there are higher proportions of low-income and non-English speaking residents. Yolo County residents are defined as hard-to-reach by geography (a rural county) and demographics. It is ranked 29th in income among California counties, with almost 75% of the households below the CPUC definition of hard-to-reach by income (400% of federal poverty guidelines).

Furthermore, there is a substantial population of Spanish-speaking residents in Yolo County. Recently published data (Davis Enterprise) shows that the cities of Winters and Woodland have approximately 45% and 25% (respectively) of school children speaking limited or no English upon entering school. Utility and other energy efficiency marketing efforts<sup>1</sup> have rarely targeted these under-served groups, and participant cost has been high enough to exclude many low income people from purchasing energy efficient residential equipment. For this reason, our offerings are designed to be within the reach of virtually all residents.

There is also a need to address 1) energy efficiency needs of multi-family housing residents; 2) the significant contribution of Central Valley residential cooling load to system peak demand; and, 3) the potential for increasing energy efficiency through local government policies, codes and ordinances. Our three incubator projects represent significant steps to addressing these important issues.

In 2004-05, YEEP-2's *education and outreach* work will continue to bring important information to the community, through tabling, booths, displays in municipal buildings, community and business presentations, advertising, and a low-income canvass. Our innovative education and outreach techniques will reach virtually every resident and business in Yolo County, including the high proportion of low- and moderate-income residents in Woodland, Winters, West Sacramento and rural Yolo County. Furthermore, our multi-media advertising campaigns will help increase customer purchases of energy efficient technologies and practices, including those offered by all 3<sup>rd</sup> party and IOU implementers.

Our 2004-05 *incubator / market-transformation projects* will address market barriers and create new delivery methods for hard-to-disseminate technologies. We expect to develop an easily copied and expanded recipe for market-barrier-breakthroughs in the hot Central Valley climate. We propose three incubator projects:

<sup>&</sup>lt;sup>1</sup> Except for weatherization programs that directly target these groups for a limited set of measures.

- Natural Cooling Project—this project addresses the Central Valley cooling problem by linking development of evaporative cooler marketability with promotion of Statewide HVAC measures. It addresses a supply barrier – the lack of availability of high quality natural cooling products in the County – and demand barriers – the lack of information and education about the natural cooling alternative. The project also develops demand for Natural Cooling products among residential customers in Yolo County.
- Multi-Family Energy/Water Pilot Project this project addresses the vital connection between
  water and power conservation. No one yet has thoroughly analyzed, quantified and monetized
  the water and energy benefits from comprehensive water measures. For this incubator, we
  request "seed money" that will define a water/energy project, with possible payment through
  City water bills, that would, in a future proposal, seek both water and energy agency funding
  based on the water and energy benefits. We will identify and retrofit one multi-family
  complex with energy and water efficiency measures as a demonstration project.
- Support for Local Energy Policy and Ordinances –YEEP will provide professional support to County of Yolo and Yolo cities requesting such assistance, for the development of energy policy and potential ordinances. For example, assistance might be provided to consider measures that would require disclosure of a residential unit's "energy status" at time of resale, or to look at local building codes, and/or other potential policy and legislative issues that ultimately could be considered for adoption by the appropriate elected officials.

Please see section IV-D for details on our incubator activities.

Californians experienced the State's 2001 energy crisis, and have just now witnessed the colossal failure of the Northeastern United States electric system. Both of these events have continued to keep awareness of energy issues alive. However, YEEP-2 will be the first systematic effort to bring targeted energy conservation information to the people of Yolo County. Because we know our region, we can effectively target information to low-income people, Spanish and Russian (West Sacramento) speakers, and small businesses in the commercial centers of the County. And, through our incubator projects, we develop regional and local solutions that can be models for energy programs through California, especially in the hot Central Valley and desert regions of the state.

## Why a Two-Program Portfolio?

In our 2002-03 work, we found that our information activities complemented and strengthened our EEM delivery. For example, we provided free residential compact fluorescent lamps at the same outreach activities that we used to inform citizens about no- and low-cost energy saving actions, and rebates from other program implementers. For 2004-05, to facilitate tracking, reporting, and evaluation, we choose to submit two interdependent proposals: 1) a hardware / incentive project that aggressively targets kWh and kW savings in residential and commercial lighting and residential cooling (YEEP-1), and 2) an information-only / market transformation program that provides information, infrastructure development, technology improvement and innovative market approaches (this proposal for YEEP-2). Both programs will be integrated and appear as one to customers, and the work plans seamlessly dovetail with each other.

Between our two proposals, we will provide a comprehensive energy efficiency program for Yolo County. Although this proposal, YEEP-2, describes our information/outreach/market transformation activities, we make frequent reference to our hardware/incentive program (YEEP-1) because of the synergy and integrated delivery of both programs.

# **C) Program Objectives**

Projected accomplishments of the program.

The YEEP-2 project addresses State policy goals by accomplishing these objectives:

#### 1) Overcome market barriers

- a) Lack of suppliers (evaporative coolers, shadescreens, fluorescent lamps)
  - i) inform vendors and contractors in Yolo County of energy efficiency related items and methods, and potentially high sales due to YEEP promotion
  - ii) link manufacturers or regional suppliers to local retailers (evaporative coolers, state-of-theart lighting)

#### b) Split incentives barrier

- i) Relatively high incentive available for owners through demonstration project
- ii) City-provided contact data for Multi-Family (MF) building decision-makers
- iii) Demonstration project for MF building that takes place within one fiscal year
- iv) Promotion of and education about high rebates/free items for tenants

#### c) Perception of Natural Cooling

- i) workshop for vendors, HVAC contractors and technicians
- ii) general education campaign for consumers once technology is easily available in local stores
- d) Lack of information about Natural Cooling
  - i) Consumer demand is heightened as customers become educated about the benefits of natural cooling
  - ii) Supply-chain vendors, contractors, and technicians learn the difference in technologies and how to successfully market them.
- 2) Address equity issues arising from the underserved low-income, Hispanic, and Russian communities in Yolo County,
  - a) Provide easy access to EE information locally we go to the customer (tabling, presentations, events, handouts in city halls, inserts in water bills)
  - b) materials translated into Spanish and Russian\* (targeted items)
  - c) door-to-door canvass in these and other low-income neighborhoods

## 3) Develop strategies for long-term market transformation in the residential cooling market:

- a) Adaptation of evaporative cooler technology in Yolo county
- b) Higher rate of sales for high-quality shadescreens
- c) Demonstrate innovative strategies for overcoming the split-incentive barrier to serving customers in MF housing,
  - i) YEEP-1 provides high shadescreen rebate/free CFLs to renters
  - ii) This proposal's incubator project shows how an energy/water project lower utility bills (water & energy) for both tenant and owner

#### 4) Coordinate with other program implementers, with special emphasis on PG&E programs,

- a) PG&E evaporative coolers, educational materials, residential and commercial rebate promotion
- b) Agricultural Pumping Efficiency Program (APEP)
- c) ENERGYSTAR® natural cooling campaign materials; special promotions and educational materials provided.

- d) Washing machine rebates and other municipal conservation programs -create a synergy around saving money and the environment that residents respond to.
- 5) Reach every county household and business with information about incentives for energy efficiency and energy efficient practices and tips
  - a) With resources and assistance from each YEEP partner City and the County, we will provide energy education for every household and business at least once during the two year project period.

# **Section II. Program Process**

# A) Program Implementation

*Including plans for coordination with other energy efficiency programs and description of how proposed program differs from existing related programs, if relevant.* 

We discuss our program implementation in two parts. First we explain our comprehensive *information and education* program that will use multiple outreach and advertising strategies to market energy efficiency to all County residents and businesses. Second, we discuss how we will implement three "incubator" projects.

#### Implementation of Education and Outreach Campaign

YEEP-2 will implement its information and education campaign primarily through events (both tabling and special events), presentations, displays in public buildings, advertising in all available media and our innovative low-income canvass. The purpose of the campaign is to inform residents and businesses about practical low and no-cost measures they can take to save energy, about incentives available from all implementers that operate in Yolo County (including YEEP-1 our partner program) and general information to educate about energy use, conservation, renewable energy referrals, and why residents needs to conserve and use energy wisely.

Our Marketing plan (Section II.B.) provides a detailed description of our information and educational outreach activities. In general, we focus on using existing community events and institutions rather than hosting events in-house. While our incubation-transformation project includes workshops and training sessions for supply-chain actors, our education-outreach program brings the information into the community directly. This means that we table where people shop, maintain a presence at special events and give presentations as parts of pre-existing meetings and groups.

#### **Implementation of Incubator Projects**

YEEP's incubator projects are designed to address issues and technologies that have high public policy values. These projects focus on technologies with lack of availability or very low market penetration. The projects address delivery methods and customer acceptance and will provide case studies that can serve as a basis for future programs. Each incubator project is considered a single activity.

Incubation projects address issues that meet State policy objectives of high cost-effectiveness, reduction of market barriers and reducing demand. The projects involve four phases: 1) barrier identification in Yolo County; 2) marketing strategy development; 3) customer recruitment, project implementation and/or technology distribution; and 4) project assessment and report.

We propose three incubator projects:

**Natural cooling project**. This project begins by identifying market barriers to natural cooling, defined as cooling without compressor based AC. We then fully develop strategies to address barriers and improve availability, deliverability and demand for evaporative cooling and whole house fans. Then we implement strategies including educating supply chain personnel, coordinate with PG&E rebates,

and other market transformation efforts. We report on what worked and what didn't after the second summer of implementation.

**Multi-family energy/water pilot project**. We also address particular barriers to energy and water efficiency in multi-family buildings. After identification of a willing MF owner/manager partner, we will initiate a demonstration in one multi-family complex. This incubator project involves primarily the analysis of market barriers, methods for breaking through, and co-funding between water and energy agencies, with potential for financing through City water bills.

**Support for Local Energy Policy and Ordinances**. Our third incubator addresses the potential for local elected officials to enact policy and legislation related to energy efficiency. YEEP will provide professional support to County of Yolo and Yolo cities requesting such assistance. Here are some examples: 1) assistance could be provided to assist a City in identifying or requiring energy efficiency measures at time of resale of existing housing or commercial buildings; 2) assistance in changing local building codes to induce or require energy efficiency; 3) assistance in creating an ordinance that requires disclosure of a buildings "energy status" upon sale. YEEP will provide such assistance to the extent that the county's local government officials desire to proceed with investigating and/or carrying out work in the area of energy efficiency policy, and subject to limitations of the total YEEP-2 budget.

During the 2002-03 project the Davis Energy Efficiency Project team developed its incubation approach with several EEMs that resulted in valuable information and demonstrable progress towards breaking through market barriers for evaporative cooling and multi-family pool-pump technology in this region. In fact, it is our understanding that these two DEEP-initiated EEMs will be adopted by PG&E for 2004. DEEP also demonstrated promise in breaking through the "split-incentive" market barrier, to serve MF tenants and building owners with duct sealing. We believe that by implementing the three incubator projects of this proposal, we have potential to influence other programs as well as Yolo County.

#### **Coordination with Related Programs**

We will closely coordinate with other implementers as much as possible. We have an existing informal partnership with PG&E, and have hosted PG&E seminars and contractor trainings. We will continue to attempt to obtain PG&E program literature in quantities suitable to our outreach efforts, or, if unavailable, we will provide a summary of PG&E residential offerings and refer our customers to PG&E's website to apply. Other specific coordination efforts will depend on which programs are funded and desire to serve Yolo County customers.

Statewide Programs (PG&E) – YEEP-2 will work with PG&E as we did in the 2002-03 program. YEEP will promote the statewide energy rebates, including those that are available for residential, commercial, and multi-family building owners. We will be especially aggressive with promotion of rebates or incentives that overcome the split-incentive barrier, or could be installed in multi-family common areas. We will also target increasing demand for PG&E's advanced evaporative cooler rebates. We also expect to continue to make use of programs offered by the Energy Training Center at Stockton. As this proposal is written, YEEP staff is in discussions with PG&E regarding how to partner in these areas.

We hope to be able to provide PG&E rebate applications (if provided by PG&E) at the majority of our tabling events, and we will seek information from PG&E on their rebate data for Yolo County to better focus our own education efforts.

Through our incubator programs, we expect to make evaporative cooling more available in both window units and whole house units. Between our efforts and the PG&E rebates, we can offer a full menu of cooling choices including high SEER AC, Whole house fans, and envelope measures. YEEP-2 will also coordinate with PG&E's upcoming evaporative cooler measure to ensure we are not duplicating efforts to provide natural cooling in low-income manufactured home communities.

*Potential PG&E & West Sacramento Partnership* – We understand from West Sacramento City staff that PG&E has also requested a partnership with the City to join in an additional utility-initiated Local program. Based on the staff report to City Council prepared by Mr. Mike Luken, Redevelopment Program Manager, we understand that the PG&E proposal is anticipated to focus primarily on large businesses, which are more strongly represented in West Sacramento than in other parts of Yolo County. We strongly support a PG&E-West Sacramento partnership to reach large businesses. YEEP does not intend to serve large businesses (those on E-19 rate schedules) except in that they are eligible for YEEP's Lights Lite lighting retrofits at a lower rebate level than small businesses.

Apparently PG&E is also proposing to translate their existing program materials (for Statewide programs) into Russian and Spanish, and perhaps other languages. If PG&E is willing to provide YEEP with these program materials, we would be pleased to distribute them directly to the target customers during our low income canvasses and other outreach activities.

*Agricultural Pumping Efficiency Program (APEP)* – Yolo County is a heavily agricultural county with approximately 900 farms in over 536,000 acres of land. Water pumping is a major cost for agricultural operations. The APEP helps 'put more power through the pump' with technical assistance, subsidized efficiency tests, rebates for pump retrofit or repair, and education programs. Provided the implementer (CSU Fresno) is funded to continue APEP, YEEP will assist in outreach for APEP in Yolo County.

YEEP-2 will work with the APEP to recruit attendance at their all day training program which they will hold in Yolo County in 2004. YEEP will also work with the County Agriculture Department, the Resource Conservation District, the Community Alliance with Family Farmers, and other agricultural support organizations to ensure the farmers throughout Yolo County are aware of the APEP offerings.

*LightWash* – as the Lights Lite program is implemented we will ensure program information targeting specific businesses (e.g. laudromats, dry cleaners, etc.) is distributed (through direct mailings, website, presentations, etc.)

*GeoPraxis Home Energy Inspection program* – as YEEP-2 provides assistance to local cities regarding energy efficiency issues we will be using information from GeoPraxis's efforts in this same area.

*Green Building Education Initiative* – if funding is provided to extend the green building education program with the proposed "Gold Country" component, YEEP-2 will work with the implementers to promote its message and distribute its information.

*HMG Affordable Housing Initiative* – HMG is proposing to extend and build on their program that helps affordable housing investors capitalize energy efficiency investments through changes in local authority rules. YEEP is in discussions with HMG to partner in reaching the Yolo Area affordable housing community.

2002/2003 Small Business Direct Install Lighting Programs in PG&E territory are being implemented by Ecology Action, Richard Heath Associates and the City of Stockton. San Francisco and an East Bay consortium run similar programs with other funding. As we did in 2002/03, YEEP will continue to exchange information and strategies with these projects as we jointly seek ways to lower costs, improve effectiveness and confront challenges.

#### **Differences with Other Programs**

YEEP differs from existing information programs because of its comprehensive nature and its regional focus. This means we can tailor offerings and educational pieces to our regional climate, and we can be a "one-stop" source of all energy information. YEEP also is one of a very few proposed by local government partnerships. Local government officials have existing relationships with the communities that elect them, and local government staff's role is to serve constituents. In general, they are viewed more favorably as a source of reliable information than for-profit energy efficiency market actors. The YEEP partnership benefits from this trust which enables it to be very effective at outreach and information.

YEEP uses community-based marketing tactics that brings the information to the customers directly through tabling, presentations, and door-to-door canvasses. YEEP also is unique in its incubator approach to market transformation, in that it proposes a 'soup-to-nuts' strategy going from research to implementation in less than 2 years.

# **B)** Marketing Plan

Description of all 1a) marketing materials planned, 1b)quantity of marketing materials (if applicable), 2) method of distribution, and projected cost per marketing effort. 3) Include plans, recommendations and proposals for coordination with parties funded to provide statewide marketing and outreach services and, if possible other parties' program specific marketing efforts.

This proposal has a major emphasis on *education and outreach* to inform and educate residents and businesses about energy efficiency. The marketing plan includes general information, promotion of YEEP-1 incentives, and the marketing of Statewide offerings and the offerings of other Local Implementers. The general information includes education about energy use, with emphasis on practical tips and best practices that make sense for this region. The proposed YEEP-2 budget covers a majority of marketing done by both parts of the YEEP proposal; however, the YEEP-1 hardware/incentive proposal includes expenses related directly to the marketing of specific EEMs delivered under that proposal.

# TABLE II.B.1 - TABLE OF MARKETING MATERIALS

distribution For distribution at tabling displays.		resentations, education			
		For distribution at tabling, special events, presentations, education			
	8,000	\$2,000			
	8,000	\$2,000			
	8,000	\$2,000			
	8,000	\$2,000			
	2,000	\$2,000			
	2,000	\$2,000			
	2,000	\$2,000			
City hall foyer areas;	6	6 displays @ \$1,200			
libraries; high-traffic		per display = $$7,200$			
recreation areas.					
Direct mail to residents and businesses	households 3,000	\$85,000			
Direct mail to residents		@\$2,500 ea. =			
	· ·	\$20,000			
	4 times				
<ul> <li>Newspaper Ads: 6 publications at 8x per month for 12 months</li> <li>Radio - 8 weeks heavy push campaign (4/winter, 4/summer)</li> <li>TV - four weeks each of two separate ads playing throughout Yolo County</li> <li>Movie slides = 6 months of movie</li> </ul>		\$85,000			
Referral page within each City website One main site at <i>yoloenergy.org</i>	2,000 hits per month = 24,000 web visits posted.	Staff time Domain registrations			
Printed pens, educational wheel, Other giveaways EnergyStar® tattoos YEEP Uniforms	5,000 pens 5,000 Energy wheels 3,000 tattoos 60 Uniform shirts	\$10,000 \$3,600			
	<ul> <li>libraries; high-traffic recreation areas.</li> <li>Direct mail to residents and businesses</li> <li>Direct mail to residents and businesses</li> <li>Newspaper Ads: 6 puper month for 12 month for 12 month for 12 month</li> <li>Radio – 8 weeks heave (4/winter, 4/summer)</li> <li>TV – four weeks each ads playing througho</li> <li>Movie slides = 6 month slides in 2 towns ea.</li> <li>Referral page within each City website</li> <li>One main site at <i>yoloenergy.org</i></li> <li>Printed pens, educational wheel, Other giveaways</li> <li>EnergyStar® tattoos</li> </ul>	8,0002,0002,0002,0002,0002,000City hall foyer areas; libraries; high-traffic recreation areas.6Direct mail to residents and businesses65,000 households 3,000 businessesDirect mail to residents and businesses67,000 households 4 timesOrect mail to residents and businesses67,000 households 4 timesNewspaper Ads: 6 publications at 8x per month for 12 months67,000 households 4 timesNewspaper Ads: 6 publications at 8x per month for 12 months7V – four weeks each of two separate ads playing throughout Yolo CountyTV – four weeks each of two separate ads playing throughout Yolo County2,000 hits per month = 24,000 web visits yoloenergy.orgPrinted pens, educational wheel, Other giveaways EnergyStar® tattoos YEEP Uniforms5,000 pens 5,000 tattoos 60 Uniform shirts			

# TABLE II.B.2 - TABLE OF CONTACTS AND EVENTS

EVENT	Description	# contacts	
Tabling	2-4 staff per tabling event;	120 Events	
	handouts, banners, lighting	Average 100 people per event = 12,000	
	& shadescreen	contacts	
	demonstration.		
Presentations	Powerpoint format; broad	45 presentations @ avg. 25 people each	
	educational content;	= 1,125 contacts	
	handouts.	(800 Residential, 325 Commercial)	
Special Events	Torchiere Exchange	3 events. At least 300 per event = 900	
	City/County recycling and	6 events. At least 150 per event = 900	
	hazardous waste roundup		
	events Raffles/Contests	200 direct participants; tangential	
		contacts through media generated public	
	<ul><li>Poetry contest</li><li>Photo contest</li></ul>	interest.	
Demonstration		Average display time of 8 weeks per	
	City hall high-traffic areas	display @ 100 visitors per week x 6	
Displays	x ·1 ·	displays = $4,800$	
		displays 4,000	
	<ul><li>Community Centers</li><li>Parks and Recreation</li></ul>		
	• Parks and Recreation Areas		
Advertising	Newspaper	Newspaper readership of 40,000 for	
Auverusing	<ul><li>Rewspaper</li><li>Radio</li></ul>	small papers	
	• TV	<ul> <li>Radio listenership of 8,000 in Yolo</li> </ul>	
	<ul> <li>Novie theater slides</li> </ul>	County	
	• Wovie theater sides	<ul><li>TV viewership of 34,400</li></ul>	
		<ul> <li>10,000+ Moviegoers from Yolo</li> </ul>	
		County	
Newsletters/Community	Stories and coverage of	Estimated combined readership of	
Interest Press	progress and events.	10,000	
Website	One page in each	2,000 hits per month = 24,000 web	
	municipal website; main	visits	
	site at yoloenergy.org		
Canvass	Door to door targeted	900 individuals contacted	
	canvass in low-income	600 homes canvassed	
	neighborhood.		

Marketing/Advertising/Outreach	
Labor – Business Outreach	\$65,000
Labor – Customer Outreach	\$119,000
Labor – Marketing	\$95,000
Brochures	\$80,000
Advertisements / Media Promotions	\$80,000
Booth, Tabling, Canvass materials	\$30,000
Television Spots	\$30,000
Print Advertisements	\$30,000
Labor – Customer Relations	\$36,000
Total Marketing/Advertising/Outreach	\$565,000

 Table II.b.3 Marketing Costs:

 (See also CPUC Workbook, Activities and Marketing Worksheets)

#### **Outreach Methods of Distribution**

Below we discuss the major marketing methods: tabling / booth events (including special events and gathering place tabling), presentations (community and business), and our innovative low-income canvass. Advertising, discussed separately, also serves to distribute information and education about energy efficiency.

*Tabling / Booth Events* YEEP will create two tabling booths – one full scale, the other half-scale for presenting educational information to Yolo County residents. The *full-scale booth* will have loop fabric based displays that can be easily updated and tailored to the particular outreach event. The full-scale booth will be used at farmer's markets, festivals, and major sporting events.

We plan 120 tabling events in all, with an average contact rate of 100 people per event, for a total of 12,000 residential contacts through tabling. We estimate the average cost of a tabling event at approximately \$1.20 per contact. This cost includes labor of 2-6 interns plus supervision, materials and booth, preparation and travel time, and post event data organization and entry for creating reports.

Tabling will take place at community events, in front of grocery stores, at sporting events, at social church functions, service club functions, and other locations that reach our residential target audience.

A solar powered *lighting display* will demonstrate four sizes and light-colors of commonly available compact fluorescent light bulbs. The display will be powered by a battery pack powered by the sun through solar electric panels. While solar technology is not the educational focus of the booth, experience demonstrates that the public is highly curious about solar equipment and customer contact will increase dramatically by using solar to power the lighting display.

Along with the compact fluorescent bulbs we will demonstrate the *fluorescent torchiere lamps*, including an example of the heat danger and electricity use comparison between halogen and fluorescent.

Each YEEP booth is staffed by two or more trained Energy Interns. In order to take maximum advantage of the prime weather seasons, and of major community events, YEEP will be able to staff two tabling events during any weekend in the Winter and Summer months when the weather creates the strongest impetus for energy conservation.

The goal for the booth is to provide Yolo County residents with energy efficiency information for YEEP-1 measures, including distribution of a CFL pack, as well as promotion of all other available energy incentives. An important secondary goal is to answer common energy efficiency questions and provide practical local solutions to problems. Examples of the most common questions (as evidenced by customers from DEEP) include:

- What type of insulation should I put in (remodel or retrofit), and who provides that service locally?
- What rebates are available for windows, appliances, insulation?
- I'm remodeling my house what size and type of air conditioner should I install?
- How does the light from CFLs affect my health?
- How can I save money on my electric bill?

Tabling involves distribution of written materials, as do presentations and educational displays. The YEEP-2 will create written materials in the form of "Fact Sheets" that include "How To" tip sheets on basic energy efficiency issues grouped into **Lighting, Heating & Cooling, Appliances, and Lifestyle.** The fact sheets will provide educational overview about what the issue is and how the reader can make better choices, and the 'tips' section will list exactly what steps the reader can take. The 'tips' section goes into detail about local EE offerings from YEEP-1 PG&E, and other available programs.

*Presentations to Residents and Businesses* Experience from DEEP demonstrates that community presentations are an effective method for educating and inspiring customers to adopt energy efficiency habits. The additional resource this method requires per contact is balanced out by the depth of information provided and levels of change exhibited. In-person presentations allow the audience to ask questions, gain direct feedback from YEEP, and respond to each other's interest as well.

The presentations budget of \$25,000 includes creating the power point presentation, preparation for each specific event (combining handouts, applications, display items, CFLs), and mileage to and from the event.

Community presentations are an effective method for reaching targeted audiences, such as hard –toreach homeowners and renters. Twenty to thirty minute power point presentations educate the audience about energy measures and provide the context for why energy efficiency is important on the macro and local levels.

To reach the residential customers presentations will be made to homeowner and renter groups, at PTA meetings, environmental group meetings, and at social church functions. Both residential and commercial customers are reached through regular presentations during public speaking at City Council and County Board of Supervisors meetings which tend to be televised and often replayed on local cable television.

Content of presentations for residential customers includes:

- Where does our energy come from and how does it get used?
- Home/Apartment/Mobile Home Energy Saving Tips (appropriate to audience)
- The Benefits of Natural Cooling
- What is it How does it Work How do I get/use it?
- Summary of Residential rebates

- Summary of programs available for low-income households
- other conservation/support programs available from the City
- other programs available from other 3<sup>rd</sup> party or PG&E programs
- Questions and answers

Presentations are available in English and Spanish as requested by customers.

Commercial presentations inform eligible business owners about the Lights Lite program offered through YEEP-1, and about non-lighting energy efficiency measures. To reach commercial customers presentations are made to Rotary Clubs, Chamber of Commerce, and social service organizations such as Kiwanis and the Soroptimist Society. Presentations may be tailored for a particular audience. For example, we typically spend more time on lighting for retail businesses, and only discuss food service questions when restaurant or grocery personnel attend.

Content of presentations for commercial customers includes:

- Cost of energy and typical usage breakdown
- Use of lighting in retail sales
- Typical ROI of energy efficiency measures for:
  - Better habits/changing practices
    - Lighting retrofits
    - o Appliance retrofits
    - HVAC retrofits
- Benefits for building owners
- How retrofit projects work/ where do I find help?
- Questions and answers

**Demonstration Displays** YEEP-2 will work with City partners and the County to develop simple and effective seasonal education displays for presentation in each City Hall and the Yolo County headquarters building. The displays will demonstrate energy efficient lighting with a fluorescent torchiere and the set of three free bulbs available from YEEP-1. The display will also demonstrate the high-quality shadescreens recommended for lowering summer cooling bills.

*Canvass of Low-Income Neighborhoods* The most effective way to educate, inform, and inspire action toward energy efficiency is through person-to-person contact. We use this most intense education tactic to ensure we reach our high-priority hard-to-reach customers.

Our 2002-03 evaporative cooler canvass was very successful in its primary goals – distributing evaporative coolers and informing low income residents about energy efficiency measures and incentives. We propose to continue this approach, with the costs of the canvass split between this program and our hardware/incentive program.

We plan for 4 canvasses in 2004-05 – one for each of the three largest Cities, and one to serve Winters and unincorporated Yolo County. Each canvass will take approximately 8-10 weeks, and will involve at least 1 team of two interns. Completion of the canvass requires returning several times to each block, seeking to reach residents unavailable during the first pass. We estimate the cost of each canvass at \$25,000 to \$30,000, including in-house labor and materials.

#### Advertising/Press/Website/Mailings/Collateral

YEEP-2 will use paid advertising judiciously in order to develop community interest in energy conservation, raise attendance at YEEP-2 events, and promote EEM's from YEEP-1 and other programs. Advertising will be placed in local newspapers, movie theaters, cable TV stations (broadcasting specifically to Yolo County residents), and in newsletters that accept advertising. Ads will consistently include educational messages and tips for saving money on energy bills.

*Community interest press* In the 2002-03 project we found great success with unpaid communityinterest news stories that covered local energy matters and our outreach events. YEEP-2 will continue with this strategy and regularly promote local interest stories about energy conservation to the community newspapers and newsletters throughout Yolo County.

*Website* YEEP-2 will work with each City partner and the County of Yolo to develop an energy efficiency web page for posting within each entities web domain. The 2002-03 program found that the City of Davis had a very large web audience, and the energy efficiency program had thousands of web visitors that were directed to the program through the City's main webpage. The individual YEEP pages within each City will be designed to match the rest of each website, and be updated regularly with YEEP outreach and education activities, as well as information about YEEP-1 energy efficiency measures.

*Direct Mailings* YEEP-2 will work with each project partner to develop direct mail energy conservation news and tips sheets to be mailed to each household in the county. Each sheet will be co-written with the local City partner to take maximum advantage of the communication to residents and highlight City energy efficiency conservation efforts.

Additional direct mail tactics may include insertion of energy efficiency education information into municipal utility bill mailings. This tactic will reach every household in Yolo County with a utility or parcel tax account.

*Collateral Materials.* In order to generate interest and attract visitors to the many tabling events, YEEP-2 includes a budget for collateral materials such as pens, balloons for children, and energy efficiency "rule of thumb" rulers explaining how much is saved by taking simple actions around the home.

Our full budget for advertising is \$171,500 which includes all brochures and educational handouts. In addition a significant portion of staff labor, especially of the Marketing Director and interns, is devoted to advertising. Labor includes tabling, public speaking, developing ad copy and website content, maintaining media relationships and developing community interest stories, developing presentation opportunities, coordination with other energy programs, and continuous work to identify and evaluate potential and existing media.

# **C)** Customer Enrollment

Process for customer enrollment.

Because this is primarily an information and market transformation project, there is no true enrollment except in our pilot incubator projects. Instead of enrolling, customers participate by asking questions, requesting information materials, receiving assistance to access incentives, and by participating in any energy efficiency program.

Two of our incubator programs have an enrollment process. First, we intend to recruit one multifamily complex owner or manager for our MF Natural Cooling demonstration project. Since this is a one of a kind enrollment process, we will create a memorandum of understanding and/or contract(s) as needed to define the responsibilities of YEEP and of the participant. Second, under our Energy Policy incubator, we intend to offer services to Yolo County and its Cities. However, "full enrollment" in the sense of the City or County adoption of a policy or ordinance depends solely on the will of the incumbent City Council or County Board Members.

# **D)** Materials

*Procedures for procurement, delivery and installation of equipment. Description of specifications of qualifying equipment (i.e. minimum energy efficiency rating levels). Description of installation standards if applicable.* 

This section is not applicable except in the case of our demonstration MF cooling project. Purchase of materials, delivery and installation will be negotiated between YEEP and the multi-family owner/manager with whom we partner in our demonstration apartment complex retrofit. It is likely that some materials and/or labor will be procured by our partner, according to standard business practices. Procurement done by our program will follow standard City of Davis practices, rules and procedures consistent with public sector procurement law and regulations.

# **E)** Payment of Incentives

*Process for payment of incentives to customers. If incentive amount is not fixed per measure or project, describe how amount is determined for each customer.* 

This section is not applicable with the exception of the cost share born by YEEP in the demonstration MF cooling project. For this pilot, YEEP budgeted an amount equal to the entire expected costs of a selection of potential measures. However, we will seek a partner willing to cost-share by contributing labor and/or materials.

As it is the intent of this incubator project to innovate incentives that overcome split-incentive barriers the exact incentive level and technologies implemented will be developed with the project partner once the project is developed in full.

# F) Staff and Subcontractor Responsibilities

Describe proposed staffing structure of prime contractor and subcontractors. In the **program implementation workbook**, sheet "8 –Labor", include a list of positions, responsibilities, and the percent of each of those staff's time that is projected to be dedicated to the project.

The YEEP-2 is a partnership between Yolo County, the Cities of Davis, West Sacramento, Woodland, Winters, and Valley Energy Efficiency Corporation (VEEC, a non-profit 501-3c entity incorporated in order to administer and implement local government EE programs.) The primary partners are the City of Davis, which handles program finances and is responsible for upper level supervision and management, and VEEC, which provides staffing for administration and implementation.

#### Program Implementers: City of Davis and Valley Energy Efficiency Corporation

Jim Antonen, Davis City Manager, is the program contact and provides oversight. Bob Weir, Director of Public Works, provides high level management, and Mike Goodison, Assistant to the Director, meets 1 to 4 times per month as part of the VEEC team and is the City's project manager.

VEEC staff include Marshall Hunt, Project Director; Bill Knox, Commercial Program Director; Liz Merry, Marketing Director; Laura Creely, Administrative Associate; one Energy Analyst (budgeted in YEEP-1) and one Outreach Associate position (budgeted in YEEP-2), to be hired. VEEC staff meets in biweekly or weekly meetings to divide up tasks and discuss project progress.

Paid interns provide a great deal of the labor for canvassing, tabling, presentations, marketing and clerical duties. Core staff trains the interns in the necessary procedures and energy efficiency theory and practice.

#### Partner Cities and County Roles

Finally, each partner City (other than Davis) and the County designates one person to provide paid, part-time assistance in community outreach and related work. Staff hours provided by each City are included in the proposal's budget, and will be supported by a Memorandum of Understanding (MOU) between the City of Davis and each other partner City and the County.

#### **Sub-Contractor**

VEEC will contract with Stephen Hall and Associates for the Multi-Family Energy/Water Pilot Project incubator module. Subcontractor is responsible for the report deliverables associated with the project. Subcontractor will work along side VEEC staff to implement strategies.

## **G)** Work Plan and Timeline for Program Implementation

Include dates of important milestones.

Our work plan begins with a coordination meeting of all the designated project liaisons from each City and the County. This meeting will produce the specific list of tabling locations and timeline for implementation, a target list of groups for presentations, and the location and timeline for installation of the educational displays in municipal buildings.

The second phase of operation is to update educational materials created for the 2002-03 program, and to develop additional handouts. These materials will include design elements that reflect the visual agricultural and environmental aspects of Yolo County identifiable by all residents. One of the YEEP-2 marketing strategies is to create tailored educational materials that can be adjusted in content and design as needed for various locations or audiences.

Once the tabling, display, and presentation targets and timeline are decided, YEEP-2 will recruit and train the team of outreach interns who will staff the events.

Date	Milestone
March 15, 2004	Sign contract to begin program
April 1, 2004	Hold coordination meeting with partner liaison staff
April 30, 2004	<ul> <li>Hold coordination meeting with PG&amp;E regarding outreach materials</li> <li>Contact with all other potential 3<sup>rd</sup> party Implementers made and coordination strategy finalized</li> <li>Provide Implementation Plan to Contract Administrator</li> <li>Prepare survey document for evaporative cooler recipients</li> </ul>
May 30, 2004	<ul> <li>Complete approval of new Fact Sheets and revised 2002-03 fact sheets</li> <li>Complete production of tabling booths (graphics, banners, shadescreen and lighting displays)</li> <li>Recruit outreach interns and train</li> <li>Complete timeline and workplan for Incubator projects – coordination meetings held with participating parties.</li> <li>Contact retailers that carry natural cooling equipment</li> </ul>
June 15, 2004	<ul> <li>Initiate tabling events in City 1 (YEEP-1 &amp; 2)</li> <li>Yoloenergy.org website designed and running</li> <li>Scope canvass neighborhoods in City 1 (YEEP-1 &amp; 2)</li> <li>Begin scheduling community presentations in each City</li> <li>Fact sheets completed and translated into Spanish</li> <li>Shadescreen education campaign started</li> </ul>
June 30, 2004	<ul> <li>EM&amp;V Plan submitted for approval</li> <li>Regular tabling events initiated in City 1 &amp; 2 (YEEP 1 &amp; 2) – CFLs distributed regularly.</li> <li>Canvass teams hired and trained; canvass materials completed. Canvass begins in City 1 (YEEP 1 &amp; 2)</li> <li>First series of Presentation scheduled</li> <li>First two educational displays installed in municipal buildings</li> </ul>
July 30, 2004	<ul> <li>Initiated tabling events in City 2 and 3</li> <li>Shadescreen education campaign (ongoing)</li> <li>Canvass begins in City 2 (YEEP-1 &amp; 2)</li> <li>Planning completed for first 2 Torchiere events</li> <li>Natural Cooling Deliverable #1:Natural Cooling Market Assessment and Strategies Report</li> </ul>
September 15, 2004	<ul> <li>3 Community Presentations completed</li> <li>Conclude evaporative cooler canvass in City 1 &amp; 2</li> <li>Install second and third Educational display</li> <li>Ongoing updates of website</li> <li>Quarterly billing insert developed for municipal mailings</li> <li>Multi-Family Water/Energy Pilot project: report on Value of Energy &amp; Water Savings from Typical Measures</li> </ul>
October 31, 2004	<ul> <li>Torchiere exchange events completed in City 1 &amp; 2; 300 Torchieres distributed. (YEEP 1 &amp; 2)</li> </ul>

	• Regular tabling events initiated in City 3 & 4 (YEEP 1 & 2)		
	Begin winter energy efficiency education in movie theaters and other		
	advertising venues		
N. 1 15 0004	All 6 educational displays installed in municipal buildings		
November 15, 2004	• Updates of Fact sheets, website, and additional outreach materials		
	(ongoing)		
	Continued tabling and presentations		
	• Run Winter energy efficiency poetry contest throughout county		
	• Insert residential winter energy efficiency tips into 4 community newsletters		
	First 15 community presentations completed		
December 31, 2004	Generate 3 holiday-related energy efficiency stories in local		
	newspapers (based on customer anecdotes.)		
	Municipal utility mailings sent to all residents and businesses		
	Assess progress during first year Strategies		
	Multi-Family Energy/Water Deliverable #2: Energy/Water Efficiency		
	Plan for Selected Multi-family Complex		
January 10, 2005	Update yoloenergy.org and outreach materials (ongoing)		
February 28, 2005	• Torchiere Events held in City 3 & 4 (YEEP-1 and 2)		
March 15, 2005	Begin marketing shadescreens for Summer 2004 (all cities)		
	25 community presentations completed		
	• Hire second team (if needed) of outreach intern positions		
	• Direct mail re: summer conservation strategies developed and mailing lists recruited from YEEP partners		
May 15, 2005	Begin Evaporative cooler canvass in City 3 & 4		
	<ul> <li>Adjust marketing and focus based on EEM success</li> </ul>		
	Second phase evaporative coolers installation begun		
	Shadescreen education campaign begins heavy education campaign		
June 30, 2005	35 community presentations completed		
	• Direct mail on summer energy efficiency sent to 68,000 residents and		
	businesses		
	• 3 <sup>rd</sup> Utility bill insert/City Newsletter energy efficiency content		
September 30, 2005	Completion of 100 tabling events to date		
	Develop content for Winter utility bill inserts		
October, 31, 2005	EM&V report drafting ongoing		
	Mail winter energy efficiency tips in municipal utility billings		
	45 community presentations completed		
December 31,2005	• 120 tabling events completed		
	All Yolo County households and small businesses contacted at least		
	once.		
	Final YEEP Report		

# **Section III. Customer Description**

# A) Customer Description

Detailed description of customers targeted by program including customer size, market segment, market actors targeted and description of hard-to-reach characteristics if applicable.

YEEP-1 and YEEP-2 together target all market segments. YEEP-2 will reach virtually all residents and all businesses in Yolo County that receive electricity or gas through a PG&E account. Because we specifically provide outreach, education and advertising with strategies to reach low-income, very small commercial, and other hard-to-reach groups, YEEP will reach these populations proportionally to the County demographics for these groups.

#### **Residential Customer Description**

Our residential program targets all residents of both single-family and multi-family housing. By CPUC definition, all Yolo County residents are hard-to-reach, rural customers. We expect and plan to reach large numbers of customers who are hard-to-reach based on:

- language (Spanish throughout the County, and Russian in West Sacramento),
- Income (< 400% of federal Poverty Guidelines)</li>
- Housing Type (Multi Family and Mobile Home Tenants)
- Homeownership (renters; manufactured housing owners and renters)

According to Census 2000 data, Yolo County ranks 29th among California's 58 counties in personal income. In consultation with community services staff YEEP has determined that 400% of the Federal poverty level is considered low to very-low income for cost of living in Yolo County. Approximately 73% of all Yolo County households have annual incomes in this range for a family of four. Forty-two per cent of Yolo County households have incomes below 200% the poverty level, and 18% of households (family of four) had total annual income below \$15,000 in 1999.

Approximately 26% Yolo County's residents speak Spanish. In West Sacramento, there is a sizable minority of Russian Speakers. We will reach these non-English speakers through Spanish and Russian language applications and program materials. Much of our material is already available in Spanish from our 2002-03 programs. We will work with the City of West Sacramento to complete the Russian translation of our materials as needed to serve their community.

In general, our outreach targets places where people of all incomes congregate, such as super-markets, community events, local festivals, etc. However, YEEP makes a special effort to provide outreach in low income neighborhoods. Likewise, advertising will be targeted at mass markets, and to the extent possible, in media typically accessed by hard-to-reach residents.

Our most direct and effective outreach method, the canvass, is targeted solely to low-income neighborhoods. YEEP canvasses serve both YEEP-1 goals, as a means of identifying evaporative cooler direct install participants, and YEEP-2 goals, of providing information and access to incentives. Each of the 1,200 reached in our canvasses will receive a packet of information on both low-income and other program offerings, as well as free CFLs budgeted for in YEEP-1.

Our strategies of using block by block census data to targeting lowest income neighborhoods for canvassing, targeting rental units, and planned advertising in Spanish and Russian-language publications, will result in the majority of our efforts serving the 73+% of Yolo County homes that are hard-to-reach by virtue of income, language or ownership status. income.

#### Nonresidential Customer Description

Our YEEP-2 education and outreach activities will target small and very small businesses, as well as multi-family building owners. We plan to reach all commercial accounts through a combination of outreach and marketing techniques. Using City & County business license data, we will target all commercial operations with a least one mailing. We will also do special outreach to business associations and advocacy organizations.

There are approximately 1,700 small businesses in Yolo County with less than 10 employees. We target mainly downtown, mall and commercial strip businesses, with retail and services being the largest sector. However, any commercial customer with an electric account (all electric accounts in Yolo County are PG&E accounts) and any MF common area account holder are eligible to receive information and education through YEEP-2. By targeting retail and office services, we are dealing primarily with leased space, as confirmed by the statistics on building ownership from our 2002-03 program.

# **B)** Customer Eligibility

Types of customers who will be entitled to participate in the program.

All customers who receive gas or electric service from PG&E in Yolo County may participate in this program. For the *education and outreach* and *market transformation* projects, customers receive information, education, and assistance, but not incentives. (Direct install and rebate incentives are provided under the companion proposal, YEEP -1). For our pilot Multi-Family project, a single partner will be chosen based on willingness to participate in a timely manner, willingness to cost share, and feasibility of the apartment complex for a significant energy demonstration project. This project partner will have a PG&E account within Yolo County.

# **C)** Customer Complaint Resolution

*Procedures for responding to customer questions or complaints regarding program, and for resolving program or performance disputes with program participants or customers.* 

YEEP expects to answer most potential customer questions through its marketing and outreach activities. These include production of written materials (fact sheets, program brochure, web page), inperson presentations at community meetings and events (Chamber of Commerce, neighborhood groups, other service organizations), regular newspaper advertisements and articles, special events, and a public presence on the each partner City's website.

To prevent confusion and address incipient participant complaints, YEEP includes Quality Assurance (QA) procedures covering all of the EEMs for which it pays incentives under the sister YEEP-1 program. For example, we replace nonfunctional CFLs or Torchieres for customers who return them.

We also provide initial and on-the-job training of interns in working with the public and handling questions or problem situations that may arise at events, presentations and canvasses.

In this education-oriented program it is anticipated that the main source of frustration or complaint by customers may revolve around not receiving full and complete answers to their energy efficiency questions. YEEP-2 will make every effort to answer practical questions about actions customers can take to save energy by using the internet, our program partners, and expertise available from other energy efficiency programs (e.g. 3<sup>rd</sup> party implementers, PG&E, CEC, ENERGYSTAR® etc.)

To handle inquires or complaints, the local phone number is answered by a live person during business hours when staff are present and covered by a voicemail system at all other times. All program materials will have the YEEP phone number and website printed in an easy to find location along. When a customer contacts staff with a complaint the staff member will first try to answer to the customer's satisfaction. Interns are trained in handling complaints that come up in a canvass, public tabling event or on the phone.

If an intern or first level staff person cannot resolve a complaint; it will be elevated to the appropriate Director. If the Director cannot resolve the complaint in a satisfactory manner, the Project Director will be brought in, with final appeal to the Department of Public Works first, and then following standard City procedures.

Dispute resolution procedures have been reviewed and approved by the City Attorney and are parallel to those used for disputes over City water bills or other services provided by Public Works. A formal letter of complaint must be submitted to the Department of Public Works to initiate this process. The exact process will depend on the nature of the dispute and amount of money involved. The City Council, with advice from the City Attorney, has final authority over any dispute resolution procedures.

# **D)** Geographic Area

Description of geographic area targeted by program. Include here a discussion of whether the program is proposed for a transmission constrained area as identified by the California Independent System Operator.

YEEP-2 targets Yolo County, with specific and tailored marketing to each partner City (Davis, Woodland West Sacramento and Winters), as well as special Spanish- and Russian-language outreach and advertising for those communities. We also target the rural areas and unincorporated towns within the County, and will target agricultural customers to promote the APEP program.

# Section IV. Measure and Activity Descriptions

Use table format where appropriate. If program offers an extensive list of measures, summarize the following information by measure type or other logical grouping where appropriate. Include a more extensive discussion in separate attachments and document with workpapers if necessary (delivered by mail to Energy Division). If necessary, provide references to line and/or cell numbers in the program activities worksheets of the program implementation workbook (described in next section).

# **A) Energy Savings Assumptions**

Briefly document source of all energy savings assumptions for each measure or measure type. For each measure or measure type where the energy savings assumptions **are** not standardized and available in the DEER database, describe the rationale for the following energy savings assumptions: -- Coincident Peak Demand Reduction (kW) -- Electric Energy Savings (kWh) -- Gas Energy Savings (therms)

Because this is an Information Only/Market Transformation proposal, we do not expect to see immediately measurable or quantifiable energy savings. The only "hardware/incentive" part of this proposal is a demonstration project at a single MF apartment complex. This project may involve: evaporative cooling, high SEER air-conditioning, tenant lighting, cool roof, water/energy measures, shadescreens, and/or other envelope, appliance or HVAC measures. The technologies to be installed depend on the results of our market analysis, the complex chosen for the demo, and the desires of the yet-to-be-identified MF owner/manager with whom YEEP partners for this project. Therefore, we do not attempt to quantify energy savings at this time. However, as we develop this MF complex demonstration, we will estimate and evaluate energy and dollar savings.

YEEP provides this information/market transformation proposal (YEEP-2) in conjunction with its interdependent hardware/incentive sister proposal – YEEP-1. Energy savings assumptions for YEEP-1 are provided in that proposal.

We expect energy savings to result from this information proposal in these ways:

- We encourage and promote incentives and rebates of the Statewide programs (implemented primarily by PG&E in Yolo County) and other implementers with activity in Yolo County. Savings will be reported by other implementers that provide the incentives for their EEMs.
- Significant long-term energy and demand savings will be made from shifting part of the Central Valley residential market away from compressor-based cooling. This is a long term goal addressed in this proposal, and in other program implementers work, as well as in market development projects funded by the California Energy Commission and others. As with most market transformation, it is difficult to quantify and correctly attribute long term savings. Although we strongly believe that YEEP-2 plays a critical role in addressing residential cooling, it is beyond the scope of this proposal to attempt to quantify long therm savings.

# **B)** Deviations in Standard Cost-effectiveness Values

Document and provide a rationale for all cost-effectiveness variables that deviate from those prescribed in the Energy Efficiency Policy Manual and the CEC's DEER database: i. Net-to-Gross Ratio .ii. Estimated Useful Life .iii. Incremental Measure Cost

Not applicable.

# C) Rebate Amounts

For each measure or measure type, briefly describe the rationale forrebate amount.

Not applicable. Cost sharing of the planned MF Complex demo project will be negotiated between YEEP and project partner(s).

# **D)** Activities Descriptions

Briefly describe the expected program activities not expected to produce measurable energy savings (such as facilities audits and equipment diagnostics) and cost per activity.

#### **Information/Educational activities**

Informational and educational activities are discrete, quantifiable outreach activities (events, presentations and canvasses). These activities are supplemented and supported by the continual advertising campaign that is described in the marketing plan.

*Info/Ed Activity 1: Tabling Events* and booths at gathering places and special events and happenings are one of YEEP primary methods of bringing energy efficiency to communities. Specific locations identified to date include: Raley's market, Raley's field, Nugget Market, free concerts and City sponsored events, Walmart, Riverfront Walk, Community Parks, Community Advisory Council meetings, Farmers Markets/Local Parks, regularly scheduled municipal events such as recycling and hazardous waste drop-off days.

*Torchiere Exchange Events* will be used to create an education campaign about the benefits of fluorescent Torchiere lamps. We will use educational advertising in local papers, on the website, community-interest press, and handouts distributed through tabling events that promote the Torchiere Exchange events to create general awareness and support for fluorescent Torchieres. Torchiere Exchange events include taking in old, working lamps for recycling, and distributing new, dimmable lamps. Each event will include the YEEP-2 booth and handout materials for all exchange participants. We expect to hold four torchiere events, distributing 600 lamps total as part of YEEP-1, with information and education resources on other energy efficiency actions provided by YEEP-2.

*Info/Ed Activity 2: Presentations* YEEP provides Powerpoint and Speaker presentations for both community and business groups. YEEP-2 will develop two flexible and informative standard presentations, one for the residential and one for the commercial markets. Both presentations will go beyond the standard energy efficiency statistics and relate to the local, Yolo County climate, conservation resources, and energy issues. As with our 2002-03 program YEEP-2 staff will develop a fun and interesting theme, artwork, and slogans to promote energy efficiency measures and education to Yolo residents and businesses.

Example audiences include:

- Rotary Club, Kiwanis, Roteract (young business leaders group), Soroptimist, and other service organizations
- Chambers of Commerce
- Girl & Boy Scout Groups (& parents)
- PTA meetings
- Homeowners association and neighborhood groups
- Tenant associations and redevelopment agency sponsored meetings
- Church-based environmental clubs and other environmental groups

*Info/Ed Activity 3: Canvasses* YEEP uses canvasses to directly bring energy efficiency education and information into low-income communities. A canvass involves a team of two or more interns in YEEP uniforms and badges that go door-to-door in a selected neighborhood. The canvass serves to inform people about low income energy programs (CARE, Energy Partners, etc.) as well as providing energy cost-saving tips. The canvass also serves the YEEP-1 function of identifying and qualifying households for YEEP-1's direct install window evaporative cooler measure.

YEEP-2 selects neighborhoods for the canvass based on census tract data and on the experience of community development staff or other local government personnel familiar with local needs and housing types. Packets of material include information on low-income offerings, energy tips, and rebates and services available from other implementers. We expect that in some of Yolo County's cities, we will also provide information on water and other City services. We target 800 homes in the first summer, and 400 in the second summer for the canvasses. We expect high concentrations of Spanish and/or Russian speakers in some if not all of the neighborhoods canvassed.

#### **Incubator Projects**

Each of the 3 Incubator project has a series of steps or stages, leading to one or more deliverables. Our projects – Natural Cooling, Multi Family Water/Energy Pilot Project, and Support for Local Energy Efficiency Policy and Ordinances – are discussed individually here:

## Incubator Project #1: Natural Cooling

Although 45.3% of Yolo County homes rely on non-compressor-based cooling for primary cooling, Statewide rebate programs have focused on promotion of central, compressor-based air-conditioning. In fact, only 41% of Yolo County dwellings meet cooling needs through central  $A-C^2$ . Although wealthier homeowners may be well served with AC rebates, middle and lower income families needs are not addressed.

For new construction, nearly all homes have Central AC. Continuing current market practices will lead to ever increasing residential peak demand, in spite of Title 24 High SEER requirements for AC in new construction. YEEP believes that creative methods of increasing availability of, and demand for Natural Cooling can offset some of this increase. This incubator project addresses cooling alternatives that may be preferred by many of the 76.9% of moderate and low income Yolo County households.

Our project follows 4 stages: 1) market assessment; 2) development of strategies; 3) Implementation of Strategies to Overcome Barriers; and, 3) Assessment of Successes and Lessons Learned.

<sup>&</sup>lt;sup>2</sup> PG&E, Residential Energy Survey Report, 1994, http://www.pge.com/003\_save\_energy/003a\_res/pdf/res.pdf

#### Stage 1: Market Assessment

Many Yolo County homes rely on whole house and other fans, or window AC for cooling<sup>3</sup>, but the trend for low income cooling appears to be lowest price window air conditioners, with minimal interest in Energy Star models.<sup>4</sup> In fact, in Home Depot and Orchard Supply outlets, no window air conditioners or whole house evaporative coolers that would qualify for the PG&E rebates appeared to be available. Clearly we confront the "lack of viable and competitive set of providers" market barrier. Lack of information creates another barrier, and, according to local AC contractors, the profit margin is much lower on evaporative cooling, creating a disincentive.

To clearly identify and more fully understand the barriers, our first step is to survey customers who received the 100 Advanced evaporative coolers we distributed to low income mobile home residents in 2003. Second, YEEP staff will interview buyers and other staff of retail outlets for natural cooling products. We anticipate asking these questions as we assess market barriers: How do the costs of natural cooling compare to the cost of compressor-based cooling? there cost savings or increases for ? Do users of natural cooling have the information needed to use it effectively? To what extent is there a lack of a viable, competitive set of providers of Natural Cooling elements? Are Natural Cooling technologies and products readily available in Yolo County? Are there barriers to the entry of new natural cooling providers and products? Finally, is there a perception barrier that a house without an air conditioner is incomplete?

**Stage 2: Develop Strategies to Overcome Barriers and Reach Promising Market Sector(s)** With the understanding gained in Stage 1, we will develop a list of supply/delivery chain strategies and marketing strategies that address market barriers and show promise for increasing natural cooling. We intend to develop mid-market and retail strategies to increase availability by working with hardware stores and home improvement discount outlets that serve Yolo County.

Our strategies include education and potential training of personnel involved in both sales and installation of natural cooling technologies. Following up on our experience with retail outlets, we will attempt to influence purchasing decisions. Provided there is sufficient interest developed in natural cooling, we will offer a educational workshop(s) to sales staff and installers of natural cooling equipment.

Richard Heath & Associates (RHA) has experience training technicians, contractors and salespeople employed or contracted by Home Depot and other retail outlets to properly sell and install energy efficient products. RHA successfully developed a High Performance window installation and education program. YEEP is in discussions with RHA to provide evaporative cooling/whole house fan education workshop(s) on a fee-for-service basis to similar groups of installers and sales people. We have included a budget for using RHA to provide training on a fee-for-service basis.

Finally, we will look at strategies for increasing consumer demand. Possible strategies for consideration include promoting the Statewide rebate for Whole House Fans and Advanced Evaporative Coolers. We are currently attempting to partner with PG&E in this area. PG&E has indicated that they would partner with YEEP if the YEEP proposal would include funding for PG&E labor. However, we have not had a written offer from PG&E, and have suggested that PG&E consider

<sup>&</sup>lt;sup>3</sup> PG&E, ibid.

<sup>&</sup>lt;sup>4</sup> walk-through survey and discussions with local home improvement and hardware store personnel.

using a portion of its Statewide rebate marketing budget to augment advertising in Yolo County for natural cooling. We look forward to partnering with PG&E, if possible.

Other potential strategies include development and delivery of Spanish language promotional materials to be delivered in low income canvass<sup>5</sup>, and inclusion of natural cooling in all presentations (see above).

Combining information discovered in Stage 1, analysis and activities of Stage 2, and a brief survey of the literature on alternatives to compressor cooling, we will prepare a short report that analyzes survey results, identifies market barriers, and identifies promising market sectors and strategies for increasing availability of and demand for natural cooling technologies.

DELIVERABLE: Natural Cooling Market Assessment and Strategies Report

#### Stage 3: Implement Strategies to Increase Market Penetration of Natural Cooling

In this stage we will implement most promising of the strategies developed in Stage 2. We expect that education of outlet sales staff and their installers partners will be critical, and have directly budgeted for this item. We have also budgeted for demand side activities, which will include presentations and advertising referenced above. Strategies likely to be implemented include:

- Work with retailers and wholesalers serving Yolo County to increase availability of Natural Cooling products, including window, through-the-wall and whole house evaporative coolers, whole house fans and similar products and accessories. We expect to:
  - Schedule meetings with Home Depot, Orchard Supply, Hibberts, Ace Hardware, and other Yolo retailers.
  - Develop packet of manufacturer specific information to create choice of high quality products that meet evaporative cooler standards developed during DEEP or the Statewide standards for Advanced Whole House coolers.
- Contractor, sales staff and technician outreach and education. Some "big box" stores have sets of contractors that they "qualify" and then refer installation jobs to. We have budgeted funds to purchase natural cooling training sessions from RHA after we have enlisted retail outlets and contractors in the concept. The cost for two RHA natural cooling workshops is estimated at \$20,000 for the budget. We plan to provide supply chain outreach through:
  - 2 workshops with specific retailer/contractor groups
  - Direct contact of at least 5 individual installers to provide information and education on proper use, installation, and sales of Natural Cooling technologies in one-on-one meetings.
- Promote purchasing of evaporative coolers. Coordinate with PG&E Rebate programs for Whole House Fans and Advanced Evaporative Coolers, if possible. YEEP has already begun preliminary discussions with PG&E's Program Manager for the evaporative cooler and whole house fan programs. YEEP will also develop a natural cooling fact sheet that promotes window units not covered by PG&E rebates.
  - promote existing PG&E rebates
  - attempt to enlist PG&E in co-promotion of both units meeting Statewide program standards, and smaller window units that meet YEEP standards

<sup>&</sup>lt;sup>5</sup> Proprietary market research done by several Arizona manufacturers indicates that evaporative cooling may be more highly valued by communities with Northern Mexico roots.

 Development and delivery of Spanish language promotional materials to be delivered in low income canvass<sup>6</sup>

YEEP is considering offering a limited number of rebates to test the effectiveness of rebates for window units. If budget allows, and if the strategy shows promise, YEEP-1 may offer such rebates, which could be as high as \$500 to cover half the incremental cost of an installed, whole house window unit. (these units can cool approximately 1500 square feet).

Furthermore, we will also develop a "package" of technologies that come together for natural cooling. For example, reducing cooling needs by shadescreens, increased insulation, appliances and lighting that produce less internal heat gain, may be necessary to achieve comfort. Our information literature will address this package of natural cooling "enablers",

## Stage 4: Evaluation of Successes and Lessons Learned

During the second year of the program, after Summer of 2005, we expect to have various types of data and information regarding the impact of our strategies. We will request from PG&E (discussions currently under way) baseline and 2004-05 data on numbers of rebates for Advanced Evaporative Cooling and Whole House Fans to determine if demand has increased in Yolo. If our assessment leads to YEEP window evaporative cooler rebates, we will asses satisfaction from participants. Our final Natural Cooling Incubator report will report successes, lessons learned and promising directions for more extensive and deeper evaporative cooling programs for future programs.

DELIVERABLE: Natural Cooling Incubator Implementation Report

#### Incubator Project # 2 – Multi-Family Energy/Water Pilot Project

Apartment complexes are an important source of housing in Yolo County. To make them more energy efficient requires addressing the "split incentive" situation under which tenant area improvements paid for by owners result in reduced energy bills paid by tenants. Interestingly, this split is not typical for water and sewer. Generally the owner pays water bills for both common and tenant space.

There is also a "split public benefit." Water agencies are very interested, and willing to fund, improvements that reduce water use, just as the CPUC and other energy agencies fund energy efficiency. Only by working together can the full benefits be reached, as valued by water and energy agencies. This project creates a prototype solution and case study that will be used to seek future joint funding from water and energy agencies based on the public value.

There are four stages to this project -1) analysis of the water and energy savings likely from specific measures in specific water agency territories; 2) scoping of potential partners and demonstration project development; 3) installation project management; and, 4) report on results.

## Stage 1: Analysis and Valuation of Energy and Water Savings

Each of the four cities in Yolo County has its own water supply and waste water treatment department. Water starts either underground or at grade, is pumped, processed, pumped, stored, sometimes heated, used, pumped, treated at the waste treatment plant and then released. Increasingly strong environmental regulations require better input water quality and better discharge water quality, leading

<sup>&</sup>lt;sup>6</sup> Proprietary market research done by a major Arizona manufacturer indicates that evaporative cooling may be more highly valued by communities with Northern Mexico roots.

to increased peak demand and increased energy use. Therefore, local analysis is needed of potential energy savings from both upstream water supply and downstream water treatment.

Once we determine the marginal energy cost and water cost per gallon of water, we can analyze value of water and energy saving measures. Landscape watering, toilets, hot water heaters, hot water circulators, shower heads, swimming pools, spas, and other water related uses will be covered. The results of this analysis, for at least one Yolo water agency will inform Stage 2.

DELIVERABLE: Report on Value of Energy & Water Savings from Typical Measures

#### **Stage 2: Scoping of Potential Partners and Demonstration Project Development**

Using information gained in Stage 1, YEEP will bring forward the demonstration concept to multifamily owners/managers. We will contact owners/managers of affordable housing as well as market rate apartment complexes.

Steps for this stage include:

- Identify a set of 3-5 multi-family complexes with significant water and energy savings potential from which one will be chosen for the demonstration retrofit project.
  - Interview owners / managers to determine their willingness to be involved in a retrofit pilot program, with cost-sharing. During interview, create list of measures appropriate to building based on owner input.
  - Do back-of-the envelope estimate of savings potential per measure
  - Consider affordable housing issues, ownership structure, and decision-making process and time commitments to screen potential partners.
- Choose one complex for further study
  - Complete energy survey and analysis of chosen measures
  - cost out project
  - o obtain written agreement re: timeline, cost-sharing, etc.
  - Have EM&V contractor do baseline study using systems analysis and utility bills

DELIVERABLE: Energy / Water Efficiency Plan for Selected Multi-family Complex

#### **Stage 3: Installation project management**

Once an agreement is reached, YEEP will coordinate installation with the property owner/manager and contractors involved in installation. YEEP will almost certainly play a role in do project management, especially of specialized contractors (e.g., listed duct repair contractors).

- Steps in this stage include
  - Go out to bid for general contractor or ESCO to install work
  - Work with winning bidder and owner/manager on timeline, scheduling, etc.
  - install EEMs and WEMs

DELIVERABLE: Completion of demonstration project

#### **Stage 4: Prepare Project Final report on results**

- Analyze savings using utility bills and compare to engineering estimates
- Assess tenant and owner satisfaction
- Write Final Report

#### DELIVERABLE: Complete final report on project

#### Incubator Project #3: Support for Local Energy Efficiency Policy and Ordinances

YEEP will provide professional support to the County and/or Yolo County's incorporated cities requesting such assistance, for the development of energy policy and/or potential ordinances. Currently, neither the partner cities nor the county has an energy department, or any staff primarily dedicated to energy issues.

This incubator project provides staff support for local elected officials should they decide to enact policy and legislation related to energy efficiency, or to authorize staff to develop proposed policy or legislation. Examples of the types of assistance that could be provided include: 1) assistance in identifying or requiring energy efficiency measures at time of resale of existing housing or commercial buildings; 2) assistance in changing local building codes to induce or require energy efficiency; 3) assistance in creating an ordinance that requires disclosure of a buildings "energy status" upon sale. YEEP will provide such assistance to the extent that the county's local government officials desire to proceed with investigating and/or carrying out work in the area of energy efficiency policy, and subject to limitations of the total YEEP-2 budget.

DELIVERABLE Model ordinance or policy.

# Section V. Goals

*Use table format where appropriate. 1) Provide brief overview of quantitative, qualitative, and energy & peak demand savings goals 2) .Discuss any proposed program performance goals not covered in the sections above (i.e.other objective measures for evaluating program progress).* 

#### Quantitative Goals:

- 120 tabling/booth events
- 30 community presentations focused on residential energy education
- 15 business presentations focused on commercial energy education
- 4 canvasses, 1,200 households
- 6 educational displays installed in municipal buildings
- Website education through <u>www.yoloenergy.org</u> consistently providing fact sheets and education on YEEP and other program offerings.
- Reach all 65,000 households through mailings
  - 1 direct mailing from YEEP with seasonal info packet
  - Utilize City Newsletters of each City by providing articles on energy efficiency
- Reach 15,000 households through in-person contact
  - presentations, tabling, canvass
  - Reach hard-to-reach, documented through census tract data
    - Income below 400% of federal poverty level
    - Language other than English (primarily Spanish and Russian)
    - Very small and small businesses

#### Qualitative Goals:

- Address equity issues by serving underserved populations
- Develop strategies for increasing natural cooling
- Overcome market barriers
  - increase availability of evaporative coolers
  - increase information about natural cooling
  - determine respective values to agencies of water and energy savings to overcome the "public benefit split incentive."
- Produce the following short reports:
  - Natural Cooling Market Assessment and Strategies Report
  - Natural Cooling Incubator Implementation Report
  - Report on Value of Energy & Water Savings from Typical Energy / Water Measures
  - o Energy / Water Efficiency Plan for Selected Multi-family Complex
  - o Final Report on Multi-family Energy / Water Efficiency Pilot Project

# Section VI. Program Evaluation, Measurement & Verification (EM&V)

# A) Proposed Program Evaluation Approach

Proposed program evaluation approach, including a summary of the suggested approach to evaluating program success and measuring and verifying energy & peak demand savings. This is not the final, detailed EM&V plan for the program, which will be developed by the independent EM&V consultant, but should still provide adequate detail of what the evaluation plan will cover. The program evaluation should be based on the Energy Efficiency Policy Manual guide to program evaluation, and should be thorough as it will be the basis for a program's final payment.

The California Public Utilities Commission's Energy Efficiency Policy Manual, version 2 (August 6, 2003) requires an evaluation plan for each Information-Only program, but "will not require the measurement and verification components." For YEEP-2, an Information Only program addressing market transformation, we propose both quantitative and qualitative evaluation.

YEEP-2 includes advertising and outreach activities with targeted contact goals. We also target specific categories of hard-to-reach residents and businesses. Throughout our activities, we assume that we will reach hard-to-reach residents in proportion to the demographics of Yolo County. We will reach small and very small businesses through our commercial presentations, and through community outreach since some community members / residents also own businesses.

YEEP-2 also includes three incubator projects. Goals of the natural cooling incubator project include overcoming market barriers to increase availability of, and information about, evaporative coolers and natural cooling, and producing reports on market barriers and strategies, and on the results of the project.

Most of the EM&V work will be part of 4 tasks:

- Task 1: Develop Evaluation Plan
- Task 2: Quantitative Analysis of Success in Reaching Contact and Activity Goals
- Task 3: Analysis of Success in Qualitative Goals
- Task 4: Produce final EM&V Report that meets CPUC objectives

Our EM&V consultant will need to meet those of the CPUC EM&V objectives identified in Figure VI-A that apply to information only programs. The consultant should verify quantity of services using survey methods, to ensure that the projected quantitative goals are met. The EM&V efforts should focus on impact with a more limited process component.

#### TABLE VI-A: CPUC OBJECTIVES AND EVALUATION STRATEGIES

Objectives	Evaluation Strategies
Measuring level of energy and peak demand savings achieved	Not applicable
Measuring cost-effectiveness	Not applicable
Providing ongoing feedback, and corrective and constructive guidance regarding program implementation	Contractor will be in close contact with YEEP and will provide ongoing feedback and recommendations.
Measuring indicators of effectiveness of specific program elements, including testing of the assumptions that underlie the program theory and approach	Assess whether the program has reached the stated contact and activity goals. Survey information recipients who have also received CFLs under YEEP-1 to assess whether or not hard-to-reach results are consistent with assumptions regarding service proportional to demographics. (CFL and other YEEP-1 customers are the main contacts who have provided phone numbers and other contact information)
Assessing the overall levels of performance and success of programs	Analyze the program records and contact by telephone survey a random sampling of contacts to assess the overall level of performance and success of the program.
Informing decisions regarding compensation and final payments (except information-only)	The effectiveness indicators developed will allow the CPUC to assess achievement and make an informed decision regarding compensation and final payments.
Helping to assess whether there is a continuing need for the program.	Examine program implementation strategies and estimated penetration levels to assess the remaining need for the program.

We recommend strongly that the evaluation program should include applicable items listed in the Table. Most of the strategies in Table VI-A address quantifiable goals. However, the incubator projects serve goals that are not easily quantified:

- Develop strategies for increasing natural cooling
- Overcome market barriers
- Produce short reports related to incubator projects

To evaluate achievement of these goals we suggest a primarily qualitative approach. Note that the final reports of the natural cooling and multi-family energy / water incubators constitue a self-evaluation. For independent evaluation, we suggest that the EM&V contractor conduct interviews and or focus groups with supply chain actors served in the natural cooling project. Evaluators should also interview the chosen multi-family building partner involved in the demonstration project. Finally, the evaluators should analyze and critique the findings published in the associated reports.

# B) List of Potential EM&V Contractors

*Provide a list of at least two potential EM&V contractors and provide evidence that the proposed contractors can objectively evaluate program success.* 

Heschong Mahone Group (HMG) is familiar with our 2002-03 program and could quickly come up to speed on changes in our EEMs for 2004-05.

Other potential EM&V contractors are RLW Analytics, Inc., Nextant and Frontier Associates.

All of these contractors have experience in EM&V of energy efficiency programs funded by California ratepayers under the auspices of the CPUC.

# C) EM&V Budget

In developing the program evaluation approach, proposers are advised to dedicate a sufficient amount of their program budget to EM&V based on their proposed program evaluation approach, activities undertaken for similarly designed programs and other pertinent information.

The proposed EM&V budget, from the CPUC Workbook "1 – Budget Details" worksheet, is shown in Table VI-C.

EM&V Budget			
Labor and Materials			
Labor - EM&V	\$ 12,100	VEEC EM&V labor including management and assistance to EM&V contractor.	
Subcontractor Labor - EM&V	\$ 45,000	EM&V subcontractor labor.	
Subtotal EM&V Activity - Labor	\$ 57,100		
EM&V Overhead		Allocation Rate	Allocation Base
Benefits - EM&V Labor	\$ 1,573	13.00%	\$12,100
Payroll Tax - EM&V Labor	\$ 1,573	13.00%	\$12,100
Subcontractor Benefits - EM&V Labor	\$ 7,650	17.00%	\$45,000
Subcontractor Payroll Tax - EM&V Labor	\$ 6,300	14.00%	\$45,000
Subcontractor Overhead - EM&V	\$ 9,000	20.00%	\$45,000
Subtotal EM&V Overhead	\$ 26,096		
Total EM&V	\$ 83,196		
# Section VII. Qualifications

# A) Primary Implementer – Including experience managing similar programs.

Same as YEEP-1 The primary implementer is the partnership of Yolo County, the incorporated cities of the county, and Valley Energy Efficiency Corporation (VEEC), with the City of Davis and VEEC taking the lead. The City has experience in promoting energy efficiency going back to the 70s after the first national energy crisis. Davis had energy ordinances that predated Title 24. In the last 5 years, assisted by a citizen Task Force, the City has undertaken initiatives in energy conservation and renewable energy, including partial ownership of a 2 megawatt photovoltaic installation previously known as PVUSA, production of annual Energy Choices workshops, and the successful implementation of the Davis Energy Efficiency Project.

Administration, management and implementation of the YEEP will be carried out by VEEC, with supervision and upper level management provided by the City. VEEC was formed in order to implement the City of Davis' 2002-2003 energy efficiency program, funded by the CPUC under the name of "Davis Comprehensive Energy Efficiency Program, better known as DEEP.

The City of Davis provides primary oversight and fiscal responsibility for the YEEP grant. The primary grant manager is **Mike Goodison**, Assistant to the Director, Public Works and grant manager for the DEEP in 02/03. Both **Bob Weir** (Director, Public Works) and **Jim Antonen** (City Manager) are strong energy efficiency proponents, and they will provide oversight and advice regarding strategy for working effectively with the YEEP partner cities and the County.

VEEC's board is made up of energy efficiency experts and local business and community leaders, as well as property owners from Davis and Woodland. The Board is likely to expand to include representatives of other parts of the Southern Sacramento Valley that share its energy efficiency goals.

The primary VEEC staff are **Marshall Hunt**, P.E. (Project Director), **Bill Knox** (Commercial Programs Director), **Liz Merry**, M.B.A. (Director of Marketing), and **Laura Creely**, (Administrative Associate) Mr. Hunt has over 30 years experience in residential and commercial energy efficiency. As a member of PG&E's energy efficiency group through 2002, he participated in the development of the Statewide programs, and dealt with technical issues of developing technologies and reducing market barriers. Mr. Knox has run Small Business energy programs, starting with the federally-funded Energy Extension Service in New York and California in the 1980s. He worked for the California Energy Commission for 7 years, developing public sector and school energy projects and administering grants and loans. Ms. Merry has broad experience in marketing and community outreach efforts in the Los Angeles area and in the Southern Sacramento Valley. She holds a Masters degree in business administration at UC Davis, and she successfully devised then implemented the filing, rebate processing, and reporting procedures needed to disseminate the 16 energy measures offered by DEEP in 2002/03.

These three primary VEEC staff spent much most of the last year creating DEEP, the successful pilot, one-city, comprehensive energy program that led to the current proposal. As a team, they were able to

overcome many obstacles, including a very late program start, and are well on the way to meeting the program's energy saving, information and market transformation goals.

Particular successes included developing a very cost-effective commercial direct install lighting program, bringing many local contractors into duct repair programs for the first time, and developing a unique evaporative cooler product and delivery method. VEEC has learned a tremendous amount during the 2002-03 programs, which has to a cost-effective and strong YEEP proposal that will result in higher energy savings, better cost-effectiveness and continued progress in market transformation and local infrastructure development.

# **B)** Subcontractors

- Including experience managing similar programs.

YEEP expects to subcontractor with Steven Hall Associates to carry out implementation and write reports as part of Incubator Project #2: Multi-Family Energy/Water Pilot Project. We have budgeted \$20,000 for this subcontract. Mr. Hall will work along side the Project Director on this project.

No other subcontractors are named in this proposal. However, we have reserved \$20,000 in the budget (and another \$20,000 budgeted in YEEP-1) to pay for information technology work to upgrade our systems to streamline reporting and recordkeeping. Furthermore, YEEP will reimburse the partner Cities of West Sacramento, Woodland and Winters, and the County of Yolo, for staff time to assist in outreach. This cost is included in labor budget line items in the workbooks for each proposal, but is subject to Memoranda of Understanding between the City of Davis and the other partner cities.

# C) Resumes or Description of Experience – For each program management position.

Marshall Hunt – Project Director Bill Knox – Program Director Liz Merry – Outreach Director Laura Creely – Administrative Associate

# MARSHALL B. HUNT

## 3117 Beacon Bay Place Davis, CA 95616

POSITION:	Director, Davis Energy Efficiency Project 226 F Street, Davis, CA 95615
	530-757-5635, mhunt@cityofdavis.org
EDUCATION:	Bachelor of Science, University of Davis, California University of California at Davis, in Atmospheric Science, Micrometeorology with Philosophy of Science minor. Course work completed for a Masters of Science in Atmospheric Science, Micrometeorology with an emphasis on Arctic Air/Ice interactions as they impact global climate change
PROFESSIONAL REGISTRATION:	Professional Engineer, Mechanical Engineering, registered in the State of California, #024975. General Contract and Heating and Cooling Contractor, B & C-20, License No. 707828.
EXPERIENCE:	<u>Pacific Gas &amp; Electric Company</u> Senior Program Engineer, Customer Energy Management, assigned to the internal technical support group for the purpose of Energy Efficiency program design, implementation and support. Also, taught classes in HVAC design at the Energy Training Center at Stackton
	the Energy Training Center at Stockton. <u>MBH Associates</u>
	Owner, Principal Engineer
	Conducted Energy Conservation studies for the following local governments: Roseville, Chico, Davis, Yolo County, and Lake County. Worked as a Technical consultant to Sacramento Municipal Utility District on a continuing basis for six years. Managed the design and construction of the model complex for a 120-unit passive solar subdivision in West Sacramento, which received an energy award from Pacific Gas and Electric Company.
	Pacific Management Dynamics Corp.
	Principal Consultant/ Engineer
	Project included being the technical director for the Golden Carrot Refrigerator Project, the California Home Energy Efficiency Rating Systems, and working with PG&E to start the Consortium for Energy Efficiency.
	California Energy Commission
	Energy Specialist III, Solar Energy Office, team lead of the Passive Solar team. One of the authors of the technical sections of the California Solar Tax Credit.
VOLUNTEER	Board Member/first Chairman of the Board of the California Association of
POSITIONS:	Building Energy Consultants (CABEC).
	Member of the City of Davis Building Code Board of Appeals.
	Member of the City of Davis Citizens Electric Energy Task Force
	Member, City of Davis Citizens Task Force on Energy Issues.
Deferences available	on request

References available on request.

## 2231 Shasta Drive, Davis, CA 95616 530-753-4753 (home) 916-322-9838 (work)

CURRENTDirector of Commercial Programs, Davis Energy Efficiency Project.POSITION:226 F Street, Davis, CA 95615. 530-757-5637, bknox@cityofdavis.org

**EXPERIENCE:** <u>Energy Assessments, Department of General Services</u> (9/13/1999-present)

*Customer Service and Information Manager*: Manage customer service for the DGS Natural Gas Services program, a \$90 million/year program that provides natural gas services, including commodity supply, transportation, storage and risk management, to 130 public sector customers throughout California. Lead team in customer recruitment. Act as liaison with project managers on gas-related energy conservation projects. Track and forecast customer gas usage to reduce price risk. Manage natural gas scheduling through relationships with primary business partners, including gas suppliers and utilities. Develop price and budget information procedures and spreadsheets. Provide customers with customized budget forecasts and risk analysis. Prepare and present workshops for prospective and continuing customers covering natural gas issues. Ensure customer satisfaction with service, and educate customers about the natural gas and electricity markets.

Energy Efficiency Division, California Energy Commission (1994-1999) *Rebuild America Program Manager*: Develop and use team approach to provide broad range of energy services to regional partnerships in San Diego, Orange County, Los Angeles, Bay Area and Sacramento regions. Coordinate activities of contracted regional program representatives and State allied energy efficiency programs. Provide outreach to develop new Rebuild community partnerships. Help existing partnerships plan and implement energy efficiency programs and actions. Coordinate technical assistance to the City of Los Angeles and SMUD. Facilitate partnerships to promote sustainable buildings, energy efficient multifamily and low-income housing, commercial property retrofits and local energy efficiency ordinances. Help local governments take advantage of opportunities resulting from energy industry restructuring. Assist municipal utilities with public goods programs. Manage Department of Energy grant, and subgrants/subcontracts to regional organizations.

*Institutional Conservation Program Manager:* Act as team leader for program. Oversee project managers' technical and administrative work on grant projects. Report to and coordinate administration with U.S. Department of Energy. Develop and manage building retrofit projects. Authorize and review engineering feasibility studies for energy efficiency projects.

*Additional Duties*: Team member for strategic and market planning. Write energy management handbooks. Act as subject area expert in energy accounting and non-public commercial buildings markets.

## 2402 Westernesse Rd. Davis, CA 95616. 530-758-4315hm 530-304-4393cell

POSITION:	Marketing & Outreach Director, Davis Energy Efficiency Project 226 F Street, Davis, CA 95615 530-757-5635, lmerry@cityofdavis.org
EDUCATION:	California State University, M.B.A. in Urban Land Development
EXPERIENCE:	University of California, Los Angeles, B.A. in Philosophy minor in English Verve Enterprises, Consultant-Owner Davis, 6/99-7/02 Projects included: PV Solar Sales and Advocacy; business strategy and promotion; energy assessment for large commercial customer; supporting potential PV owners through the Davis Solar Group.
	California Wild Heritage Campaign, Strategic Consultant, Sacramento, 7/00-11/01 Designed and guided implementation of strategic plan for meeting Campaign goals to preserve wilderness and wild rivers; Wrote successful grant proposals for \$940,000; Created reporting processes and procedures to track measurable results; Led team effort to create Statewide Proposal based on data submitted by hundreds of volunteers; Worked with programmer to design and develop sophisticated database to track and assist campaign progress.
	California Wilderness Coalition, Conference Coordinator, Davis, CA 11/99-6/00 Managed all aspects of California Wilderness Conference. The event exceeded all objectives and set the standard of excellence for similar events throughout the western U.S.; Directed all operations, including: facility, catering, conference registration, educational materials, and promoting the event through earned media.
	California Duck Days, Coordinator, Davis, 3/95-6/99 During my term as Coordinator the event grew from 300 to 1,500 attendees, won several regional awards, and the budget grew from \$15,000 to \$45,000. Coordinated Steering Committee to devise program, fund the budget, and promote the event. Created Business Sponsor program. Recruited, trained, and managed volunteers
	Yolo Basin Foundation, Coordinator, Discover the Flyway Davis, 4/97 – 5/98. Designed and implemented the first environmental education program for the Yolo Basin Wildlife Area. Designed volunteer program, and recruited and trained volunteers. Coordinated production of training manual and teacher training workshops.
VOLUNTEER ACTIVITIES	<ul> <li>Northern California Solar Energy Association: Board of Directors, Secretary. 2003</li> <li>Davis Solar Group: organized local homeowners to purchase and install solar systems as a group. 2001 to present.</li> <li>Davis Energy Task Force: helping to design and establishing solar PV program 2002.</li> <li>Sierra Club California: Board of Directors, Vice Chair 2001 to present.</li> <li>California Duck Days: Board of Directors, Vice Chair. 1999-2001.</li> </ul>

# Laura Creely

### 707 Braddock Court Davis, CA 95616

CURRENT POSITION: Administrative Associate, Davis Energy Efficiency Project 226 F Street, Davis, CA 95616 530-757-5635, lcreely@cityofdavis.org

EDUCATION: Sacramento State University, Sacramento

EXPERIENCE: **The McMullen Company, Inc.**, Davis, CA *Office Manager:* Assist Fire Safety Consultant with daily operations of company. Supervise office staff and work load. Manage finances and client accounts. Coordinate special projects and activities.

### Environmental Standards, Davis, CA

*Administrative Assistant:* Manage daily finances, personnel & benefits, purchasing, contracts, client activities, travel arrangements & reimbursements and library administration. Secretary to three environmental chemists/consultants. Assist with data validation, reporting and billing.

### University of California, Davis, CA

*Administrative Assistant*: Manage daily finances, payroll, personnel, purchasing, travel arrangements & reimbursements. Administer contracts and grants. Liaison between departments, general public, and vendors. Special projects coordinator.

#### **VOLUTEER EXPERIENCE:**

Make A Wish Foundation, Sacramento, CA Wish Team Member

**Davis High School football Backers, Davis, CA** *President* 

Kaepa Volleyball Tournament, Sacramento, CA Invited Intern

**Davis Little League, Davis, CA** Special Events Coordinator, Snack Bar Czar

# Section VIII. Budget

*Provide a summary budget table.* 

Table VIII.B	Summary Budget

Budget Items	Budget	Allocation Rate (%)	Allocation Base (\$)
Administrative			
Managerial and Clerical Labor			
Labor - Clerical	\$12,000		
Labor - Program Development	\$20,000		
Labor - Program/Project Management	\$14,000		
Labor - Staff Management	\$30,000		
Subtotal Managerial and Clerical Labor	\$76,000		
Human Resource Support and Development			
Benefits - Administrative Labor	\$13,858	13.00%	\$ 106,600
Benefits - Direct Implementation Labor	\$16,770	13.00%	\$ 129,000
Benefits - Marketing/Advertising/Outreach Labor	\$34,580	13.00%	\$ 266,000
Payroll Tax - Administrative Labor	\$13,858	13.00%	\$ 106,600
Payroll Tax - Direct Implementation Labor	\$16,770	13.00%	\$ 129,000
Payroll Tax - Marketing/Advertising/Outreach Labor	\$34,580	13.00%	\$ 266,000
Subtotal HR Support and Development	\$130,416		
Travel and Conference Fees			
Travel - Mileage	\$8,700		
Conference Fees	\$1,125		
Subcontractor - Travel - Lodging	\$770		
Subcontractor - Travel - Meals	\$2,650		
Subtotal Travel and Conference Fees	\$13,245		
Overhead (General and Administrative) - Labor and Materials			
Labor - Administrative	\$12,000		
Labor - Corporate Services	\$20,000		
Subcontractor Labor - Information Technology	\$20,000		
Labor - Regulatory Reporting	\$42,600		
Facilities - Lease/Rent Payment	\$32,000		

Budget Items, continued	Budget	Allocation Rate (%)	Allocation Base (\$)
Equipment - Communications	\$21,000		
Equipment - Computing	\$18,000		
Subtotal Overhead	\$165,600		
Total Administrative Costs	\$385,261		
Marketing/Advertising/Outreach			
Labor - Business Outreach	\$65,000		
Labor - Customer Outreach	\$130,000		
Labor - Marketing	\$71,000		
Advertisements / Media Promotions	\$39,200		
Bill Inserts	\$90,500		
Brochures	\$16,000		
Print Advertisements	\$40,000		
Radio Spots	\$22,500		
Television Spots	\$22,500		
Total Marketing/Advertising/Outreach	\$496,700		
Direct Implementation			
Financial Incentives to Customers			
Financial Incentives	N/A – Information-	Only program	1
Activity - Labor			
Labor - Customer Education and Training	\$95,000		
Labor - Curriculum Development	\$34,000		
Subcontractor Labor - Curriculum	\$20,000		
Development			
Subtotal Activity	\$149,000		
Installation and Service - Labor			
Installation and Service	N/A – Information-	Only progran	1
Hardware and Materials - Installation and Other DI Activity			
Subcontractor - Education Materials	\$20,000		
Subtotal Hardware and Materials	\$20,000		
<b>Rebate Processing and Inspection - Labor and Materials</b>			
Subtotal Rebate Processing and Inspection	\$0		
Total Direct Implementation	\$169,000		

Budget Items, continued	Budget	Allocation Rate (%)	Allocation Base (\$)
Evaluation, Measurement and Verification		, <i>,</i>	
EM&V Labor and Materials			
Labor - EM&V	\$12,100		
Subcontractor Labor - EM&V	\$45,000		
Subtotal EM&V Activity - Labor	\$57,100		
EM&V Overhead			
Benefits - EM&V Labor	\$1,573	13.00%	\$ 12,100
Payroll Tax - EM&V Labor	\$1,573	13.00%	\$ 12,100
Subcontractor Benefits - EM&V Labor	\$7,650	17.00%	\$ 45,000
Subcontractor Payroll Tax - EM&V Labor	\$6,300	14.00%	\$ 45,000
Subcontractor Overhead - EM&V	\$9,000	20.00%	\$ 45,000
Subtotal EM&V Overhead	\$26,096		
Total EM&V	\$83,196		
Other	No other costs included in this budget.		udget.
Total Budget	\$1,134,157		

*If a program has a significant proportion of the budget devoted to an information program element (as described in D.03-08-067), estimate that proportion of the budget and provide a description.* 

This program is a local Information-Only program serving Yolo County. (A companion proposal – YEEP-1 – provides hardware and incentives to Yolo County in parallel with this proposal.) The entire budget of this proposal – YEEP-2 -- is devoted to information, outreach, advertising and the implementation of three incubator projects described in Section IV.D, Program Activities.

Discuss each budget line item detail that may need additional description/clarification

Budget Item	Budget	Explanation
Administrative		
Managerial and Clerical Labor		
Labor - Clerical	\$12,000	VEEC clerical labor for program administration
Labor - Program Development	\$20,000	VEEC labor: development of program concepts, creating delivery methods, and developing strategic approach
Labor - Program/Project Management	\$14,000	VEEC labor: includes supervision of interns, plus all aspects of VEEC internal program management
Labor - Staff Management	\$30,000	City of Davis labor (PM & DPW) \$60,000 total split between two programs; 30,000 each to YEEP-1 and YEEP 2
Subtotal Managerial and Clerical Labor	\$76,000	

Table VIII.C: YEEP-2 Budget Line Item Explanations

Budget Item	Budget	Explanation
Human Resource Support and	8	-
Development		
Benefits - Administrative Labor	\$13,858	allocated at 13% of labor
Benefits - Direct Implementation	\$16,770	allocated at 13% of labor
Labor		
Benefits -	\$34,580	allocated at 13% of labor
Marketing/Advertising/Outreach		
Labor		
Payroll Tax - Administrative Labor	\$13,858	allocated at 13% of labor
Payroll Tax - Direct	\$16,770	allocated at 13% of labor
Implementation Labor		
Payroll Tax -	\$34,580	allocated at 13% of labor
Marketing/Advertising/Outreach		
Labor		
Subtotal HR Support and	\$130,416	
Development		
Travel and Conference Fees		
Travel - Mileage	\$8,700	120 events @ 60 Miles * 2 cars job
		@\$0.36/mile=\$5184) + (Carpool to Canvass $@$
		2,000  total + (conference miles @ 310*2*.36) + (0.000  total + 0.000  total + 0.0000  total + 0.0000  total + 0.0000  total + 0.0000  total + 0.00000  total + 0.0000000000000000000000000000000000
	<i>*1 1 • •</i>	(presentation*50*70*.36)=\$8,700
Conference Fees	\$1,125	ACEEE - three attendees, split between YEEP-1
	<b>\$770</b>	and YEEP-2
Subcontractor - Travel - Lodging	\$770	<b>e</b> 0 ,
		meetings, meeting to coordinate with other
Subcontractor Travel Meete	\$2 (50	implementers
Subcontractor - Travel - Meals	\$2,650	7 days @ \$36 per diem+200 road lunches @ \$12 = 2650
Subtotal Travel & Conference	\$13,245	- 2050
Fees	<i>\$</i> 1 <i>3</i> ,24 <i>3</i>	
Overhead (General		
&Administrative) - Labor &		
Materials		
Labor - Administrative	\$12,000	general administration
Labor - Corporate Services	\$20,000	includes legal support (\$15,000-COD),
	<i>420,000</i>	accounting support (\$4,000-VEEC), and labor
		(\$6,000-VEEC) to support VEEC Board direction
		of staff in all YEEP-1 activity (equal amount
		budgetd in YEEP-2)
Subcontractor Labor - Information	\$20,000	for computer support, plus upgrading Lights lite
Technology	,	software and reporting software, total 40,000 split
		20:20 for YEEP-1:2

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Budget Item	Budget	Explanation
Labor - Regulatory Reporting	\$42,600	labor to provide reports, workbooks, and revisions
Facilities - Lease/Rent Payment	\$32,000	includes lease/rent, janitorial, plus water, electric & gas utilities
Equipment - Communications	\$21,000	(YEEP total is 5 lines for \$2,000 for 24 months = 48,000) plus (4 cell @ 50/phone/month for 21 months =\$4,200); plus 10,000 set up, =\$62,200 total split 50% each
Equipment - Computing	\$18,000	\$36,000 split 50:50 with YEEP 2
Subtotal Overhead	\$165,600	
Total Administrative Costs	\$385,261	
Marketing/Advertising/Outreach		
Labor - Business Outreach	\$65,000	includes labor on outreach materials and delivery to commercial sector (labor for events, presentations,etc.)
Labor - Customer Outreach	\$130,000	includes VEEC interns/staff split for all customer outreach, ntoe that YEEP -1 includes budget for outreach solely connected to EEMs
Labor - Marketing	\$71,000	includes all labor for advertising, mailings, program materials of various kinds, relations with advertisers, procuring materials, etc
Advertisements / Media Promo	\$39,200	
Bill Inserts	\$90,500	includes all direct mail and city publication content mailed directly to households and businesses
Brochures	\$16,000	Includes fact sheets, tip sheets, all printed materials for presentaions
Print Advertisements	\$40,000	includes paid ads in local newspapers - six publications at 8 times per month for 12 months
Radio Spots	\$22,500	includes underwriting for two sets of two weeks each; paid ads on AM radio for one month
Television Spots	\$22,500	includes two commercials to run countywide two times for four weeks each
Total Marketing/Advertising/Outreach	\$496,700	
Direct Implementation		
Financial Incentives to Customers		
Financial Incentives	N/A - Inform	ation only program

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Budget Item	Budget	Explanation
Activity - Labor	0	
Labor - Customer Education and Training	\$95,000	This labor category covers labor devoted to educational outreach activities including canvass, tabling, presentations and training sessions associated with Natural Cooling
Labor - Curriculum Development	\$34,000	labor developing educational message for Natural Cooling supply chain, and messages for outreach
Subcontractor Labor - Curriculum Development	\$20,000	Contract with Steve Hall for analysis and multi- family project recruitment, plus all report writing
Subtotal Activity	\$149,000	
Installation and Service - Labor		
Installation and Service	N/A - Inform	ation only program
Hardware and Materials - Installation and Other DI Activity		
Subcontractor - Education Materials	\$20,000	Not a contract: Fee for service to RHA to develop & present evap cooler education sessions.
Subtotal Hardware and Materials	\$20,000	
Subtotal Rebate Processing and Inspection	N/A	
Total Direct Implementation	\$169,000	
Evaluation, Measurement and Verification		
EM&V Labor and Materials		
Labor - EM&V	\$12,100	labor by VEEC staff to manage and assist EM&V contractor
Subcontractor Labor - EM&V	\$45,000	
Subtotal EM&V Activity - Labor	\$57,100	
EM&V Overhead		
Benefits - EM&V Labor	\$1,573	
Payroll Tax - EM&V Labor	\$1,573	
Subcontractor Benefits - EM&V Labor	\$7,650	
Subcontractor Payroll Tax - EM&V Labor	\$6,300	
Subcontractor Overhead - EM&V	\$9,000	total sub labor payroll and benes for EM&V:
Subtotal EM&V Overhead	\$26,096	
Total EM&V	\$83,196	
Other	No other cos	sts associated with this proposal
Total Budget	\$1,134,157	

## **END OF YEEP-2 PROPOSAL**