



Home Energy Makeover Contest Program Overview

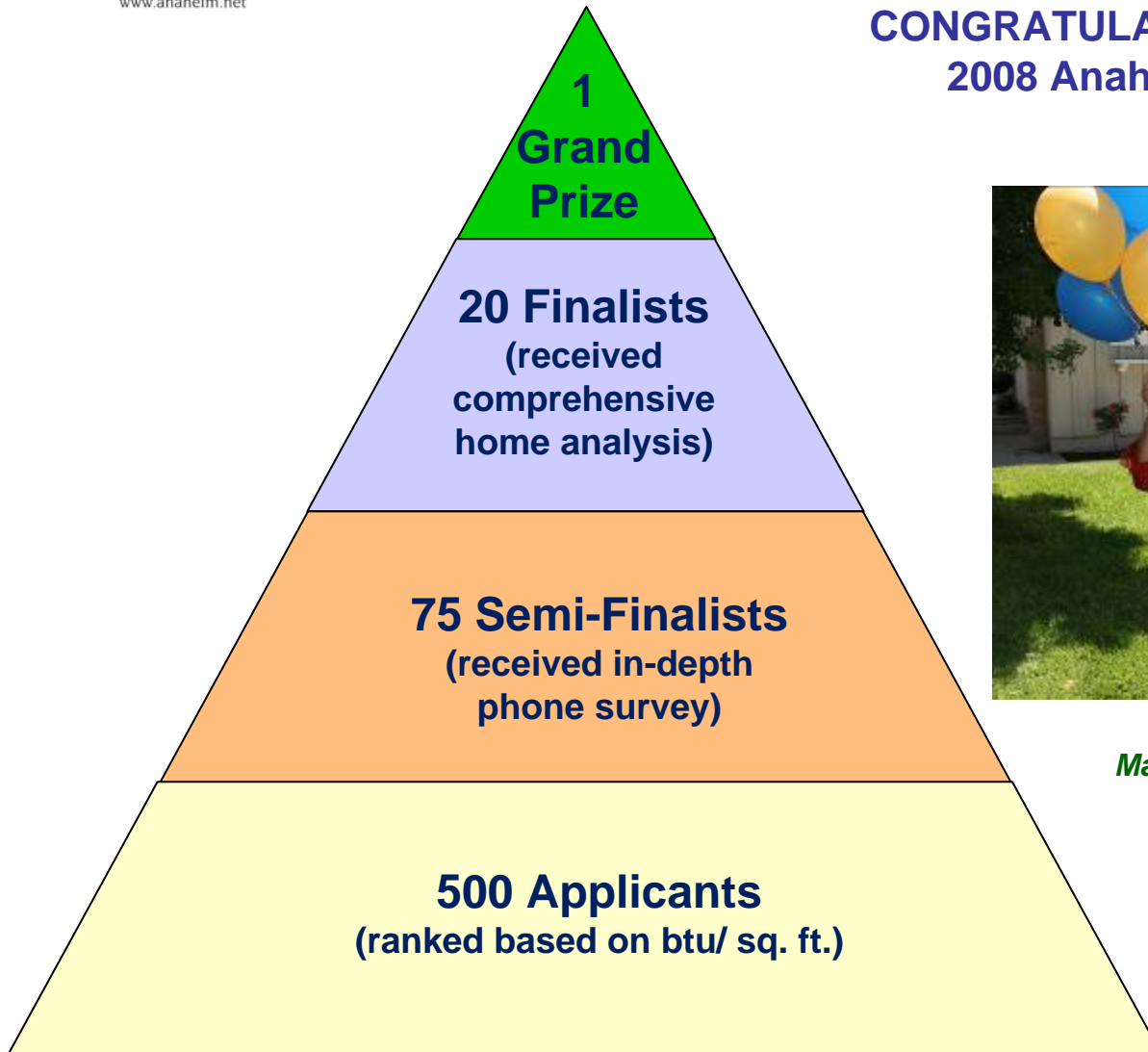
Bruce Matulich
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CONTEST OVERVIEW and WINNING HOME SELECTION CRITERIA

**CONGRATULATIONS TO THE RIDDLE FAMILY
2008 Anaheim Home Energy Makeover
Contest Winners**



The Riddle family is joined by Marcie Edwards, Anaheim Public Utilities General Manager (right)





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MEET THE CONTEST SPONSORS

HEATING & COOLING



Quality Comfort Systems
Purifications

ENERGY STAR APPLIANCES



Financing by
GE Money

INSULATION & AIR SEALING



WATER HEATING



A Sempra Energy utility



ENERGY CALCULATOR



ENERGY EFFICIENT WINDOWS



TECHNICAL CONSULTANT/ INSTALLATION COORDINATION



Conservation Services Group





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VISIT THE CONTEST WEBSITE

Energy Center | Finding The Right Contractor | **Home Makeover Contest** | Energy Store

Home Performance Testing | Fact Sheets | Home Energy Calculator | Website Registration

HOME ENERGY MAKEOVER CONTEST

ANAHEIM HOME ENERGY MAKEOVER CONTEST

EGIA ELECTRIC & GAS INDUSTRIES ASSOCIATION
Bringing Energy Efficiency Home...

ANAHEIM
PUBLIC UTILITIES

CONGRATULATIONS TO THE RIDDLE FAMILY

2008 ANAHEIM HOME ENERGY MAKEOVER CONTEST WINNERS!

The Riddle family is joined by Marcie Edwards, Anaheim Public Utilities General Manager (right) and Bruce Matulich, EGIA Executive Director (left)

Home energy improvements were recently completed at the Damon and Diana Riddle residence in Anaheim, the winning home in the Home Investment Package (HIP) Home Energy Makeover Contest. The contest, sponsored by Anaheim Public Utilities and the Electric & Gas Industries Association (EGIA), demonstrated how homeowners can significantly reduce their energy costs and improve home comfort and safety.

Nearly 500 Anaheim residents submitted their homes for consideration in the contest, which offered up to \$50,000 worth of energy-efficient upgrades, such as a new heating and air conditioning system, upgraded insulation, efficient windows, air sealing, lighting and energy-efficient appliances. Twenty finalists were selected through an application screening

Program Links

- Official Contest Rules
- In the News
- Fact Sheets
- Energy Analysis Report
- Home Performance Testing

Anaheim Home Energy Calculator

The Home Energy Calculator is an online tool to help Anaheim home owners better understand how they are using home energy and provides recommendations that can help determine which changes in their home will produce the most savings. Anaheim home owners, click on the icon below for more information.

- Free Online Home Energy Audit
- Home Improvement Fact Sheets and Energy Saving Tips
- Learn More About Anaheim's Home Investment Package (HIP) Program

www.egia.org/Anaheim





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COMPREHENSIVE HOME ASSESSMENT

Before:

- Home built in 1955; purchased 5 years ago
- Utility bills twice as high as neighbors
- Inconsistent room temperatures



After:

- Air conditioner doesn't run all the time now
- Can sit comfortably in family room anytime
- Daughter can do homework at her desk



Homeowner:

- Difference in home comfort is like night-and-day
- Really is the combination of all the improvements – insulation, windows, heating and cooling, appliances
- Actually eager to get our next utility bill to see how low it can go





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HOME HEATING & COOLING

Before:

- Furnace and air conditioning installed in 1988
- 100,000 Btu furnace with 70% efficiency rating
- 5-ton capacity air conditioner rated at 8 SEER
- Asbestos-covered air ducts pre-tested at 262 cfm50 leakage



After:

- 2-ton capacity Ruud heat pump system at 16 SEER
- 93% efficient, sealed combustion gas furnace that will only operate when below 40 degrees
- New insulated flex duct system tested at 37 cfm50 leakage for 85% reduction in air leakage

Homeowner:

- Air conditioner quieter and operating less
- Lights used to flicker when old air conditioner came on



INSULATION and AIR SEALING

Before:

- Home very drafty; pre-test measured at 3557cfm50
- Family room ceiling was open beam with tongue and groove



After:

- Air Secure Insulation & Acoustical replaced batt with foam
 - Covered/sealed all chases that connect attic to house
- Eagle Shield sprayed-in cellulose in attic to bring from R-6 to R-38
 - Radiant barrier stapled to the roof rafters
 - Added soffit and roof vents to bring to today's energy building code
 - "Drill and fill" all exterior walls with cellulose to bring from R-0 up to R-11
 - Added under-floor insulation at foundation wall to bring from R-0 to R-12

INSULATION and AIR SEALING

After: (Continued)

- Added ground cover vapor barrier of 6-mill plastic
- Foam air-sealed all plumbing/ electrical penetrations in crawl space
- After dense packing the walls, tested air leakage at 2665cfm50; After installing foam over family room ceiling, tested at 2050cfm50; After more caulking and attic insulation, the house tested out at 1781cfm50, a 50% reduction in air leakage.



Homeowner

- Consistent room temperatures
- No longer hear street traffic



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HIGH PERFORMANCE WINDOWS

Before:

- Vinyl double-pane with .45 efficiency u-value purchased 5 years ago
- Poorly installed with evidence of water leaks and damage in some windows due to modifications



After:

- Vinyl double pane windows with .29 efficiency u-value, Low-E coating, argon gas super spacer bar
- Removed awnings so as not to require the window modification
- Replaced kitchen garden window with higher efficiency version
- Double-hung windows in bathroom

Homeowner:

- All rooms are brighter but better deflect summer's heat
- No noticeable difference standing in front of windows





ENERGY STAR APPLIANCES

Before:

- Gas range when home bought 5 years ago
- All other appliances bought new at move-in
- Relying on ceiling fan to ventilate gas range



After:

- Installed kitchen exhaust fan over range
- Replaced refrigerator, dishwasher, clothes washer and dryer, and gas range with high efficiency ENERGY STAR qualified appliances

Homeowner:

- Surprised how much more efficient today's ENERGY STAR appliances are than just 5 years ago
- New refrigerator uses half the energy of 5-year-old one
- Brighter gas flame in new stove and much quicker with better temperature control
- New clothes dryer seems to run about ½ the time as the previous one, on the sensor setting





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WATER HEATING

Before:

- 40-gallon gas storage hot water heater in poor condition with 58% efficiency rating
- Located in exterior closet
- Not ventilating well due to improper draft diverter



After:

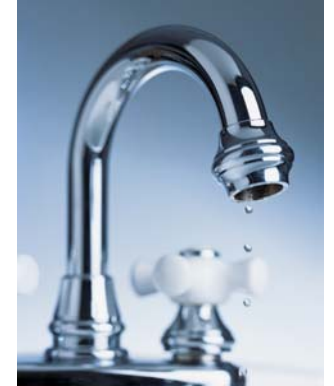
- Installed 81% efficiency Ruud tankless, sealed combustion hot water heater

Homeowner:

- Impressed at how installers configured it in a way that allows to expand future bathroom size
- Between the tankless water heater and new clothes washer, they have seen an approximate 50% reduction in gas consumption (*non-heating season*)



WATER EFFICIENCY



Before:

- Inefficient toilet in one bathroom; as well as poor-flowing showerheads and faucet aerators.

After:

- Installed high efficiency, water-saving toilet in one of two bathrooms
- Installed high performance shower heads and faucet aerators
- Installed a high efficiency ENERGY STAR qualified clothes washer which uses roughly half of the water required by older models.



GET STARTED NOW!

Simple Inexpensive Ways To Save Energy

- **CFLs In Most Used Sockets!**
- **Get a Comprehensive Home Energy Analysis**
- **Caulk, Weatherstrip and Insulate**
- **Tune-Up Cooling & Heating System**
- **Replace Inefficient Appliances**

