



## Customer Information

Name: John Smith  
Service Address: 123 Main St., Davis, CA 95616  
VCE Account #: 0123456789  
Occupancy Status: Owner  
Household Income: \$250,000  
Rate Category: ETOUC  
Bill Discounts: None

## Home Assessment

Year Built: 1965  
Square Footage: 3,000  
Stories: 2  
Bedrooms/Bathrooms: 5 bed / 3.5 bath  
Garage: Attached  
Number of Occupants: 2  
Main Service Breaker Size: 125 amps  
Service Feed: Underground - PG&E will need to assess for panel upgrade  
Peak Load (previous year): 5.17 kWh, 21.54 amps  
Home Insulation: Unknown - have HVAC contractor assess insulation levels  
HVAC Ducting: Ducted  
Electric Vehicle: No  
Solar & Battery: No  
Pool & Spa: No  
Permit Information: [Davis](#) / 530-757-5610 / [OnlinePermits@cityofdavis.org](mailto:OnlinePermits@cityofdavis.org)

### Notes and Customer Interests/Goals:

2100 sq ft prior to rebuild upgraded to 3000 sq ft livable area.  
Interests: Use of clean, renewable energy to power highly efficient appliances for home use (HVAC, kitchen, hot water)

## Electric Advisor Recommendations & Estimated Costs

		Existing	Go Electric Recommendation	Priority	Estimated Upfront Cost*	Estimated Cost After Incentives*	Learn More (click link to open)
	Panels & Circuits	125-amp main electrical panel. No 240-volt circuits to water heater, HVAC, cooktop	200-amp panel (check with PG&E on electric service upgrade needs & costs); 3 240-volt circuits to water heater, HVAC, cooktop	1	\$3,000 (panel) \$4,000 (service upgrade, if req.) \$2,500 (wiring)	\$400 (panel) \$2,082 (service upgrade, if req.) \$0 (wiring)	<a href="#">Electrical Basics</a> <a href="#">Panel Upgrades</a> <a href="#">Pros &amp; Cons</a> <a href="#">Circuits &amp; Wiring</a>
	Electric Vehicle	None, not currently considering	<a href="#">Learn more about EVs at the resources provided to the right.</a>	--	--	--	<a href="#">EV Buyer's Guide</a> <a href="#">VCE EV Resources</a> <a href="#">EV Charging 101</a>
	Cooktop & Range	Gas cooktop, 5-burner, electric oven	Induction <i>Requires induction compatible cookware. If it's magnetic, it works!</i>	4	\$2,000	\$1,950	<a href="#">Buyer's Guide</a> <a href="#">Pros &amp; Cons</a> <a href="#">Installation</a> <a href="#">Cooking Demo</a>
	Clothes Dryer	Electric	Consider a heat pump dryer in the future if replacing your current electric dryer.	--	--	--	<a href="#">Buyer's Guide</a> <a href="#">Pros &amp; Cons</a> <a href="#">Installation</a>
	Water Heater	Gas	Heat pump water heater, 65-80 gallon	2	\$7,500	\$0	<a href="#">Buyer's Guide</a> <a href="#">Pros &amp; Cons</a>
	Heating & Cooling	Gas	Heat pump HVAC system, 5-ton 60,000 BTU, variable speed	3	\$17,000 (Price may vary depending on one or two air handlers)	\$6,750 (any all-electric & whole-home bonuses/incentives are included here)	<a href="#">Buyer's Guide</a> <a href="#">Pros &amp; Cons</a>
	Solar & Battery	None <i>Note: will need panel upgrade to accommodate</i>	2.7 kW rooftop solar system 13.5 kWh battery  <i>Based on actual usage data for your home.</i>	5	\$7,980 (solar) \$13,500 (battery)	\$7,586 (solar) \$7,425 (battery)	<a href="#">Get Started With Solar</a> <a href="#">About Battery Storage</a>

\*The costs listed above are estimates only. We recommend getting at least 3 quotes.

## Rebates, Incentives & Contractors

Program	Item	Amount	Instructions & Contractors
<a href="#">PG&amp;E Electric Service Upgrade Allowance</a>	Electric Service (if upgrading electric service for a panel upgrade)	\$1,918	Contact PG&E at 1-877-743-7782 for your request. Representatives are available Monday-Friday 7a.m. - 6p.m.
<a href="#">TECH Clean California</a>	Heat Pump Water Heater	Up to \$7,300	Must use a <a href="#">TECH-enrolled contractor</a> to receive rebates.
	Heat Pump HVAC	\$1,000	
<a href="#">CA Energy-Smart Homes Whole Building Electrification</a>	Whole-Home Incentive	\$4,250	<a href="#">Online Application</a>
	Electric Infrastructure Upgrade Bonus (\$1,000 per unit served)	\$3,000	
<a href="#">PG&amp;E Self-Generation Incentive Program</a>	Battery Storage	Varies, 15-20% of the average battery cost	Please work with your installer to <a href="#">submit an application</a> . <a href="#">Get Quotes &amp; Install</a>
<a href="#">Golden State Rebates</a>	Heat Pump Water Heater	\$900	<a href="#">Verify eligibility online</a> Consult with contractor about applying for incentive.
<a href="#">Federal Tax Credits</a>	Panel Upgrade	30%, up to \$600	Consult with your tax advisor
	Heat Pump Water Heater	30%, up to \$2k	
	Heat Pump HVAC	30%, up to \$2k	
	Solar	30%	After seeking professional tax advice and ensuring you are eligible for the credits, you can complete and attach <a href="#">IRS Form 5695</a> to your federal tax return (Form 1040 or Form 1040NR). <a href="#">Solar &amp; battery tax credit info</a>
	Battery Storage	30%	

Contractor Tips and Tools: [Find a Contractor](#); [Tips For Hiring a Contractor](#); [Find My Licensed Contractor](#)

## Operational Energy Savings & Payback

Because electric appliances and equipment are more efficient to run, they may help lower your overall energy bill. The following resources and tools explain how much you can save.

[EV Savings Calculator](#)

[Induction Cooktop Savings](#)

[Heat Pump HVAC Savings Calculator](#)

[HP Clothes Dryer Savings & Benefits](#)

[Heat Pump Water Heater Savings](#)

[Solar & Battery Calculator](#)

## Maximizing Your Home's Energy Efficiency

Ask your contractor(s) about the following improvements to help you save money. Or contact us for a free virtual energy audit to assess your home's efficiency and discuss steps you can take!

### HVAC

- Smart thermostat & programming
- Insulation (wall, attic)
- Air sealing (doors, windows)
- Duct sealing
- Ceiling fans & portable heaters

### Plumbing & Irrigation

- Faucet aerators
- Low-flow showerheads
- Pipe & tank insulation
- Watering schedule
- Pool/spa pump schedule

### General/Electric

- Caulking & gaskets
- Smart controls & switches
- LED bulbs
- Window upgrade
- Curtains & blinds

## Rate Plan Incentives and Programs

### Electric Home Rate Plan (E-ELEC)

The Electric Home rate plan is ideal if you electrify your home with one or more of the following:

- Electric vehicle (EV)
- Battery storage
- Electric heat pump for water heating or climate control (space heating or cooling)

It includes a \$15-per-month Base Services Charge that lowers the price you pay per unit of energy (KWh), on average, compared to other rate plans. If you are a large electricity user who can shift usage to lower priced times of day, this rate plan may save you money. Your home does not need to be all-electric to qualify for this rate plan.

### Net Energy Metering (NEM) Program

VCE's Net Energy Metering (NEM) program helps you reduce your monthly electric costs with the energy generated by your own rooftop solar energy system. Your net energy is calculated by finding the difference between:

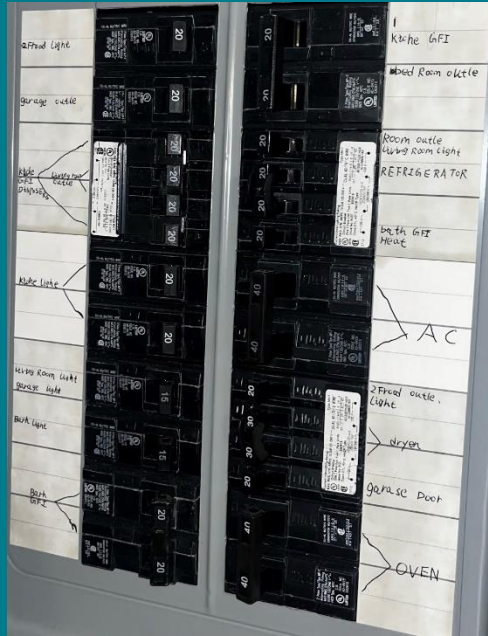
- The electricity your solar system produces
- The amount VCE supplies (your usage)

A special meter measures your net energy. We calculate your bill using this measurement. Customers in the NEM program are automatically placed on a monthly or a 12-month billing cycle, following their PG&E billing cycle. If you generated more than you used on a monthly basis, VCE credits you at full retail value - plus a penny/kWh bonus. These credits accrue every month and offset electricity you use in the future.

### Electric Vehicle Rates

If you drive an electric vehicle (EV), you can lower your energy costs by enrolling in an EV rate plan. See if an EV rate plan can save you money with the [EV Savings Calculator](#).

# Customer-Provided Photographs



Catalog Number  
**LC2040L1125**  
**LC2040L1125CU**

Model  
**Type 1**

Enclosure  
**Indoor Load Center**

RATINGS: 125A MAXIMUM - SEE MAIN BREAKER RATING IF USED  
BACK FEED BREAKER REQUIRES HOUD-DOWN KIT ECMBR125  
120/240 V - 60 HZ, 10 3W  
208Y/120 V - 60 HZ, 10 3W

RATING LIMITED TO 100A WHEN SUBJECT TO NEW YORK CITY ELEC. CODE BULLETIN NO. 125

FOR INSTALLATION BY A QUALIFIED PERSON IN ACCORDANCE WITH ALL LOCAL ELECTRICAL CODES AND/OR THE NATIONAL ELECTRICAL CODE®

**SUITABLE FOR USE AS SERVICE EQUIPMENT WHEN MAIN BREAKER IS INSTALLED.** WHEN USED AS SERVICE EQUIPMENT, APPLY "SERVICE DISCONNECT" LABEL TO FRONT NEXT TO MAIN BREAKER HANDLE.

WHEN USED AS SERVICE EQUIPMENT, UNUSED NEUTRAL BAR TERMINALS MAY BE USED TO TERMINATE EQUIPMENT GROUNDING WIRES IN THE COMBINATIONS INDICATED FOR EQUIPMENT GROUND BAR TERMINALS.

TO BOND NEUTRAL TO ENCLOSURE, BOND STRAP PROVIDED TO POSITION FREE END INTO ANY NEUTRAL TAP HOLE. TIGHTEN CONNECTOR SET SCREW ON BOND STRAP TO .35 LB-IN. WHEN NEUTRAL IS BONDED, LEFT BAR BECOMES SPLIT NEUTRAL.

SUM OF MHT BREAKER RATINGS IS NOT TO EXCEED 110 AMPS PER BRANCH CIRCUIT BUS STAB. TO RESET BREAKERS WITH TRIPPED HANDLE POSITION BETWEEN "ON" AND "OFF", MOVE HANDLE TO "OFF" THEN TO "ON".

REMOVE TWISTOLTS FROM TRIM ONLY WHERE BREAKERS WILL BE INSTALLED. ALL OPENINGS MUST BE FILLED WITH BRACKETS OR FILLER PLATES. USE ONE ECMBF125 FILLER PLATE TO FILL 100-125A MAIN BREAKER OPENING.

Murray Electrical Products  
Siemens Industry, Inc.  
Norcross, Georgia U.S.A.

J2

**MURRAY**

**SHORT CIRCUIT CURRENT RATING**

THIS PANELBOARD HAS A MAXIMUM SHORT CIRCUIT CURRENT RATING OF 100,000 AMPS RMS SYMMETRICAL 120/240V. THE ACTUAL RATING IS DEPENDENT ON THE BRANCH BREAKER INSTALLED IN THIS PANELBOARD AND THE MAIN FEEDER BREAKER. IF ANY INSTALLED AHEAD OF THIS PANELBOARD, THE CORRECT MAIN BREAKER/FEEDER MAIN BREAKER/PANELBOARD MAIN BREAKER BRANCH BREAKER SERIES COMBINATIONS TO BE USED ARE LISTED IN THE TABULATION BELOW. ANY CIRCUIT BREAKER INSTALLED, REPLACED OR ADDED IN THIS PANELBOARD MUST BE MANUFACTURED BY SIEMENS (MURRAY BRAND) AND MUST BE OF THE CORRECT TYPE AS INDICATED IN THE TABULATION BELOW. USE OF OTHER CIRCUIT BREAKERS IN THIS EQUIPMENT WILL VOID THE WARRANTY.

MAIN BREAKER	FEEDER MAIN BREAKER	PANELBOARD MAIN BREAKER	BRANCH BREAKER	THEY'VE MAX SHORT CIRCUIT CURRENT RATING IN RMS SYMMETRICAL AMPS (120/240 V- IS)
WHEN THE MAIN PROTECTING THE SYSTEM IS A	AND THE BREAKER PROTECTING THIS PANELBOARD IS A TYPE	AND THE INSTALLED MAIN BREAKER IN THIS PANELBOARD IS A TYPE	AND THE BRANCH BREAKERS INSTALLED ARE TYPE	
NONE USED OR SIEMENS BREAKER TYPE (J202R-A), (J202R-A1), (J202R-A2), (J202R-A3), (J202R-A4), (J202R-A5), (J202R-A6), (J202R-A7), (J202R-A8), (J202R-A9), (J202R-A10), (J202R-A11), (J202R-A12), (J202R-A13), (J202R-A14), (J202R-A15), (J202R-A16), (J202R-A17), (J202R-A18), (J202R-A19), (J202R-A20), (J202R-A21), (J202R-A22), (J202R-A23), (J202R-A24), (J202R-A25), (J202R-A26), (J202R-A27), (J202R-A28), (J202R-A29), (J202R-A30), (J202R-A31), (J202R-A32), (J202R-A33), (J202R-A34), (J202R-A35), (J202R-A36), (J202R-A37), (J202R-A38), (J202R-A39), (J202R-A40), (J202R-A41), (J202R-A42), (J202R-A43), (J202R-A44), (J202R-A45), (J202R-A46), (J202R-A47), (J202R-A48), (J202R-A49), (J202R-A50), (J202R-A51), (J202R-A52), (J202R-A53), (J202R-A54), (J202R-A55), (J202R-A56), (J202R-A57), (J202R-A58), (J202R-A59), (J202R-A60), (J202R-A61), (J202R-A62), (J202R-A63), (J202R-A64), (J202R-A65), (J202R-A66), (J202R-A67), (J202R-A68), (J202R-A69), (J202R-A70), (J202R-A71), (J202R-A72), (J202R-A73), (J202R-A74), (J202R-A75), (J202R-A76), (J202R-A77), (J202R-A78), (J202R-A79), (J202R-A80), (J202R-A81), (J202R-A82), (J202R-A83), (J202R-A84), (J202R-A85), (J202R-A86), (J202R-A87), (J202R-A88), (J202R-A89), (J202R-A90), (J202R-A91), (J202R-A92), (J202R-A93), (J202R-A94), (J202R-A95), (J202R-A96), (J202R-A97), (J202R-A98), (J202R-A99), (J202R-A100)	10,000			
NONE USED	MP-T	NONE USED, M1 OR MP-T	MP-T, M1-T, MP-HT, MP-MT, MP-GT, MP-HGT, MP-ET, MP-FET, MP-AT, MP-HAT	22,000
NONE USED	MP-HT	NONE USED	MP-T, M1-T, MP-HT, MP-MT, MP-GT, MP-HGT, MP-ET, MP-FET, MP-AT, MP-HAT	65,000
NONE USED	NONE USED	NONE USED	MP-T, M1-T, MP-HT, MP-MT, MP-GT, MP-HGT, MP-ET, MP-FET, MP-AT, MP-HAT	100,000
NONE USED	NONE USED	NONE USED	MP-MT	
300V T FUSES - 200A MAX.	NONE USED	NONE USED	MP-T, M1-T, MP-HT, MP-MT, MP-GT, MP-HGT, MP-ET, MP-FET, MP-AT, MP-HAT	

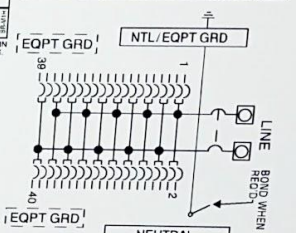
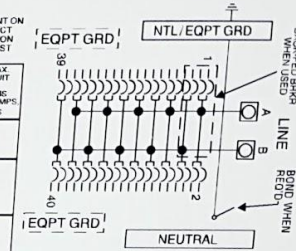
IF THE PANELBOARD IS EITHER A MAIN LUG DEVICE THAT MAY BE CONVERTED TO MAIN LUGS WITH THE ADDITION OF MAIN LUGS, SEE ACCESSORY TABLE FOR CATALOG NUMBERS OF APPROPRIATE KITS.

THIS LOAD CENTER IS INVERTIBLE FOR BOTTOM FEED APPLICATIONS.

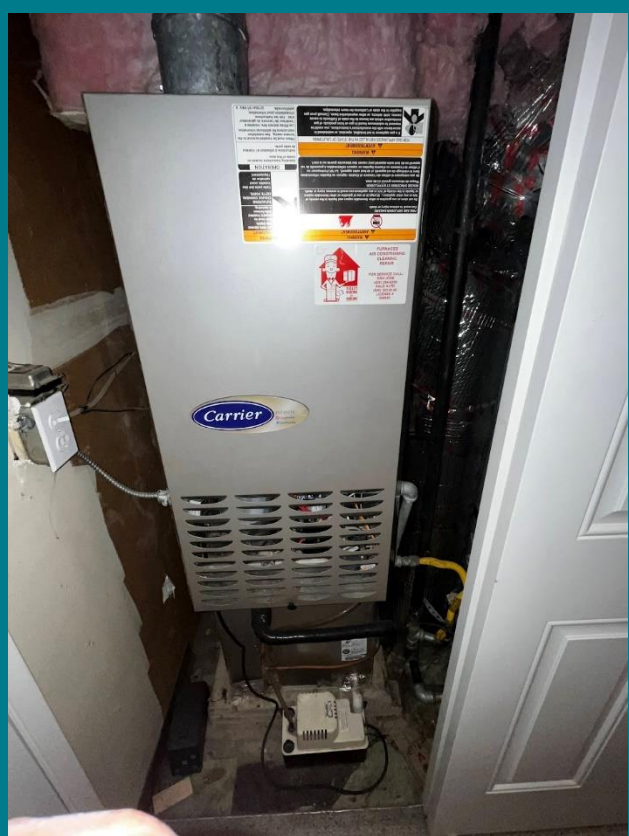
**USE COPPER OR ALUMINUM 60/75°C WIRE** SEE BREAKER MARKINGS FOR WIRE SIZE AND TORQUE REQUIREMENTS.

TERMINALS	WIRE	TORQUE	EQUIPMENT GROUND BAR
A, B	20 - 4 AWG	110 LB-IN	TERMINALS ARE SUITABLE FOR THE FOLLOWING WIRE COMBINATIONS: SMALL TERMINALS: ONE 14 TO 6 AWG CU, ONE 12 TO 6 AWG AL, TWO 14 AWG CU, TWO 12 AWG CU, TWO 12 AWG AL SOLID WIRES.
NEUTRAL AND EOQPT GROUND BAR			LARGE TERMINALS: ONE 14 TO 2 AWG CU, ONE 12 TO 2 AWG AL, TWO OR THREE 14 AWG CU, TWO OR THREE 12 AWG CU OR AL, TWO 10 AWG CU, TWO OR THREE 10 AWG AL, THREE 10 AWG CU SOLID WHEN TORQUED TO 90 LB-IN, THREE 10 AWG CU STRANDED.
SMALL TERMINALS	10 - 14 AWG	20 LB-IN	
LARGE TERMINALS	8 AWG	25 LB-IN	
	6 AWG	35 LB-IN	
	4 AWG	45 LB-IN	
	2 AWG	50 LB-IN	
EOQPT2C NEUTRAL LUG KIT	70 - 6 AWG	50 LB-IN	
MAIN LUG MAIN BREAK TO BUS CONNECTION (LR20-M27)	45 LB-IN		

DESCRIPTION	CAT. NO.	DESCRIPTION	CAT. NO.
DOOR LOCK	ECDFL2	125 AMP MAIN BREAKER	MBK125M
TRIP RELEASE KIT	ECDFR	100-125 AMP MAIN LUG	ECMLK125
RELEASES LOCKDOWN	ECRBR2		
MAIN BREAKER FILLER PLATE (ECMBF125)			
GROUND BAY KITS - USE "X" SERIES			
STANDBY PWR INTERLOCK KITS			
ECSPR01, ECSPR02, ECSPR04			



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® The National Electrical Code is a registered trademark of the National Fire Protection Association.



The ability to use the Valley Clean Energy Electric Advisor service, the amount and types of benefits or incentives available to you, and what kind of optimization the Electric Advisor service can do will depend on the specific equipment at your site, and no results or rebates/incentives are guaranteed. The personalized plan recommended through the Electric Advisor service will include site-specific details based on what the Electric Advisor team determines your equipment and electricity needs are able to accommodate.