"National Conference on Green Design"

Session – Green Buildings Making Financial Sense

"Financing Energy Efficient Housing"

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Background

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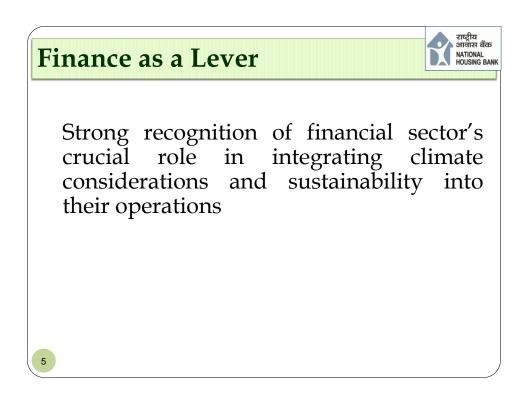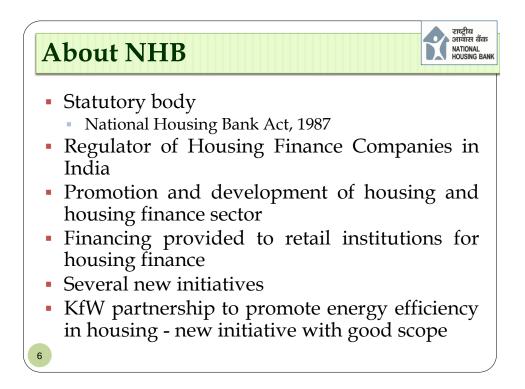| Projected Timeline	Demographic Changes
By 2050	World's population will reach 9 Billion
By 2050	70% of the world's population will live in urban areas, up from 50% today
By 2030	40.8% of India's population will be living in urban areas (current 28.4%), increasing to 50% by 2041

- Housing sector accounts for nearly 40% of energy consumption
- Populations in emerging markets are creating a huge demand for homes that need to be both affordable and green

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Energy Efficiency in Housing

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- Energy efficient housing balances all aspects of energy use in a building
  - Lighting
  - Space utilization
  - Ventilation
  - Use of energy efficient building materials
  - Use of energy efficient equipment
  - Use of alternative and renewable sources of energy
- Reducing energy demand at source
  - More sustainable in long run
  - Often with little incremental cost

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Green Buildings: Benefits to Various Stakeholders.

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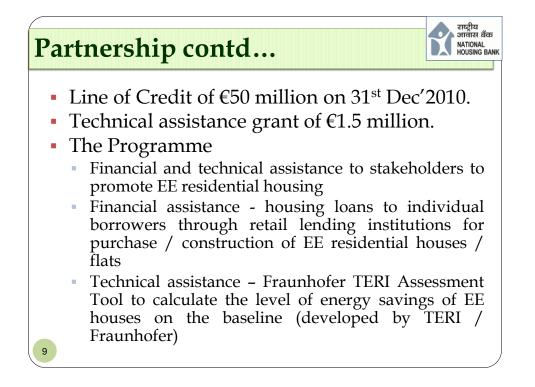| To Developers / Builders	To Landlords (in case of rental housing)	To Occupants / End users
Capital cost savings	Higher rentals	Low energy, waste disposal and water cost
Space saving because of no bulky ducting	Higher occupancy	Lower operational and maintenance costs
Operational cost savings	Higher values	Lower emission and environment costs
Reduced construction time schedule		Higher productivity levels
Improved marketability and enhanced value		Better health and satisfaction
Higher future value of property		Demonstration of commitment to sustainability and environmental stewardship
Reduced liability and risk		

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NUHHP 2007

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National Urban Housing & Habitat Policy 2007

- Appropriate ecological standards for healthy environment and better quality of life.
- Implementing the concept of 'green' and 'intelligent' buildings.

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Finance as a Lever

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Strong recognition of financial sector's crucial role in integrating climate considerations and sustainability into their operations

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About NHB

- Statutory body
  - National Housing Bank Act, 1987
- Regulator of Housing Finance Companies in India
- Promotion and development of housing and housing finance sector
- Financing provided to retail institutions for housing finance
- Several new initiatives
- KfW partnership to promote energy efficiency in housing - new initiative with good scope

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NHB's Financing Products

Refinance	Direct Finance	Equity Participation
Term Loans ■ Commercial Banks ■ Housing Finance Companies (HFCs) ■ Cooperatives	Term Loans ■ Housing Corporations ■ Societies ■ PPPs ■ Self Help Groups	Equity stake ■ Rural HFCs ■ HFCs involved in housing finance to low income segments
for		
■ General Housing ■ Rural Housing ■ Special projects (in natural disaster affected areas)		

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NHB KfW Partnership

- Important step forward in promoting use of energy efficiency techniques in buildings
- Programme initiated jointly by NHB and KfW in 2008 pursuant to Indo - German Government-to-Government negotiations
- Prime objective of the Programme – Promoting Energy Efficient Residential Housing
- First of its kind programme in India

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Partnership contd…

- Line of Credit of €50 million on 31st Dec'2010.
- Technical assistance grant of €1.5 million.
- The Programme
  - Financial and technical assistance to stakeholders to promote EE residential housing
  - Financial assistance - housing loans to individual borrowers through retail lending institutions for purchase / construction of EE residential houses / flats
  - Technical assistance – Fraunhofer TERI Assessment Tool to calculate the level of energy savings of EE houses on the baseline (developed by TERI / Fraunhofer)

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Partnership contd.

- Initial implementation - facilitator appointed to assist NHB
  - Identification of EE building projects
  - Identification of retail lending institutions
  - Assessment of refinance potential for NHB
  - Gathering of borrower information
  - Assistance in energy calculation & certification
  - Compliance with NHB's reporting requirements to KfW

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Partnership contd.

- Till date, NHB has submitted claims for €26.73 million to KfW.
- 08 Projects have been certified in the cities of Lucknow, Nagpur, Mumbai, Bangalore and NCR.
- 1,222 individual loans have been refinanced by NHB.
- LICHFL, Axis Bank, HDFC, DHFL, and Tata Capital have availed Refinance from NHB under the Programme.
- Full time TA consultant appointed to assist NHB in programme implementation during the remaining period of the Programme

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Snapshot of some Certificates.

Benefits from the Programme

- Reduction in energy usage without compromise on comfort
- Building of sustainable housing and habitat to impact society and environment
- Availability of funds - source for encouragement
  - Lenders
  - Borrowers
- Availability of assessment tool - help to developers

Barriers in Energy Efficient Housing Projects

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- Lack of concern
  - Not my problem
- Perception
  - Energy efficiency is expensive requiring huge upfront investments
  - Marketing gimmick of developers
  - High maintenance cost
- Lack of awareness and information about Government schemes promoting use of solar energy, etc.

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Next Steps

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- Absorption capacity / consumption of EE products in India to be enhanced
- Scalability important due to challenges
  - Cost aspects
  - Huge housing shortage
  - Existing housing
  - Present product for niche market segments
- Programme to be expanded to include existing housing units

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Looking to the Future -Energy Efficiency and Affordability

- Energy efficiency as a concept can become popular only if cost effective
- Measures needed to incorporate energy efficiency in affordable housing projects at the planning stage itself
- Use of traditional building materials and architectural techniques needs to be promoted
- Cost effective energy efficiency measures would bring down the payback period and increase acceptance of the concept

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Looking to the Future (contd.)

- Awareness building measures needed to boost awareness of and interest in energy efficient affordable housing projects among
  - Developers
  - Buyers
  - Policy makers

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To Summarize

- Energy efficiency priority area for Government and policy makers
- NHB-Kfw partnership new initiative with huge scope
- Finance an important tool for promoting energy efficiency in buildings
- Scalability an important factor
- Multi-pronged approach to overcome barriers

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Thank You