



Net Zero Energy Homes

The next big trend in green building



ESTATES
ECO International

Net Zero Energy
Custom Homes Builder

The next big trend in property is the net zero energy building. These are structures with zero net energy consumption and zero carbon emissions annually. Unfortunately USA, unlike many developed nations, has no policy on net zero buildings, which could reduce emissions big time. It's a pity. NZE buildings could make an enormous difference.

Add to that the fact that USA has been slow to adapt to the trend. Witness the Climate Institute's findings that USA is falling behind the rest of the world in switching to a clean economy. It's harder to make that transition when you're reliant on the coal and gas industries.



A Zero Net Energy (ZNE) home is common sense. It's a home that's designed and built to produce more energy than it consumes over the course of a year. Taking into account the economical and ecological costs of energy today, the inclusion of some energy-producing component that is able to contribute energy to the grid is key to the success of a ZNE home.

The problem with a lot of the terminology about net zero energy homes is that it's vague but Living

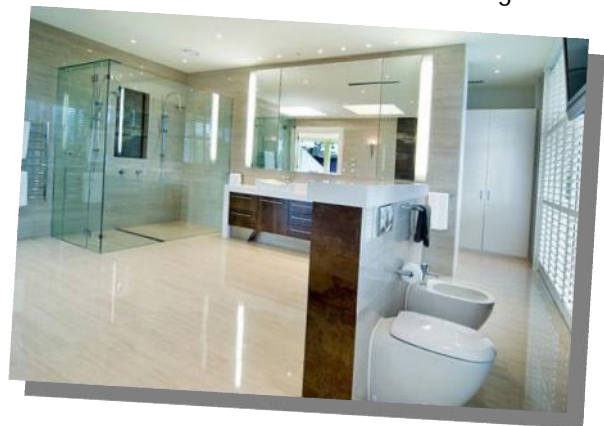
Building Challenge, which is part of the International Living Future Institute, has developed a Net Zero Energy Building Certification.

THE CERTIFICATION VERIFIES THAT THE BUILDING ACTUALLY OPERATES AS CLAIMED, "HARNESSING ENERGY FROM THE SUN, WIND OR EARTH TO EXCEED NET ANNUAL DEMAND."

To get the certification, all of EcoOne homes have to meet the following requirements:

- Limits to Growth (in part): curbs the building's contribution to the effects of sprawled development, which undermines the positive impact of achieving net zero energy building operation
- Net Zero Energy: serves as the primary focus of Net Zero Energy Building certification
- Rights to Nature: ensures that the building does not preclude another building from achieving net zero energy operation as a result of excessive shading
- Beauty + Spirit and Inspiration + Education: underscores the notion that renewable energy systems can be incorporated into a building in ways that are attractive and inspiring

How is a ZNE home achieved? It is not just installing Solar Photovoltaic (PV) panels on the roof !!! Achieving a zero net energy balance means first lowering energy demand (i.e. loads) as much as possible, and then choosing a form of clean energy supply (i.e. production) such as on-site renewable energy in solar PVs, or through purchase of renewable energy credits.



At Eco Estates, other important considerations are required to achieve a ZNE home including:

SITE-SPECIFIC DESIGN - Continuous meetings between architect, builder and homeowners throughout design and construction to ensure that the house is designed to take advantage of site conditions and local climate, such as in solar orientation, prevailing winds, and climatic trends.

ADVANCED ENGINEERING & COMPUTER MODELING - Skilled mechanical engineers, modeling software experts and building science consultants are among Eco-futures' core team of designers to provide a comprehensive analysis of the home's heating, cooling, and power needs & ensure an adequately sized system is installed.



INTERIOR DESIGN CONSULTING - Ensuring healthy home construction means more than specifying natural materials; it means overseeing every individual item used during construction from solvents and adhesives to finishes and furnishings. Eco-futures provides excellent design consultation services for special-needs clients such as chemically sensitive and highly-allergenic homeowners.

RENEWABLE ENERGY RESEARCH & DEVELOPMENT - Highest-efficiency photovoltaic and thermal energy systems are researched and selected to eliminate heat and electric bills powering the home, and providing clean, green energy to the electric grid.

PROJECT MANAGEMENT & QUALITY CONTROL - Our full-time project managers, which are assigned to only one job at a time, oversee construction & subcontractor labor to ensure the home is built as tightly as possible, and no unhealthy or toxic materials are used.



ONE WAY TO THINK ABOUT A ZNE HOUSE IS TO UNDERSTAND THAT YOU ARE PAYING FOR EVERYTHING UP-FRONT. ALL THE ENERGY COSTS THAT YOU WOULD PAY FOR ON A MONTHLY BASIS THROUGHOUT THE LIFE OF THAT HOUSE, YOU ARE PAYING WHEN YOU BUILD IT. YOUR

MORTGAGE WILL BE HIGHER, CERTAINLY, BUT THE QUESTION TO ASK IS, WILL YOUR TOTAL MONTHLY COSTS FOR OWNING THAT HOUSE BE HIGHER AS ENERGY COSTS INEVITABLY CONTINUE TO RISE?

Being one of the best elegant ZNE zero-emission eco-friendly green home builders and renewable energy products/services in North America, we take it upon ourselves to make sure that we deliver nothing but the best. The ZNE green-homes that we have designed and built over the years have made it possible for us to be known in the international green building industry as providers of innovative ZNE new homes that truly deliver great value for money. Every single elegant ZNE green-homes that we build reflects upon the high standards of workmanship that we put in.



ACHIEVING ZNE HOUSE DOES NOT TAKE ROCKET-SCIENCE. BUT IT DOES TAKE DISCIPLINED DECISION-MAKING, A SYSTEMS APPROACH, AND A LARGER FRONT-END INVESTMENT IN ENERGY-PRODUCTION EQUIPMENT.

To our Eco Estates home-owners, a ZNE green home means many things including:

- Energy bills too low to matter.
- A home that will “hum along” no matter what energy costs.
- A very comfortable, constant air temperature thanks to state-of-the-art, custom energy and comfort geothermal systems.
- A super-insulated building envelope using spray foam insulation that creates an airtight construction and a virtually sound-proof interior environment.
- Lots of natural daylight resulting from accurately-specified windows and glazings, proper orientation for solar gain, and eaves & overhangs that allow desired winter sun and block unwanted summer sun.
- Smart control and monitoring systems offer complete home and energy management.
- Sustainable, beautiful, toxin-free, low volatile organic compounds (VOC) content counter tops, cabinets, carpets, paints and stain finishes.
- Salvaged, recycled-content and low embodied energy materials wherever possible.
- Greywater from domestic activities such as laundry, dishwashing, and bathing recycles for uses in landscape irrigation and rainwater harvesting system.
- Solar collection for hot water and electricity production.
- Edible plants and regionally adapted plants that simply don’t drink as much water.
- A home built to last more than 100 years.

A RECENT YAHOO! REAL ESTATE STUDY FOUND THAT 50 PERCENT OF 1,545 U.S. ADULTS POLLED SAID THEY WANT A “GREEN” HOME.

Every single staff member of Eco Estates is dedicated to making sure that the construction process of your new homes is as stress free, rewarding and pleasurable for our valued clients as possible. With the kind of emphasis that we give on building high quality elegant net-zero new eco-homes and the unbeatable value for money we deliver, at Eco Estates, we strive to build environmentally friendly, net-zero energy homes that provide comfort, savings, luxury and value to

each of our home buyers — *MAKING AN ECOESTATES THE RIGHT CHOICE FOR YOU AND YOURFAMILY.!*



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“When there’s a huge solar energy spill, it’s just called a ‘nice day’
” Vote Solar billboard, 2012

“The use of solar energy has not been opened up because the oil industry does not own the sun.” Ralph Nader


“I have no doubt that we will be successful in harnessing the sun’s energy. If sunbeams were weapons of war, we would have had solar energy centuries ago.” George Porter, Nobel Prize winner in Chemistry, 1967


“I’d put my money on the sun and solar energy. What a source of power! I hope we don’t have to wait until oil and coal run out before we tackle that.” Thomas Edison, 1931

“Texas has the potential to be a MASSIVE solar market. To put it into perspective, the sunshine that falls on Texas each month has more energy than all of the oil that has ever been pumped out of this state. If you think oil made Texas great, just wait till you see what they do with solar.” Rhone Resch, president and CEO of the Solar Energy Industries Association (SEIA), 2011

“It’s really kind of cool to have solar panels on your roof.” Bill Gates

“Build Eco Estates Net Zero Energy homes – Good planets are hard to find” David Pham






“The race is now on between the techno scientific and scientific forces that are destroying the living environment and those that can be harnessed to save it. . . . If the race is won, humanity can emerge in far better condition than when it entered, and with most of the diversity of life still intact.” Edward O. Wilson,
The Future of Life

“Solar power is the last energy resource that isn't owned yet - nobody taxes the sun yet.” Bonnie Raitt

“Men argue. Nature acts.” Voltaire

“Climate change is a terrible problem, and it absolutely needs to be solved. It deserves to be a huge priority.”
Bill Gates

“It's coming home to roost over the next 50 years or so. It's not just climate change; it's sheer space, places to grow food for this enormous horde. Either we limit our population growth or the natural world will do it for us, and the natural world is doing it for us right now.”
David Attenborough



ABOUT ECO ESTATES

Eco-Estates Custom Homes is amongst the most respected and well-known elegant net-zero energy zero-emission eco-friendly homes builders and in-house renewable energy installation services in North America. We are the leader in eco building and lead the way to a sustainable future. Ever since our inception, we have been dedicated to building spaces that reflect the personality and charm of all our clients. All through the years, our commitment to building the best eco- homes has allowed us to build a solid reputation honesty, trustworthy, dependable and professional where we are trusted by many of our loyal clients.

Being one of the best elegant net-zero energy zero-emission eco-friendly home (eco-home) builders in North America, we take it upon ourselves to make sure that we deliver nothing but the best. The eco-homes that

For more information, contact us for your free home solar audit or let us help you to build your dream home. You may like to stay with the leader of green building and renewable energy system by friend us on Facebook.

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