

Annotated Index

GBFC Research Library

General Underwriting/Valuation Topics

1.0 Sustainable Property Financial Analysis Alternatives

This section of the research library covers the many types of financial analysis tools, techniques, and analytic methodologies used to make and/or support sustainable property investment decisions. This section supplements Chapter V, “Sustainable Property Financial Analysis” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

1.1 Miscellaneous

Miscellaneous documents that do not specifically fit under any of the four other sub-codes in index section 1.0.

1.2 Traditional Sustainability Financial Analyses

Models and analyses that have traditionally been used in the real estate industry to make energy efficiency/sustainability investment decisions for buildings, features, and equipment.

1.3 Traditional Real Estate Financial Analyses

Traditional real estate financial analyses are integrative models that endeavor to incorporate comprehensive cost, benefit, and risk information to generate returns/value results based on specification of financial model input such as energy costs, rents, occupancy, tenant retention, discount rates, etc.

1.4 Sustainability Sub-Financial Analyses

Sustainability sub-financial analyses are those analyses and models that provide quantitative insight/data that is typically combined with other information and analyses to aid the valuer/financial analyst in their specification of key financial assumptions in a discounted cash flow analysis or related model. The analyses covered in this section of the library are a selection of some of the specialized analyses that have been developed in recent years to aid in the financial analysis of sustainable property investment.

1.5 Public Sustainability Benefits

Financial analyses used to quantify potential public sector benefits. These analyses contribute to private value through the potential ability to negotiate payment for public value. Such “monetization” of public value is created through enhanced entitlement, permitting benefits, public grants, financing, and other incentives.

2.0 Underwriting: Risk and Compliance Analysis

This section of the research library contains the parts of the sustainable property underwriting process that are not specifically related to the pro forma or valuation. Due diligence on the borrower or sponsor of the project, legal due diligence, risk mitigation, and the types of methods, practices, and underwriting frameworks used to make decisions are covered. The term “underwriting” is used broadly to cover the due diligence and related analytic efforts undertaken by lenders, equity investors, corporations, and other property investors. This section of the research library supplements Chapter VI, “Underwriting Guidelines for Sustainable Property Investment” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties*.

2.1 Miscellaneous

Miscellaneous documents not captured by other codes in index 2.0.

2.2 Special Reports/Studies

Special reports or studies that address issues or topics that go beyond a single type of investor or decision maker, or have broad applicability.

2.3 Space Users

Due diligence documents for space users.” “Space user” is a term used to describe the occupants or users of real estate. It is a term that includes corporate and non-corporate owner-occupants, tenants, retail customers or other non-owner or tenant users of space.

2.4 Investors/Developers

Due diligence documents for investors/developers. Investors/developers include REITs, public real estate companies, private investors, private real estate investment managers (pension investors), private equity funds, socially responsible investors, and venture capital.

2.5 Lenders

Due diligence documents for lenders. Lenders include banks (construction, permanent, bridge, or energy loans), life companies, other private lenders, energy lenders, government lenders, and commercial mortgage brokers.

2.6 CMBS Issues

Due diligence documents/publications for CMBS issues. Commercial mortgage conduit lenders and other lenders participating in the CMBS process, and other issues related to debt securitization, whether they are commercial mortgages or not.

2.7 Financing/Underwriting Packages

Examples of the output (reports/analyses, etc.) of the underwriting/due diligence process for equity and/or debt financing requests or analogous corporate capital requests. Financing packages submitted to capital sources would also be included here.

2.8 Service Provider Underwriting

Special reports and documentation of the process for underwriting service providers. Assessment or certification systems or approaches would be coded here and/or under index code 23.10.

2.9 Products/Systems Underwriting

Special reports and documentation of the process for underwriting sustainable products, systems, and materials. See also index codes 4.0: Sustainable Property Definitions/Certifications and 5.0: Sustainable Property Products/Materials Ratings/Certifications.

2.10 Third-Party Reports/Analyses

Reports/analyses and examples of third-party reports.

3.0 Cost-Benefit Analyses/Studies

This section of the research library contains documents that are specifically identified as cost-benefit analyses or studies, as well as many other documents that contribute knowledge and insight into a particular cost or benefit. More detailed evidence of building, market, and financial performance are covered in section 15 of the research library. This section of the research library supplements Chapter V, Sections E: “Assess Costs/Benefits of Sustainability” and F: “Evaluate Financial Implications of Sustainability” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

4.0 Sustainable Property Definitions/Certifications

This section of the research library contains documents that look at issues related to sustainable property definitions or certification. Environmental assessments, occupier focused assessments, government regulations, other building performance assessments, and service provider certifications and assessments are all covered in this section. This section of the research library supplements Chapter III, “Evaluating Property Sustainability,” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

5.0 Sustainable Products/ Materials Ratings/Certifications

This section of the research library contains documents related to sustainable products or materials, and product/materials rating and/or certifications. This section of the research library supplements Chapter III, “Evaluating Property Sustainability,” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

6.0 Sustainable Property Features

This section of the research library contains documents that cover specific sustainable features, systems, or attributes. Energy, water, IEQ, materials, and other feature documents are covered here. This section assists in understanding the nature of sustainable options available, as well as studies or research that have looked at these options. Other related sections of the research library include 9.3: Energy/Carbon Features/Systems, 15.5—Features / System Performance and/or 28--Sustainable Property Guides/Best Practices. To locate feature performance studies, to check both sections 6.0,

9.4 and 15.5, although 15.5 is where such documents will typically be found. The most important and comprehensive best practices guides are in section 28.0. This section of the research library supplements Chapter III, “Evaluating Property Sustainability,” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book. Additional detail on the performance of features can be found in Expanded Chapter IV, Section D: Feature Performance of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

7.0 Sustainable Property Valuation

This section of the research library covers documents that directly address property valuation. Because of the integrative nature of property valuation, information in many of the other research library sections has some bearing on valuation and financial performance. This section of the research library supplements Chapter IV: “Sustainable Property Performance, Section F: Market Performance, and Chapter V, Section I: Valuing Sustainable Properties of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

7.1 Miscellaneous

Miscellaneous documents not specifically covered in other sub-codes in index section 7.0.

7.2 Research Papers/Studies

This section contains the most important papers and studies looking at the relationship between sustainable property features, performance, and value. Academic studies are typically coded in this section, as well as industry and/or valuation organization studies that specifically address valuation topics. In many cases, research papers or studies that are coded in this section will also be coded in sections 15.6, 15.7, 15.8, 15.9, and/or 15.10, depending on the specific nature of the document. This section of the research library supplements Chapter IV, Section F: “Market Performance, Foundation Background and Theory” of the book *Value Beyond Cost Savings: How to Underwrite Sustainable Properties*.

7.3 Business Value and Sustainability

This section of the research library contains documents that address sustainability and its relationship to business value. This section addresses both the business component of real estate value and also issues related to sustainability and business value generally. To identify additional documents addressing the issues of business value and sustainability, check more specifically sections 8—Space User Demand for Sustainable Properties, 15.8—Market Performance: Space Users, and in some cases section 25.0—Organizational Change/Strategies and section 27.0—Sustainable Property Industry Studies/Trends. This section also supplements the discussion of Enterprise Value covered in Chapter VI, Section F: “Underwriting Space User Demand” and in Chapter V, Section C: Select Financial Model of the book *Value Beyond Cost Savings: How to Underwrite Sustainable Properties*.

7.4 Valuation Management and Review

Valuation/appraisal management and review topics related to sustainability. This has not been an area of significant research and writing to date, but should be more so in the future.

7.5 Valuation Standards and Regulation

Valuation standards and regulation issues are covered generally, and more specifically as they relate to sustainability. Relevant documents from the Vancouver Valuation Accord, the Royal Institute of Chartered Surveyors, the Appraisal Institute, the International Valuation Standards Board, and other related organizations, are referenced here.

7.6 The Income Approach

Documents that specifically address the income approach to value and sustainability are contained in this section of the library. The income approach, which is based upon the discounted cash flow methodology, will be influenced by many of the topics in the research library index. This section is for those documents that specifically address the implementation of the income approach to value in the context of sustainability. Additional information on the discounted cash flow approach and methodology can be found in section 1.3—Traditional Real Estate Financial Analyses, 15.10—Financial Performance, and 7.10—Risk Analysis and Presentations (RAP). This section of the research library supplements Chapter V: “Sustainable Property Financial Analysis” of the book *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

7.7 The Cost Approach

Documents that specifically discuss the cost approach to value in relationship to sustainability are contained in this section of the library. This is a topic that has not been significantly researched, but will be more so in the future.

7.8 The Sales Comparison/Market Approach

Documents that specifically address the sales comparison/market approach to value are contained in this section of the library. This is a topic that has not been significantly researched, but should be more so in the future.

7.9 Public Value: Triple Bottom Line

Documents that address public value or triple bottom line valuation methodologies are contained in this section of the library.

7.10 Risk Analysis and Presentation (RAP)

This section of the research library contains documents that address the integration of risk in the financial analysis and valuation process. Other sections that address issues of risk--but that are less focused on analysis and presentation--include sections 3.0—Cost-Benefit Analyses/Studies, 15.10—Financial Performance, 24.2—Integrated Design, 24.8—Insurance/Surety, 24.11—Construction/Development Risks, 24.13—Other Costs/Risks of Sustainable Development, and 24.14—Contracts/Legal Issues. This section of the research

library supplements Section H: “Risk Analysis and Presentation” of Chapter V: “Sustainable Property Financial Analysis” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

8.0 Space User Demand for Sustainable Properties

This section of the research library contains documents that address the potential for sustainable properties to affect the demand for property by space users. “Space user” is a term used to describe the occupants or users of real estate. It is a term that includes corporate and non-corporate owner-occupants, tenants, retail customers or other non-owner or tenant users of space. The overall real estate decision methodologies that space users use are contained in this section.

The best section to find documents that address the actual market and/or financial performance related to space user demand is in section 15.7—Market Performance and the various sub-indices under this section. Additionally, key articles and research reports related to space user health and productivity are separately identified in section 10.0—Space User Productivity and Health, 10.1—Space User Productivity, and 10.2—Space User Health and under index code 15.63: Occupant Performance. Specific issues related to commercial interiors and tenant improvements are in section 16.0-- Commercial Interiors/ Tenant Improvements. This section of the research library supplements Section F, “Underwriting Space User Demand” in Chapter VI of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

9.0 Energy/Carbon Efficiency

This section of the research library includes documents specifically addressing energy/carbon efficiency and related energy issues. Most documents that have some relationship to the energy issue are coded in this section, as well as other more specific sub-codes as necessary. This section of the research library supplements Chapter VI, Section E, “Underwriting Energy/Carbon Investment” and Chapter IV, Section E-3 and Building Energy Use of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

9.1 Special Reports/Research

Special reports and analyses related to energy/carbon reduction and efficiency.

9.2 Renewable Energy

Special reports and analyses related to renewable energy.

9.3 Features/Systems

Special reports and analyses related to energy features and systems. See also index codes 6.0, 28.0, and 15.5.

9.4 Measurement

Special reports and analyses related to energy/carbon measurement and monitoring. See also index codes 4.0, 15.1, and Chapter III: Evaluating Property Sustainability and Chapter IV: Sustainable Property Performance.

9.5 Performance

Special reports and analyses related to energy/carbon performance. See also index codes 15.63 and Chapter IV: Section E-4: Building Energy Use in *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

9.6 Regulations/Subsidies

Special reports and analyses related to energy regulations and subsidies. See also index codes 11.0: Government Regulations and Incentives and 20.5: Public Finance and 20.9: Subsidies/Incentives.

9.7 Miscellaneous

Miscellaneous special reports and analyses related to energy.

10.0 Space User Productivity and Health

This section of the research library is for those documents that address the relationship between sustainable features or attributes and space user health and/or productivity. Studies that address both these issues are coded in this section, while studies that address either productivity or health independently are coded in sections 10.1—Space User Productivity or 10.2—Space User Health. Documents in this section are further categorized and can be searched by inputting the two-character reference (H1 to P7) in the title search box. The category references are:

- H1** Health Gains -IEQ
- H2** Health Gains - Temp Control
- H3** Health Gains - Lighting
- H4** Health Gains – Privacy and Interaction
- H5** Health Gains – Ergonomics
- H6** Health Gains – Natural Environment
- H7** Health Gains – Whole Building
- HP1** IEQ Occupant Satisfaction
- HP2** Other References
- P1** Productivity Gains - IEQ
- P2** Productivity Gains – Temp Control
- P3** Productivity Gains – Lighting
- P4** Productivity Gains – Privacy and Interaction
- P5** Productivity Gains – Ergonomics
- P6** Productivity Gains – Natural Environment
- P7** Productivity Gains – Whole Building

This section of the research library supplements Section E-4, “Occupant Performance” of Chapter IV and Chapter VI, Section F: “Underwriting Space User Demand” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

10.1 Space User Productivity

Documents or reports that specifically address the relationship between sustainable features or attributes and space user productivity. This section of the research library supplements Section E-4, “Occupant Performance” of Chapter

IV and Section F: “Underwriting Space User Demand” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book

10.2 Space User Health

Documents or reports that specifically address the relationship between sustainable features or attributes and space user health. This section of the research library supplements Section E-4, “Occupant Performance” of Chapter IV and Chapter VI, Section F: “Underwriting Space User Demand” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book

11.0 Government Regulations and Incentives

This section of the research library contains documents that address sustainable and/or energy related government regulations and incentives. Related topics include section 15.7—Market Performance: Regulators, where most of the specific studies that talk about regulator demand for sustainable property are coded, as well as section 20.5—Public Finance, 1.5—Public Sustainability Benefits, 7.9—Public Value: Triple Bottom Line, and sometimes in sections 25.0— Organizational Change/Strategies or 28.0--Sustainable Property Guides/Best Practices.

Performance Assessment/Misc. Topics

12.0 Sustainable Sites/Land Use and Transportation

This section of the research library contains documents, which address issues related to land use, transportation, and the sustainable sites portion of LEED. Green roofs, integrated resource management, landfills, recycling, and waste reduction, and related issues are coded in this section.

13.0 Water Efficiency

Documents related to the issue of water and water efficiency are coded in this section. Sections 6.0—Sustainable Property Features, 15.5—Features/System Performance, and 28.0—Sustainable Property Guides/Best Practices are other sections of the research library where water-related documents may also be found.

14.0 Existing Buildings: Operations and Maintenance

This section covers documents and Reports specifically addressing the evaluation and analysis of sustainable existing buildings. Additionally, many of the other sections of the research library also address issues critical to existing buildings. Existing building issues are covered throughout the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties*” book.

15.0 Sustainable Property Performance Assessment

This section of the research library is where most facts and information related to the specific performance of sustainable properties is maintained. As detailed in the GBFC Sustainable Property Performance Framework (Chapter IV: “Sustainable Property Performance”), performance reports and documents are separated by process performance, feature performance, building performance, market performance, and

financial performance. This section of the research library supplements Chapter IV: “Sustainable Property Performance,” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.1 Methods-Miscellaneous

Documents that address methodological issues related to sustainable property performance assessment. Additionally, documents that do not fit in other sub-codes are contained here.

15.2 Case Studies

This section of the research library contains documents that present case studies. Case studies in this section of the research library usually address more than a single feature or attribute, although some of those types of case studies may also be coded here.

15.3 Data Collection and Analysis

Documents that address the issues of data collection and analysis in sustainable property performance assessment. Specific research and data sources and/or reports on issues related to data collection and analysis are referenced here.

15.4 Process Performance

Documents that address sustainable property process performance. Processes include integrated design, contracts, energy modeling, commissioning, occupant and staff training, etc. This section of the research library supplements Section C, “Process Performance” of Chapter IV: “Sustainable Property Performance” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.5 Feature/System Performance

Documents that address performance of sustainable features or systems. For example, specific performance of a green roof, an HVAC system, under floor ventilation, daylighting, or similar features or systems are presented here. This section of the research library supplements Section D, “Feature Performance” of Chapter IV: “Sustainable Property Performance” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.6 Building Performance

Documents that report on building performance. Building performance issues include the cost of development, resource use, occupant performance, ability to achieve sustainable certification, and related issues at a building level. This section of the research library supplements Section E, “Building Performance” of Chapter IV: “Sustainable Property Performance” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.61 Development Costs

Research related to sustainable development costs including differences between sustainable and traditional building. See also Chapter IV,

Section E-1: Development (“First”) Costs of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.62 Resource (Energy) Use

Research related to the performance of buildings related to resource use including energy, water, materials, landfill, etc. See also Chapter IV, Section E-3: Building Energy Use of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.63 Occupant Performance

Research related to building occupant performance including tenant satisfaction, health, and productivity. See also index code 10.0: Space User Productivity and Health. See also Chapter IV, Section E-4: Occupant Performance of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.64 Flexibility/Durability

Research related to building flexibility/durability.

15.65 Location/Access

Research related to performance of buildings from the perspective of their location and access. Transportation, land-use, and related issues covered here.

15.66 Sustainability Compliance

Research related to the performance of buildings in achieving and maintaining sustainability ratings.

15.67 Public Benefits

Research related to the public benefits generated by sustainable buildings. See also index code 11.0: Government Regulations and Incentives and 15.77: Regulator Demand Research.

15.7 Market Performance

15.71 Expert-Based Financial Analyses

Real estate valuers or market analysts typically conduct Expert-Based Financial Analyses. The basis for conclusions in these studies is typically drawn from specific analyses of buildings, following a process that is similar to a traditional market analysis process, although typically more cursory. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.72 Statistics/Modeling Based Research

Statistics/Modeling-Based studies typically will involve a large number of sustainable and non-sustainable properties, with statistical modeling focused on determining the incremental contribution of a sustainable

certification or rating on rent levels, sales prices, occupancies, or other specific financial variables. These studies are typically completed by academics with real estate and/or finance backgrounds. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.73 Space User/Investor Surveys

This category includes a broad array of research including tenant/occupant surveys, investor surveys, and general surveys of corporate sustainability trends. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.74 Corporate Sustainability/Enterprise Value Research

This section includes a broad spectrum of research related to corporate interest in sustainability and the role of real estate in assessing the value of sustainability to an enterprise. See also index code 15.73 and 15.75. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.75 Space User Demographic/Market Research

This category includes a broad array of research including sustainably related market or demographic research, tenant segmentation analysis, and other research that would contribute to an understanding of space user demand and its implications on their willingness to pay more for sustainable real estate. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.76 Investor Demand

Documents that address the market performance of investor demand for sustainable properties. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.77 Regulator Demand Research

Documents that address the performance and/or reporting of the demand by regulators for sustainable properties. This section supplements Chapter IV, Section F-3: Market Performance Evidence of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

15.8 Broker/Appraiser/Lender Market Acceptance

Research and documents addressing the issue of whether brokers, appraisers, and lenders accept market or value evidence substantiated by regulator, space user and investor demand.

15.9 Market Performance: Special Reports/Studies

Documents that address the market performance of sustainable properties including documents addressing multiple of the issues segmented in the index for this section.

15.10 Financial Performance

Documents that show a direct relationship between sustainable/energy efficiency and financial performance. Financial performance is typically defined by value, rates of return, and risk, so articles and publications that deals with these issues directly as they relate to sustainable properties are presented here. This section of the research library supplements Section G, “Financial Performance” of Chapter IV: “Sustainable Property Performance” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

16.0 Commercial Interiors/ Tenant Improvements

This section of the research library contains documents that address specific issues related to commercial interiors/tenant improvements.

17.0 General Sustainability

This section of the research library contains documents that address the general issues of sustainability that go beyond property-specific issues.

Property Specific Topics**18.0 Property Specific Analysis—Commercial**

This section of the research library contains documents that specifically address and identify a particular property type.

18.1 Office

Documents specifically related to offices.

18.2 Industrial

Documents specifically related to industrial.

18.3 Retail

Documents specifically related to retail.

18.4 Hospitality

Documents specifically related to hospitality.

18.5 Large Scale Development

Documents specifically related to large-scale development.

18.6 Schools

Documents specifically related to schools.

18.7 Government

Documents specifically related to government.

18.8 Healthcare

Documents specifically related to healthcare.

18.9 Land

Documents specifically related to land.

18.10 Miscellaneous

This section of the research library contains documents on other property types not identified in sub-codes 18.1-18.9, and other miscellaneous documents that address property type issues.

19.0 Property Specific Analysis—Residential

This section of the research library identifies those documents that specifically address residential properties.

19.1 Multi-Family

Publications addressing multi-family properties.

19.2 Single-Family

Publications addressing single-family properties.

Finance and Service Sectors**20.0 Capital Sources**

This section of the research library is for those documents specifically related to capital sources and key issues and trends related to such capital sources for sustainable and energy investment.

20.1 Miscellaneous

Miscellaneous documents addressing capital sources that may not fit in the categories below.

20.2 Debt

Documents specifically addressing the sources, financing vehicles, key underwriting issues, and related information for sustainability related mortgage or business loans. Construction loans, permanent loans, bridge loans, and other more specialized debt financing are covered in this section. Banks, life

companies, Wall Street lenders, and other private lenders and mortgage brokerage companies are also covered in this section.

20.3 Equity

Documents specifically addressing the sources and key issues related to equity for sustainable property investment. Pension investors, REITs, private equity funds, private investors, responsible property investment, venture capital, and other sources of equity for sustainable property investment are covered in this section.

20.4 CMBS-Securities

Documents that specifically address Commercial Mortgage Backed Securities and/or other energy or sustainable securities issues are addressed in this section.

20.5 Public Finance

Documents that identify specific sources, vehicles, and strategies for the public finance of sustainable energy efficient properties. Public finance is also covered in 20.9—Subsidies/Incentives as well as in section 11.0—Government Regulations and Incentives.

20.6 Energy Finance

This section of the research library contains documents covering financing, vehicles, sources, and strategies for energy related sustainable investments. Energy finance is also covered in other sub codes of section 20. This section focuses on those sources more specifically targeted to energy.

20.7 Energy Service Companies (ESCO's)

Documents related to energy service companies, particularly in relationship to their role as a source of capital. Energy service companies are also covered in sections 24.7—Energy/Performance Service Contracting, and 9.0—Energy.

20.8 Equipment/Product Finance

Documents addressing equipment or product financing for sustainable products and equipment.

20.9 Subsidies/Incentives

Documents related to sustainable or energy efficient subsidies and incentives, and their role in the capital required for sustainable/energy efficient properties.

20.10 Single-Family

Documents addressing single-family capital sources and financing issues.

20.11 Finance Market Research

Research into the size, segmentation, growth, demographics and related market trends for real estate capital providers.

20.12 Special Reports/Studies

Special reports or research on the sustainable real estate capital markets.

21.0 Responsible Property Investing

This section of the research library presents documents related to the responsible property-investing sector. Reports on the overall responsible property investing sector as well as reports on specific types of responsible property investing are presented here.

22.0 Socially Responsible Investment

This section includes documents and reports related to socially responsible investment, with a particular focus on real estate investment. Emergence of responsible property investment began in 2006.

23.0 Sustainable Service Sector

This section of the research library contains documents about sources and key issues for sustainable service sector participants. Most specific research contacts are contained in Section 23.9.

23.1 Appraisers

Documents related to commercial real estate appraisers and their relationship to the sustainable service sector.

23.2 Commercial Brokers

Documents related to commercial brokers and their relationship to the sustainable service sector.

23.3 Consulting

Documents related to consulting and its relationship to the sustainable service sector.

23.4 Design/Engineering

Documents related to design/engineering and its relationship to the sustainable service sector.

23.5 Energy Modeling/Consulting

Documents related to energy modeling/consulting and its relationship to the sustainable service sector.

23.6 Contractors-Builders

Documents related to contractors-builders and their relationship to the sustainable service sector.

23.7 Asset/Property Management

Documents related to asst./property management and its relationship to the sustainable service sector.

23.8 Other Services

Documents related to other services and their relationship to the sustainable service sector.

23.9 Miscellaneous Research/Contacts

Documents that identify specific service providers and/or provide other miscellaneous research and/or contact information.

23.10 Service Provider Certifications/Assessments

Certifications or assessments of service providers and related reports/analyses will be included here or under index code 2.8: Underwriting Service Providers.

23.11 Services Market Research

Research into the size, segmentation, growth, demographics and related market trends for real estate/sustainable service providers.

Special Underwriting Topics**24.0 Special Underwriting Topics**

This section covers a broad range of underwriting topics related to sustainable property investing. The term “underwriting” is broadly used to mean the due diligence and related analytic tasks undertaken by lenders, equity investors, or corporations in their real estate decision-making. The documents in this section supplement Sections E, F and H of Chapter V: “Sustainable Property Financial Analysis” and Chapter VI: “Sustainable Property Underwriting Guidelines” of the *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* book.

24.1 First Cost Analysis

Documents that address first cost analysis, sometimes called initial cost analysis. In addition to specific topics that address the issue of first cost, other cost-related documents and publications can also be found in this section.

24.2 Integrated Design

Documents related to integrated design.

24.3 Commissioning

Documents related to commissioning.

24.4 Tax and Accounting Issues

Documents related to tax and accounting issues.

24.5 Green Leases and Lease Analysis

Documents related to green leases and lease analysis.

24.6 Education/Communication

Documents related to education/communication.

24.7 Energy/Performance Service Contracting

Documents related to energy/performance service contracting.

- 24.8 Insurance/Surety**
Documents related to insurance/surety.
- 24.9 Product Durability/Flexibility (Churn, Cap Ex.)**
Documents related to product durability/flexibility.
- 24.10 Carbon Trading/Taxes**
Publications and documents related to carbon trading/taxes.
- 24.11 Construction/Development Risks**
Publications and documents related to construction/development risks.
- 24.12 New Technologies/Creative Solutions**
Publications and documents related to new technologies/creative solutions.
- 24.13 Other Costs/Risks of Sustainable Development**
Documents related to other costs/risks of sustainable development.
- 24.14 Contracts/Legal Issues**
Documents related to contracts/legal issues.
- 24.15 Mold/IEQ Risk Issues**
Documents related to mold/IEQ risk issues.
- 25.0 Organizational Change/Strategies**
Documents in this section specifically address issues related to the organizational and/or societal changes and strategies that are necessary to move sustainability/energy efficiency forward, and related barriers. Documents in this section cover broader issues beyond properties, but also include property-specific organizational change.
- 26.0 Miscellaneous Documents**
This section includes documents that have not found a home elsewhere in the research library.
- 27.0 Sustainable Property Industry Studies/Trends**
Documents that address broader sustainable property trends are presented in this section. Many of the important and higher quality industry trend studies are identified and coded in this section of the research library.
- 28.0 Sustainable Property Guides/Best Practices**
This section presents documents that identify guides and/or best practices for sustainable property investments.
- 29.0 Sustainability Adoption/Obstacles**
This section presents documents that address the organizational, financial, social, technological, and other issues related to the adoption of energy efficiency/sustainability practices by consumers, property owners, managers, lenders, corporations, governments, etc. Documents identifying obstacles and mechanism to address such obstacles would be covered in this index code.

Additional Industry Links Link Index

The links identified here do not constitute an endorsement of any individual or group and are not meant to be an exhaustive list of relevant links.

- 50.1 Assorted Glossaries**
- 50.2 Green Building and Related Organizations**
- 50.3 Research Organizations/Institutions**
- 50.4 Trade Groups: Green/Other**
- 50.5 Trade Groups: Real Estate**
- 50.6 Uncategorized**