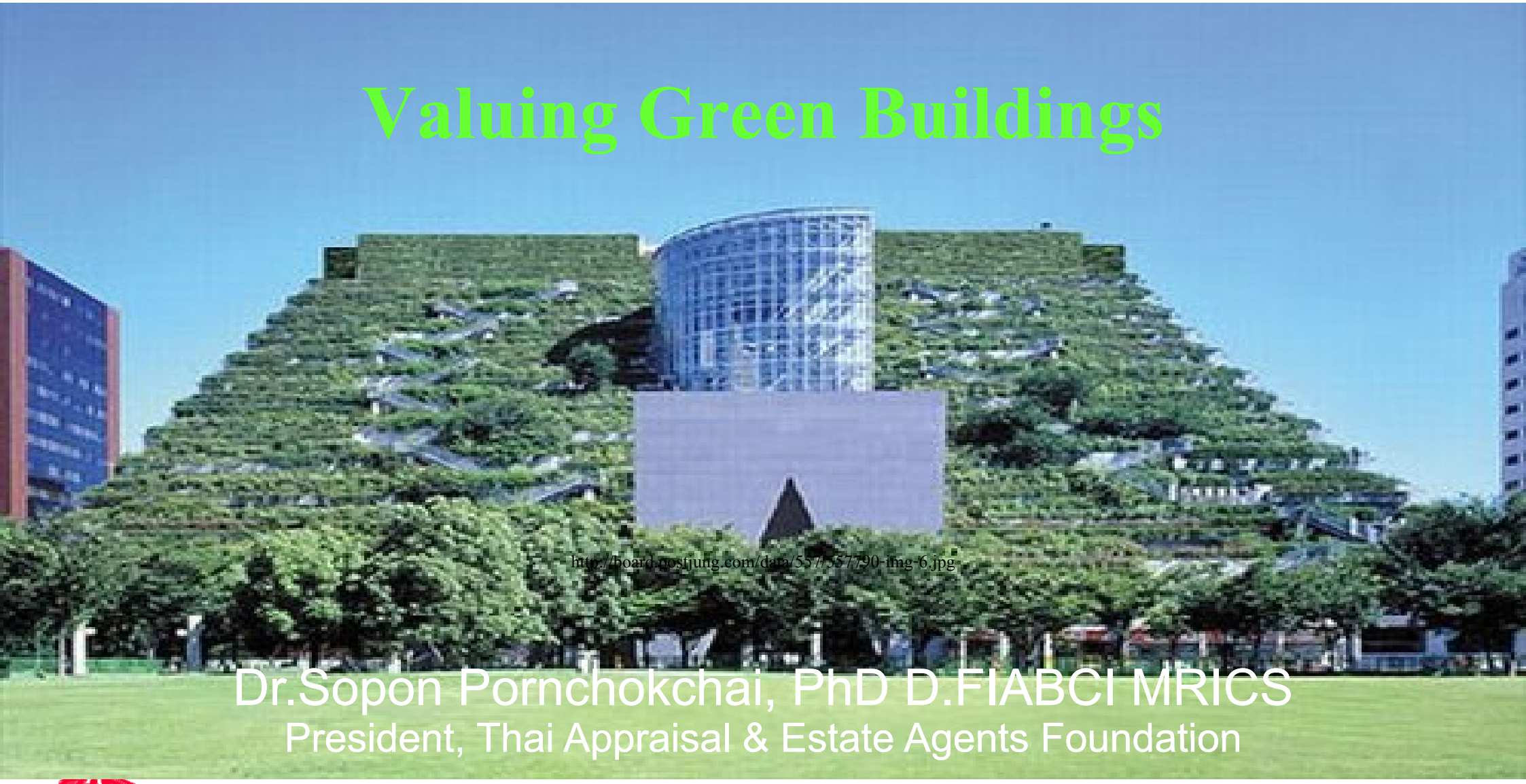
Valuing Green Buildings



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https://www.youtube.com/watch?v=T0xqRj8zGQE

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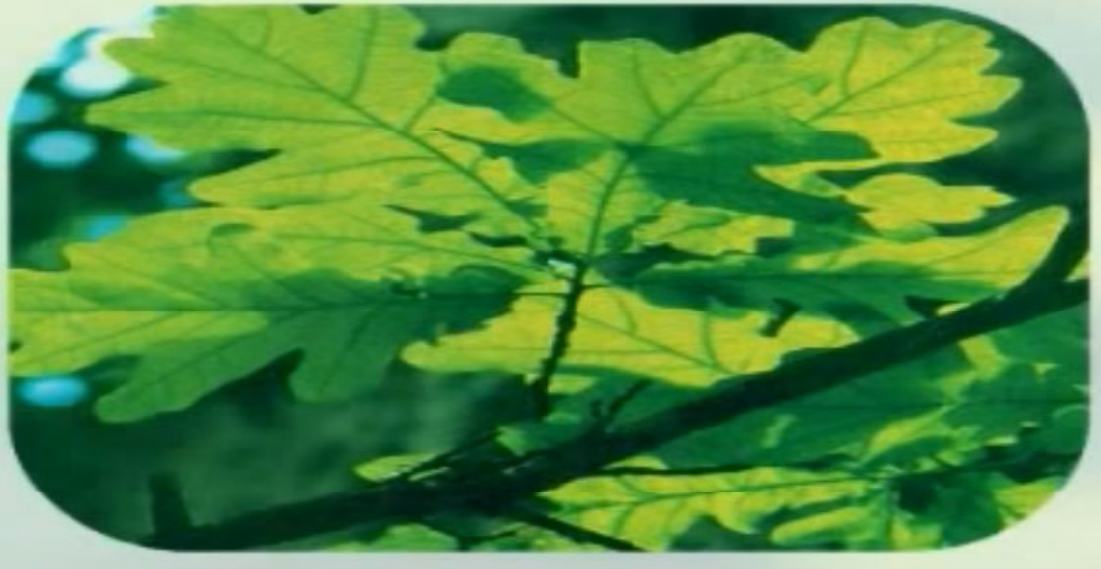
Green Valuation and Sustainable Indicators for Buildings



https://www.youtube.com/watch?v=t-M2fnCOJWA

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https://www.gbca.org.au/docs/NSC0009_ValuingGreen.pdf

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Sustainability victoria

green building council australia

VALUE IS CALCULATED BY THE CAPITALISATION OF THE NET ANNUAL INCOME OF THE PROPERTY USING A MARKET DERIVED CAPITALISATION RATE.

https://www.gbca.org.au/docs/NSC0009_ValuingGreen.pdf

Regulatory requirement	9%
Other	11%
Investor demand	13%
Asset management/fund manager's decision	22%
Tenant demand	45%

ABOUT TWO-THIRDS OF INTERVIEWEES WOULD PAY MORE FOR A GREEN STAR BUILDING.

https://www.gbca.org.au/docs/NSC0009_Valuing Green.pdf

Figure 1: Economic Impact of Green Buildings // *Scale: 1 equals no weight - 5 equals most weight

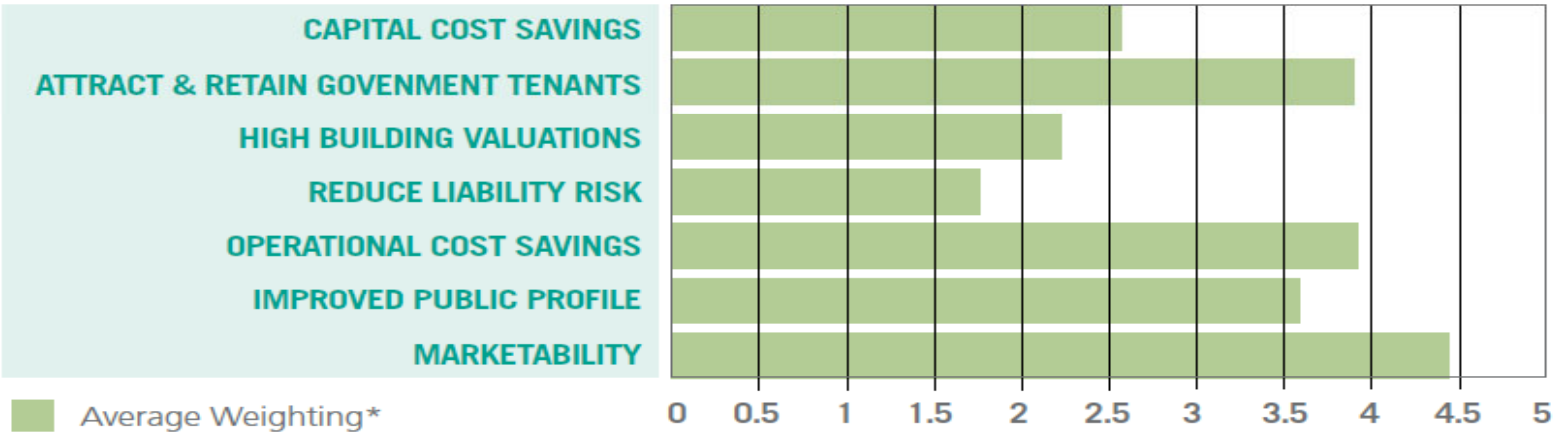
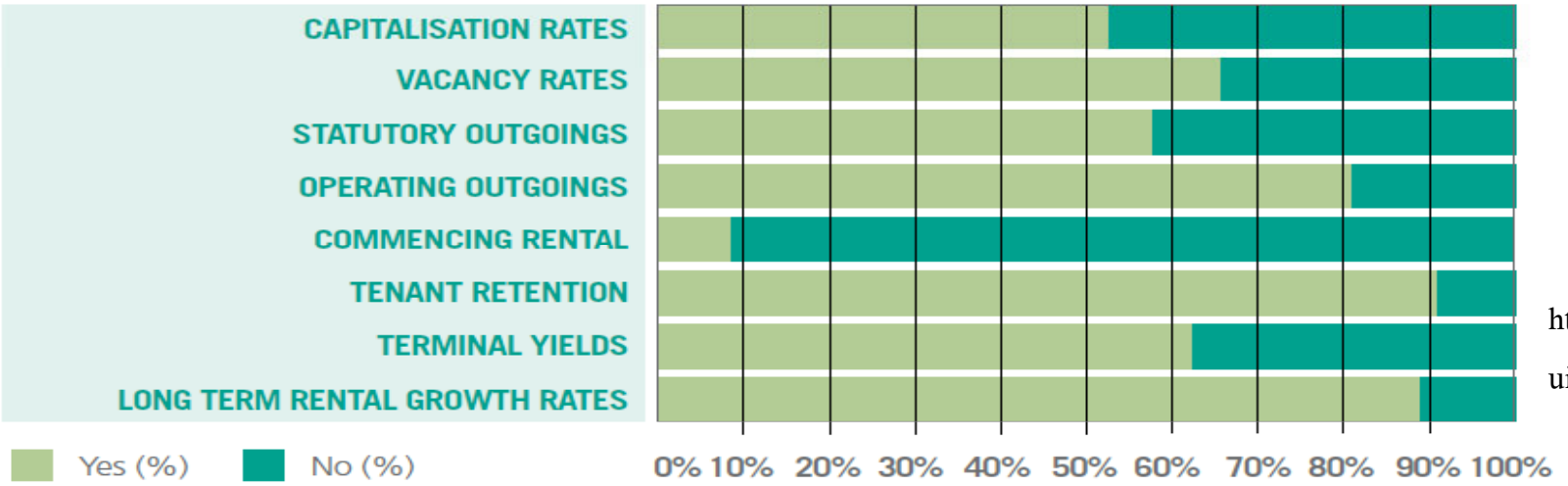


Figure 2: Market Impact of Green Buildings



https://www.gbca.org.au/docs/NSC0009_ValuingGreen.pdf

	$ VALUE	% VALUE CHANGE
IMPACT ON MARKET VALUE OF A GREEN STAR BUILDING		
Increase in renewal probability from 50% to 75% in a green building	$3.2m	3%
Decrease of total downtime over ten years from 12 months to 6 months in a Green Star building	$3.2m	3%
Decrease of terminal yield from 6.25% in the base case to 5.75% for a Green Star building	$5.3m	5%
IMPACT ON MARKET VALUE OF A NON-GREEN STAR BUILDING		
Decrease in rental growth rate from 3.5% to 2%	-$13.9m	-13%

https://www.gbca.org.au/docs/NSC0009_ValuingGreen.pdf

Does Building Green Create Value?

By Gil Yaron, LL.M, LL.B, BA&Sc and Melissa Noel, MBA, BSc
Light House Sustainable Building Centre Society, Vancouver, BC

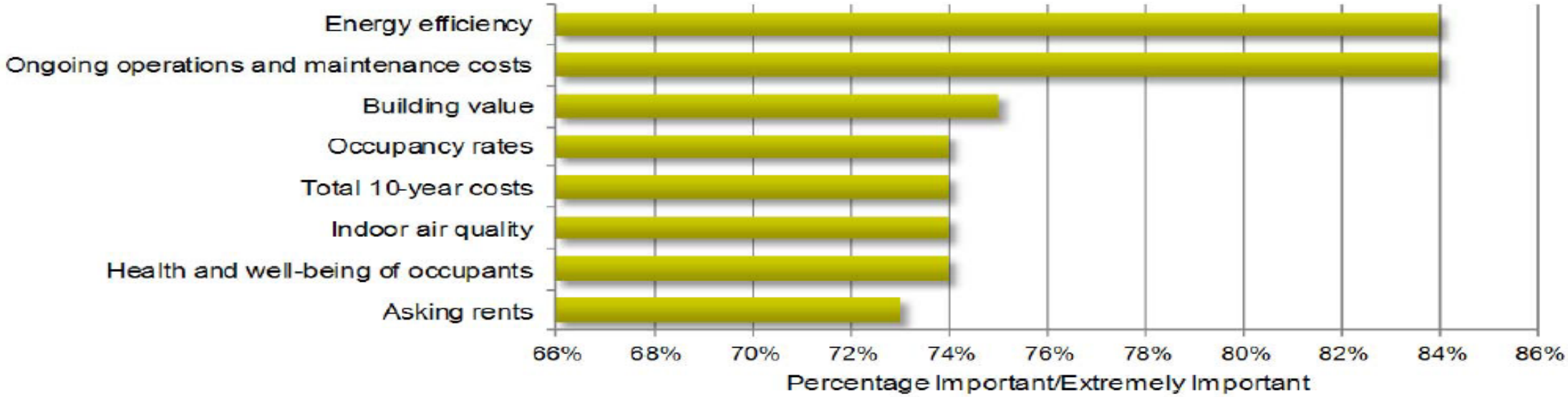


Figure 2: Importance of sustainability factors when evaluating green building features (2012).[3]

http://www.sustainablebuildingcentre.com/wp-content/uploads/2013/05/Do-Certified-Buildings-Have-Greater-Value_May-2013.pdf

Sales Comparison Approach

- Appraisers search for the behavior of actual buyers and sellers in a market
  - Extract market reaction to significant characteristics
  - Make ***credible**** and ***supportable**** adjustments
  - Use adjusted prices to estimate a value via the sales comparison approach

http://www.rcac.org/assets/.online%20materials/Green%20Building%20Valuation%20%20Barriers%20and%20Opportunities_Honolulu%20Sept_2012.pdf

**** based on reasonable and reliable DATA***

Impact of green building valuation guideline

The methods of valuation used will still remain the same. However, in the application of the various methods of valuation, the valuer will be made more aware and account for the green factors within each development, where applicable.

- **Direct Comparison Method**

Under this method, green buildings should be appraised by comparing them to similar green buildings which have been sold, and making the relevant adjustments for differences between comparable properties. The direct comparison method can also be applied when assessing the rental of green buildings. With more green buildings and developments being built, this method will become more relevant.

- **Cost Method**

The cost method will give the valuer an indication of the value enhancement of green features to property value. A building certified Green Mark Platinum may be more costly and likely more valuable than one that is Green Mark Certified if other characteristics of the two properties are similar.

- **Income Method**

Under the income method, the correct net income should be estimated taking into account the enhancement it may achieve as a result of the incorporation or installation of green features and design. This could be in the form of increased rental as well as reduction in operating expenses. The income method may be in the form of a direct capitalisation method using the prevailing rental multiplied by the years of purchase or a discounted cash flow over an appropriate period taking into account the expected useful life of the green features.

SISV:

http://www.bca.gov.sg/newsroom/others/pr12102012_IGBCA.pdf

Valuation Issues

- Lack of available data
- Many markets have yet to see their first green building
- Few sales of green buildings
- Renewed focus on building design, materials, building systems, operations (be careful of specific system valuation vs. integrated)
- Estimating obsolescence in the presence of the performance capabilities of green buildings and existing non-green buildings (functional inutility)

http://webcache.googleusercontent.com/search?q=cache:A5_iBXDUa74J:library.eres.org/eres2013/presentationupload/130.ppt+&cd=1&hl=th&ct=clnk&gl=th

Valuation Clues

- Thoroughly describe and understand sustainability attributes and components
- Use LEED criteria as a basic organizational guide
- Gather as much info on design development process and trade-off analysis
- Measure expectations of developers, lenders, tenants, and investors
- Focus on attributes that may have a material effect upon property performance, revenue, operating expense, and risk.

http://webcache.googleusercontent.com/search?q=cache:A5_iBXDUa74J:library.eres.org/eres2013/presentationupload/130.ppt+&cd=1&hl=th&ct=clnk&gl=th

Risk Profile of Green Buildings

- Lower exposure to energy costs and consumables costs increase
- Greater construction and delivery risks
- Pattern of lease-up and absorption risk
- Fewer peers in the marketplace
- Tenant retention and turn-over risk (longer term?)
- Re-tenanting costs (modular systems)
- Pattern of periodic capital replacements
- Reversion Price
- Lower exposure to obsolescence

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The Approaches to Value

- All factors should be viewed within the context of market value
- The Sales Approach – likely too weak at this time
- The Cost Approach -
  - Reproduction or Replacement?
  - On new construction get the Spec Sheet
  - Commissioning Report may reveal poorly designed systems
  - R.S. Means produces a green cost study
  - At this time, reproduction cost may prove more relevant
  - Life Cycle Cost (LCC)- form of financial analysis that takes into account the total cost of a building over its life

http://webcache.googleusercontent.com/search?q=cache:A5_iBXDHa74J:library.tpa.or.th/wp-content/uploads/2013/presentation/upload/130.ppt+&cd=1&hl=th&ct=clnk&gl=th

The Approaches to Value (cont.)

- The Income Approach
  - Property Revenue
    - How does the rental profile match against its comp set
    - Evidence of premiums at other green buildings
    - Take care to assure that any premiums or discounts are adequately supported
    - Gross vs. Net – Who gets the benefits?
    - Green Lease Clauses – typically provides equitable sharing of costs and benefits

http://webcache.googleusercontent.com/search?q=cache:A5_1BXDUa74J:library.eres.org/eres2013/presentationupload/130.ppt+&cd=1&hl=th&ct=clnk&gl=th

The Approaches to Value (cont.)

- The Income Approach
  - Operating Expenses
    - Find sources of information for sustainable features
    - Architect, engineer, energy modeler, green consultant
    - Be alert to include not only differences in consumption, but also the differences in capital expenses, special maintenance, and replacement allowances
    - Watch for the handling of TI's – LEED interior
    - Remember some incentives expire over time

http://webcache.googleusercontent.com/search?q=cache:A5_iB3DUa74J:library.eres.org/eres2013/presentationupload/130.ppt+&cd=1&hl=th&ct=clnk&gl=th

The Approaches to Value (cont.)

- The Income Approach
  - Overall cap rate and discount rate (Green v. NG)
    - Safe Rate component is unchanged – based on alt investment
    - Management component may change
    - Risk component may change
    - Liquidity component may change

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Conclusions to Value Green

- The Income Approach
  - At this time, the Discount Cash Flow (DCF) analysis is preferred over Direct Capitalization for green building valuation
  - Addressed income and value changes parameters in the cash flow forecast, not in the rate
  - What if your jurisdiction doesn't work with DCF's?

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Incentives

- Incentives encourage adoption of sustainable features
- Local, State, Federal levels of government
  - Grants and loans
  - Reduced Property Taxes
  - Density Bonus
  - Expedited entitlements and approvals
  - Preferred rate financing – TIF's

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Incentives (cont.)

- Private incentives may be available through:
  - Regulated Utilities
  - Lower insurance premiums
    - Example: 5% total insurance deduction for LEED certified
- Incentives that are substantially monetary, direct, and exclusive to the project or owner may affect value
- Incentives can represent a wasting or diminishing benefit which results in a temporary income and value benefit
    - 10 year break on property taxes for LEED certification

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A	B	C
2	Value of the Green	
3	Typical value of an office building (Baht/sq.metre)	100,000
4	Premium of the green building as a market niche	10%
5	Excess value of the green building (Baht/sq.metre)	10,000
6	Typical net lettable area of a first-class office building (sq.metre)	30,000
7	Value of the green (Million of Baht)	300

THANK YOU

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