Energy Research and Development Division
FINAL PROJECT REPORT

COMMERCIALIZING ZERO ENERGY NEW HOME COMMUNITIES

Appendices

Prepared for: California Energy Commission
Prepared by: SunPower Corporation

MARCH 2010
CEC-500-2014-007-AP

SUNPOWER

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ACKNOWLEDGEMENTS

The results of this project could not have been accomplished without the leadership, support and dedication of many individuals throughout the solar, energy efficiency and homebuilding industries. The authors would like to recognize the efforts and contributions from the following companies and their management:

- SunPower Corporation
- Davis Energy Group
- Grupe Homes
- Lennar
- Meritage Homes
- Visionary Homes
- Hugh Campbell Productions
- Chadbourne & Parke, LLP

Please cite this report as follows:

Kelly, Bill; Brost, Matt, et al. 2009. Commercializing Zero Energy New Homes. California Energy Commission, PIER Renewable Energy Technologies Program. CEC-500-04-022.

PREFACE

The California Energy Commission Energy Research and Development Division supports public interest energy research and development that will help improve the quality of life in California by bringing environmentally safe, affordable, and reliable energy services and products to the marketplace.

The Energy Research and Development Division conducts public interest research, development, and demonstration (RD&D) projects to benefit California.

The Energy Research and Development Division strives to conduct the most promising public interest energy research by partnering with RD&D entities, including individuals, businesses, utilities, and public or private research institutions.

Energy Research and Development Division funding efforts are focused on the following RD&D program areas:

- Buildings End-Use Energy Efficiency
- Energy Innovations Small Grants
- Energy-Related Environmental Research
- Energy Systems Integration
- Environmentally Preferred Advanced Generation
- Industrial/Agricultural/Water End-Use Energy Efficiency
- Renewable Energy Technologies
- Transportation

Commercializing Zero Energy New Home Communities is the final report for the Commercializing Zero Energy New Home Communities project (contract number 500-04-022) conducted by SunPower Corporation. The information from this project contributes to Energy Research and Development Division's Buildings End-Use Energy Efficiency Program.

For more information about the Energy Research and Development Division, please visit the Energy Commission's website at www.energy.ca.gov/research/ or contact the Energy Commission at 916-327-1551.

ABSTRACT

New home developers have historically resisted installing photovoltaic systems because of high initial cost, aesthetics and disruption to their production schedule. This occurred because photovoltaics and energy efficiency have been considered in isolation. Optimized integrated solutions can reduce house electric loads to the point where right-sized photovoltaic systems can reduce net peak summer electric loads to near zero for zero energy new homes at an economically viable cost. These barriers have not yet been addressed by the market due to the investment needed to develop and demonstrate the cost benefits and the need for innovative marketing, sales and financing approaches.

This report highlighted the outcomes of the zero energy new homes project and how it provided innovative and cost-effective combinations of building energy efficiency and photovoltaic strategies in new housing developments, helping reduce homeowner cost, energy use and summer peak electricity demand in California. The project integrated new business model approaches with demonstrations of innovative zero energy new home designs and products to overcome cost and implementation barriers. This project helped to make zero energy new homes a mainstream part of California new home construction market.

SunPower Corporation used the results of this project to employ a turn-key systems approach to all of its homebuilders, combining proven energy efficiency and building integrated photovoltaic systems with innovative sales programs to develop a robust zero energy new homes industry in California.

This project supported California's goal to optimize energy conservation and resource efficiency as outlined in the California Energy Action Plan of 2003. It also added a project to the Energy Commission's research portfolio that provided for the future market utilization of projects funded through the program as mandated by the Warren-Alquist Act.

Keywords: Zero Energy New Homes, ZENH, solar, new home construction, PV, building integrated PV, BIPV, homebuilding, solar community, renewable energy, energy efficiency

Please use the following citation for this report:

Galland, Matt; Bill Kelly. (SunPower Corporation). 2010. ***Commercializing Zero Energy New Home Communities.*** California Energy Commission. Publication number: CEC-500-2014-007-AP.

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Appendix A: Example Customer Collateral

"Guide to my ZENH" for homebuyers

New solar homebuyers are presented with the following information on their system, utility information, monitoring, warranty, and customer service in a handout from their builder.

Getting Started

SunPower is committed to a personalized customer service experience for SunPower solar new homeowners. SunPower provides all homeowners with an email address, phone number, fax number, and an online portal with an online submission form.

CONTACT SUNPOWER

For assistance with any aspect of your system, please contact SunPower New Homes Customer Service:

e-mail: residentialservice@sunpowercorp.com

phone: 877.34.HOMES
(877.344.6637)

fax: 510.540.0552

Monday – Friday
8:00 A.M. – 5:00 P.M. PST

1. Complete Utility Interconnection Agreement

Some utilities require homeowners to sign interconnection agreements at escrow or during homeowner orientation.

Please check with your builder sales representative to see if you are required to sign an interconnection agreement. If so, complete the interconnection agreement and send two copies to your local utility at the address listed in the agreement. PG&E customers are **not** required to sign interconnection agreements.

! An interconnection agreement allows homeowners to credit surplus electricity with their utility. Failure to complete this form could result in disconnection of the solar electric system.

2. Choose Billing Preferences

In most communities, utility customers can choose either flat or time-of-use electrical rates. Customers are billed flat rates by default, but since solar homes produce most of their electricity during midday and the afternoon, when electricity rates are highest, time-of-use rates will make the most financial sense for some homeowners. Households that consume large amounts of electricity during the day, such as homes with children who are home during the day, are better suited for flat rates. Households that use most of their electricity at night will benefit from time-

of-use rates. Please contact your utility for more information about switching between rate structures.

Many solar customers can also choose either monthly or yearly billing cycles. With monthly billing, the utility charges its customers for net electricity consumption at the end of each month. Yearly cycles combine all production credits and consumption charges from the billing year into one bill. To avoid an unexpectedly large electricity bill at the end of the billing year, SunPower suggests moving to monthly billing if possible. Even with yearly billing, a utility might require customers to pay their service fee on a monthly basis. Please contact your local utility for more information about billing cycles.

3. Save Money

Federal Tax Credit

Your home may qualify for a one-time federal tax credit. Please see the Federal Tax Credit section for more information.

State Rebate

A renewable energy rebate from the California Energy Commission has been applied to the purchase price of your SunPower system. You **cannot** reapply for this rebate because the savings have already been incorporated into the system price.

4. Register for SunPower Performance Monitoring

For full service and support of your SunPower system, please register online at **sunpowermonitor.com**.

! Please note that SunPower Performance Monitoring requires a high-speed, Internet-connected computer network. Electricity data will be incomplete if the inverter does not connect to the Internet regularly. If the SunPower solar cable, often located in your home's networking closet, is not connected within a month of system activation, initial electricity figures will be lost.

5. Understand your Electric Bill

In most utility areas, you will continue to receive a standard electric bill. This will show the charges for electricity you have used beyond what your SunPower system has generated. If your home generates more electricity than it uses during the month, the bill will show a negative balance that will carry into the next month. If your home is in PG&E service area, you will notice a change in the monthly bill. You will now receive two separate documents each month:

A standard PG&E "blue" bill – this will show the electrical "fees" that all customers who are connected to the grid must pay, typically around $5 regardless of energy use. This bill will also show complete gas use charges.

A monthly "statement" of charges or credits - this is the total amount of electricity you have bought or "sold" in the previous month. These monthly charges/credits will accumulate through the year until the one year anniversary of opening the account, the "true up." At that time, the accumulated total of monthly charges/credits will be billed to you on the standard

"blue" bill. If you do not want to accumulate a large yearly bill, you can simply add the monthly statement amount to your standard "blue" payment.

For more information on PG&E billing, please contact PG&E directly at gen@pge.com or call 415-972-5676.

Welcome

Congratulations on your new solar home. By purchasing a home with a SunPower solar electric system, you have joined a group of influential homeowners who are leading the way to cleaner air, national energy independence, and lower-cost electricity.

Solar, energy efficient homes are unique in many regards. In the first year of owning your home, you will be eligible for a substantial federal tax credit. For every month of every year thereafter, you will notice significantly reduced electric bills compared to similar homes without solar.

As you save on monthly bills, your SunPower system will help to reduce air pollution and increase domestic energy resources. Solar directly offsets peak electricity from gas and oil-fired power plants.

When the sun is shining – even on cloudy days – you are saving money and effortlessly doing your part for the environment. Rain, as we like to say, only helps to clean the system. Every day is a good day for solar.

Please do not hesitate to contact us should you have any questions about your system. We are excited to have you among the growing ranks of solar homeowners.

Bill Kelly

General Manager, New Homes Division

How It Works

Looking Sunward: SunPower panels and inverter

The SunPower Solar Electric System turns on automatically in the morning and turns off automatically at night. From sunrise to sunset, the system converts sunlight into electricity. Solar cells within the panels produce direct current (DC) electricity that flows to an inverter located on the inside wall of your garage. The inverter converts DC electricity into alternating current (AC), which is required for residential use, and instantly delivers the converted electricity to your home's electric service panel. The solar electricity delivered to the panel displaces electricity from your local utility.

Spinning Backward: The electric meter

Your electric service panel first uses the solar electricity to supply all of the power required by your home. But if your SunPower system generates more energy than your home consumes, the surplus electricity travels through the meter and into the local power grid. Your electric meter spins backward and your monthly bill decreases.

Over the course of the month, if your SunPower system produces more electricity than your home consumes, your electric bill will be credited for the surplus electricity. Homeowners will be credited at the same rate as if they had purchased the electricity from their local utility.

Going Forward: Performance monitoring

The inverter sends system data to SunPower. Homeowners can monitor their systems online at **sunpowermonitor.com**.

Operating Instructions

Solar Panels & SunTile®

Solar panels convert sunlight into electricity.

SunPower Solar Panels and SunTile® (collectively, "panels") are essentially maintenance free; however, SunPower recommends taking the following precautions:

Shading

SunPower panels should be kept free from shade caused by trees, plants, or other obstructions. Check for vegetation that could be shading the panels during daylight hours. Trim the vegetation if necessary.

Cleaning

Under most circumstances, panels will never need cleaning. Seasonal rains should be adequate for clearing most soiling. If severe soiling occurs, homeowners can clean their panels by spraying them from the ground with a standard garden hose. SunPower strongly recommends that homeowners only clean panels in the early morning or late evening rather than when the sun is at its peak or when the panels are warm.

General Safety Precautions

Do not clean the panels during the middle of the day. To avoid panel damage, allow the panels to cool before cleaning.

Do not use abrasive cleaners or anything that could scratch the surface of the panels.

Do not attempt to access the roof for panel cleaning or inspection.

! WARNING: Spraying cold water on a hot panel could result in panel damage and void your warranty.

Inverter

An inverter converts DC power into AC power for home use.

Reading the Inverter

During daylight hours, the inverter displays system production data. At night, the inverter reports that it is offline. This is part of the inverter's normal operation. The inverter displays instant solar electricity production

in watts (labeled “System”) and total daily energy production in kilowatt-hours (labeled “Today”). For the example data shown above, a “System” production rate of 1000 W that is sustained for one hour would result in an extra 1000 watt-hours (or 1 kilowatt-hour) of energy production. This would raise the total daily electricity production from 7.000 kWh to 8.000 kWh.

Inverter Heat

During the day, the inverter will become warm to the touch. This is part of the inverter’s normal operation.

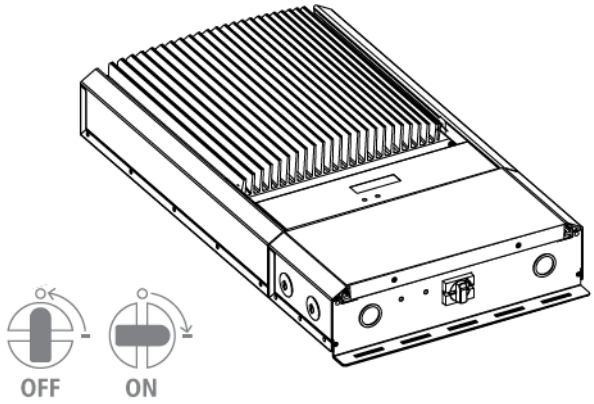
“Inverter-Offline”

At night, the inverter will display that it is offline. This is part of the inverter’s normal operation.

Power Outages

The inverter is designed to shut down in the event of a blackout. This feature protects utility workers who might be working to restore power to the area. The SunPower system will not be able to produce electricity during blackouts.

When utility power resumes, the inverter will automatically re-connect to the utility and begin normal operation. There will be a momentary delay as the inverter synchronizes with utility power before returning to normal operation.



The power switch is located on the bottom of the inverter.

Emergencies

Should you experience a fire, explosion, gas leak, severe damage to the SunPower system, or fuel spill around the system components, shut down the system immediately by turning the switch at the bottom of the inverter to the OFF position as shown in the above diagram.

Use your best judgment when shutting off the inverter during an emergency. If the emergency requires that you seek safety immediately, do so and then alert emergency personnel to the inverter’s location in your home. Please contact SunPower for assistance in restarting your system after an emergency.

General Safety Precautions

Do not cover or inhibit airflow around the inverter. Doing so will prevent the inverter from adequately cooling.

Do not attempt to open your inverter. Inverters should only be serviced by a SunPower-authorized professional.

Federal Tax Credit

Under the Federal Energy Policy Act of 2005, homeowners with solar electric systems may qualify for a one-time personal tax credit. The exact amount depends on the system's initial cost. For the initial cost of your SunPower system, please contact your builder sales representative. In most cases, solar home buyers in tax years 2006, 2007, and 2008 will qualify for the one-time tax credit. Only the home's original purchaser qualifies for the tax credit.

To file for your federal tax credit:

1. Obtain the latest copy of IRS Form 5695. Visit sunpowermonitor.com for the latest version.

2. Check with your financial advisor. Ask about the applicability of this credit to your particular financial situation.

This information is offered for initial guidance only. Tax laws are subject to change. SunPower is not a tax advisor. Homeowners should consult with their tax consultant, referencing the Federal Energy Policy Act of 2005, Section 1335, prior to submitting claims. Credit may be subject to AMT.

Frequently Asked Questions

BASICS

How do I turn the SunPower system on?

The system turns on and off automatically every day.

How do I know if my system is working properly?

Check for a green light on your inverter during daylight hours, or check the SunPower Performance Monitoring Website at sunpowermonitor.com.

What maintenance is required?

No maintenance is required. The system turns on automatically in the morning and turns off automatically at night.

Will my system work at night?

At night, your home draws electricity from the local utility and the inverter displays that it is offline. Sunlight must be present for the system to generate electricity.

Will my system work on cloudy days?

Yes, though it will produce less electricity depending upon the thickness of the cloud cover.

Will my system work during blackouts?

Since there is a chance that the SunPower system could feed electricity into the electric grid, safety requirements prohibit the system from producing electricity during blackouts. The system will restart automatically when power is restored.

Can I increase the size of my system? Why isn't the system larger?

Homeowners cannot increase their system size. Your system has been optimized for your inverter, roof layout, and home. It is designed to be cost effective, offsetting your home's most expensive electricity consumption.

How long will my SunPower system last?

Because they have no moving parts and are made of inert materials, SunPower SunTile and Solar Panels are inherently durable. Their cells are backed by a 25-year power output warranty, and the related system components are designed to last for many years without incident.

Are solar electric systems good for the environment?

Energy created through the SunPower system produces no pollutants. By offsetting peak electricity demand, SunPower systems reduce the need for coal-fired power plants. Over a thirty-year period, a 2.3 kWp system typically offsets the same amount of greenhouse gases as 30 acres of trees.* **source: EPA EGRID2000 database*

SOLAR TECHNOLOGY

What are solar cells and solar panels?

A solar, or photovoltaic (PV), cell is the smallest element of a system that converts sunlight into electricity. Each cell is made of silicon, which is the same material found in computer chips. Silicon in photovoltaic cells is treated so that it generates a flow of electricity whenever it is exposed to light. A series of solar cells are wired together to form solar panels.

Are solar cells new technology?

Modern solar cells were invented in the early 1950s and were used to power satellites. In the 1970s, they were used for remote telecommunications and navigational aids. In the 1980s, they were used for roadside emergency telephones and traffic signs. Now in the 21st century, they help power your home.

Are solar electric systems safe?

Yes. Solar cells are mostly silicon, the primary component of sand. Solar electric systems produce no exhaust and no toxic materials. The electricity coming through the inverter is just like the electricity coming from household wall sockets. Homeowners should use the same care they would with any electricity. All components are approved for utility interconnection and are installed according to the best construction practices.

ELECTRICITY

Can I generate heat for my home with a residential solar electric system?

Not usually. Solar electric systems are designed to provide electricity to operate lights, appliances and other electric devices in your home, which may include electric heating systems.

Does my SunPower system make hot water?

No. SunPower Solar Panels and SunTile convert sunlight directly into electricity to operate appliances, light fixtures, televisions, and other electronic devices.

What is a kilowatt-hour (kWh)? How many kWh does my home consume?

A kilowatt-hour is a measure of electricity. It is the amount of power (kilowatts) used over a period of time (hours). A 60-watt light bulb that is illuminated for one hour uses 60 watt-hours of electricity, or .060 kilowatt-hours. If it is illuminated for a half-hour, the bulb will consume .030 kWh of electricity, or half as much. The average home consumes about 20 kilowatt-hours of electricity per day, or 600 kWh per month. Depending on size, time of year, and weather, SunPower systems produce from 1 kWh to more than 10 kWh per day.

THE LOCAL UTILITY AND INTERCONNECTION

Why does my electric bill look different?

Some utility customers will notice changes in their monthly bill. Please see the Getting Started section in this manual for information on understanding your bill.

Can my system produce enough energy to meet all of my electricity needs?

Not usually, but solar electric systems do not need to provide all of a home's electricity to be of significant value to homeowners. Cutting electricity usage by 40 to 50 percent is typically the most cost-effective approach for home solar power.

Can I be completely independent from the utility? Can I store my electricity?

No, though homeowners can purchase a backup storage system, which SunPower neither provides nor sells. The SunPower system credits any surplus electricity with the utility at market rates. The utility essentially acts as your storage system.

How do I sell my surplus electricity back to the utility?

At certain hours and on certain days, homes with solar electric systems will often produce more electricity than they consume. Through a "net metering" arrangement with the local utility, your surplus electricity is credited against your bill.

What is an interconnection agreement?

An interconnection agreement is a contract between the homeowner and the local utility that allows the homeowner to connect their solar electric system to the electric grid and receive credit for their surplus electricity. Some utilities, including PG&E, do not require agreements for new home buyers.

What is "net metering?"

Net metering is a way of measuring the difference between the electricity you buy from your utility and the electricity your home produces. Under net metering, any surplus electricity produced by the SunPower system is delivered back to the electric grid, effectively spinning your meter backward. When the system produces more electricity than your home consumes,

the utility will credit your account for the surplus electricity generated – at the same rates that you would be charged to purchase the electricity!

What else can I do to reduce my energy costs?

Homeowners can increase their savings by making wise energy decisions. This includes turning off lights and appliances when not in use and selecting Energy Star appliances, including refrigerators, dishwashers, washing machines, and dryers.

Customer Service

Our Commitment

SunPower is committed to ensuring that your SunPower system is fully operational. For questions regarding system use and operation, please first read the Operating Instructions section. Additional information is available online at **sunpowermonitor.com**.

Repairs

Your SunPower system has built-in safety features and is fully automatic. Do not attempt to work on, alter, or repair the system; doing so could expose you to dangerous electrical currents and void the warranty. The system should only be serviced and maintained by a SunPower authorized professional.

General Safety Precautions

Do not attempt to service any portion of the system. Only a trained and authorized professional should service the system.

Do not allow objects to fall on and do not step on the panels.

Do not disassemble or remove any part of the system. This will void manufacturer warranties.

Do not use mirrors or any other objects to concentrate sunlight on panels. Doing so will void your warranty.

System Warranty

SunPower Limited System Warranty

For a period of ten (10) years from the original date of "Utility Approval to Operate," SunPower Corporation, Systems ("SunPower") warrants that the photovoltaic system installed on the homeowner's property (the "System") will, under normal operating conditions, be free from defects in workmanship, system or component breakdown. To the extent allowed for by the applicable law of the jurisdiction in which the System is installed, this warranty shall not include any warranty statements provided by Other Manufacturers (as defined below). Subject to the foregoing, SunPower will, at its option, either repair or replace defective parts covered by

this warranty. Unless this warranty is extended by a written agreement or warranties of Other Manufacturers apply, the homeowner shall pay for any repair costs, including costs associated with electrical output claims, incurred by SunPower after the initial ten-year warranty period expires.

Limited Power Warranty

For a period of twenty five (25) years from the original date of "Utility Approval to Operate," SunPower warrants that the System will, under normal operating conditions, be free from degradation in electrical output of more than twenty percent from its originally rated electrical output.

General Terms

This warranty extends to the original homeowner and to any subsequent homeowners at the same location during the warranty period. The warranty shall commence from the original date of 'Utility Approval to Operate'.

Manufacturer Warranties

SunPower assigns the homeowner the applicable pass-through warranties from SunPower's manufacturers, including those that manufacture the photovoltaic modules and inverters ("Other Manufacturers"). The terms and conditions of warranties for the Other Manufacturers shall be made available on request. SunPower makes no representation or warranty, and the homeowner shall seek no recourse from SunPower, regarding the warranties of Other Manufacturers.

Exclusions

This warranty shall be void in the event of any of the following:

(a) alterations or repairs made to the roof, the System's supporting structure, or any part of the System or associated wiring and parts without SunPower's written approval;

(b) structural defects with the building, or the building structure is found incapable of supporting the design loads to the roof;

(c) damage, malfunction, or degradation of electrical output caused by failure to properly operate or maintain the System in accordance with the printed instructions provided with the System;

(d) failure of the System to perform caused by legislative, administrative, or executive regulation, or by order or requisition of the federal government, local utility, or public utilities commission, or by any state or municipal government official;

(e) damage, malfunction, or degradation of electrical output resulting from homeowner or third-party abuse, accident, alteration, improper use, negligence, or vandalism;

(f) Force Majeure events, including without limit, any act or event (not caused by warrantor) which is unforeseeable, or being foreseeable, unavoidable and outside the control of the warrantor, including, without limit, acts of God or acts of governmental/ regulatory authority resulting in System non-performance;

(g) a change in usage of the building, which may affect building or site permits and related requirements, without the written approval of SunPower.

Disclaimer

Unless expressly provided in writing, SunPower expressly disclaims any and all warranties of any kind, express, implied, or statutory, including without limitation any implied warranties of merchantability and/or fitness for a particular purpose. To the fullest extent allowable by law, neither this agreement nor any document furnished under it, unless explicitly stated, is intended to express or imply any warranty or guarantee with regard to the performance of the System, including but not limited to (i.) electricity output, (ii.) reduction in energy costs or environmental savings, (iii.) financial savings or return on investment.

Obtaining Warranty Service

For service, please contact the technical support representative listed in the Customer Service section.

Appendix B: Builder Training Schedule

Partial list of SunPower ZENH training sessions held for commercial homebuilders.

TRAINING DATE	BUILDER	REGION
Sales Agents		
October 2007	Grupe	Sacramento
July 2007	Centex	Bay Area
November 2007	Centex	Central Valley
Jul, Aug, Sep 2007	Homes by Towne	Sacramento
Apr-May, Aug-Sep 2007	Hugh Futrell	Bay Area
October 2007	K-Street East	Southern California
Oct – Nov 2007	Lennar	Bay Area
May, Aug-Sep 2007	Lennar	Sacramento
Jul – Aug, Nov 2007	Lennar	Central Valley
Jun-Jul 2007	Meritage Homes	Bay Area
June 2007	Pardee Homes	Sacramento
July 2007	Olson Company	Southern California
Sep 2007	Shastan Homes	Sacramento
Aug 2007	Standard Pacific	Sacramento
Jul-Aug, Oct 2007	Tim Lewis	Sacramento
November 2007	JKB	Central Valley
November 2007	DR Horton	Sacramento
November 2007	Woodside Homes	Central Valley
November 2007	Woodside Homes	Sacramento
Customer Care Agents – Customer Walkthroughs and Service		
Jul, Aug, Sep 2007	Homes by Towne	Sacramento
December 2007	Lennar	Bay Area
October 2007	Lennar	Central Valley
Aug-Sep 2007	Lennar	Sacramento
June 2007	Meritage Homes	Bay Area
August 2007	Standard Pacific	Sacramento

TRAINING DATE	BUILDER	REGION
October 2007	Tim Lewis	Sacramento
November 2007	Centex	Central Valley
November 2007	JKB	Central Valley
November 2007	DR Horton	Sacramento
November 2007	Woodside Homes	Central Valley
November 2007	Woodside Homes	Sacramento
Construction Staff		
July 2007	Centex	Bay Area
July 2007	Homes by Towne	Sacramento
Aug-Sep 2007	Hugh Futrell	Bay Area
October 2007	Lennar	Central Valley
May & Aug 2007	Lennar	Sacramento
Aug 2007	Standard Pacific	Sacramento
November 2007	Centex	Central Valley
November 2007	JKB	Central Valley
November 2007	DR Horton	Sacramento
November 2007	Woodside Homes	Central Valley
November 2007	Woodside Homes	Sacramento
Other Builder Staff (Management, Finance, Design, Purchasing, etc.)		
July 2007	Centex	Bay Area
October 2007	Grupe	Sacramento
July 2007	Homes by Towne	Sacramento
October 2007	K-Street East	Southern California
NA	Lennar	Bay Area
May & Aug 2007	Lennar	Sacramento
July 2007	Lennar	Central Valley
June 2007	Meritage	Bay Area
Sep 2007	Shastan Homes	Sacramento
Jun-Aug 2007	Standard Pacific	Sacramento

TRAINING DATE	BUILDER	REGION
October 2007	Tim Lewis	Sacramento
November 2007	JKB	Central Valley

Appendix C: 2008 Homeowner Satisfaction Survey

SUNPOWER

Homeowner Solar Survey

In December 2007 SunPower conducted a survey of buyers that had bought homes with our solar systems. We got some great feedback from these customers. We wanted to take this opportunity to share these results with you, as well as some of the initiatives we have undertaken as a result of this survey.

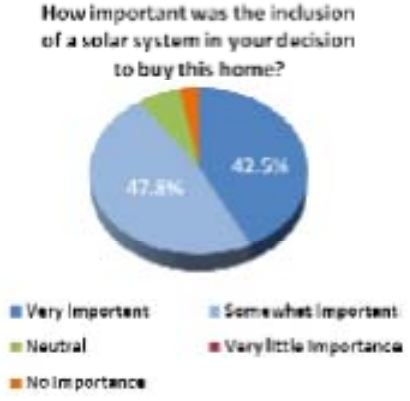
Homeowners we very enthusiastic in replying –**58%** response rate for the 230 surveys we sent. The respondents were a good representation of the homes that we have installed across California in the past two years.

"We would not have purchased the larger home had it not been for the solar savings"
– Sacramento Homeowner

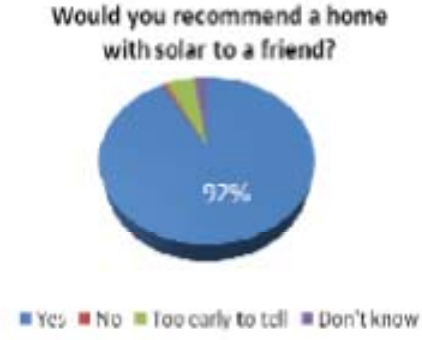
"We have already recommended [solar] to many of our friends."
– Pleasanton Homeowner

Great response to solar!

The survey results showed a great response from SunPower solar home buyers. Over 90% of buyers identified the solar system as an important factor in purchasing their home. 92% would recommend a solar home to a friend.



"We have looked at other homes, even really liked the floor plans, but without solar, it was out of the question."
– Live Oak Homeowner



Buyers were asked to identify the top three reasons for purchasing a home from a list of 20

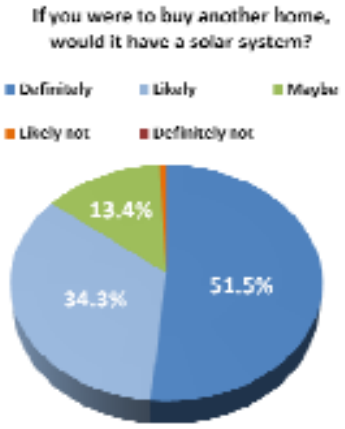
Top 3 Reasons for buying home...	
Desirability of area	39%
Quality of neighborhood/ community	36%
Solar System	35%
Overall home value	33%
Quality of schools	31%
Energy Efficiency features	27%
Discount or other price incentive	18%
Investment potential	16%
Reputation of builder	13%

Survey Results - Page 1

SUNPOWER

Commitment to solar homes

Solar Homebuyers expressed a very high commitment to future homes that will have solar, with 85% likely or definitely buying a solar home in the future



"My next door neighbors' electric bill is $1000 per month. My bill is $24.00 to $386.00 and we have 1200 more sq. feet! She is wishing she had it."
– San Diego Homeowner

"We love living in a 'green' community."
– San Ramon Homeowner

Important feedback

The survey respondents provided a very good sample of the projects that we have installed, both regionally and in terms of the age of the system.

While buyers were overwhelmingly enthusiastic about the solar on their homes, we were pleased that many took the time to let us know about features and improvements we could make going forward. SunPower is committed to continuous improvement is the services and products we offer. We have already begun to undertake some of the suggestions presented here

Homeowner suggestions for Improvement	SunPower Initiative
Possibility of increasing the size of the system as an additional feature	SunPower is evaluating the possibility of such a program
Additional information about the system when buyers move in	We are launching online education tools early in 2008, and continuing to support our 'move-in' program
Billing and account set up from the local electric utility is not clear	SunPower is continuing to work with our utility customers, and this survey feedback is great to pass on to them

Survey Results - Page 2

Appendix D: BusinessWeek News Report

BusinessWeek

ENERGY October 23, 2008, 5:00PM EST

Will Demand for Solar Homes Pick Up?

Builders find the savings from cheap power is making solar homes more attractive

By Adam Aston

As global financial markets melted down in October, Congress handed a gift to America's green energy industry: It renewed and broadened a set of tax credits for wind and solar power, geothermal, tidal energy, and more. The move did little to prop up eco-energy stocks, which have followed oil prices down. But the news did send a positive jolt to one of the economy's darkest sectors: homebuilding. Or, more specifically, solar-powered homes. Consumers recognize that green homes "save money month in, month out," says Rick Andreen, president of Shea Homes Active Lifestyles Communities in Scottsdale, Ariz.

Most of the sweeteners Congress conjured up will go to big projects such as wind farms. But aspiring buyers of green homes will benefit, too. The revised 30% one-time investment credit for solar means that a buyer who installs a typical $25,000 solar panel system on his roof will get $7,500 in income tax credits, up from $2,000 under the old standard. How long that investment takes to pay off will depend on local rules and utility rates. In markets with the most costly power, such as California, Connecticut, and New Jersey, the pretax compound rate of return on a typical home solar system will be better than 15% per year, says Andy Black, chief executive of OnGrid Solar, an industry research firm.

The fresh credits may mark a turning point for solar-powered homes. During the housing boom, when mortgages and energy were both cheap, green power was not a hot option; typical home buyers preferred granite countertops to solar panels. But even before the subprime crash, builders began to see rising interest in sun-powered dwellings. Ryness Co., which compiles sales data for homebuilders, found in a recent survey that homes with solar systems were outselling others by as much as 2:1 in 13 California communities.

Today there are about 40,000 solar homes in the U.S., but that number is set to spike. Shea is adding solar to communities planned for Arizona, California, Florida, and Washington State. And, responding to a shift in buyers' attitudes, big builders such as Centex (CTX), Lennar (LEN), Pulte Homes (PHM), and Woodside Homes are following suit. Consider Whitney Ranch, a development south of Sacramento. Sales there softened in the housing downturn, says Kathryn Boyce, an executive at Hanley Wood Market Intelligence. But when Standard Pacific Homes (SPF) put solar systems on a group of new models in the development, they sold out. The builder then decided to install panels on all 304 of the homes.

The appeal of solar homes could grow as the economic outlook worsens. The more utility bills cut into household reserves, "the more consumers recognize the value of efficiency," says Robert W. Hammon, principal of ConSol, a green building consulting firm. And there's growing consumer awareness that solar homes appreciate faster than ordinary dwellings. They also resell for a premium of up to 5%.

According to Ben Hoen, a researcher at Lawrence Berkeley National Laboratory who studies the effects of eco-features on real estate values, more homeowners now see solar panels as a long-term asset. Mortgage lenders, however, have been slow to make that link. The loan processes at Fannie Mae (FNM) and Freddie Mac (FRE) don't give special treatment to buyers who make improvements to lower utility bills, says Shea's Andreen. Builders wish lenders would start to take stock of eco-features. "Solar panels free up household cash flow," Andreen says. "Lenders should recognize that."

Appendix E: Builder Management Resources

1. Introduction

The Opportunity

- Builder has an incredible opportunity – one that is fitting with the mission of the company

  Builder was founded with one simple objective in mind; build a home with lasting value, integrity and quality while providing excellent service.

- Become the leader in California of energy efficient-solar home construction
  - Californians want and are asking for solar homes
  - Few builders are building solar homes to any scale
  - Few (if any) are executing at a high level
  - Constant Green messaging creating Green Appeal
  - Put yourself ahead of the market

The Challenges

- Solar-efficient homes constitute a significant capital investment, especially in today's market
- Besides the capital investment, is the human investment
- Without the human investment, the capital investment will not yield the full potential
- This is your "program", we are here to help you succeed

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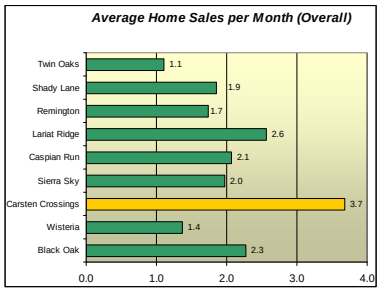
The Reward

- Sell more homes, faster, through product differentiation that Californian's are clearly clambering for
- Deliver lasting value to your homebuyers, and you have more satisfied homebuyers
- Put yourself ahead of the competition, reinvent while you have the opportunity
- Take advantage of generous solar rebates, they are only going down, and others will follow your lead
- Become known as <u>the</u> industry leader in building solar-efficient homes



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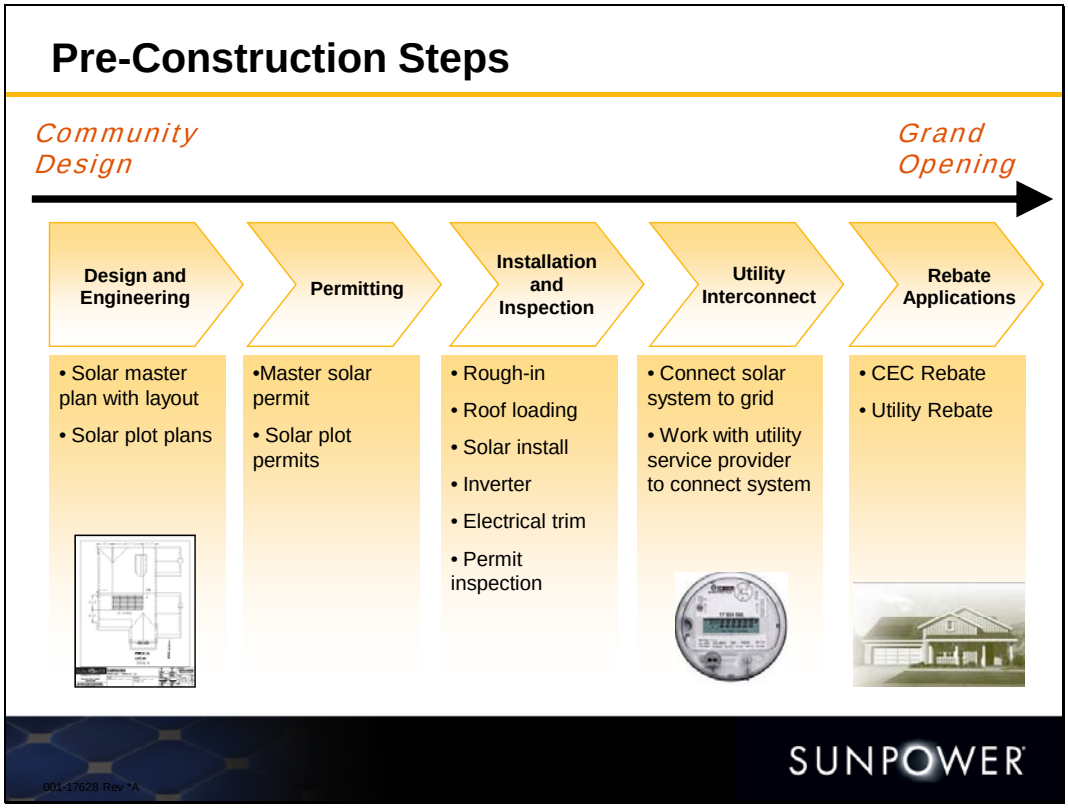
Purpose of Today's Meeting

- Build working relationships amongst our respective companies and personnel
  - Introductions
  - How best can SunPower support Builder's implementation
- Share our knowledge so that Builder' Management Team can execute at the highest level
  - Develop a broad understanding for all parties
  - Dig into some of the details
  - Best Practices
- Provide Builder with fundamental information needed to deliver a World Class solar home program

2. Process Overview



Post-Construction Steps

Grand Opening — *Community Sold Out*

Marketing	Sales Support	Performance Monitoring	Customer Service	Warranty
• Sales office solar displays • Custom collateral • Custom DVDs	• Sales staff training modules • On-site sales center support • Competitor and Secret Shops	• Hardware installation • Web-based software • Solar production and consumption	• Commissioning • Homeowner orientation • Direct number for customer service agent • Fast service	• System: 10-yrs • Parts: 25-yrs

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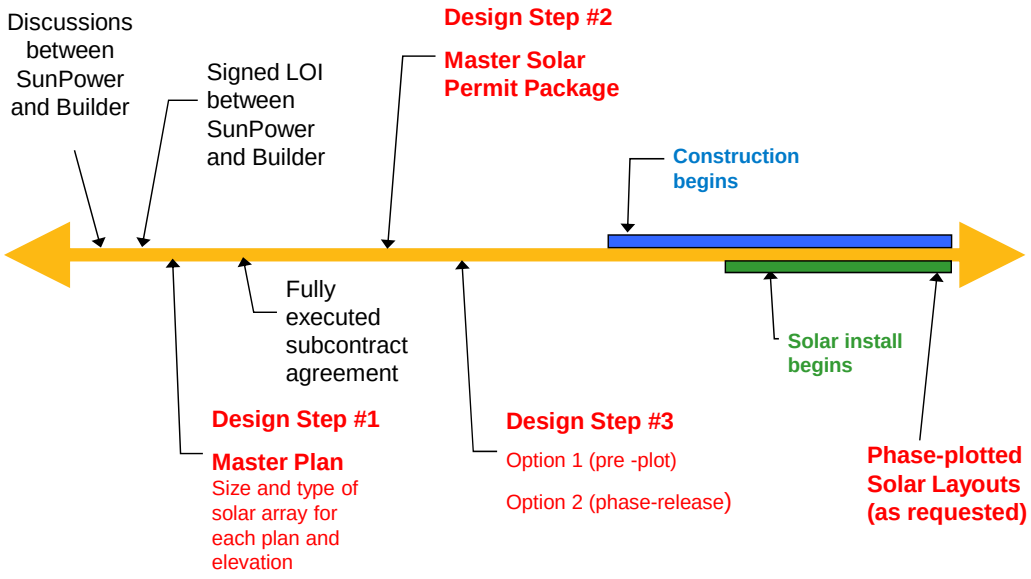
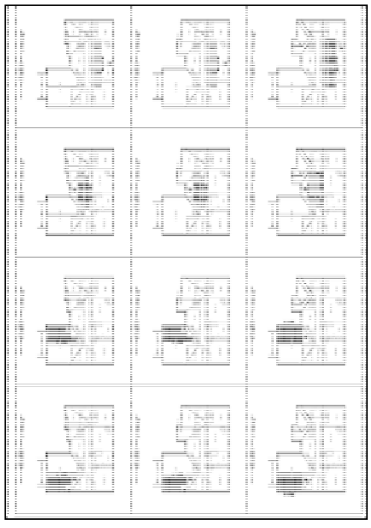
i. Design and Engineering

Design and Engineering Timing



Solar Master Plan



- Send information to SunPower
- Input from Builder
  - AutoCAD design drawings (DWG files, not DWF)
  - Elevations and roof
  - Roofing material by elevation
  - Community tract map
- Output from SunPower
  - Solar master plan layouts for each plan type and elevation

Best Practice: Use solar master plan to review phase selection

Solar Permits

- Building departments require solar system permits
- Requirements and fees differ by permit issuing jurisdiction
- If master building permit is already issued, a separate master solar permit request must be submitted as an addendum
- SunPower will go with Builder on first visit to jurisdiction
  - Visit building department and describe community, discuss permitting process
  - Introduce solar system
  - Understand jurisdiction requirements

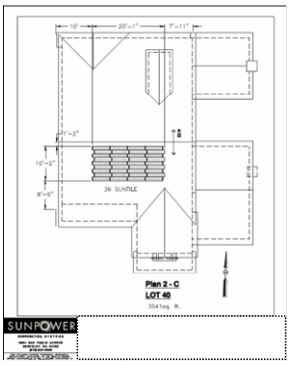
Best Practice: Permit solar with master building permit

Solar Master Permit Package

- **Input needed from Builder:**
  - Title Block information as you want it to appear (community name, village, city)
  - Requested delivery date of solar permit package
- **Output from SunPower**: Complete PV master permit package for municipality, stamped by a PE
  - Solar master plan layouts for each plan type and elevation
  - Solar electrical
  - Solar structural
  - Some jurisdictions require builder to specify solar orientation by plot

Phase Release Plot Plans and Permits

- Builder Input
  - Project sequence sheets
    - Lot
    - Plan
    - Elevation
    - Garage handing
    - Garage detached (Y/N)
    - Plot Plan if available
    - Address
  - Include
    - Community name
    - Requesting party name and contact
    - Date requesting solar plot plans by
- SunPower output
  - Response to request within 2 days
  - Shading analysis
  - Solar plot plans in PDF format



Phase Release Plot Plans and Permits (Cont.)

CITY OF LINCOLN
Building Inspection Department
INSPECTION RECORD

PRESERVE THIS RECORD
OF YOUR BUILDING INSPECTIONS

This card and approved plans must be made available to the inspector at the time of inspection.

Residential Building Permits shall expire one (1) year from the date of issuance.

Commercial permits shall expire one (1) year from the date of issuance.

FOR BUILDING INSPECTIONS CALL: 645-3320
24 HOURS NOTICE REQUIRED FOR ALL INSPECTIONS

INSPECTIONS SHOULD BE CALLED FOR, AS FOLLOWS:

- Attach solar plot plans to individual building permit application
- Building department will cross reference solar plot plans to solar master plan
- Builder use of Solar Plot Plans
  - Site Superintendent
    - Plumber
    - Roofer
    - Sales Agent
  - Sales agents have buyer sign plot plan at contract

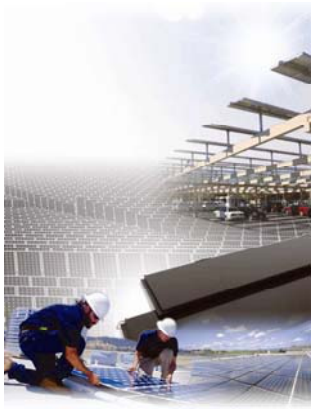
How to make design requests

- Email this information to SunPower at:

  newhomedesign@sunpowercorp.com

  - Lot
  - Plan
  - Elevation
  - Garage handing
  - Garage detached (Y/N)
  - Plot Plan if available
  - Address

Design and Engineering Best Practices



- Confirm with SunPower that all inputs were received
- Permit solar with master building permit
- Use master solar plan to review phase selection
- Director of Construction reviews and signs off on solar plot plans prior to deployment in field
  - Consider potential shading issues

ii. Construction

Visits

- SunPower installers visit each home three times
  1. Pre-installation solar array layout inspection
  2. Solar wiring installation
  3. Solar system installation

- Pre-installation visit
  - Review plotted sequence with superintendent
  - Confirm location of solar array on framed house
  - Check for any potential shading issues
  - Check roof to ensure that there is no planned roof penetration in solar location
  - Confirm that solar installer and site supervisor have current version of solar array layout

Solar Wiring Installation

- All interior solar electrical wires are roughed in
  - Wires installed after low voltage subcontractor finishes work
  - Solar array to inverter
  - Inverter to main service panel
  - Inverter to structured wiring hub (performance monitoring)

Solar System Installation

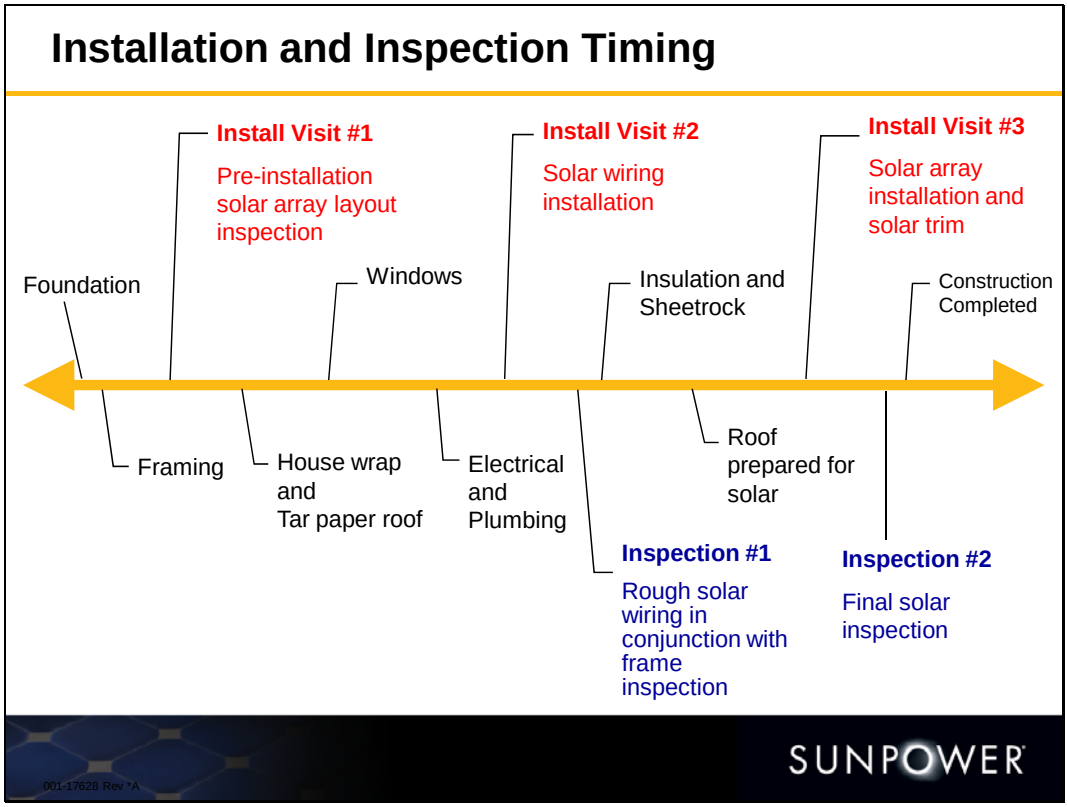
- For tile roofs, solar installed
  - After tile roofer completes 80% lay-up or sets sufficient tiles for solar
- For composition shingle roof, solar installed
  - After entire roof installed

(Ideally after house is painted to prevent overspray on panels)

- Inverter, and performance monitoring equipment installed
  - After walls are sheet rocked

Permit Inspections

- Solar arrays *do not* normally require a separate visit by inspectors, provided that inspection is called at same time as frame inspection
- Two inspections are typically required
  1. Rough solar wiring
  2. Final solar inspection
- Some jurisdictions may require an 'Attachment' or 'Bonding' inspection
- Rough solar wiring inspection
  - Occurs during frame walk inspection
- Final solar inspection
  - Occurs with final electrical inspection
  - **Signed and dated solar final inspection form *must* be sent to SunPower**


Installation and Inspection Timing
Install Visit #1
Pre-installation solar array layout inspection
Install Visit #2
Solar wiring installation
Install Visit #3
Solar array installation and solar trim
Foundation
Windows
Insulation and Sheetrock
Construction Completed
Framing
House wrap and Tar paper roof
Electrical and Plumbing
Roof prepared for solar
Inspection #1
Rough solar wiring in conjunction with frame inspection
Inspection #2
Final solar inspection
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iii. Utility Interconnections

PG&E Utility Interconnection

- What is an interconnection
- SunPower submits interconnection forms on behalf of Builder
- Required from Builder:
  - Interconnection agreement/application
  - Exhibit A – Allows 3rd Party to obtain the proper forms from PG&E (needs Officer's signature)
  - Insurance
  - Final signed and dated solar permit
    - Email or fax to SunPower
  - PG&E inspects solar and sends 'Permission to Operate' letter
- Automatic transfer of ownership to homeowner upon move-in

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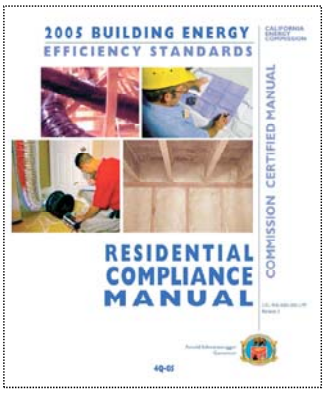
Interconnection Best Practices

- Assign a person from your staff to be responsible for sending solar final permits to SunPower
  - Send the day that they are signed
  - By fax or email
  - Can we do this now?
- Get interconnected ASAP to accrue credits as early as possible

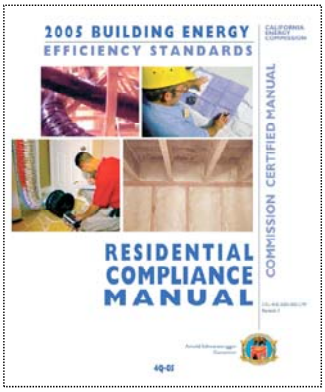
iv. Title 24 Efficiency Standards

The Role of Title 24



- Programs require homes be efficient first, before allowing solar rebates
- Title 24 governs the minimum efficiency of
  - Cooling, Heating, Hot Water and some lighting
- Your Title 24 consultant is a key part of the process
  - Rely on their expertise for achieving the most cost effective compliance package
- SunPower and Utility will require the Title 24 input files from your Title 24 consultant
  - Rebate applications and processing
  - Energy savings calculations performed by SunPower for each community (supports sales and marketing)

Title 24 Best Practices



- Who is your Title 24 consultant?
- Who is your HERS rater?
- Prepare your Title 24 consultant for requests from PG&E and SunPower
- Begin process as early as possible
- Contact your PG&E RNC representative ASAP

v. HERS Inspections

Solar HERS Considerations

- Your HERS rater will perform all HERS inspections, including the solar inspection
- Make sure your HERS rater is certified to complete Solar HERS inspections
  - Ask them
  - Or look them up
    - www.calcerts.com
    - www.cheers.org
    - www.cbpca.org
- Introduce the HERS rater to your project and design earlier in the process
- HERS raters inspect 1 in 7 homes
- Failed inspections
  - Another 1/3 of remaining group needs to be inspected
  - If 2nd fails, leads to 7 in 7 inspections
  - Opportunity to remedy
  - If not remedied, rebate is denied

Solar HERS Inspection

- Visual Inspection
  - Verify modules and inverter
  - Verify meets CA flexible installation criteria, or
  - Verify site specific rebate filing

- Shading Evaluation
  - Check for “minimal shading” criterion
  - Check for shading obstructions
  - Check for trees that will shade at full maturity
- Performance Verification
  - Measure solar irradiance and ambient temp
  - Compare to expected solar system output using CEC table and inverter readout
- Installer checks 100%, HERS rater samples

vi. Energy Efficiency Rebates

Investor Owned Utilities – Energy Efficiency Rebates

- PG&E will assist you with EE rebate applications
- Tract Maps define project
- Required from Builder:
  - Title 24 showing Tier 1 or Tier 2 compliance
  - Full set of construction drawings (electronic files, DWF or PDF)
  - Final signed Tract Map (recorded)
  - Application paperwork - Schedule a meeting with your Res. New Construction Program Rep.
- Appliances must be Energy Star
- SunPower can only apply for Solar Rebates once Letter of Acceptance is provided to Builder by utility

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Energy Efficiency Rebate Best Practices

- Assign a person from your staff to be responsible for utility rebate program and application work
  - Can we do this now?
- Schedule a meeting with utility Residential New Construction Program account manager
- Invite your SunPower account manager to attend meetings with the utility
- Send SunPower the utility's *Letter of Acceptance* stating community is enrolled in energy efficiency program

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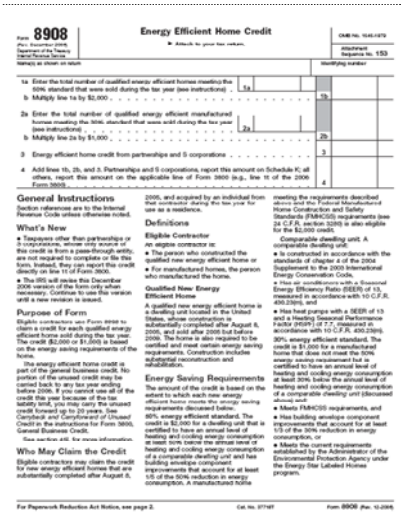
vii. Solar Incentives

Solar Rebates – CEC (PG&E)

- SunPower submits solar rebate application on behalf of Builder
- SunPower submits rebate reservation upon receiving:
  - *Letter of Acceptance* into EE program from utility
  - Signed CEC Summary Agreement
  - Builder signature on required application form (NSHP-1)
  - Builder signature on CF-1R-PV
- Builder assigns rebates to SunPower
- SunPower files rebate claim form upon receiving:
  - "Permission to Operate" letter from utility
  - Payment in full from Builder for solar system
  - Final solar permit signoff
  - Signed documents from HERS rater
  - Builder signature on required claim request form (NSHP-2)

viii. Federal Tax Credits

Builder Tax Credit – Energy Efficiency



Form **8908** (Rev. December 2006) — Department of the Treasury — Internal Revenue Service (99)

Energy Efficient Home Credit

► Attach to your tax return.

OMB No. 1545-1879

Attachment Sequence No. 153

Name(s) as shown on return — Identifying number

1a Enter the total number of qualified energy efficient homes meeting the 50% standard that were sold during the tax year (see instructions) . . . 1a
b Multiply line 1a by $2,000 . . . 1b
2a Enter the total number of qualified energy efficient manufactured homes meeting the 30% standard that were sold during the tax year (see instructions) . . . 2a
b Multiply line 2a by $1,000 . . . 2b
3 Energy efficient home credit from partnerships and S corporations . . . 3
4 Add lines 1b, 2b, and 3. Partnerships and S corporations, report this amount on Schedule K; all others, report this amount on the applicable line of Form 3800 (e.g., line 1f of the 2006 Form 3800) . . . 4

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

What's New

● Taxpayers other than partnerships or S corporations, whose only source of this credit is from a pass-through entity, are not required to complete or file this form. Instead, they can report this credit directly on line 11 of Form 3800.

● The IRS will revise this December 2006 version of the form only when necessary. Continue to use this version until a new revision is issued.

Purpose of Form

Eligible contractors use Form 8908 to claim a credit for each qualified energy efficient home sold during the tax year. The credit ($2,000 or $1,000) is based on the energy saving requirements of the home.

The energy efficient home credit is part of the general business credit. No portion of the unused credit may be carried back to any tax year ending before 2006. If you cannot use all of the credit this year because of the tax liability limit, you may carry the unused credit forward up to 20 years. See *Carryback and Carryforward of Unused Credit* in the instructions for Form 3800, General Business Credit.

See section 45L for more information.

Who May Claim the Credit

Eligible contractors may claim the credit for new energy efficient homes that are substantially completed after August 8, 2005, and acquired by an individual from that contractor during the tax year for use as a residence.

Definitions

Eligible Contractor

An eligible contractor is:

● The person who constructed the qualified new energy efficient home or

● For manufactured homes, the person who manufactured the home.

Qualified New Energy Efficient Home

A qualified new energy efficient home is a dwelling unit located in the United States, whose construction is substantially completed after August 8, 2005, and sold after 2005 but before 2008. The home is also required to be certified and meet certain energy saving requirements. Construction includes substantial reconstruction and rehabilitation.

Energy Saving Requirements

The amount of the credit is based on the extent to which each new energy efficient home meets the energy saving requirements discussed below.

50% energy efficient standard. The credit is $2,000 for a dwelling unit that is certified to have an annual level of heating and cooling energy consumption at least 50% below the annual level of heating and cooling energy consumption of a comparable dwelling unit and has building envelope component improvements that account for at least 1/5 of the 50% reduction in energy consumption. A manufactured home meeting the requirements described above and the Federal Manufactured Home Construction and Safety Standards (FMHCSS) requirements (see 24 C.F.R. section 3280) is also eligible for the $2,000 credit.

Comparable dwelling unit. A comparable dwelling unit:

● Is constructed in accordance with the standards of chapter 4 of the 2004 Supplement to the 2003 International Energy Conservation Code,

● Has air conditioners with a Seasonal Energy Efficiency Ratio (SEER) of 13, measured in accordance with 10 C.F.R. 430.23(m), and

● Has heat pumps with a SEER of 13 and a Heating Seasonal Performance Factor (HSPF) of 7.7, measured in accordance with 10 C.F.R. 430.23(m).

30% energy efficient standard. The credit is $1,000 for a manufactured home that does not meet the 50% energy saving requirement but is certified to have an annual level of heating and cooling energy consumption at least 30% below the annual level of heating and cooling energy consumption of a comparable dwelling unit (discussed above) and

● Meets FMHCSS requirements, and

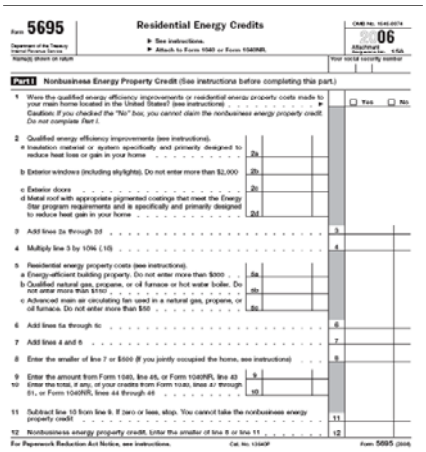
● Has building envelope component improvements that account for at least 1/3 of the 30% reduction in energy consumption, or

● Meets the current requirements established by the Administrator of the Environmental Protection Agency under the Energy Star Labeled Homes program.

For Paperwork Reduction Act Notice, see page 2. — Cat. No. 37747Y — Form 8908 (Rev. 12-2006)

- $2,000 to builder for exceeding the 2004 International Energy Conservation Code by 50%
- IECC only considers heating and cooling
  - Not water heating, like Title 24
- Ask your Title 24 contractor to evaluate IECC compliance margin
  - 15%-30% above Title 24 typically qualifies for tax credit, however each plan must be reviewed independently
- Use IRS Tax Form 8908

Solar Tax Credit – To Homebuyer



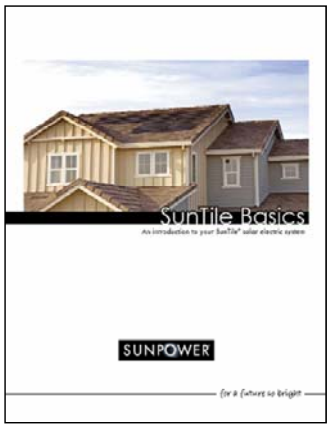
Form **5695** — Residential Energy Credits — 20**06**

Part I Nonbusiness Energy Property Credit (See instructions before completing this part.)

- Builder provides letter to each homebuyer with cost and size of SunPower system
  - Must be provided by builder, not SunPower
  - Send letter at end of calendar year to all buyers
- Tax form number 5695

ix. Customer Service

Warranty and Service



1.877.34.HOMES (1.877.344.6637)

residentialservice@sunpowercorp.com

- All Warranty and Customer Service provided by SunPower Customer Service Team
  - Regionally based throughout state
  - Work with any builder customer care warranty/service procedures
- Warranty
  - System 10 years
  - Panels 25 years
  - Warranty commences from 'Utility permission to operate'
  - No registration for warranty necessary
  - Warranty passes to all future buyers
  - Exceptions are noted in Homeowner Manual
    - Panel breakage from impact is not covered

001-17628 Rev *A

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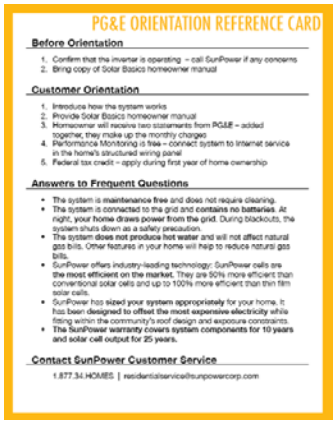
Homeowner Move-in



PG&E ORIENTATION REFERENCE CARD

Before Orientation

1. Confirm that the inverter is operating – call SunPower if any concerns
2. Bring copy of Solar Basics homeowner manual

Customer Orientation

1. Introduce how the system works
2. Provide Solar Basics homeowner manual
3. Homeowner will receive two statements from PG&E – added together, they make up the monthly charges
4. Performance Monitoring is free – connect system to Internet service in the home's structured wiring panel
5. Federal tax credit – apply during first year of home ownership

Answers to Frequent Questions

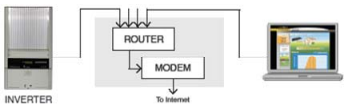
- The system is **maintenance free** and does not require cleaning.
- The system is connected to the grid and **contains no batteries**. At night, your home draws power from the grid. During blackouts, the system shuts down as a safety precaution.
- The system **does not produce hot water** and will not affect natural gas bills. Other features in your home will help to reduce natural gas bills.
- SunPower offers industry-leading technology: SunPower cells are **the most efficient on the market.** They are 50% more efficient than conventional solar cells and up to 100% more efficient than thin film solar cells.
- SunPower has **sized your system appropriately** for your home. It has been **designed to offset the most expensive electricity** while fitting within the community's roof design and exposure constraints.
- **The SunPower warranty covers system components for 10 years and solar cell output for 25 years.**

Contact SunPower Customer Service

1.877.34.HOMES | residentialservice@sunpowercorp.com

- Builder confirms that system is operating *before* walk-through
- Builder walk-through is first introduction to system
  - SunPower provides training to Customer Care agents
  - Walk Thru Reference Card
- SunPower provides Homeowner Manual to Customer Care team – they will pass on to buyer
  - Customer Care should call SunPower when they need supplies
- SunPower is developing online training tools
  - Directions will be placed in manual and on inverter
- Periodic homeowner orientations are held

Monitoring



- Monitoring Service is offered at no cost for 10 years
  - It's a service, not required for system operation or warranty
- Monitoring always shows 'Solar Production'
  - Shows 'Home Use' if we can install equipment in service panel
  - SunPower will provide a list of suitable models
- Monitoring requires high speed internet service and open internet port (typically provided by router)
- Homeowner is responsible for providing router and internet
- Owner will need inverter serial number to create account to view system
- Once connected to internet, SunPower is monitoring system
  - Proactive customer service

Monitoring Connection

Struotured Wiring Hub

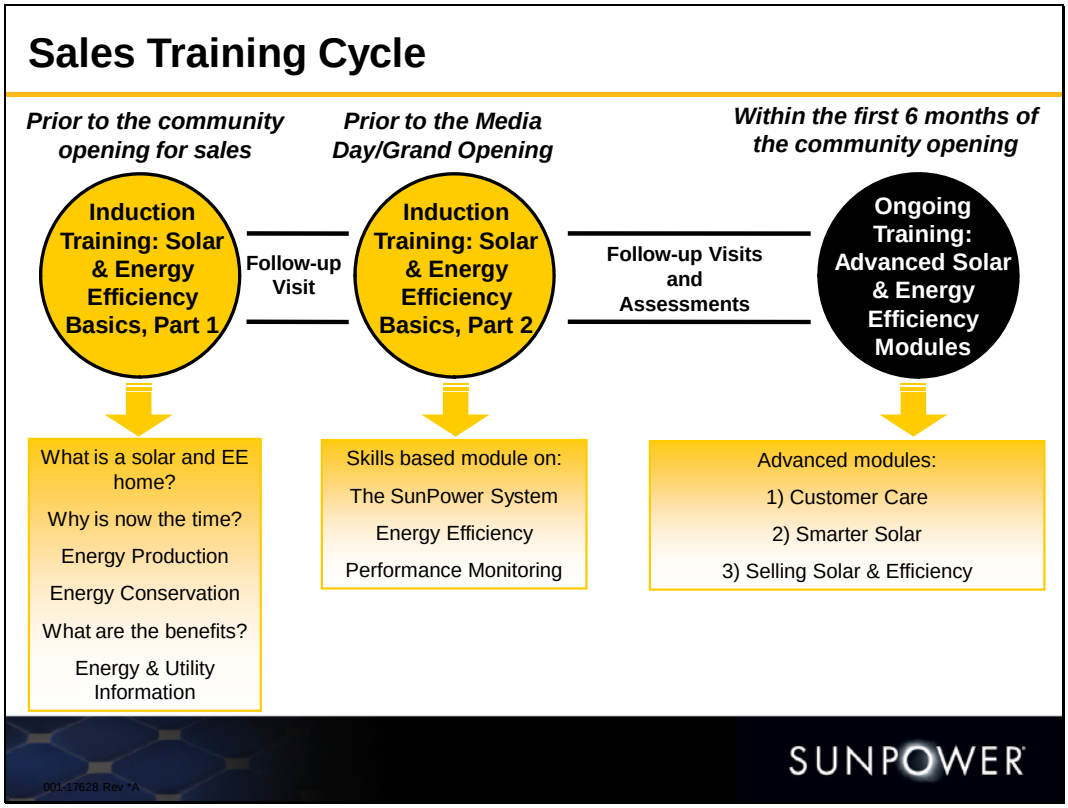
Router Ports

- Homeowner is responsible for initiating connection – after they have internet service and router
- Where home has Structured Wiring
  - Homeowner runs internet service to wiring panel
  - Install router in panel – route internet out to all rooms in house
  - Plug ‘Solar Cable’ into router
  - Register online
- Where home has no Structured Wiring
  - Call SunPower after home has internet service and router to schedule a service call
  - We will use telephone wiring to route solar signal to room where internet is available
  - Only possible if each telephone socket has individual ‘home run’ to telephone box

Customer Service Best Practices

- Must use SunPower authorized electrical service panels in order to monitor home energy consumption
- Structured wiring panels ease connection of SunPower monitor
  - Provide wired router as a standard feature
- Keep SunPower notified on initial move in schedule – call with questions!
- Hold homeowner events within community to educate and support hook-ups

x. Sales Training



Sales Training Program

Module #	Module Description	Management	Sales Agents	Customer Care	Construction
Intro	Builder Orientation	X			
M1	Construction Team Training				X
SM1	Solar & Energy Efficiency Basics, Part 1	X	X	X	X
SM2	Solar & Energy Efficiency Basics, Part 2		X	O	
SM3	Smarter Solar		X	O	
SM4	Customer Care		X	X	
SM5	Selling Solar & Efficiency		X		

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Sales Training Program Best Practices

- Schedule full training program in advance with SunPower trainer (within a few weeks of launching solar communities)
- 12 week schedule, with one training session approximately every 2 weeks
- Management participates in training sessions to demonstrate commitment
- Integrate solar & efficient sales presentation practice into sales meetings
- Sales office visits during Grand Opening and during the training program
- Ensure non-solar inventory is sold, marketing collateral is in place before following-up with sales office visits

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Builder Sales Training Program Schedule

- Fresno Division – Monday, November 26th, 2007
  - 9.30am - 12.30pm - Sales & Operations (22 participants)
  - Afternoon - TBD
- Modesto Division – Wednesday, November 28th, 2007
  - 9.00am – 12.00 noon – Sales (18 participants)
  - 1.00pm – 4.00pm – Operations (12 participants)
- Sacramento Division
  - Thursday, November 29th, 2007
    - 1.00pm – 4.00pm - Operations (14 participants)
  - Friday, November 30th, 2007
    - 9am – 12.00 noon – Sales (15 participants)

xi. Marketing & PR

Standard Marketing Support

- SunPower contribution:
  - Monitoring kiosk
  - SunPower DVD
  - Solar mural
  - Copy and photography library
  - 500 flyers per community for startup
    - Builder receives PDF from SunPower and prints additional as necessary
    - SunPower requires two weeks notice prior to launch
- Builder contribution:
  - Builder and energy efficiency logos
  - Wall dimensions for mural
  - Internet connection
  - Television
  - DVD player
  - Installation and setup

Custom Marketing Support

- SunPower will collaborate with you to produce or enhance your solar and energy efficiency marketing materials. We will collaborate to develop point of sale materials, brochures, and other items
- To this end, we require from you:
  - Final room dimensions, layouts, and considerations for each EE/solar room in a community
  - Internet connections for monitoring computer
  - Television and DVD players as necessary
  - Installation and setup of displays
  - When applicable, brochure printing
- Please contact SunPower for package details

Public Relations

- SunPower collaborates with builder's communications firms on opening events and press releases
- SunPower requires one business day for photo and screen shot requests
  - Please send all requests to SunPower
- SunPower is available to review press releases and copy for technical accuracy
  - Please give us one business day
  - Send all requests to SunPower

Monitoring Kiosk Setup

- iMac requires internet to display monitoring information
- Builder provides wired internet and table for iMac
- Builder should ensure that ISP is ready with internet prior to training
- *Internet must be in place before iMac is shipped*
- Test that Cat-5 jack is connected to internet using any laptop
  - 90% of the time it does not work even though claimed that it is connected
- iMac will display sample data until
  - Model home is connected to the monitoring system for production, or
  - Homeowner is selected for display on iMac for production/consumption
- Builder must lock down iMac, SunPower provides lock

Marketing and PR Best Practices

- To make training, sales and marketing and PR support the most effective, timing is everything!
  - Plan ahead for grand openings and events
  - Coordinate with Marketing Department for marketing material and sales agent training

SunPower provides dedicated individuals for…

- General questions and management
- Submitting design and engineering files
- Permits and Installation
- Interconnection and Rebate applications
- Marketing, PR
- Photo Requests, Kiosk Information
- Sales Training
- Customer service and monitoring

Objectives

- Define what makes a builder successful with a solar community
- Overview of process of integrating solar systems into homes
- Best practices
  - *Who is responsible for each step in the process?*
  - *At what stage in the process does each step occur?*
  - *What documents are required for permits and rebates?*
  - *What documents will SunPower provide to Builder?*

Main Driver of Success:

Strong commitment to solar from top management; emphasized to associates within company

Project Checklist

Activity	Responsibility	Complete		Complete
Title 24 Features and CF1R Calculations	Builder			
Discussion of Electrical Set Up and Home Monitoring Solution	Builder		SunPower	
Provision of Lot Address/Sequence Sheets, architect's AutoCAD files	Builder			
Site and Plan Analysis, System Design			SunPower	
CEC Summary Agreement Preparation			SunPower	
CEC Summary Agreement Signature	Builder			
Insurance Documentation Requirements	Builder			
Subcontract Execution	Builder		SunPower	
Distribution of Employee and Subcontractor Contact Information	Builder			
Permit Package Preparation, Submittal and Obtainment			SunPower	
CEC Rebate Paperwork Preparation			SunPower	
CEC Rebate Paperwork Signature	Builder			
Utility Interconnection Paperwork Preparation			SunPower	
Utility Interconnection Paperwork Signature	Builder			
Solar Array Layout Drawings Distributed to Trades and Supt.			SunPower	
Preconstruction Meeting	Builder		SunPower	
Marketing Plan Development	Builder		SunPower	
Train Sales Agents and Customer Service			SunPower	
Solar Room Plan	Builder		SunPower	
Internet and Power in Solar Room,	Builder			
Solar Displays			SunPower	

Responsibility
Builder
SunPower
Builder and SunPower

Support Slide: HERS Inputs and Outputs

- Builder's Title 24 consultant provides energy efficiency information to HERS rater
  - CF-1R (Compliance)
  - CF-4R (Field Verification and Testing)
  - CF-6R (Installation Certificate)
  - Output from Micropas (Title 24 software) for each plan type
- SunPower provides HERS rater with forms
  - CF-1R-PV (Documents solar system components)
  - CF-6R-PV (Identifies solar features for inspection)
- HERS rater generates forms for solar inspection
  - CF-4R-PV – Solar inspection form
  - Output from registry

Overview of Utility Programs

Utility	Program	Utility	Percent > T24	Incentive
PG&E, SCE, and SDG&E	*New Solar Homes Partnership*	Tier I	15%	$400 – Coastal (CZ 1-7) $500 – Inland (CZ 8-16)
		Tier II	35%	$2000 Inland & Coastal, plus a 40% reduction in cooling load
SMUD	*SolarSmart New Homes*	Prescriptive or 30% better than Title 24		$700
Roseville Electric	*Best Homes Program*			$500
Modesto Irrigation District				
Turlock Irrigation District				

SMUD – Rebate Process

- Solar and Energy Efficiency rebates combined
- SunPower contracts net of both
- SMUD contracts with Builder for rebates over a three year period
- SMUD provides Title 24 services to meet program requirements
  - Davis Energy or Consol
- Program requirements
  - Prescriptive list, or
  - 30% better than T24
- SMUD assists with all paperwork
- SMUD inspects all system installations (No Solar HERS inspection required)

b. Example of Training and Marketing Tools

Training Philosophy

Our goal is to convert your investment in solar and energy efficiency into tangible results—faster sales and higher customer satisfaction through world-class training services.

Training for Success

In-person & Online Classes

SunPower University

Powerful software platform used by major organizations worldwide (e.g., Internal Revenue Service, Capital One, General Electric) to deploy training ; We scale quickly and effectively.

Site Visits & One-on-one Coaching

Repetition is paramount to success.

Agent Web Portal

Sales and marketing tools at your fingertips.

Industry Training & Outreach

Realtor Training Program
Appraiser Training Program

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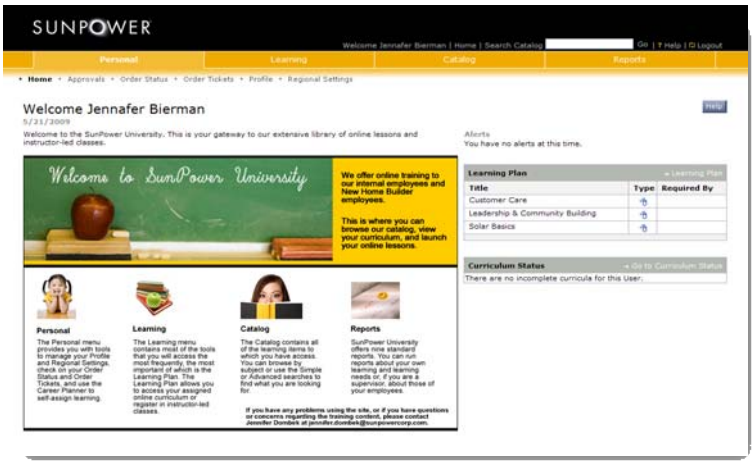
SunPower University

Core Classes: Solar Basics, SunPower Access, Part I, SunPower Access, Part II, Customer Care
Optional Classes: Energy 101, Community Building & Leadership



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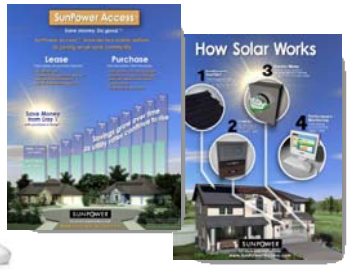
SunPower Access Marketing Program

- iMac Kiosk
- Video Library for Web design
- Interactive Web site
- SunPower Store *(free printing)*
- Point-of-sale Collateral
- Performance Monitoring: Web & iPhone



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PR & Events

Media Day

Media outreach

Work with existing PR

Grand Openings

SunPower on-site

Solar demonstrations

Homeowner Events

93% of solar homeowners would recommend solar to others

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c. Supporting Data for Monitoring & Evaluation Reports

The appendix provides site specific monthly usage and cost profiles for the E-1 and E-6 profiles. It also provides a visual representation of the costs for each rate by site. Table 1 provides the annual usage, E-1 cost, E-6 cost, and savings based on switching from the E-1 to the E-6 rate.

Table 1 – Annual Cost Comparison of E1 vs. E6 Rate Schedule

Site	Annual Usage	Annual E1 Bill	Annual E6 Bill	E6 Savings
A	2,424	$ 290.23	$ 210.28	$ 79.95
B	12,715	$ 2,714.70	$ 2,645.41	$ 69.28
C	8,032	$ 1,448.60	$ 1,386.84	$ 61.76
D	7,415	$ 1,191.91	$ 1,135.97	$ 55.95
E	4,449	$ 624.66	$ 569.30	$ 55.36
F	5,315	$ 731.13	$ 689.24	$ 41.90
G	5,144	$ 741.29	$ 707.87	$ 33.42
H	13,103	$ 2,952.94	$ 2,925.29	$ 27.65
I	2,027	$ 241.83	$ 214.23	$ 27.60
J	321	$ 43.63	$ 16.29	$ 27.34
K	8,734	$ 1,452.90	$ 1,425.63	$ 27.27
L	3,344	$ 413.43	$ 386.78	$ 26.66
M	7,689	$ 1,288.80	$ 1,265.48	$ 23.32
N	4,263	$ 591.43	$ 594.13	$ (2.70)
O	6,725	$ 1,058.42	$ 1,062.14	$ (3.73)
P	1,778	$ 207.79	$ 216.77	$ (8.98)
Q	6,723	$ 1,142.59	$ 1,156.47	$ (13.88)
R	8,781	$ 1,647.86	$ 1,662.90	$ (15.04)
S	3,539	$ 482.00	$ 519.97	$ (37.97)
T	6,025	$ 853.18	$ 912.46	$ (59.28)
U	9,775	$ 1,883.42	$ 2,003.90	$ (120.48)

Table 2 – Site A Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
A	Jun-08	40.35	$ 4.66	$ (5.38)
A	Jul-08	167.68	$ 20.94	$ 10.81
A	Aug-08	210.72	$ 24.50	$ 18.15
A	Sep-08	188.69	$ 21.87	$ 18.00
A	Oct-08	114.54	$ 13.23	$ 12.99
A	Nov-08	233.65	$ 27.61	$ 21.95
A	Dec-08	443.39	$ 54.80	$ 43.82
A	Jan-09	396.55	$ 47.75	$ 37.93
A	Feb-09	330.03	$ 39.94	$ 31.72
A	Mar-09	179.42	$ 21.16	$ 16.96
A	Apr-09	62.95	$ 7.28	$ 6.15
A	May-09	57.99	$ 6.70	$ (2.79)

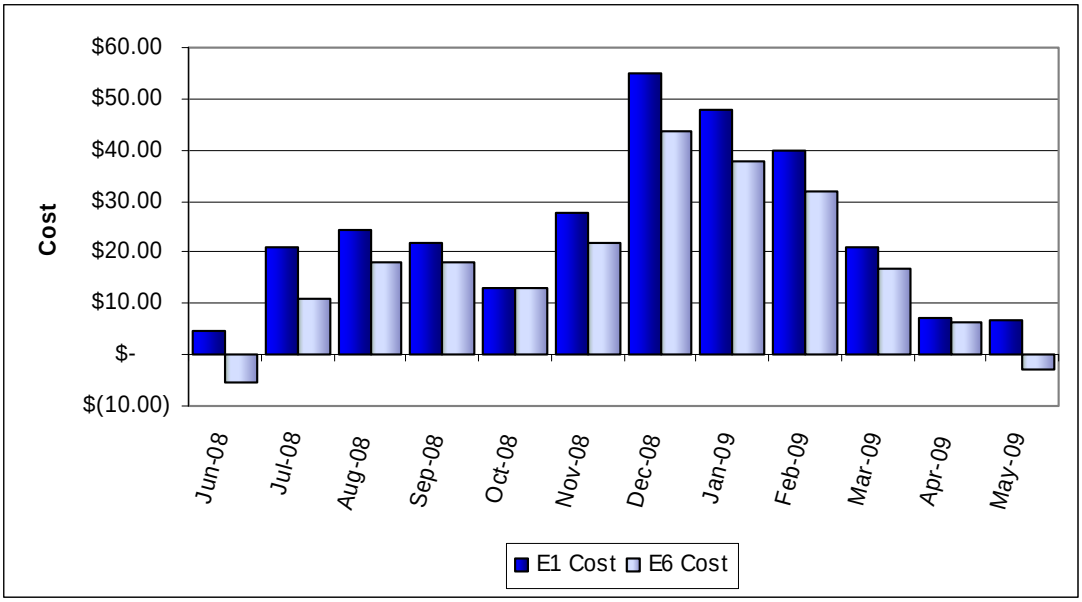

Figure 1 – Site A Rate Schedule Cost Comparison

Table 3 - Site B Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
B	Jun-08	679.85	$ 142.11	$ 152.54
B	Jul-08	1666.4	$ 420.45	$ 449.89
B	Aug-08	1650.15	$ 403.43	$ 430.75
B	Sep-08	1262.93	$ 267.05	$ 276.23
B	Oct-08	878.69	$ 133.23	$ 138.09
B	Nov-08	954.36	$ 195.93	$ 171.62
B	Dec-08	1289.06	$ 322.30	$ 289.21
B	Jan-09	1028.7	$ 218.99	$ 192.63
B	Feb-09	910.52	$ 188.65	$ 165.31
B	Mar-09	830.58	$ 153.69	$ 132.30
B	Apr-09	775.19	$ 137.04	$ 117.41
B	May-09	789.28	$ 131.87	$ 129.40

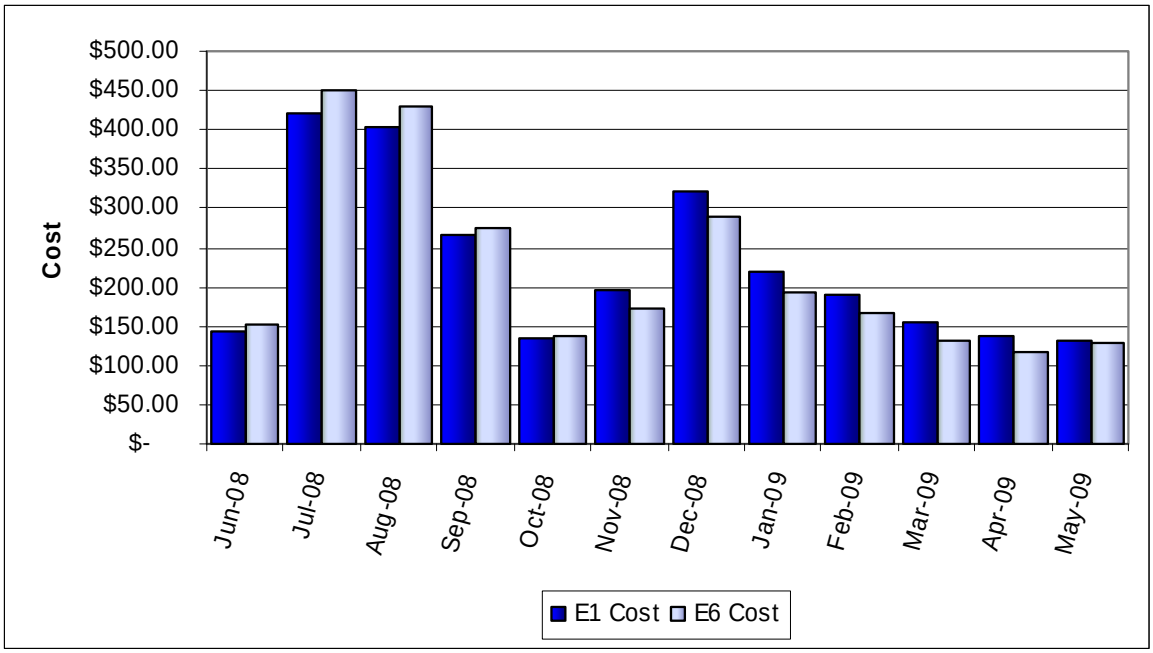

Figure 2 – Site B Rate Schedule Cost Comparison

Table 4 - Site C Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
C	Jul-08	861.27	$ 161.66	$ 189.33
C	Aug-08	1060.46	$ 208.14	$ 230.15
C	Sep-08	677.75	$ 107.38	$ 112.99
C	Oct-08	527.31	$ 69.86	$ 67.91
C	Nov-08	731.63	$ 128.67	$ 110.03
C	Dec-08	1119.8	$ 255.84	$ 227.58
C	Jan-09	874.44	$ 165.71	$ 143.45
C	Feb-09	712.97	$ 131.17	$ 113.13
C	Mar-09	577.22	$ 90.57	$ 76.09
C	Apr-09	449.63	$ 59.67	$ 48.71
C	May-09	439.75	$ 69.94	$ 67.47

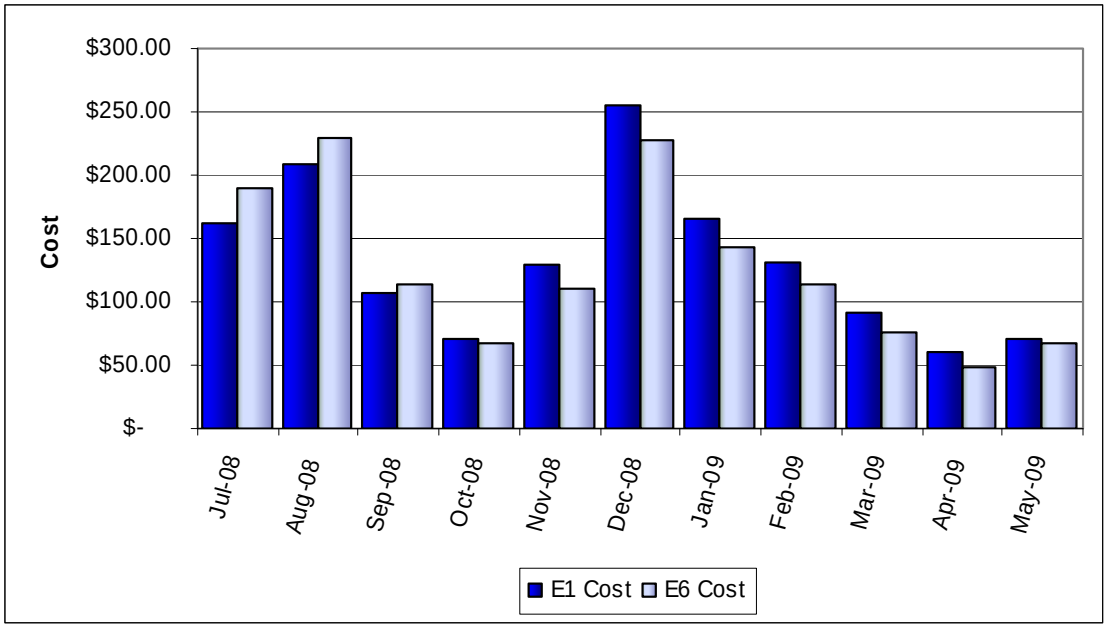

Figure 3 – Site C Rate Schedule Cost Comparison

Table 5 - Site D Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
D	Jun-08	580.77	$ 83.45	$ 78.11
D	Jul-08	846.33	$ 149.80	$ 165.81
D	Aug-08	915.38	$ 172.51	$ 192.33
D	Sep-08	636.04	$ 104.29	$ 100.44
D	Oct-08	484.75	$ 62.37	$ 66.25
D	Nov-08	569.37	$ 83.65	$ 69.42
D	Dec-08	862.39	$ 165.35	$ 143.94
D	Jan-09	711.13	$ 118.72	$ 101.00
D	Feb-09	557.21	$ 86.18	$ 72.31
D	Mar-09	397.28	$ 51.26	$ 41.43
D	Apr-09	335.05	$ 43.46	$ 35.38
D	May-09	500.43	$ 68.62	$ 67.86

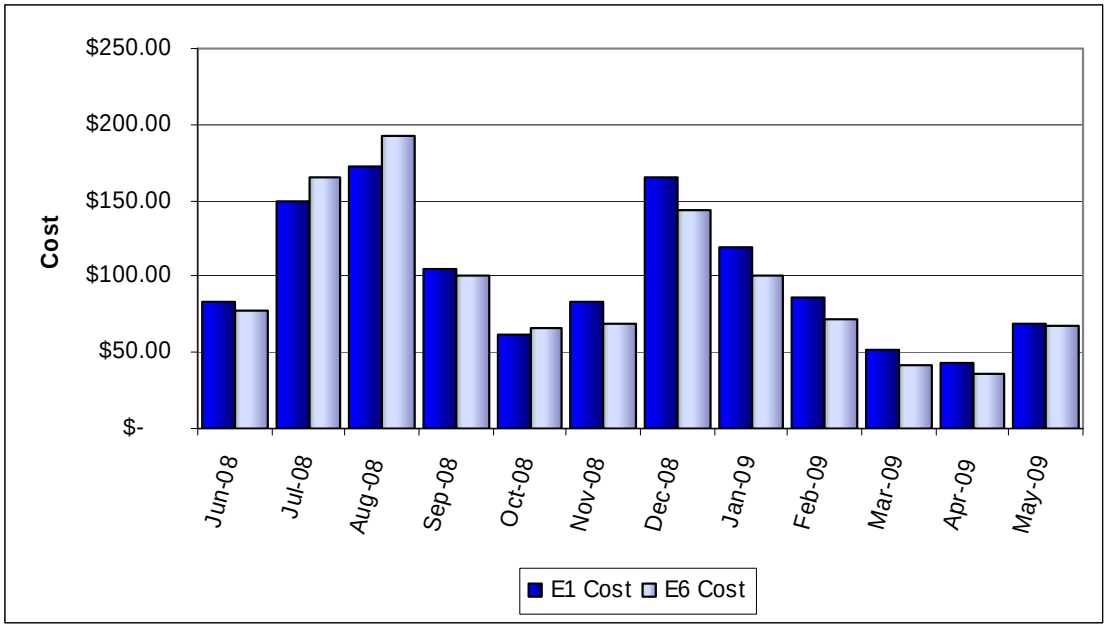

Figure 4 – Site D Rate Schedule Cost Comparison

Table 6 - Site E Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
E	Jul-08	669.5	$ 121.63	$ 137.61
E	Aug-08	321.41	$ 46.11	$ 48.96
E	Sep-08	155.54	$ 18.03	$ 13.56
E	Oct-08	295.6	$ 34.22	$ 35.39
E	Nov-08	380.05	$ 54.51	$ 44.85
E	Dec-08	548.1	$ 82.49	$ 68.63
E	Jan-09	588.88	$ 81.85	$ 66.87
E	Feb-09	450.53	$ 57.52	$ 46.19
E	Mar-09	364.76	$ 45.60	$ 36.49
E	Apr-09	282.9	$ 33.61	$ 26.73
E	May-09	265.65	$ 30.72	$ 21.80

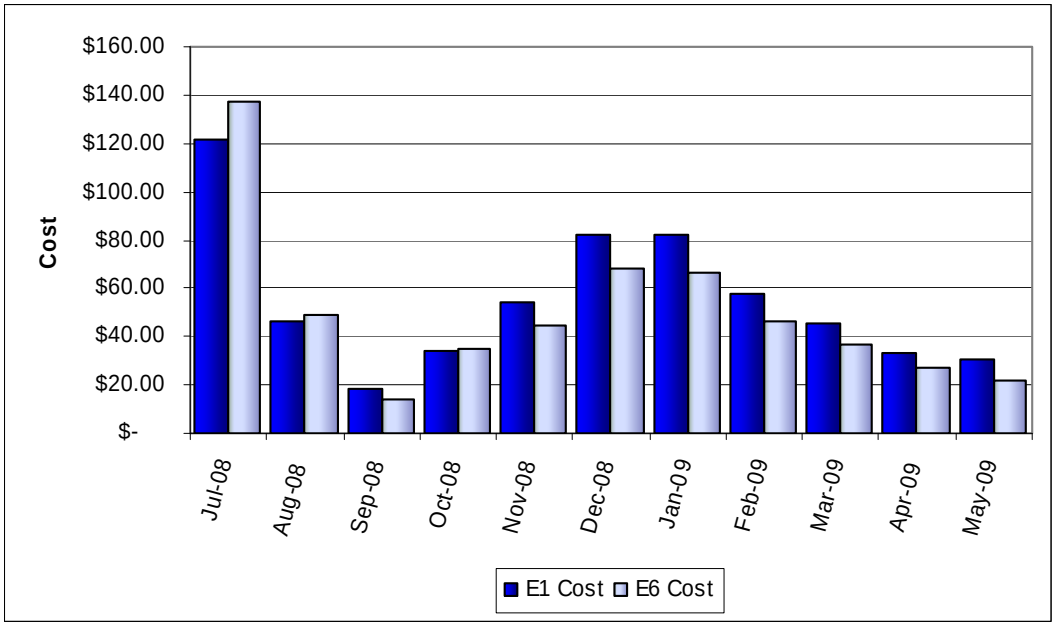

Figure 5 – Site E Rate Schedule Cost Comparison

Table 7 - Site F Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
F	Jun-08	351.08	$ 46.30	$ 44.12
F	Jul-08	442.01	$ 61.78	$ 68.53
F	Aug-08	671.32	$ 97.77	$ 116.91
F	Sep-08	485.03	$ 61.90	$ 67.59
F	Oct-08	351.36	$ 41.36	$ 45.04
F	Nov-08	421.13	$ 54.72	$ 44.39
F	Dec-08	679.74	$ 111.50	$ 94.80
F	Jan-09	560.74	$ 79.65	$ 65.82
F	Feb-09	471.66	$ 67.01	$ 55.51
F	Mar-09	354.59	$ 46.09	$ 37.58
F	Apr-09	233.64	$ 28.22	$ 22.75
F	May-09	285.95	$ 34.08	$ 25.58

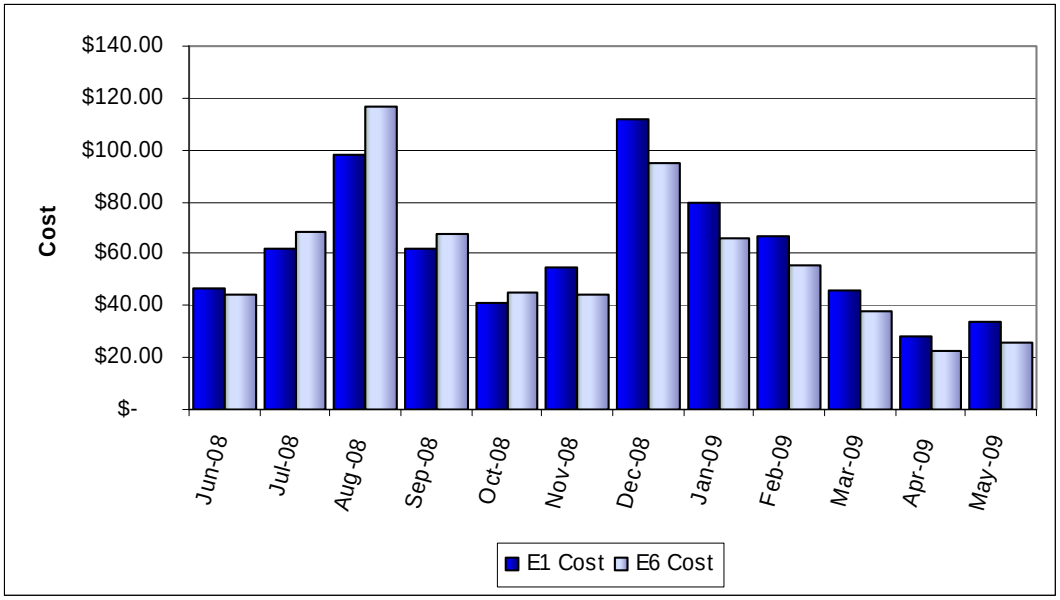

Figure 6 – Site F Rate Schedule Cost Comparison

Table 8 - Site G Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
G	Jun-08	310.65	$ 41.47	$ 44.90
G	Jul-08	459.35	$ 72.84	$ 78.79
G	Aug-08	746.18	$ 114.19	$ 134.11
G	Sep-08	490.61	$ 67.15	$ 74.14
G	Oct-08	289.67	$ 34.09	$ 31.39
G	Nov-08	434.59	$ 62.33	$ 51.58
G	Dec-08	674.34	$ 109.62	$ 92.80
G	Jan-09	481.66	$ 67.46	$ 55.58
G	Feb-09	419.56	$ 61.19	$ 50.87
G	Mar-09	281.3	$ 38.71	$ 31.86
G	Apr-09	186.65	$ 21.98	$ 17.62
G	May-09	371.38	$ 50.45	$ 44.39

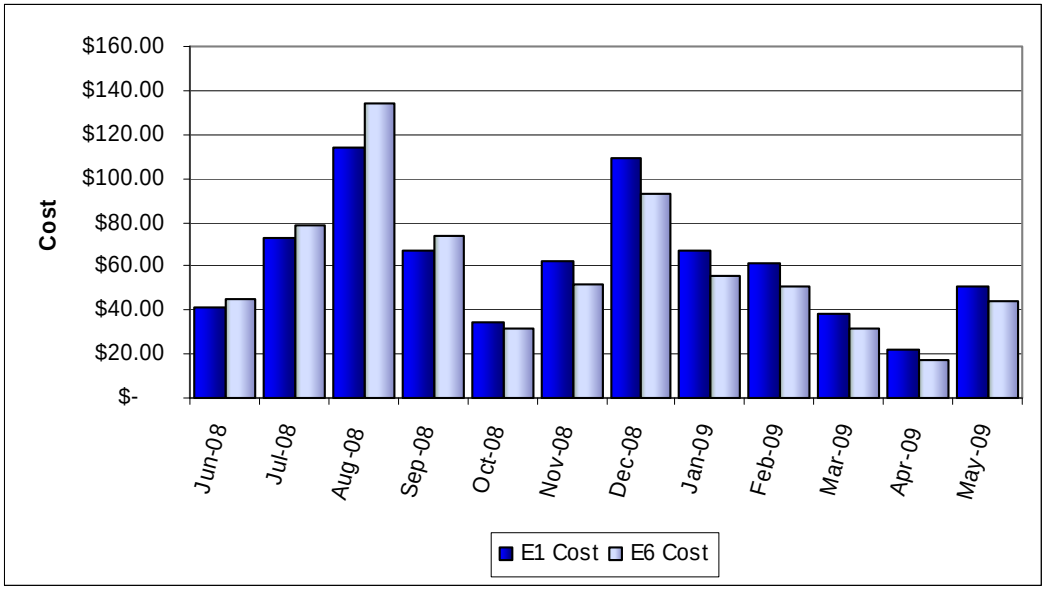

Figure 7 – Site G Rate Schedule Cost Comparison

Table 9 - Site H Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
H	Jun-08	1016.66	$ 209.71	$ 205.20
H	Jul-08	1594.92	$ 386.59	$ 409.73
H	Aug-08	1600.47	$ 383.76	$ 409.06
H	Sep-08	1383.23	$ 307.03	$ 332.92
H	Oct-08	1088.94	$ 200.01	$ 212.47
H	Nov-08	1110.93	$ 258.99	$ 230.56
H	Dec-08	1441.9	$ 384.42	$ 347.89
H	Jan-09	1128.69	$ 271.83	$ 242.99
H	Mar-09	719.57	$ 139.14	$ 120.77
H	Apr-09	766.18	$ 138.64	$ 119.24
H	May-09	1251.84	$ 272.82	$ 294.46

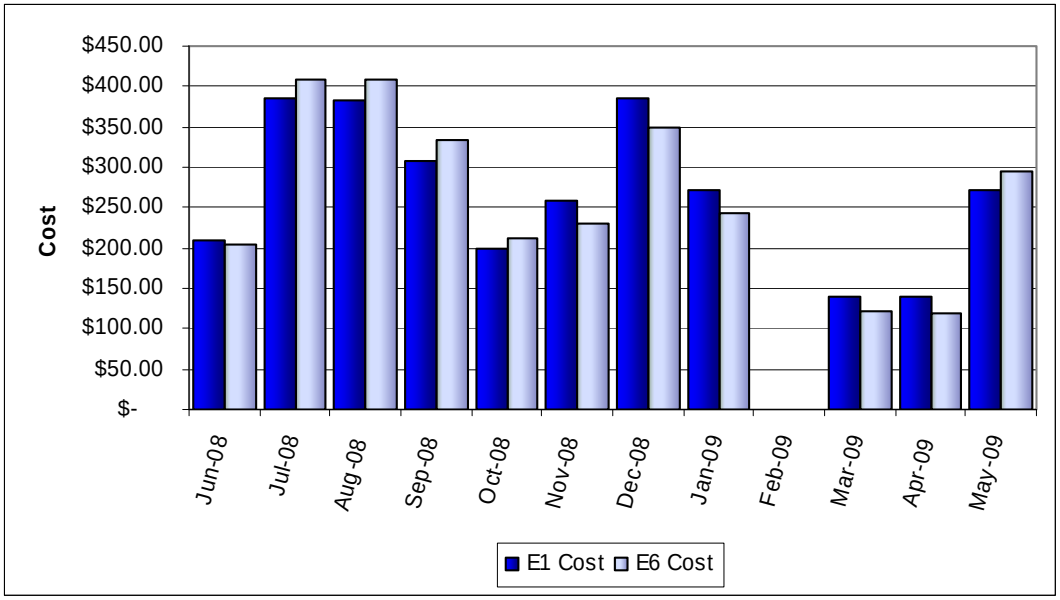

Figure 8 – Site H Rate Schedule Cost Comparison

Table 10 - Site I Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
I	Jun-08	283.07	$ 35.19	$ 34.26
I	Jul-08	338.03	$ 39.93	$ 42.02
I	Aug-08	372.46	$ 44.97	$ 46.13
I	Sep-08	276.17	$ 34.14	$ 33.57
I	Oct-08	109.53	$ 12.65	$ 10.12
I	Nov-08	164.1	$ 18.96	$ 15.03
I	Dec-08	200.1	$ 23.20	$ 18.38
I	Jan-09	121.26	$ 14.02	$ 11.32
I	Feb-09	162.13	$ 18.78	$ 14.94
I	Mar-09	35.17	$ 4.06	$ 3.61
I	Apr-09	-25.12	$ (2.90)	$ (1.84)
I	May-09	-10.44	$ (1.21)	$ (13.42)

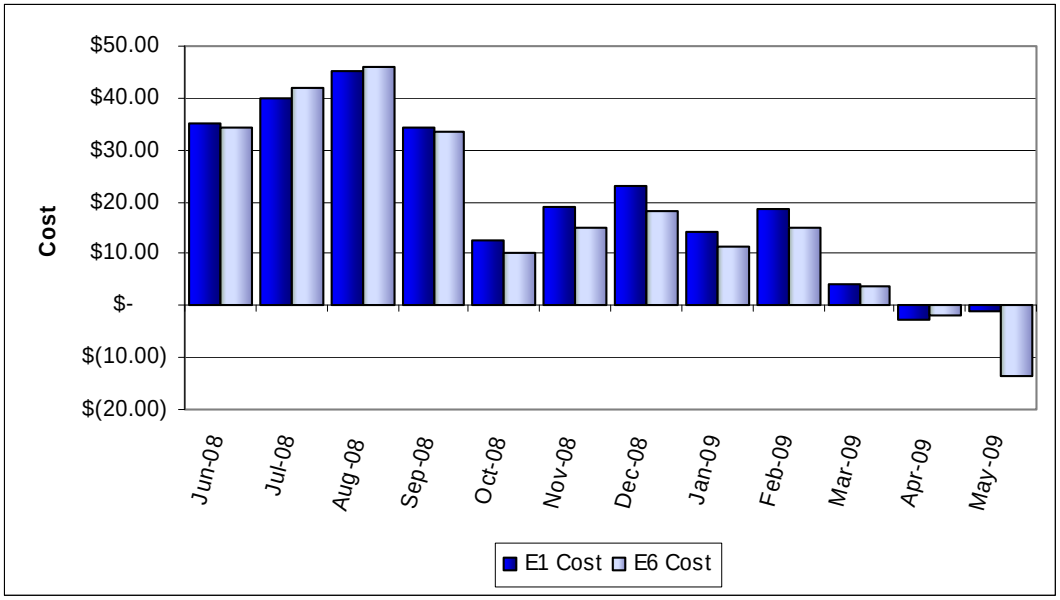

Figure 9 – Site I Rate Schedule Cost Comparison

Table 11 - Site J Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
J	Jun-08	-183.33	$ (21.18)	$ (34.77)
J	Jul-08	72.99	$ 9.10	$ 6.73
J	Aug-08	132.94	$ 15.51	$ 25.34
J	Sep-08	76.15	$ 11.27	$ 10.65
J	Oct-08	-16.22	$ (1.87)	$ (1.73)
J	Nov-08	142.69	$ 17.37	$ 14.04
J	Dec-08	187.34	$ 21.89	$ 17.51
J	Jan-09	148.43	$ 17.48	$ 14.14
J	Feb-09	121.7	$ 15.48	$ 12.81
J	Mar-09	-53.41	$ (5.85)	$ (4.00)
J	Apr-09	-146.31	$ (16.90)	$ (12.70)
J	May-09	-151.98	$ (17.55)	$ (30.90)

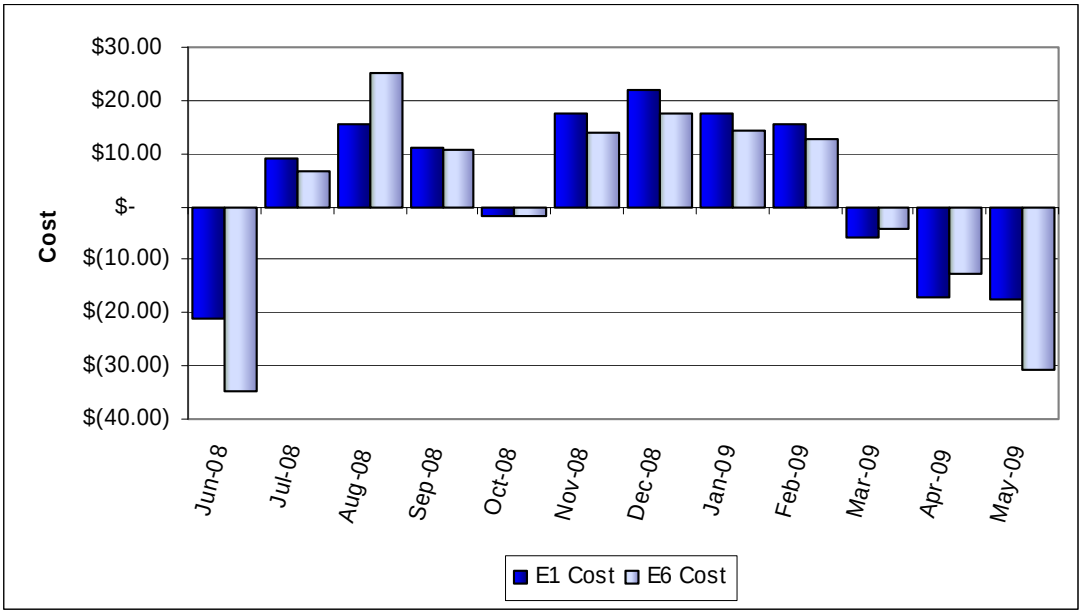

Figure 10 – Site J Rate Schedule Cost Comparison

Table 12 - Site K Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
K	Jun-08	982.16	$ 167.58	$ 179.90
K	Jul-08	1110.32	$ 209.06	$ 229.99
K	Aug-08	1023.62	$ 189.38	$ 208.50
K	Sep-08	787.35	$ 123.12	$ 135.26
K	Oct-08	528.18	$ 66.00	$ 70.54
K	Nov-08	641.85	$ 101.49	$ 85.35
K	Dec-08	979.95	$ 206.29	$ 181.55
K	Jan-09	643.04	$ 102.77	$ 86.56
K	Feb-09	537.28	$ 84.31	$ 70.79
K	Mar-09	458.87	$ 61.45	$ 50.16
K	Apr-09	475.42	$ 63.23	$ 51.53
K	May-09	549.44	$ 76.34	$ 74.00

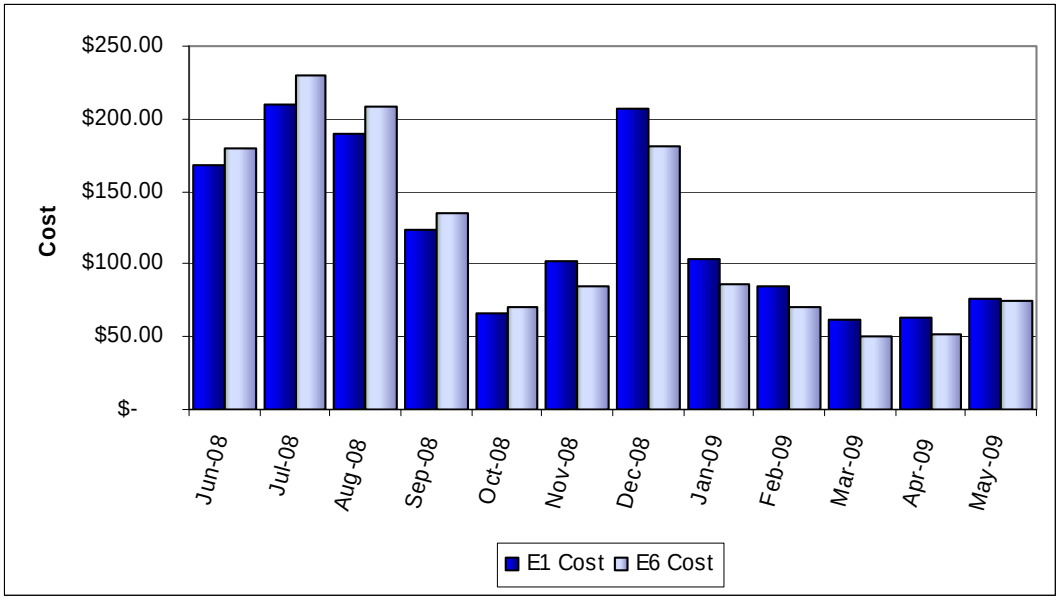

Figure 11 – Site K Rate Schedule Cost Comparison

Table 13 - Site L Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
L	Jun-08	339.1	$ 39.75	$ 29.63
L	Jul-08	505.56	$ 62.96	$ 69.61
L	Aug-08	499.82	$ 64.44	$ 84.64
L	Sep-08	260.35	$ 33.82	$ 36.52
L	Oct-08	213.36	$ 24.70	$ 22.54
L	Nov-08	253.79	$ 32.59	$ 26.33
L	Dec-08	396.8	$ 50.50	$ 40.64
L	Jan-09	352.61	$ 41.62	$ 33.04
L	Feb-09	290.88	$ 36.27	$ 29.23
L	Mar-09	115.63	$ 13.37	$ 10.93
L	Apr-09	49.83	$ 5.76	$ 5.15
L	May-09	67.64	$ 7.85	$ (1.45)

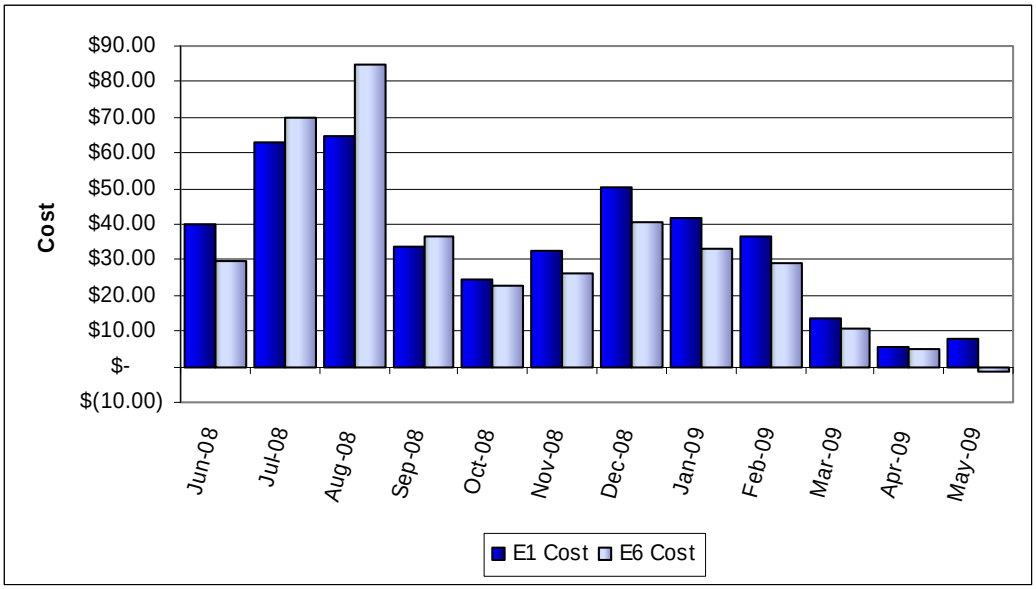

Figure 12 – Site L Rate Schedule Cost Comparison

Table 14 - Site M Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
M	Jun-08	338.98	$ 44.25	$ 47.88
M	Jul-08	630.23	$ 109.53	$ 131.00
M	Aug-08	785.54	$ 144.68	$ 172.21
M	Sep-08	613.17	$ 90.16	$ 101.21
M	Oct-08	628.21	$ 87.13	$ 100.52
M	Nov-08	1012.78	$ 221.97	$ 196.14
M	Dec-08	806.56	$ 155.40	$ 135.07
M	Jan-09	567.81	$ 83.63	$ 69.39
M	Feb-09	675.85	$ 114.83	$ 97.83
M	Mar-09	567.62	$ 86.31	$ 71.94
M	Apr-09	463.53	$ 67.25	$ 55.66
M	May-09	587.49	$ 82.32	$ 85.52

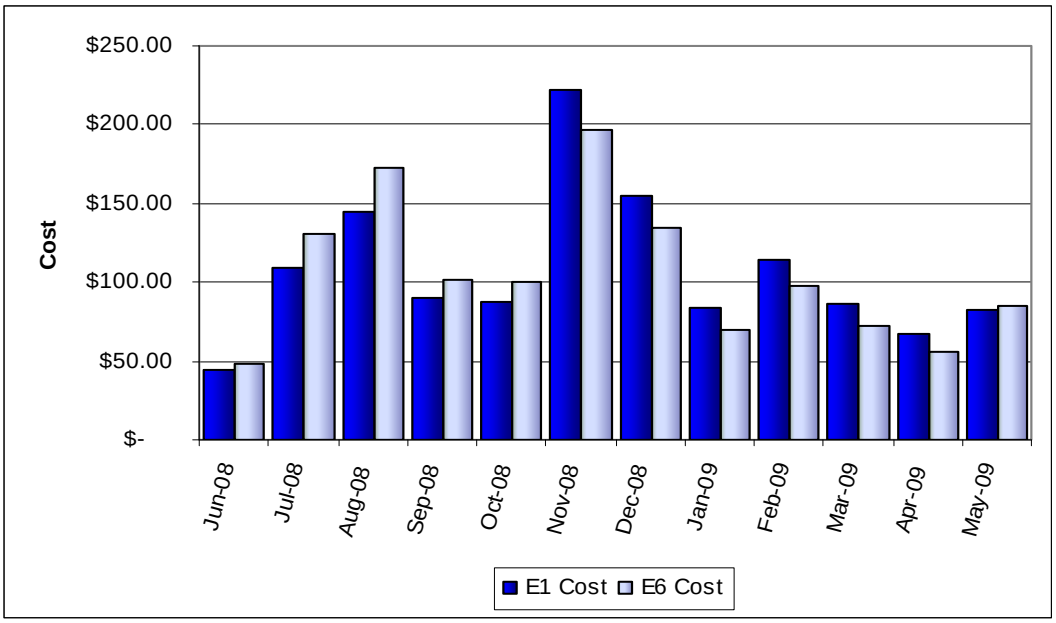

Figure 13 – Site M Rate Schedule Cost Comparison

Table 15 - Site N Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
N	Jun-08	309.67	$ 41.40	$ 46.27
N	Jul-08	458.79	$ 74.90	$ 89.72
N	Aug-08	604.26	$ 93.83	$ 123.73
N	Sep-08	364.84	$ 47.79	$ 51.40
N	Oct-08	280.04	$ 32.42	$ 35.16
N	Nov-08	384.49	$ 49.57	$ 40.25
N	Dec-08	612.48	$ 93.93	$ 78.85
N	Jan-09	415.55	$ 54.39	$ 44.31
N	Feb-09	354.86	$ 44.94	$ 36.61
N	Mar-09	221.88	$ 27.78	$ 22.87
N	Apr-09	97.12	$ 11.92	$ 9.96
N	May-09	145.89	$ 17.06	$ 13.78

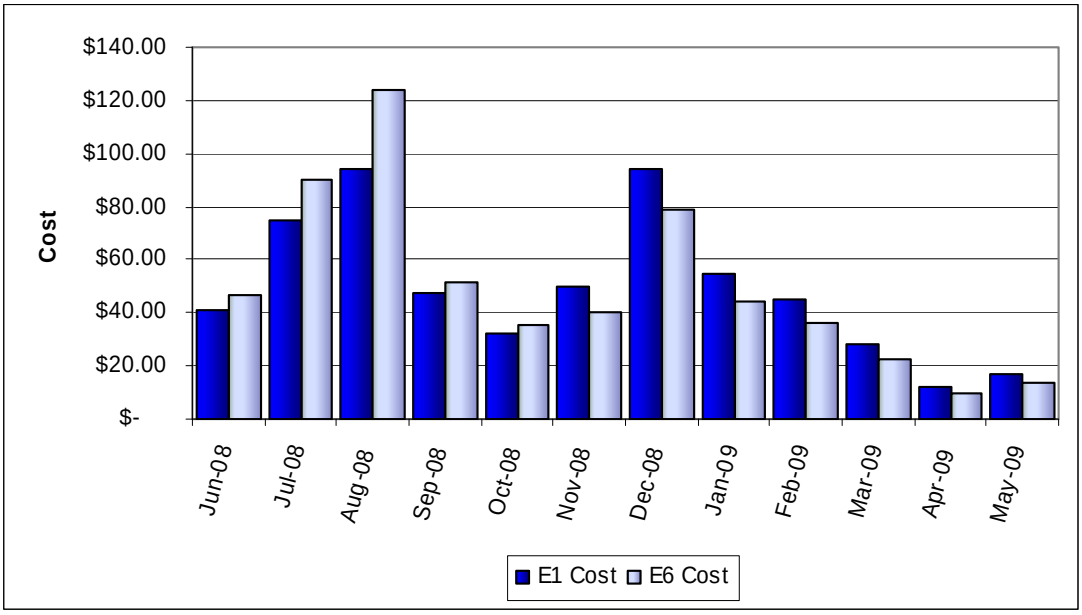

Figure 14 – Site N Rate Schedule Cost Comparison

Table 16 - Site O Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
O	Jun-08	480.99	$ 77.15	$ 84.17
O	Jul-08	772.65	$ 138.31	$ 153.86
O	Aug-08	859.74	$ 152.14	$ 184.66
O	Sep-08	733.41	$ 119.23	$ 134.25
O	Oct-08	457.26	$ 57.97	$ 67.10
O	Nov-08	478.56	$ 67.18	$ 55.24
O	Dec-08	765.35	$ 135.29	$ 116.00
O	Jan-09	582.11	$ 91.88	$ 77.37
O	Feb-09	545.26	$ 82.79	$ 69.24
O	Mar-09	360.79	$ 48.10	$ 39.16
O	Apr-09	326.58	$ 41.32	$ 33.32

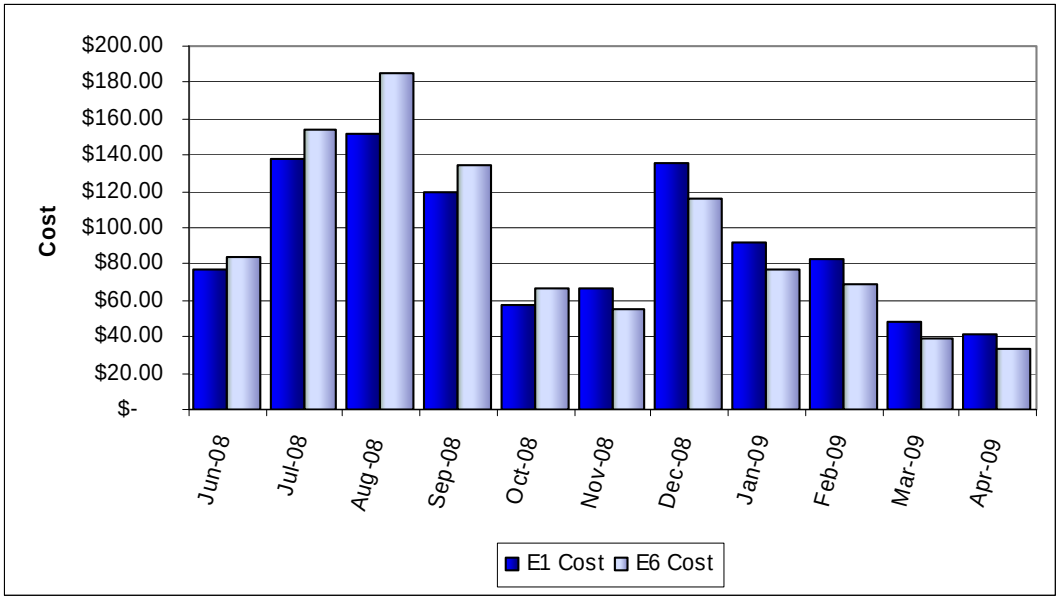

Figure 15 – Site O Rate Schedule Cost Comparison

Table 17 - Site P Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
P	Jun-08	129.15	$ 14.95	$ 12.99
P	Jul-08	230.8	$ 27.73	$ 36.07
P	Aug-08	349.26	$ 41.65	$ 56.71
P	Sep-08	189.05	$ 21.84	$ 28.66
P	Oct-08	111.76	$ 12.91	$ 16.31
P	Nov-08	139.32	$ 16.09	$ 12.63
P	Dec-08	176.18	$ 20.35	$ 15.94
P	Jan-09	148.63	$ 17.17	$ 13.48
P	Feb-09	149.3	$ 17.24	$ 13.52
P	Mar-09	62.39	$ 7.21	$ 5.78
P	Apr-09	71.33	$ 8.24	$ 6.64
P	May-09	19.65	$ 2.27	$ (2.12)

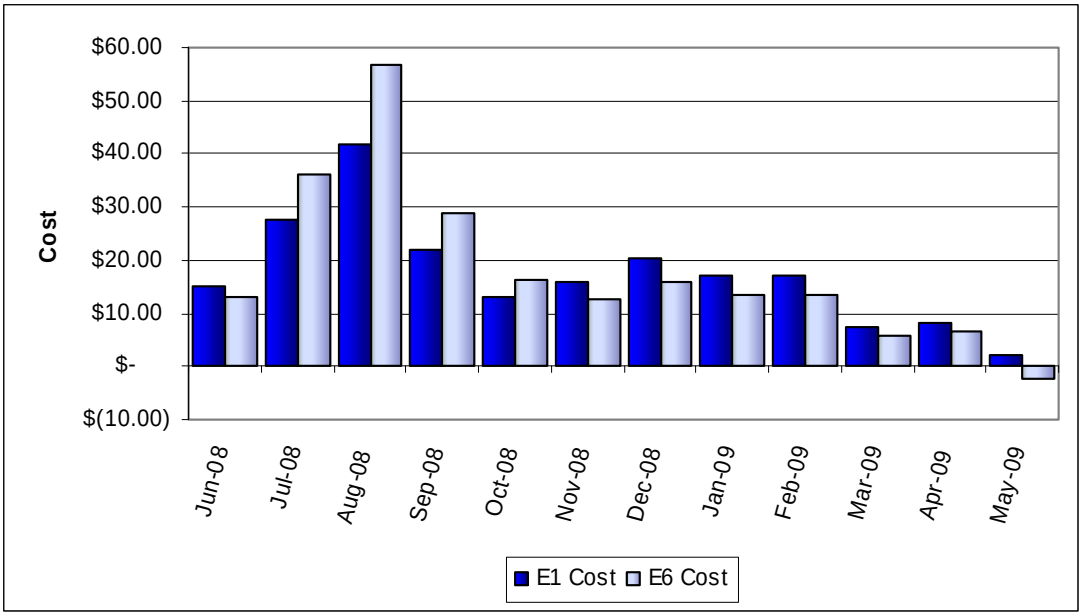

Figure 16 – Site P Rate Schedule Cost Comparison

Table 18 - Site Q Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
Q	Jul-08	715.53	$ 125.78	$ 154.94
Q	Aug-08	915.83	$ 170.54	$ 207.43
Q	Sep-08	633.78	$ 98.25	$ 119.87
Q	Oct-08	455.82	$ 56.01	$ 65.53
Q	Nov-08	543.47	$ 81.39	$ 67.82
Q	Dec-08	1154.6	$ 273.66	$ 244.31
Q	Jan-09	623.08	$ 96.55	$ 80.85
Q	Feb-09	516.6	$ 77.38	$ 64.59
Q	Mar-09	351.3	$ 45.98	$ 37.48
Q	Apr-09	269.59	$ 35.10	$ 28.76
Q	May-09	543.54	$ 81.92	$ 84.82

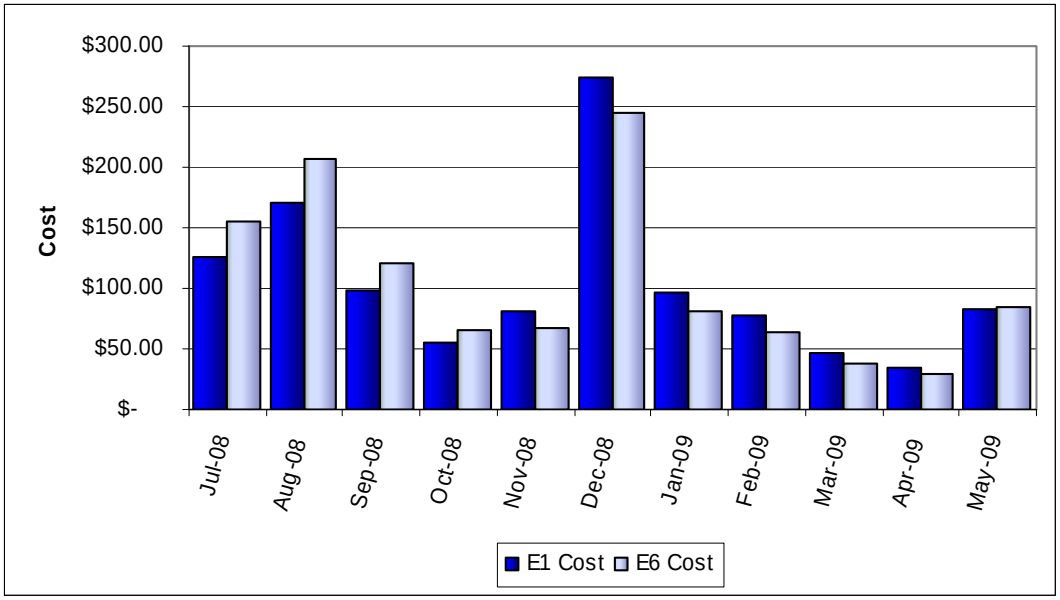

Figure 17 – Site Q Rate Schedule Cost Comparison

Table 19 - Site R Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
R	Jul-08	647.27	$ 107.76	$ 134.96
R	Aug-08	1128.99	$ 227.71	$ 271.03
R	Sep-08	878.47	$ 153.53	$ 179.53
R	Oct-08	635.08	$ 87.78	$ 102.45
R	Nov-08	843.19	$ 168.34	$ 147.30
R	Dec-08	1122.28	$ 263.55	$ 235.17
R	Jan-09	818.07	$ 147.57	$ 127.20
R	Feb-09	698.12	$ 126.77	$ 109.24
R	Mar-09	633.69	$ 103.23	$ 87.36
R	Apr-09	602.68	$ 98.60	$ 83.76
R	May-09	922.09	$ 174.37	$ 200.98

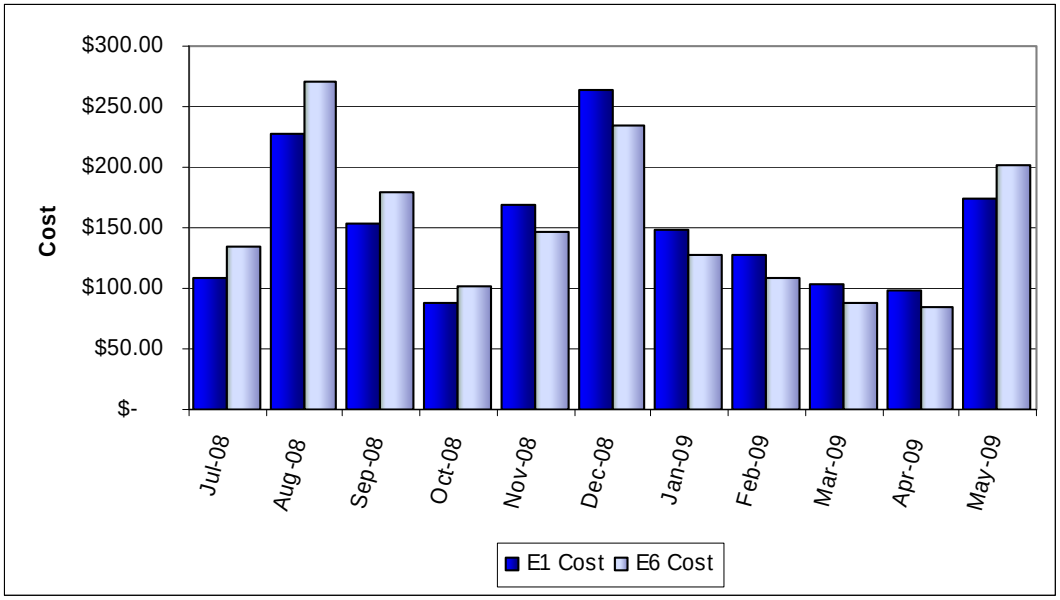

Figure 18 – Site R Rate Schedule Cost Comparison

Table 20 - Site S Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
S	Jun-08	219.21	$ 29.23	$ 33.01
S	Jul-08	561.78	$ 84.62	$ 105.81
S	Aug-08	573.98	$ 83.56	$ 110.43
S	Sep-08	454.28	$ 65.57	$ 89.14
S	Oct-08	186.67	$ 23.79	$ 27.44
S	Nov-08	244.51	$ 28.76	$ 22.75
S	Dec-08	434.84	$ 59.44	$ 48.74
S	Jan-09	326.82	$ 40.02	$ 32.04
S	Feb-09	286.14	$ 36.16	$ 29.19
S	Mar-09	168.6	$ 21.11	$ 17.16
S	Apr-09	17.12	$ 2.03	$ 1.93
S	May-09	74.76	$ 8.79	$ 3.18

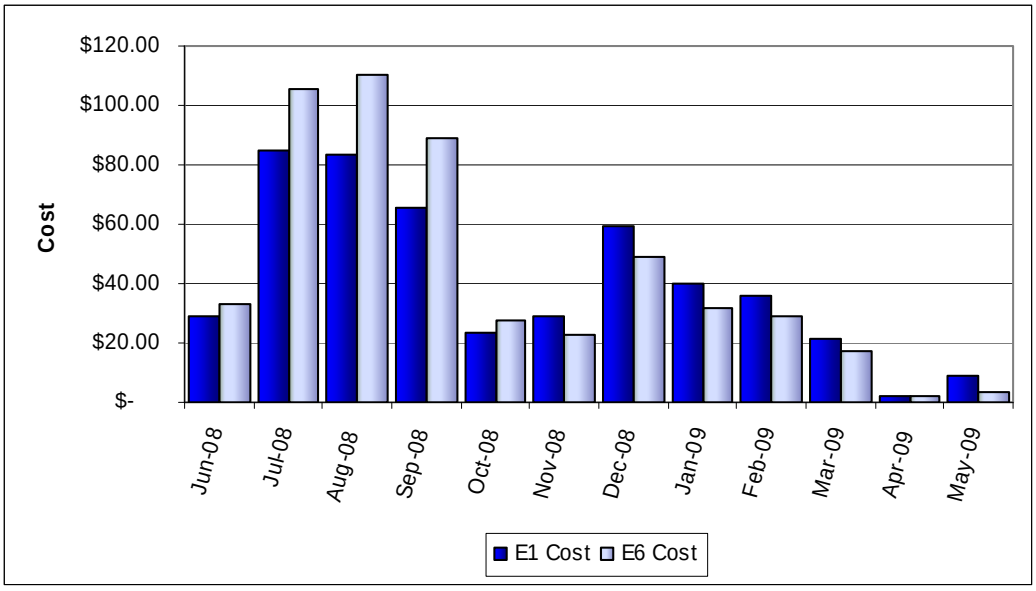

Figure 19 – Site S Rate Schedule Cost Comparison

Table 21 - Site T Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
T	Jun-08	394.4	$ 56.48	$ 62.91
T	Jul-08	798.24	$ 124.17	$ 161.68
T	Aug-08	766.65	$ 115.54	$ 155.50
T	Sep-08	554.33	$ 77.83	$ 99.22
T	Oct-08	365.74	$ 42.45	$ 55.21
T	Nov-08	448.81	$ 60.86	$ 50.03
T	Dec-08	652.46	$ 103.39	$ 87.56
T	Jan-09	502.67	$ 70.48	$ 58.20
T	Feb-09	502.35	$ 71.73	$ 59.33
T	Mar-09	391.64	$ 49.99	$ 40.51
T	Apr-09	293.51	$ 36.70	$ 29.95
T	May-09	350.83	$ 43.19	$ 52.05

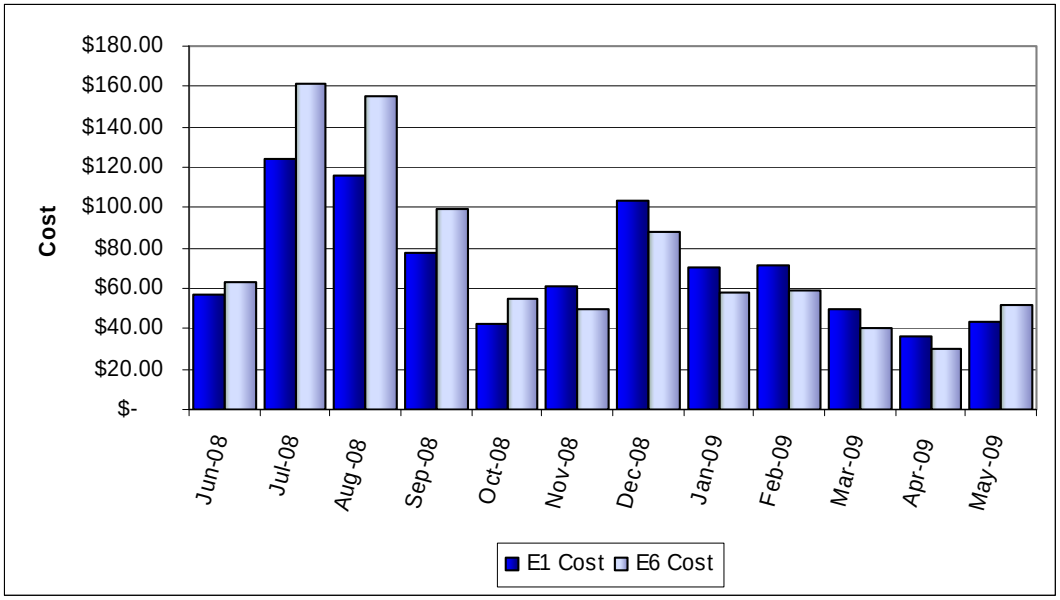

Figure 20 – Site T Rate Schedule Cost Comparison

Table 22 - Site U Usage and Cost Profile

Site	Date	usage	E1 Cost	E6 Cost
U	Jun-08	795.29	$ 134.37	$ 168.37
U	Jul-08	938.09	$ 176.92	$ 225.89
U	Aug-08	1329.59	$ 288.32	$ 348.26
U	Sep-08	1283.86	$ 275.74	$ 310.00
U	Oct-08	647.12	$ 95.00	$ 109.14
U	Nov-08	605.62	$ 99.19	$ 84.16
U	Dec-08	1129.22	$ 264.74	$ 236.41
U	Jan-09	950.9	$ 199.78	$ 175.64
U	Feb-09	588.19	$ 100.86	$ 85.90
U	Mar-09	444.2	$ 67.06	$ 56.56
U	Apr-09	326.05	$ 65.57	$ 58.01
U	May-09	735.27	$ 115.64	$ 145.34

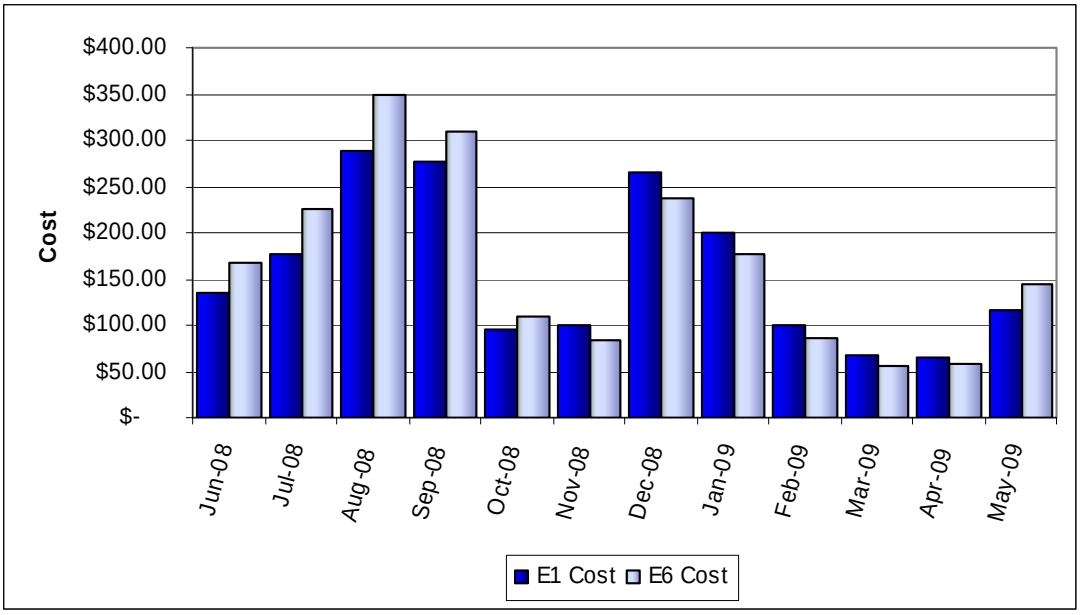

Figure 21 – Site U Rate Schedule Cost Comparison