

CAN GREEN BUILDINGS SELL FASTER

SURESH.S SENIOR VICE PRESIDENT PROJECTS, PRESTIGE ESTATES AND PROJECTS LIMITED

16-nov-2013

www.prostigoconstructions.com





Prestige Group

- Formed in 1986
- Involved in development of large scale residential, commercial, retail and hospitality projects
- Head office in Bangalore, branches in Hyderabad, Chennai, Cochin
- Presently involved in more than 80 million square foot development all over the country





Green initiatives taken by Prestige in various projects

- Statutory needs specified in various sanctions compliance mandatory to receive occupancy certificate, environmental clearance, etc
 - Glass 40% or less
 - Provision of sewage treatment plant
 - Use of treated water for flushing, landscape, dual piping
 - Rain water harvesting
 - Use of solar heating
 - Use of solar lighting
 - · Provision of Organic waste converter



www.prestigeconstructions.com



Voluntary green initiatives for residential and commercial buildings

- · Use of high performance glass, double glazing
- Shading devices for façade
- Daylight harvesting sensors
- Proper design of windows, balconies to give enough day light and cross ventilation
- Low voc emission paints and coatings, adhesives
- · Open terraces coated with reflective paint
- Reuse or recycling of top soil, construction debris, etc





- · Use of low flow cp and sanitary fixtures
- · Use of waterless urinals
- Use of treated water with softening for water cooled chillers
- Reduced lighting power density, ensuring that light footprint does not go beyond building, no uplighters, etc
- · Use of low water consumption plants and trees
- Electric charger points in basement and multiple level car parking to encourage use of electric vehicles
- Provision of cycle parking bays and showers to encourage use of bicycles
- Implement indoor air quality systems, air conditioning systems, thermal comfort, individual air control, increased fresh air intake, co2 sensors, variable frequency drives, etc to conform to green building norms

www.nrestigeconstructions.com





- Use of chillers and refrigerants that will result in minimum energy consumption
- All building interior areas designed as nonsmoking areas and providing designated smoking areas outdoor away from the building





Projects where above are implemented fully or partially:

- 1. Cessna Business Park blocks B5 B6 B7
- 2. Exora Business park Electra, Etamin blocks
- 3. Prestige South Ridge
- 4. Prestige Shantiniketan- commercial tower C
- 5. Prestige Palladium Bayan



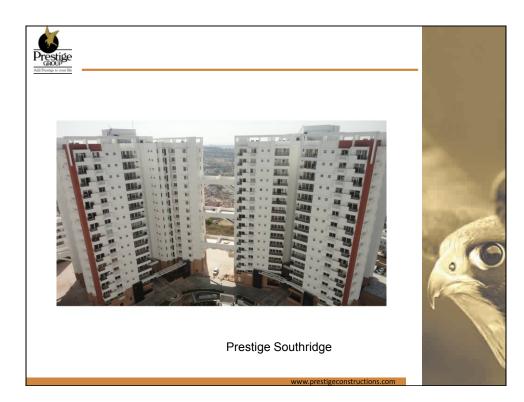
www.prestigeconstructions.com













Challenges to sell green buildings

· Awareness amongst customers on green buildings

People need to understand the natural resource depletion caused mainly by rapid urbanization, increased buying power, modernization, etc and the harm that is caused to the environment, ecosystem, climate. One needs to think as to what quality of life is in store for generations to follow if this is not thought of now





Challenges to sell green buildings

- Availability of technologies and acceptance of same by end users
 - Technology adaptation or acceptance increases with same being more competitive in the sense that there is need for multiple vendors to supply, install or execute these.
 - There are few inherent technical and cultural problems that need to be addressed like acceptance of waterless urinals
 - There is scope for continued R&D in green technologies especially in HVAC energy consumption and renewable energy areas



www.prestigeconstructions.com



- Commercial viability of green technologies as increased initial capital expenditure invested by developer but recovered as reduced operational costs by end users
 - Differential cost for glazing- 15% increase for the glazing component
 - Differential cost for plumbing fixtures- 12 to 13% increase for plumbing component
 - Differential cost for electrical- 5% to 8% decrease in electrical component
 - Differential cost for HVAC- 10% decrease in HVAC component
- Overall impact on cost for the complete project 1% increase to project budget as evidenced in several prestige projects till date





Design challenges for architects and engineers

- Building orientation to optimize green requirements against available site configuration, setbacks, sun path direction, extended basements, etc
- Shape of floor plate in relation to total area yield of project, number of floors, etc
- Soil conditions, rocky strata, low permeability soils not permitting recharge of ground water
- · Space considerations for solar panels
- Lack of technology or Prohibitive cost for renewable energy applications



www.prestigeconstructions.com



Operational problems experienced by end users

- Use of waterless urinals not accepted by end users due to timer problems
- Use of treated water for flushing resulting in scale formation especially when used intermittently in houses
- Scale formation in pipelines of watercooled chiller installations
- Shallow recharge wells causing saturation of strata around the building, road pavements, causing subsidence of roads, migration of fines, undermining below extended slabs, uplift of grade slabs, etc





CONCLUSION

Can Green Buildings can sell faster?

Yes, subject to innovative and judicious use of various green initiatives specifically tailored to suit the respective site or project duly considering the design and operational requirements.



www.prestigeconstructions.com



Thank You!

