



BC Housing

BC Housing

Our Green Journey –
Making Green What We Do



BC Housing

Overview

Provincial Crown agency

Created to fulfill government's commitment to providing subsidized housing to those most in need

Increasing subsidized housing options through:

- Developing new housing
- Maintaining existing portfolio
- Rent assistance in the private market

National Housing Act insured lender



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Types of Social Housing

Public Housing (Directly managed)
Non-profit & Co-op Housing
Group Homes
Single Room Occupancy (SROs)
Emergency Shelters
Transitional and Supportive Housing



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New Development Programs

Provincial Homelessness Initiative

Seniors Rental Housing Initiative

Aboriginal Housing Initiative

Independent Living BC

Seniors Supportive Housing



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Our Social Responsibilities

In addition to our responsibilities to the Government, the people of BC, and those most in need of affordable housing, BC Housing takes responsibility for its impact on our environment, community and its people



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Our Social Responsibilities

Environment

livegreen Vision

Three areas of focus and long-term direction:

- Innovation in design, construction and management of social housing buildings;
- Guiding and supporting others in taking action towards sustainability; and
- Integration of financial, social and environmental considerations in decision-making.



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Our Social Responsibilities

Environment

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Part of the BC Energy Plan, we will:

- Reduce our housing GHG emissions by 50% by the year 2020
- Cut social housing construction waste in our landfills in half
- Target all new construction to be LEED Gold – over 40 projects in design, construction or operation are currently registered/certified



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New Construction Initiatives



First Gold...



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Friendship Lodge – LEED Gold



- 30 unit development in Prince George, BC
- High performance envelope
- Ground source heat pump system
- Ventilation ducted to each suite
- Exhaust air heat recovery
- >53% water use reduction
- 46% energy savings over ASHRAE 90.1-2007



Coming Soon...



K'San Shelter & Residence – Soon-to-be LEED Gold (we think!)



- 2-storey, 20 unit development in Terrace, BC
- High performance envelope (insulated concrete block forms)
- Water source heat pump system
- Extensive energy modeling exercise
- ~58% projected energy savings over ASHRAE 90.1-2007
- Gravity film heat exchangers on DHW
- Radiant in-floor heating



Under Construction...



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215 W 2nd Ave – Targeting LEED Gold, Near Net-Zero

- 11-storey, 147 unit development in Vancouver, BC
- High performance envelope
- Green roof
- Located in designated municipal sustainability precinct – ties into NEU
- ~70% projected energy savings over ASHRAE 90.1-2007
- 33 unit evacuated solar tube array on roof
- Radiant in-floor heating
- Extensive (3 year) measurement & verification exercise



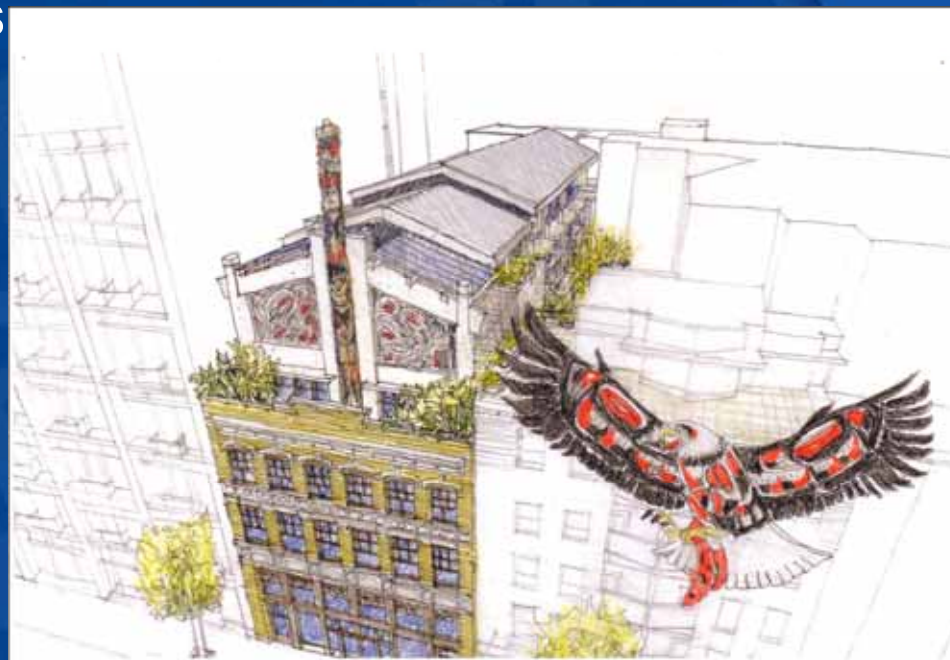
Under Construction...



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31 W Pender St – Targeting LEED for Homes Mid-Rise Gold

- 7-storey, 37 unit supportive housing/healing lodge in Vancouver, BC
- Heritage façade retention
- Extensive emphasis on indoor environmental quality
- Potential tie-in to future district energy system
- Extensive salvage & reuse of materials
- Radiant in-floor heating
- Cultural significance is very important





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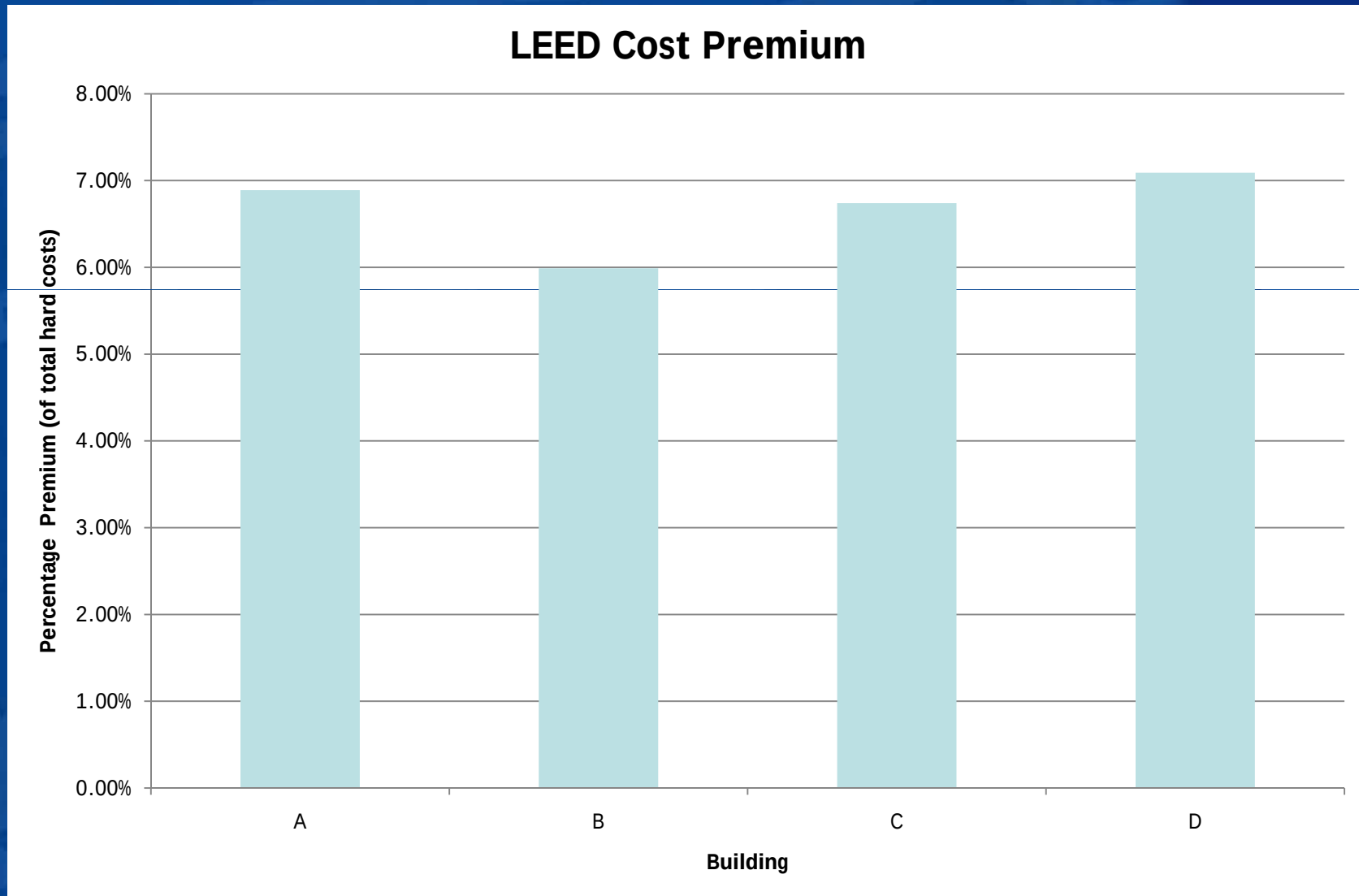
What Does LEED Gold Cost?

- Yes, it does cost a bit more.
- Don't yet have enough performance data to quantify benefits
 - Preliminary analysis says it is good value
 - Need to ensure good decision-making
- Mechanical, electrical & building envelope are big cost issues
 - Opportunity for payback
- Creating custom tools to educate project managers so they can control costs

How Much Are We Paying?



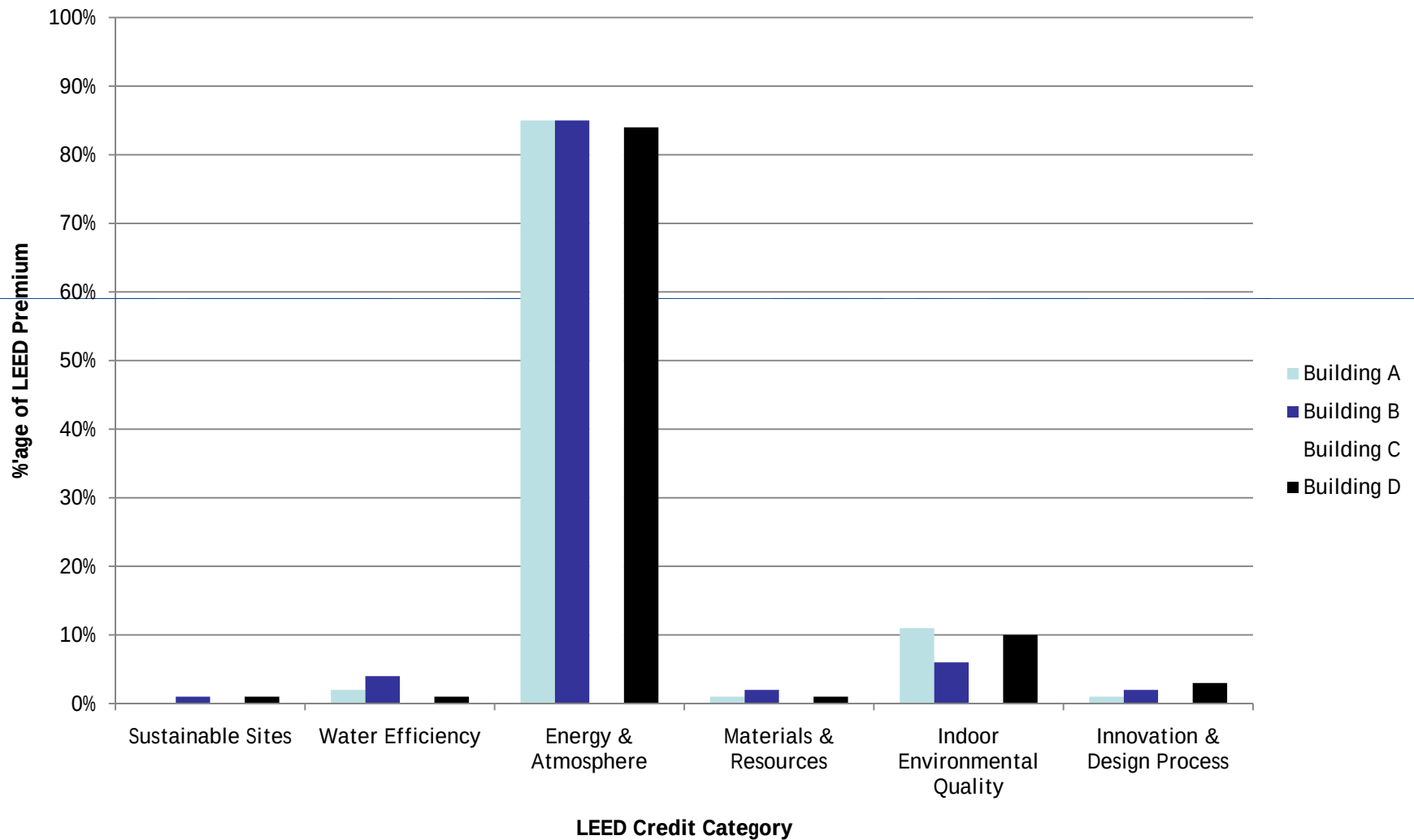
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Where Does the Money Go?



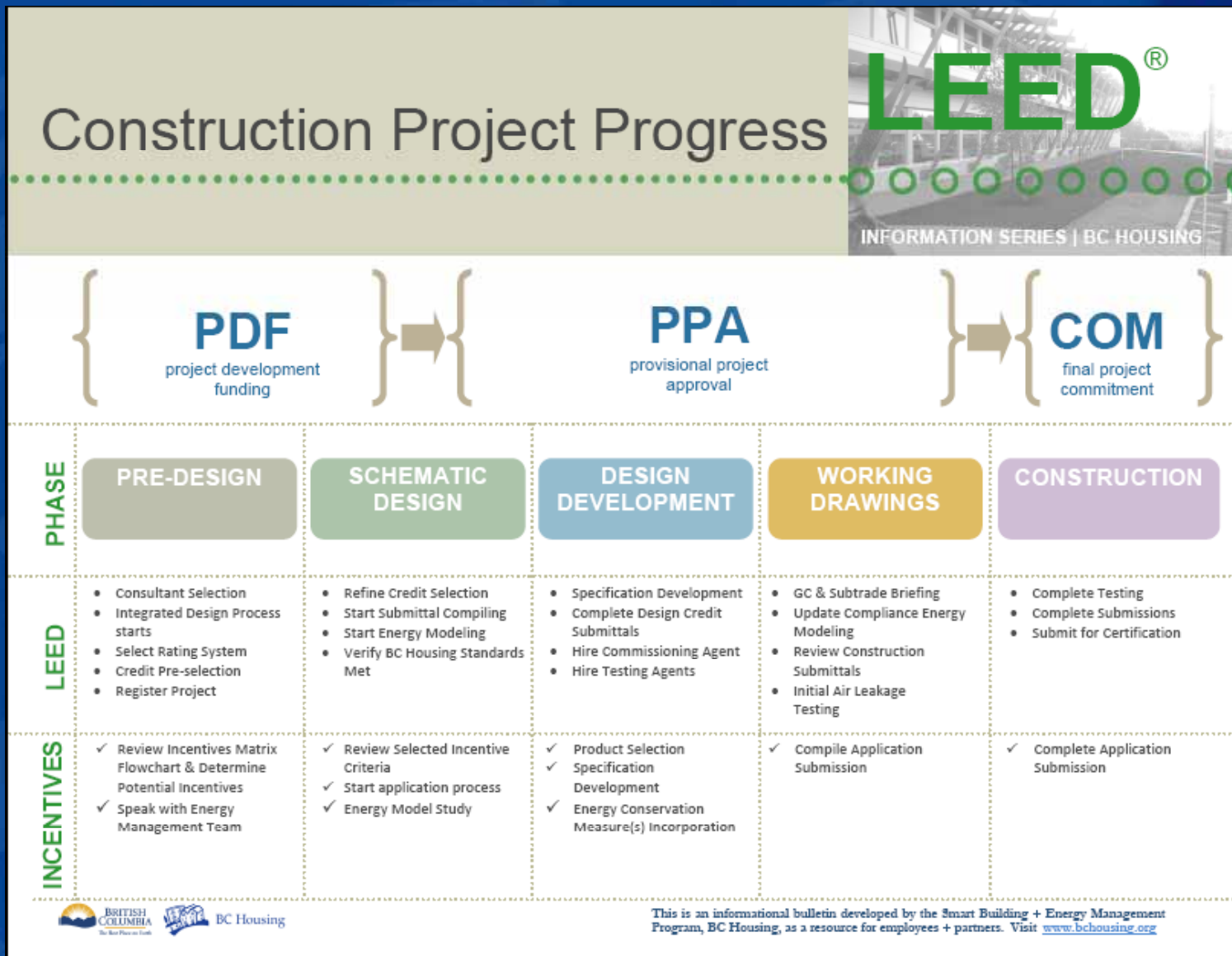
Distribution of LEED Premium



Custom Tools



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Cost Lessons



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- Design process is key to ensure that costs don't escalate beyond bearable amount
- Working hard to gather data to validate/challenge assumptions
- Need to remember operating costs
 - Training
 - Equipment repair/maintenance

Additional Lessons



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- Location makes a huge difference
- Use the right tools to evaluate performance
- Make it part of what you do then use 3rd party to verify and validate





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Our Social Responsibilities

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Challenges, Opportunities & Lessons:

- Measuring performance, shortening feedback loop – 4 building study
- Tenant engagement pilot project
- Publicizing lessons learned to bring sector forward



Questions/Comments?



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