

The Green Home Project

Built as a speculation home, the builder tried to anticipate what today's buyer wanted in new home construction. With the trend towards "going green" and finding ways to keep long-term costs down, this home was constructed using solar energy to power the electronics, refrigerator, sound, and Automation systems, in conjunction with traditional power sources for other needs, as an effort to reduce utility costs for the buyer over time. Other "Eco-Friendly" features include: 23 SEER variable speed a/c system; programmable thermostat; rigid duct work with R-6 insulation and mastic tape joints; return air jumper duct at Master bedroom; Sealection 500 Foam Attic Insulation and Air Seal foam gaskets behind wall outlets; compact fluorescent bulbs in light fixtures; attic tent - insulated attic access; blown cellulose wall insulation; direct insulation/sealed recessed can lighting; insulated, Low-E vinyl windows; radiant-barrier solar board roof decking; water heater jacket; - plastic water piping; Energy Star dishwasher; dual flush low flow toilets and plumbing fixtures; drip irrigation system; low VOC paint, and recyclable carpeting. compact florescent in every fixture LED lighting in select fixtures. - Green framing techniques, include: larger overhang soffit; lower pitch roofing; and insulated two-stud corners and T-walls.

Describe the specific needs and desires of the customer for the job; including how environmental and energy concerns were addressed by your system design and integration.

The builder ingeniously designed a covered porch swing in the backyard, while the integrator installed solar panels on its awning. Landscaping was used to camouflage the outdoor receptacle into which the solar panels were connected. Underground wiring ran from the receptacle to large gel batteries connected to an inverter which converted 12-volt DC electricity to 120-volt AC, and then into a circuit breaker panel located in a small indoor, air-conditioned (to keep equipment at efficient temperatures) power room. This electrical panel was connected to the security system, Onq panel speaker system, and refrigerator. The buyer would never have to worry about this power source. In the past, electronics, sound systems, and security systems were "luxury" add-ons that consumers weren't always willing or able to purchase. But with solar energy powering the additional load, these items become "free" after the initial equipment expense. And for most homeowners, these "luxuries" enhance the living environment, as well as providing security and peace of mind. Today's builders wouldn't consider leaving these features out anymore, as often, these are what sell the house. The added incentive of government energy credits and feeling as though one has helped improve the environment are what in Louisiana is called "Lagniappe" or a little something extra.