Financing Green Buildings

GRIHA Summit 2017
02-03 March | New Delhi

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Tata Capital Housing Finance Ltd.
Mumbai
Agenda

- Green Buildings
- Green Buildings (Perception Vs. Reality)
- The Viscous Circle
- Stakeholders
- The Value Chain with Financing Options
- Examples of EE Homes In India
- Journey has begun!
- About Tata Capital Housing Finance (TCHFL)
Points to Ponder

Household sector consumes 40-50% of energy in India

Residential sector consumes ~ 21% of electricity produced
- 10,000 kWh/ year (warm & humid zone)
- 3000-5000 kWh/ year can be saved with EE Homes

India has doubled its floor area of buildings between 2001-2005
By 2050, the country will add 35 billion Sq. m. of new building floor area

Green Buildings
- Energy Savings ~ 20-30%
- Water Savings ~ 30-50%
Green Buildings and Green Mortgage

“Green Buildings are buildings that use less water, optimize energy efficiency, conserve natural resources, generate less waste and provide healthier spaces for occupants, as compared to conventional building”

--- Indian Green Building Council

A green mortgage can be any one (or multiple) supplemental incentives that can added to a traditional mortgage program so the person buying the home can use funds to improve the home’s energy efficiency rating by making various “green” improvements.

Green mortgages, let **customers** borrow extra money (LTV) to pay for energy efficient upgrades and at a discounted rate of interest (RoI)

*Default rates are lower in EE Buildings than standard HL/ HE customers*
Net Zero Energy Building (NZEB)

- A residential or commercial building with greatly reduced energy needs. In such a building, efficiency gains enable the balance of energy needs.

NZEB is a building that produces as much energy as it uses when measured at the site.

The Value Proposition of Sustainable (Green) Building

- Serve the Society at large keeping in mind the Environmental Sustainability
- Create long term value to all by delivering & engaging all the Stakeholders
The public dramatically overestimates the marginal cost of green building. A 2007 public opinion survey conducted by the World Business Council for Sustainable Development found that respondents believed, on average, that green features added 17% to the cost of a building, whereas a study of 146 green buildings found an **actual average marginal cost of less than 2%**  
(Source: WBC SD)

The average cost premium of building green over and above the cost of conventional construction – or green cost premium – **is a mere 5.0% and can be as low as 1.1%**.  
(Source: Green Building in South Africa)
A Green Building can get attract more premium

Source: GH Kats, Green Building Costs & Financial Benefits
<table>
<thead>
<tr>
<th>Value</th>
<th>Price</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>• Better Quality &amp; features</td>
<td>• Cost of Goods</td>
<td>• Land Cost</td>
</tr>
<tr>
<td>• Social/ Brand attractiveness</td>
<td>• Statutory costs</td>
<td>• Construction Cost</td>
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<tr>
<td>• Maintenance cost</td>
<td>• Acquisition cost</td>
<td>• Finance Cost</td>
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TATA CAPITAL
The Viscous Circle of Blame

**Owners/ End Users**
“We would like to have sustainable buildings but there is hardly any such building

**Designers & Constructors**
“We can build retrofit buildings in sustainable way, builders don’t ask for it”

**Customers**
“We would invest in sustainable buildings, but there is no demand for them”

**Developers/Builders**
“We would ask for sustainable buildings, but customers won’t pay for them”

Source: Adapted from Codeman (2000)
Breaking the Viscous Circle of Blame

**Owners/ End Users**
“ We demand and occupy sustainable buildings because they are cheaper to run, increase our well-being and improve our image”

**Customers**
“We invest in sustainable buildings because that’s what occupiers want and because they give better returns and have higher value growth potential”

**Designers & Constructors**
“We design and construct sustainable buildings and environment because that’s what our clients want and what society expects”

**Developers/ Builders**
“We develop sustainable buildings because they are easier to sell, achieve higher prices and are much resistant to obsolescence”

Source: Adapted from Codeman (2000)
Stakeholders

- Designers/ Architects
- Customers/ End Users
- Developers
- Assurers
- Education Institutes
- Investors
- Media & Ind. Assoc.
- Financial Institutions
- Insurers
- Valuers
- Policy Makers
### Stakeholder Roles

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>Policy Makers</td>
<td>To create a Supportive Legal Policy framework for the benefit of all</td>
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<tr>
<td>Owners/ End Users</td>
<td>To Demand &amp; Occupy Sustainable buildings as they are relatively cheaper and increase overall prosperity</td>
</tr>
<tr>
<td>Investors</td>
<td>To Invest in Sustainable buildings as they provide better returns</td>
</tr>
<tr>
<td>Designers &amp; Architects</td>
<td>To Design Sustainable buildings and environment because that’s the client’s are asking/ society wants</td>
</tr>
<tr>
<td>Developers/ Contractors</td>
<td>To Build Sustainable buildings as they are easier to sell, fetch relatively higher prices and maintenance free</td>
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<tr>
<td>Education Institute/ Trainers</td>
<td>To spread the knowledge of sustainable buildings because that is critical for implementation of sustainable development principles</td>
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Engage All Stakeholders

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<tr>
<td>Assessors/Certifiers</td>
<td>To assess and communicate the various criteria for assessment of Sustainable building</td>
</tr>
<tr>
<td>Valuers</td>
<td>To Recognise the benefits and use this in estimates of Market Value and other estimates</td>
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<tr>
<td>Insurers</td>
<td>To Grant better conditions for sustainable buildings as they offer better loss prevention benefits</td>
</tr>
<tr>
<td>Financiers</td>
<td>To Grant better financing conditions/ options, as sustainable bindings are less risky</td>
</tr>
<tr>
<td>Media &amp; Industry Associations</td>
<td>To Spread awareness about the Benefits of sustainable habitat/Building</td>
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How to attract & engage all stakeholders?

1. Policy / Guidelines for sustained impetus
2. Ratings of Products/ Buildings
3. Benefits to the developers (in terms of financial – Rate of Interest/ Non-financial – Approvals, TDR, extra space, …)
4. Increase Value of the Product/ Capital & Rental Value
5. Funding incentives/ Grants to Financers
6. Higher LTV, Eligibility, Lower RoI to the Customers
7. Communication to all Stakeholders
8. Skill Development/ Institution for Trainings
9. Construction Equipment that support sustainable buildings
10. Get Best Practice/ Showcase/ Awards & Incentives

“By the yard it is hard, but inch by inch, anything’s a clinch”
The entire Value Chain

- Insurers
- Assessors
- Valuers
- Designers/ Architects
- Education Institutes
- Media & Ind. Assoc.
- Policy Makers
- Customers/ End Users
- Developers
- Investors
- Financial Institutions

**Mechanisms**
- Private Equity (PE)
- Land Financing
- Debt (HL/LAP/CF)
- Leasing
- Capacity Building
- Incubating new tech
- Funding ESCos/ Retros
- Building Material Suppliers’ Financing

**Institutions**
- Banks/ Financial Institutions
- Leasing Companies
- Property Funds
Green Mortgages can help in following ways

- Get money to invest in energy efficient upgrades for a new house
- Help you to qualify for a larger mortgage to pay for a house that is already energy efficient
- Qualify you for money for green renovations when refinancing a mortgage
- Make older homes more comfortable and more affordable with lower utility payments.
- Help you to use less energy to maintain the temperatures in your home and therefore lessen you family’s footprint.
Efforts can be seen on **Policy front** and **Capacity building** areas...

<table>
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<tr>
<th>Passive Architecture Design</th>
<th>Titan New Corporate Campus, Bengaluru</th>
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<td>Passive Architecture Design</td>
<td>High Court Complex, Goa</td>
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<tr>
<td>Construction Workers' Health &amp; Safety</td>
<td>Integrated Commercial Cum Residential Complex, Bhubaneswar</td>
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<td>Construction workers' health and safety:</td>
<td>TATA Housing Residential Development, Kolkata</td>
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<td>Energy Management</td>
<td>Incubation Centre, Software Technology Parks of India, Mohali</td>
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<td>Use of Sustainable Building Materials</td>
<td>Redevelopment of Kidwai Nagar (East), New Delhi</td>
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<td>Site Management</td>
<td>Vallabh Bhawan Extension Complex, Madhya Pradesh</td>
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<td>Site Management</td>
<td>Corporate Office Building of Numaligarh Refinery Limited, Guwahati</td>
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<tr>
<td>Integrated Water Management</td>
<td>Indian Institute of Technology, Hyderabad</td>
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Source: GRIHA Website
Efforts can be seen on Policy front and Capacity building areas…

Revised Haryana building bye laws 2016 recognize green building measures by project and awards benefits of additional FAR upto 25% by getting his building/site/project certified from GRIHA Council and achieve GRIHA rating as per sub 4 or adopting either green norms specified in sub 3.

GRIHA rating 1 star 2 star 3 star 4 star 5 star Additional Far for all building uses (except plotted residential) 5% 10% 15% 20% 25% Note - Extra FAR shall be given over and above the maximum permissible FAR as stated in code 28.

Haryana building bye laws - 2016
The Journey had already begun...

- Tata Housing
- Godrej
- Mahindra
- Prestige
- Rustomjee
- Kumar
- Kalpataru
- Prateek
- Gulshan
- Oberoi
- Aparna
- Sobha
- Sare
- Phoenix
- Embassy
- Brigade
- Olympia
- Navin...

Examples of EE Homes In India

‘A Journey of a thousand Leagues begins with a Single Step’ – Lao Tzu
Tata Capital Housing Finance Ltd.

- Home Loan
- Home Equity Loans/ Loan Against Property
- Construction Finance as part of Builder/ Developer Funding
- Rural Housing
- Affordable Housing
- Energy Efficient Homes
Key Drivers of TCHFL

- Trusted Brand
- Oversight of Management by eminent Board of Directors, supported by experienced management team
- Retail focus
- Relationship with Pan India Developers through CF
- Operational efficient process and Customer centric approach
- Technology-driven (supported by TCS)
- Secured Loan Book and strong asset quality
- Robust Risk, Credit and Technical Valuation process, supported by audit (external agency)

Green Building Financing is Way Forward!
Thank You!

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