Keith O'Hara

- Eco Performance Builders
- Home Performance all electric retrofits
- General, HVAC, and Insulation contractor





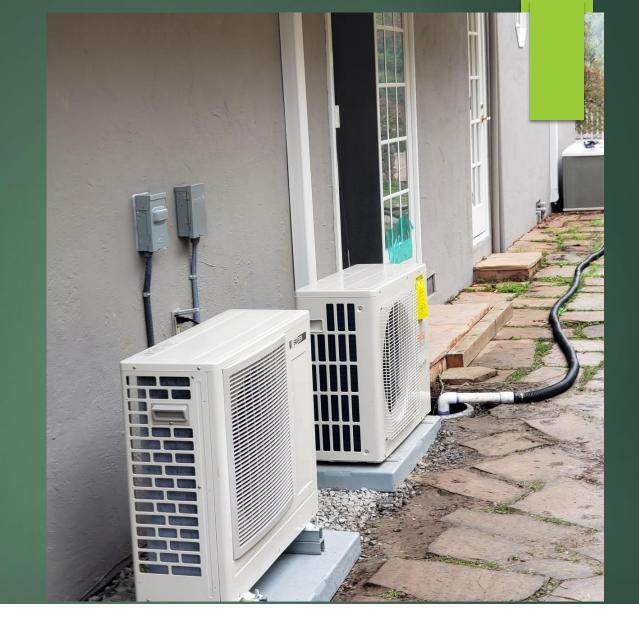
Heat Pumps







Heat Pumps



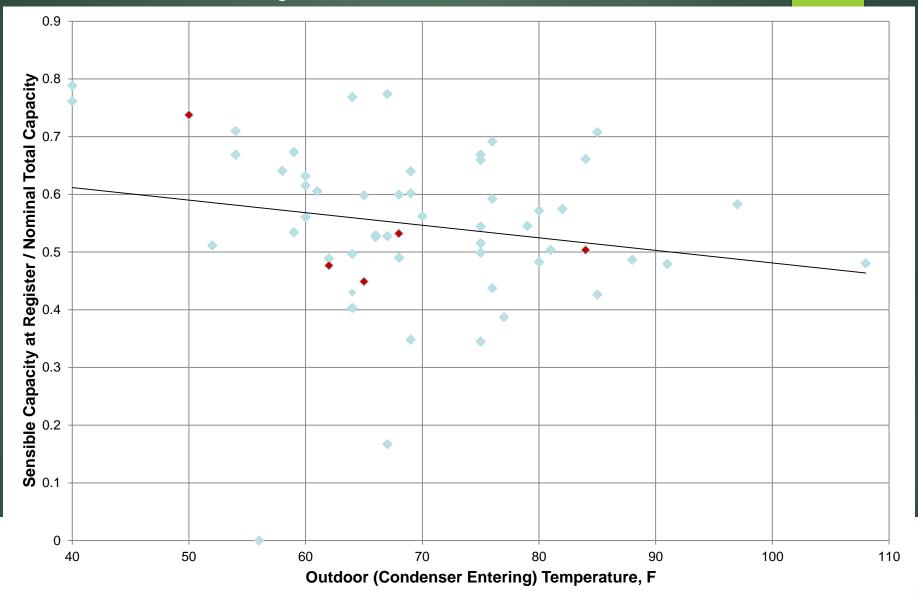


Intuitive Quality





State of the Industry CEC Study on Delivered Performane



If You Don't Measure - You Don't Know



Commissioning

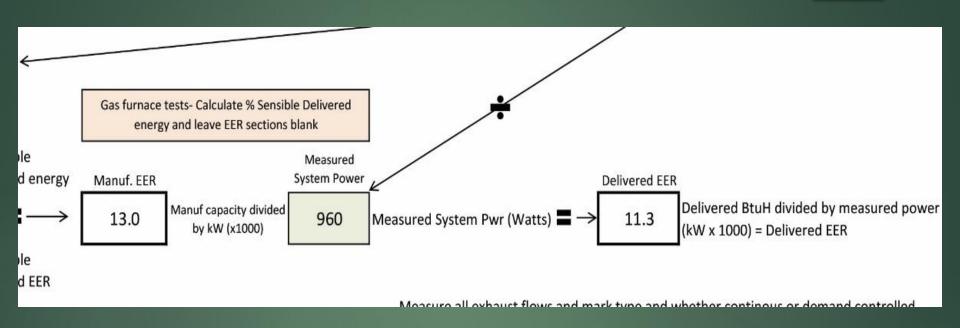




Commissioning

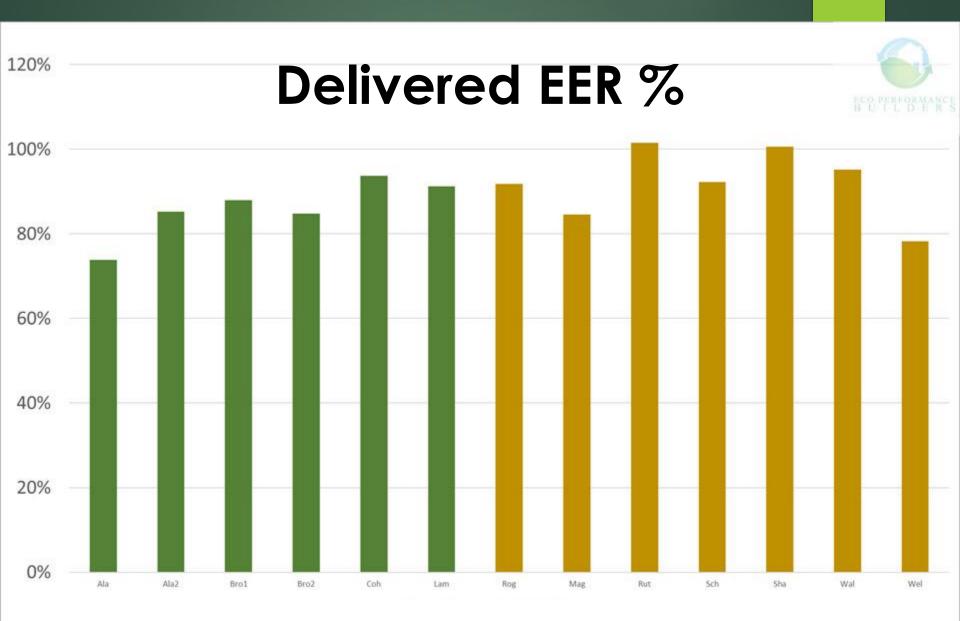
Supply Airflows (use only Energy Conservatory FlowBlaster)	Temp (F)					
Supply All Hows (use only Energy conservatory Howblaster)	Tellip (F)	CFM	Flow Correction	Constant	Delta T	-
Supply Grille #1 Room:	51.5	143.0	1.01	1.08	20.5	Delta
Supply Grille #2 Room:	50.5	134.0	1.01	1.08	21.5	Delta
Supply Grille #3 Room:	53.0	96.0	1.01	1.08	19.0	Delta
Supply Grille #4 Room:	52.0	113.0	1.01	1.08	20.0	Delta
Supply Grille #5 Room:				1.08		Delta
Supply Grille #6 Room:				1.08		Delta
Supply Grille #7 Room:				1.08		Delta
Supply Airflow (continued from page 1)	Temp (F)	CFM	Flow Correction			•
Supply Grille #8 Room:				1.08		Delta
Supply Grille #9 Room:				1.08		Delt
Supply Grille #10 Room:				1.08	DEBEORMAN	Delt
Supply Grille #11 Room:				1.08	ILDER	Delta
Supply Grille #12 Room:				1.08		Delta
Totals		486.0	CFM Total (Indicated airflow)			
Total Delivered BtuH as measured at supply grilles	10820	BtuH (1) ←				
Heat Pump Capacity at test condition -or- Sum of furnace rated output & (Furnace Fan Watts × 3.4)	12110	BtuH (2)	Gas furnace tests- Calculate % Sensible Delivered energy and leave EER sections blank			
Total Delivered BtuH(1) ÷ by capacity BtuH(2)	89%	% Sensible Delivered energy	Manuf. EER		Measured System Power	~
Manufacturer System Power at test condition (indoor + outdoor) AC & Heat Pumps only	930	Watts =>	13.0	Manuf capacity divided by kW (x1000)	960	Mea
Delivered EER divided by Manufacturer EER	86.6%	% Sensible Delivered EER				

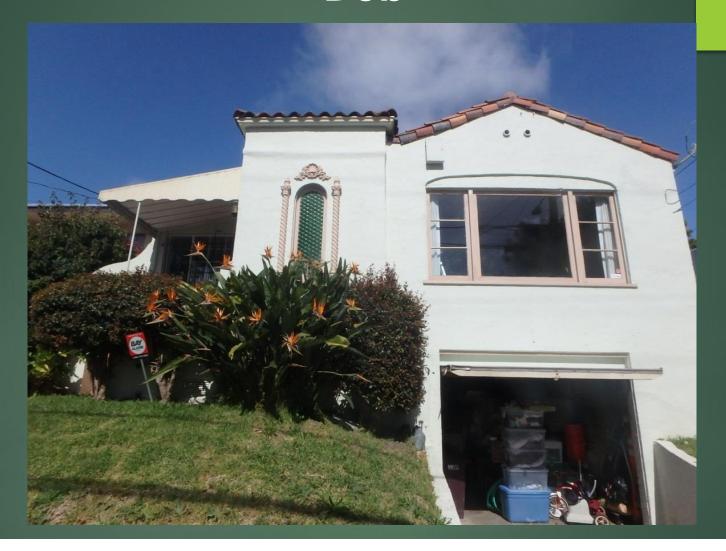
Commissioning





Buried Ducts and Sealed Crawlspace Systems







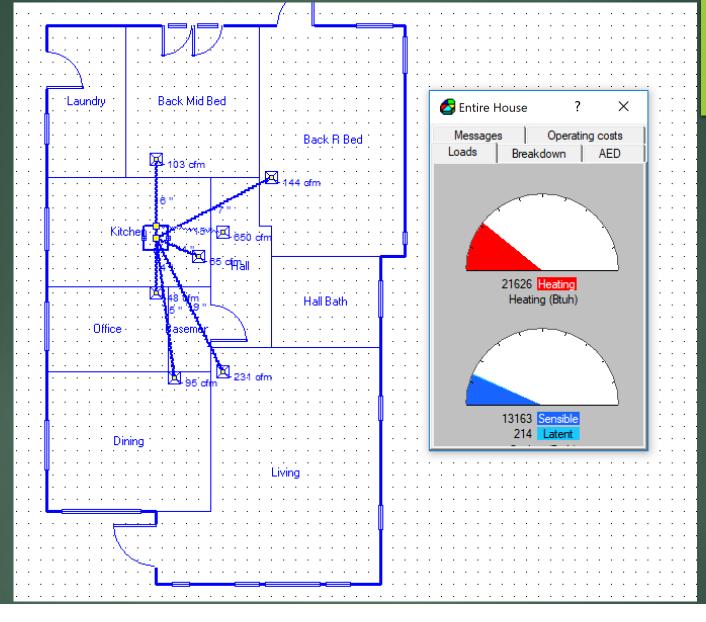
























Ducted Heat Pump

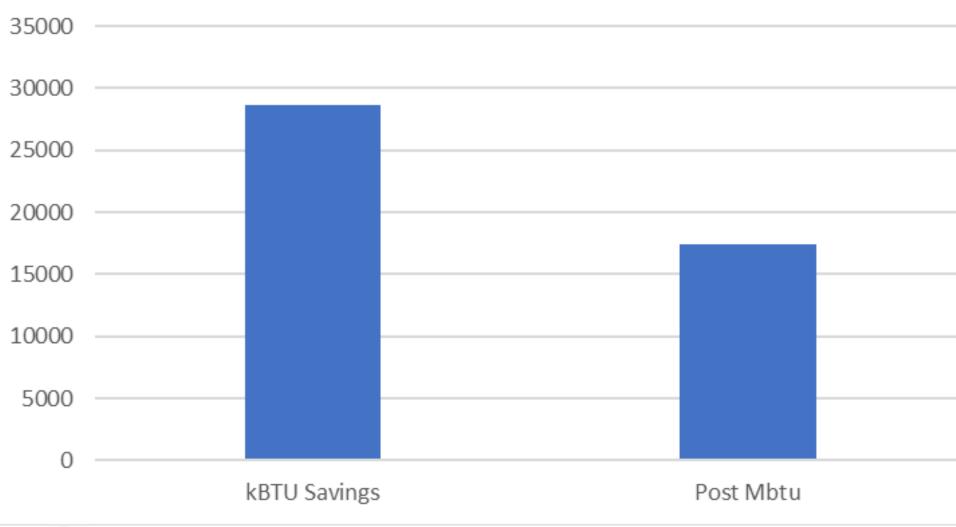


Utility Data





Utility Data





All Electric High Performance ZNE Builds







Dear Steve Gina Weber,

With regards to the <u>zero energy</u> bill guarantee at 12 Jewell Court Oakland California 94611. Eco Performance Builders, Inc. agrees to pay any electrical bills, if there are any, for the first three years of occupancy with the following:

The guarantee covers standard residential usage with the current appliances and current appliance locations. This includes the addition of a high efficient washer in dryer to be purchased and installed by buyer in the laundry room.

Guarantee excludes:

☐ Taxes

☐ Surcharges

☐ Franchise fees

☐ Meter related non-energy charges

Respectfully submitted,

Keith O'Hara President Eco Performance Builders, Inc.

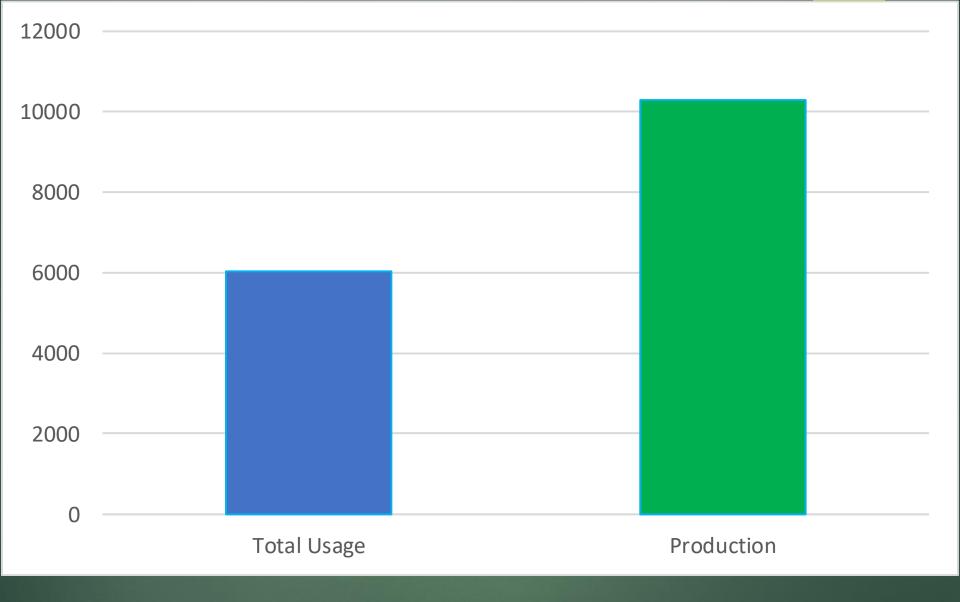


Envelope





ECO PERFORMANCE B U I L D E R S





Circuit Monitoring Data

