

TO MAKE A
DIFFERENCE
TO THE WORLD,
**YOU START BY
BEING DIFFERENT.**



ORANGE
COUNTY
GROUP

RENEWABLE ENERGY



**WHEN INTENT
MEETS SCIENCE,
IT CREATES
A NEW WORLD**



हरित अष्टांग मार्ग

Different in every sense.. from philosophy to reality





A GREEN DESIGN



External design

- **Preserving the natural ecology**
Choose native plants that require minimum maintenance and provide maximum advantage and create optimum sun shading
- **Making maximum use of natural energy resources**
After studying solar path and wind-rose diagrams, we design layouts to maximize the use of solar and wind energy ensuring maximum light and minimum heat.

Internal Design

- **Maximum wind and light**
Three-side-open spaces for maximum ventilation and reducing energy consumption
- **Filtering the heat from sunlight**
Ensuring maximum natural light but minimum heat through computer-simulated building siting, varied wall thickness of every wall of every building
- **Using simple science to create value**
Radiant cooling technology in commercial projects ensures spaces to remain cool throughout the year.

MATERIAL – FOR NATURE & LIFESTYLE

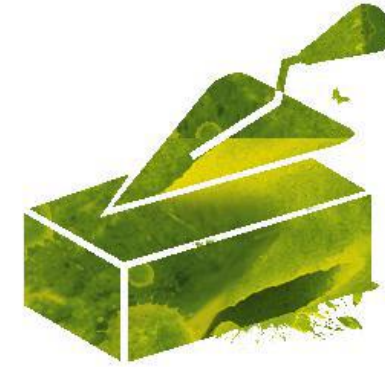
Materials of a Green Home is to be as close as a natural substance, and preferably locally available. After years of research, we use raw materials that benefit the occupants and don't harm nature

- **Wall finishes that replace AC**

Revisiting the Mughal architecture, our external finishes are done with Lime and Rangoli, making the walls UV resistant and reducing the inner temperature by 8-9o

- **Glasses that let the light in, but not the heat**

Use of SHGC Glasses (Solar Heat Gain Coefficient), which reduce heat absorption by 50%, that too without impacting the light inside



ENERGY? WE HAVE THE WIND & SUN!



Sourcing energy from renewable sources and minimizing usage of non-renewable energy. And build a culture that focuses on inculcating frugal practices amongst residents for the same.

- **Not depleting, but replenishing**

Use of Solar PV and small wind turbine to produce enough energy to make our projects energy self-sufficient

- **Absorbing all that the Sun can offer**

Producing enough solar energy for running elevators, motors, and even homes and offices!

- **Generating energy, and storing it too!**

Building India's 1st project to store solar energy in Lithium Iron Phosphate batteries, we are working on better energy storage mediums.

- **Watch your energy use**

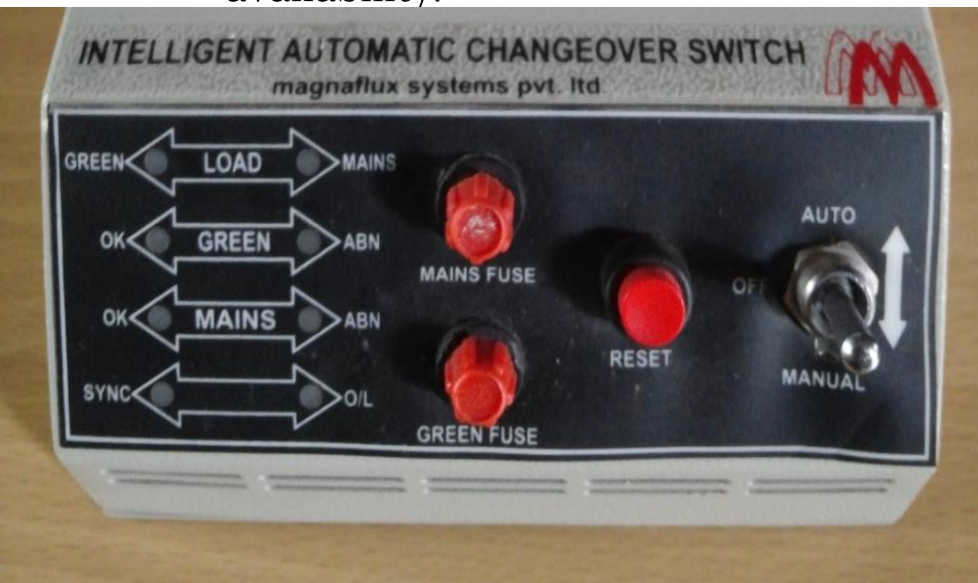
A blink-free change over switch that monitors the use of solar energy and reduces the grid energy usage to a surprising extent.

- **Technology that reduces the load on itself**

The motors and elevators we use are energy efficient, using only the amount of energy required, depending on the load.

Solar Management System

- # Intelligent Energy Controller with every Solar Panel that enhance the overall efficiency of Solar PV system by 6-7%.
- # Green Power Control unit i.e. Blink Free Change Over Box in every flat to regulate use of free green power up to 1.5 amp., which helps to promote culture of energy conservation.
- # Automatic Transfer Switches (ATS) for prioritizing solar as primary input and switching to other sources as per requirement of energy consumption and availability.



Blink free changeover



Automatic Transfer Switch



WATER AND WASTE WATER MANAGEMENT

- **Water treatment that's thoughtful**
In spite of a higher cost of implementation, we use the natural sewage treatment plant as it recycles waste water efficiently without using energy and gives the benefit to lower maintenance to residents
- **Heat is stored in a hot water storage tank**
Individual Solar Hot Water System to each flat capacity 125 Liters



REDUCING CARBON FOOTPRINT OF TRANSPORT

Homes are built with the objective of avoiding long travel. Plus transportation by electric cars, electric bikes are encouraged with free solar charging stations.

- **Enabling and promoting E-transport**
By providing solar charging stations for E-vehicles, the residents are encouraged to use sustainable sources of transportation
- **Save on fuel with easy access to daily needs**
The locations for our projects are carefully chosen with all daily needs available within walking distance



A GREEN CULTURE



We thrive to build a culture that inculcates sensitivity towards the environment. And the features continue to have a positive impact on nature, as well as on the residents.

- **Inculcating the green culture**

Daily portrayal of information showing the use of green and grid energy, we aim at creating a self-learning culture to live and celebrate a green life

- **Aiding the change**

Promoting energy-efficient products and gifting low-energy utilities, like LED lights. Also, providing and assigning a tree to every family

- **Instilling responsibility**

Calculation of carbon footprint, educating the customers, turning them into stakeholders by charging them nominally for green amenities so that they are keen on maintaining the amenities

ROYAL ORANGE COUNTY - H-WING			
SOLAR ENERGY GENERATION - 92 kWh			
DATE: 30-12-2016 - GRID CONSUMPTION			
FLAT NO	UNITS	FLAT NO	UNITS
101	0	503	0
102	2	504	0
103	0	601	1
104	1	602	1
201	0	603	1
202	1	604	0
203	0	701	1
204	0	702	1
301	1	703	1
302	0	704	0
303	1	801	6
304	2	802	5
401	3	803	-
402	2	804	1
403	0	901	1
404	1	902	3
501	1	903	1
502	1	904	1

TEMPERATURE READINGS [IN °C]				
FLAT NO	TIME	INSIDE	OUTSIDE	DIRECTION
H 101	11 AM	29	32	N-W
	3 PM	30	33	N-W
E 1103	11 AM	31	36	S-E
	3 PM	33	39	S-E
B 802	11 AM	30	32	N-E
	3 PM	30	34	N-E
A 304	11 AM	29	32	S-W
	3 PM	31	35	S-W

SUSTAINABILITY IS A PATH, NOT A DESTINATION

