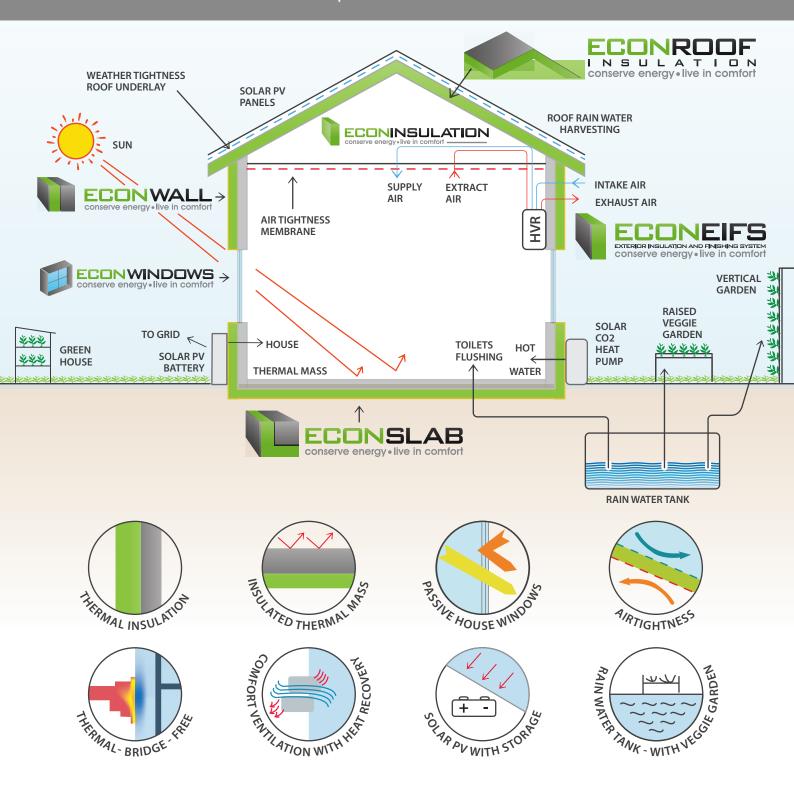


## **ECON WALL AFFORDABLE PASSIVE HOUSE**

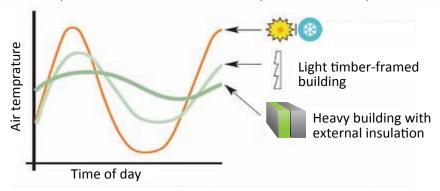
LOW BUILD COST + ULTRA LOW ENERGY CONSUMPTION + SOLAR PV +
BATTERY STORAGE = SIGNIFICANT \$ SAVINGS WHICH CAN HELP PAY THE MORTGAGE





ECON WALL is a patented Insulated Concrete Thermal Mass Wall System which combines the thermal mass properties of reinforced concrete with the energy saving benefits of rigid insulation to provide ultra high levels of energy efficiency, far beyond what R-Value alone can achieve

**Thermal Mass:** ECON WALL is an insulated concrete thermal mass wall system which places the insulation on the outside of the concrete walls. In doing so, the insides of the building are free of thermal insulation. This enables the concrete to absorb, store, and later release thermal energy to achieve significant energy savings. The thermal mass also helps to stabilize the internal temperature and improves occupant comfort levels.



Insulated Thermal Mass helps to stabilize internal temperatures

**Continuous Exterior Insulation:** ECON WALL has a continuous layer of exterior rigid insulation which serves several important functions in a high-performing wall system with the following benefits:

- Increased thermal performance: By blocking thermal bridging, a continuous insulation system increases the overall thermal performance of a wall assembly and a building.
- Reduced operating costs: Continuous insulation keeps energy and heat loss to a minimum, increasing the building's energy efficiency and leading to lower monthly operating costs.
- Reduced air infiltration and exfiltration: Continuous insulation restricts air movement through the wall, helping to further reduce building heat loss.
- Reduced risk of water condensation and moisture intrusion: Continuous insulation is a very moisture-resistant system, guarding the thermal and structural performance of the building.
- Dimensional Stability: Rigid insulation has excellent dimensional stability and does not sag over time.

**Air Tightness:** ECON WALL has a solid reinforced concrete core combined with continuous external insulation which together provides superior air tightness than any other building system.

- ECON WALL has continuous exterior insulation which prevents gaps and restricts the air leakage through the building envelope and provides long term reliable insulation performance for the life of the building.
- ECON WALL also has a solid reinforced concrete core which acts as a primary air barrier and results in a extremely air tight building.

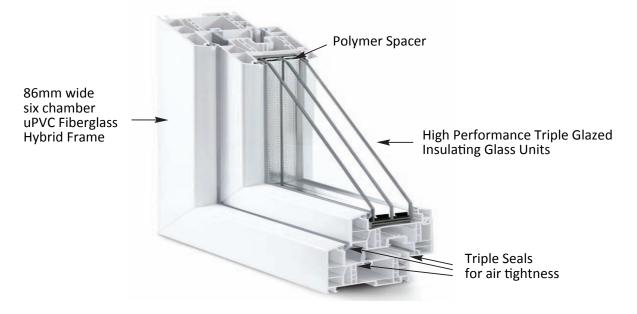
A wood frame house solely relies on a thin sheet of plastic as an air barrier which is joined together with tape which is a very tedious and time consuming process requiring a very high level of skill and diligence. This thin plastic barrier can be easily punctured and the quality and reliability of air tightness is highly dependent on the method of installation.



ECON SLAB is a patented Insulated Concrete Thermal Mass Slab System which provides continuous layer of insulation both on the Underside of the Slab as well as the Slab Edges which thermally isolates the slab from the earth and helps to contain the heat within the house and improve energy efficiency. ECON SLAB act as a thermal battery to absorb, store and later release thermal energy which helps to further reduce the amount of energy used for the heating and cooling of buildings. ECON SLAB can combine different types of insulation such as EPS, High Density XPS, PIR and Phenolic for improved performance requirements.



ECON WINDOWS life series is a next generation hybrid window and door system which combines the benefits of uPVC and Fibreglass into an 86mm wide six-chamber durable profile design with foam inserts and high performance triple-glazed insulating glass units which together can achieve very high levels of thermal performance needed for passive houses at lower costs.



**ECON WINDOWS Life Series Windows & Doors** 



ECON ROOF INSULATION is a rigid insulation insert for use between roof rafters or ceilings to provide a high levels of thermal insulation along with moisture and air resistance. It is available in a wide range of materials such as EPS, XPS and PIR to meet different requirements of r-values, strength and fire resistance. It is also available in pre-profiled insulation inserts which provide a layer of continuous insulation over the roof trusses to reduce thermal bridging.



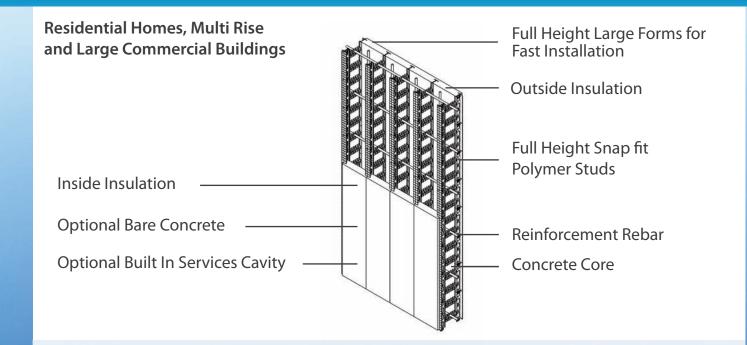
ECON INSULATION is general purpose rigid insulation and is available EPS, XPS and PIR for insulating internal walls, floors, ceilings and other areas in and around the building.



ECON EIFS is an External Insulation and Finishing System which can be used as an EIFS cladding system for existing and new homes or as a light weight EIFS cladding system for the upper levels of new houses. ECON EIFS is available in EPS, XPS or PIR in a range of thickness to match the ECON WALL system.



ECON WALL is an innovative insulated concrete wall system which combines the high structural strength of reinforced concrete with the energy saving benefits of rigid insulation to create highly energy efficient and structurally strong buildings with superior ability to withstand bush files, hurricanes, earthquakes and extreme weather conditions.



## **BUILD ANY WALL YOU WANT... Efficiently**

- Foam on both sides like a normal ICF
- Foam on one side, concrete on the other for enhanced thermal mass benefits
- Foam on one side, open studs on the other, for easy placement of services
- Leave one side of the forms open to install rebar easily
- Extra thick foam for ultra high R Values
- Plain EPS, EPS with Termite Resistance or EPS with Graphite for enhanced R Value
- Choice of insulations EPS, XPS, PIR or Phenolic foams
- Vertical system which is cheaper and faster to install than conventional blocks
- Full height large forms for fast installation and reduced wastage

