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National Consensus Green Building Investment Underwriting Standards

Commercial Buildings

UNANIMOUSLY APPROVED
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NATIONAL GREEN BUILDING INVESTMENT UNDERWRITING STANDARDS[®] VERSION 2.2

Applying Certified Buildings to Commercial Real Estate Asset Underwriting, Financing, and Appraisal Methods

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ACKNOWLEDGEMENTS

The Capital Markets Partnership ("Partnership") is a collaboration of financial institutions, investment banks, real estate investors, governmental entities, NGO's, non-profits, and other interested parties. A full list of Partnership members is available in Section 17.0.

The national Green Building Underwriting Standards[®] were developed and approved by the Consensus Green Building Underwriting Committee. The Committee has exclusive jurisdiction for the development, approval, interpretation and revision of the Standards and is led by the following Officers:

- **Rich Pietrafesa**, MIT Sloan School
- **Michael Schneider**, AIA, NCARB, LEED AP, Commonwealth Development
- **Mario Silvestri**, MAI, CCIM, CTA, Vice President, Wells Fargo
- **Ken Willis**, Vice President & Director, Federal Home Loan Bank Boston
- **Dan Winters**, Fellow, US Green Building Council

We express our great appreciation to the Officers, especially Dan Winters for his leadership and vision, and all Committee Members for their exceptional work in developing and approving these National Consensus Standards.

A companion Green Building Residential Underwriting Standard ("Residential Standard") which adopted this Standard's structure, format, and base background information was developed independent of this Standard and is found in a separate document.

The *Green Building Industry Value Rating System*[®], a report that shows the underlying market value of inherent to green buildings is available at:

<http://webstore.ansi.org/FindStandards.aspx?Action=displaydept&DeptID=3144>

The Rating System was the basis of Citi's recommendation to S&P to initiate Sustainable Building Securities. This Standard and the companion Residential Standard, including all content and associated underwriting methodology, is the sole property of the Capital Markets Partnership.

The contact information for inquiries regarding the Capital Markets Partnership is:

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1.0 INTRODUCTION

There is significant value inherent to buildings that have achieved the US Green Building Council's Leadership in Energy and Environmental Design® ("LEED®") certification, EPA ENERGY STAR certification, and/or Climate Neutral Certification.

These national consensus standards are important as they limit risk and uncertainty in investing and are particularly vital to capital market investors and rating agencies. The value inherent to these standards can be reflected in the risk-based investment and financial underwriting decision processes used by appraisers, lenders, and property/portfolio investors. By providing guidance as to an asset's ENERGY STAR score, LEED® rating, and/or Climate Neutral Certification, underwriting practices will evolve to effectively incorporate this value.

As example, the USGBC's LEED® rating system transparently qualifies an asset on several critical areas including energy and water efficiency, indoor environmental quality, and overall location among others which is then verified through independent third-party certification. Achievement of key LEED® points positively impacts an asset's financial attractiveness, risk profile, and market competitiveness.

Given that these consensus standards have advanced transparency on real estate asset attributes which have current and future material financial value, incorporating these attributes into the asset underwriting process is important when accurately assessing a certified asset's value in comparison to non-certified assets.

This National Green Building Investment Underwriting Standard for Commercial Real Estate ("Standard") addresses the USGBC LEED®, EPA ENERGY STAR, International Green Construction Code (IgCC™) and Climate Neutral standards with particular attention paid to breaking down key areas within LEED® that address areas of direct financial value. The tangible and intangible characteristics of green buildings, if transparently identified, can have a corresponding positive impact on the valuation of green buildings relative to comparable conventionally constructed buildings.

This Standard provides the real estate industry with a means to identify green building attributes along a sliding scale based on property characteristics identified by LEED®, ENERGY STAR, IgCC™ and Climate Neutral. With a reliable quantification system, the real estate industry can tangibly recognize the green building "dividend" and include it in property valuation analysis, real estate equity and debt underwriting, secondary market securitizations, and portfolio analysis.

To accomplish this, the Standard associates appropriate LEED® points, an asset's ENERGY STAR score, and Climate Neutral aspects to financial decision points for primary and secondary market participants by deriving the CMP Green Value Score®. The CMP Green Value Score® is a mathematical score ranging from 0-100 based on how an asset performs on the ENERGY STAR, LEED® and Climate Neutral standard. The intent is to use the CMP Green Value Score® as a compliment to existing underwriting processes and disclosures, informing primary and secondary market investors as to an asset's or portfolio's green performance on financially tangible attributes.

The CMP Green Value Score® also recognizes important green building attributes that need not be part of LEED®, ENERGY STAR, or Climate Neutral Certification since they can be easily assessed by the qualified environmental professional responsible for providing the Score. These attributes include ENERGY STAR score and certain location-based attributes like proximity to transit.

Once calculated, the CMP Green Value Score[®] can be used as a risk-management tool as follows:

PRIMARY MARKET

- Loan application review
- Loan committee decision making
- Purchase and sale negotiations

SECONDARY MARKET

I. Portfolio Analysis and Disclosure

- Pooled debt/equity investment vehicles (private / public)
- Real estate private equity portfolios
- REIT stock analysis

II. Corporate Information Disclosure

- Private client asset / portfolio reporting
- Quarterly or annual financial reports
- Regulatory reports
- Analyst conference calls

The Standard addresses several areas of critical focus for the real estate capital markets:

1. **Establishes a common definition** of green building attributes appropriate for financial underwriting.
2. **Constructs an analytical basis** focused on transparent disclosure of tangible green building characteristics important to capital market risk assessment.
3. **Creates opportunities to perform ongoing risk assessments and analysis** by developing comparative data sets.

Beyond deriving and reporting the CMP Green Value Score[®] for asset risk analysis, portfolio risk analysis, and investor reporting, the factors identified within the Standard can be used within ARGUS and/or other proforma-based spreadsheet analysis tools that seek to determine real estate value. The use of the Standard in detailed financial analysis projections can provide a better risk assessment through the identification of specific revenue and expense line items positively impacted by a building's green features.

ARGUS is the industry standard financial software suite used by over 8,000 of the industry's leading commercial real estate firms including owners, managers, financial institutions, appraisers, brokerages, REITs, and others concerned with asset valuation and financing. ARGUS's software suite plays a critical role in the financial aspects of the commercial real estate industry and includes modules for property management, asset valuation, portfolio management, budgeting, forecasting, reporting and lease management.

This Commercial Standard covers multi-unit residential assets, but is not suitable for single-family residential properties. Single-family residential buildings are covered in the companion Residential Green Building Investment Underwriting Standard which is a separate document.

This Standard relies in part on completed due diligence information provided to investment banks and rating agencies documenting added green building value. This includes the *Green Building Industry Value Rating System*[®] developed in 2006 which clearly demonstrates significant added value and risk reduction inherent to certified green buildings.

2.0 SCOPE AND OBJECTIVE

This Standard covers all commercial building types.

This Standard's primary objective is to enhance current asset underwriting practices through the incorporation of existing standards for green and/or energy-efficient buildings – LEED[®], ENERGY STAR, Climate Neutral – into the asset underwriting process. Green and energy-efficient certified buildings contain numerous positive value and risk reduction aspects compared to a non-certified market peer group. The additional transparency afforded by these third-party verifications allows underwriters to appropriately reflect this value.

Understanding these tangible aspects is particularly important when fully establishing an asset's market comparable peer group during standard asset underwriting. It is also important when appropriately attributing value when engaged in a "mark-to-market" exercise.¹

Adoption of this Standard will allow underwriters to appropriately assess risk and incorporate risk-reduction strategies, both of which increase industry awareness of these issues and stimulate important market signals. These market signals encourage broad real estate industry participation in energy and water efficiency management practices, thus further stimulating green building practices.

Accurately reflecting value and risk reduction aspects stemming from green-certified buildings will result in one of two outcomes:

1. Certified assets will be afforded additional value when compared to a "market" peer group during underwriting based on specific revenue / expense line items and overall projected rates of investment return (cap rate); or
2. Assets that do not achieve particular LEED[®] points discussed within, have poor ENERGY STAR scores, and/or are not certified as Climate Neutral may reflect a market discount.

This Standard allows the transparent and material value aspects inherent to an asset's green features to receive appropriate valuation consideration during financial underwriting by combining the Standard structure with the professional judgment of the user.

A potential unintended consequence may result whereby assets that achieve key LEED[®] points, ENERGY STAR certification, and/or Climate Neutral Certification will receive top-tier "Class A" asset underwriting metrics, while assets that do not achieve these key underwriting criteria standards will be assigned a market discount. This Standard is not intended to influence the market in one direction or another.

Adoption and implementation of this Standard by financiers within the capital markets will further encourage the private market to utilize the EPA ENERGY STAR tools and pursue third-party LEED[®] and Climate Neutral Certification thereby increasing energy, water, and environmental performance by the real estate industry.

¹ As example, an asset demonstrating a high ENERGY STAR score, numerous LEED energy efficiency point credits, and a completed commissioning report should appropriately reflect this energy efficient financial superiority when compared to a market-based peer group as opposed to being assigned a 'market' utility expense figure during asset underwriting.

3.0 STANDARD ADOPTION – FINANCIAL INSTITUTIONS / CAPITAL MARKETS

This Standard and its residential counterpart are intended for adoption by institutions and individuals considering and/or underwriting financial transactions where the underlying collateral is a real estate asset and/or construction project.

Adopters of this Standard include:

1. Financial institutions / banks / thrifts / credit unions
2. Investment banks
3. Life insurance companies
4. Pension investors
5. Investment managers / fiduciaries
6. Rating agencies
7. Private market real estate investors
8. Appraisers and valuation professionals
9. Municipal assessors
10. Other relevant and interested parties

3.1 DUE DILIGENCE OVERLAY

This Standard and the CMP Green Value Score[®] are intended to augment the existing due diligence process including:

- Phase 1 Environmental Site Assessment
- Property Condition Assessment Report (PCA)
- Asset appraisals
- Physical needs assessment
- Planning cost review

3.2 REPORTING AND LEGALLY BINDING CERTIFICATION

Key information must be reported and recorded as a separate due diligence Exhibit item or as an attachment to an MAI appraisal, either of which must be signed by a third-party. Information required for this Exhibit includes:

1. ENERGY STAR Statement of Energy Performance and/or ENERGY STAR certification
2. LEED[®] Certification and scorecard (if applicable)
3. CMP Green Value Score[®] (see Section 11.3 and Appendix)
4. Green Building Underwriting Standard worksheet (see Section 11.3 and Appendix)
5. Narrative on points awarded on the Standard worksheet (see Appendix)

The Standard requires a legally binding certification validating the resultant CMP Green Value Score[®] that is signed by a certified environmental professional or LEED Accredited Professional. This Certification indicates that the reported CMP Green Value Score[®] is accurate, not misleading, and prepared by a qualified professional (see the Appendix for specific certification language to be included in the certifying professional's report).

The binding certification must be either 1) to the FTC Environmental Marketing Guides, or 2) provided as an express warranty by the signatory.²

² An ongoing factor for this Certification is compliance with the Energy Star disclosure requirements effective in January 2010 in CA and DC, as well as the potential to 'game the system' through non-third-party-verified data entered into the EPA's Energy Star Portfolio Management calculator.

The FTC Marketing Guides can be found at this internet link: <http://www.ftc.gov/bcp/gmrule/guides980427.htm>

3.3 USES – PRIMARY AND SECONDARY MARKET

This Standard and the resultant CMP Green Value Score[®] is applicable to both internal decision making and external reporting to relevant parties including:

- Rating agencies
- Secondary market investors
- Private equity funds – financial / environmental reporting
- Public market corporate- reports – financial / environmental reporting
- Other pertinent applications

Specific applications include asset-specific investments in loan originations and/or property acquisitions (primary market) as well as for portfolio-level use by secondary market investors. The CMP Green Value Score[®] should be disclosed at all levels of asset and portfolio decision making and reporting.

3.4 SCORING INTERPRETATION

The CMP Green Value Score[®] is a rating based on a 1 – 100 scale identifying an asset's green features that have direct economic benefits to the asset's financial profile when compared to a market peer group.

The CMP Green Value Score[®] formula is designed such that scores of 25 or above reflect positive risk-reducing attributes on energy use, water use, or location-based features. Assets scoring above 25 on the CMP Green Value Score[®] are above median on the ENERGY STAR rating system and/or have additional financially tangible attributes that reduce investment risk.

Assets with a CMP Green Value Score[®] below 25 not recognized due to the lack of economic value inherent in the asset's rating.

For assets with a CMP Green Value Score[®] of 25 or greater, the asset is segmented into economic value tiers as follows:

- Tier 1 = 25-50**
- Tier 2 = 50-75**
- Tier 3 = 76-100**

The CMP Green Value Score[®] tiers are based on the conclusion that there is a high degree of confidence that scores from 25-100 increase investment cash flow available and/or reduce financial risk factors where the greater the score, the greater probability of increased cash flow and/or reduced financial risk.

4.0 ADDITIONAL UNDERWRITING INFORMATION REQUIREMENTS

Primary market underwriters should require the following additional documented information, at minimum, when engaged in underwriting or a valuation exercise for a real estate asset:

1. ENERGY STAR Score from the ENERGY STAR Portfolio Manager or Target Finder tools
2. Documentation of USGBC LEED® certification
3. The LEED scorecard demonstrating specific LEED® points achieved
4. Climate Neutral Certification
5. Documentation of any achieved IgCC™ green building attributes identified in section 5.4 of this standard recognized in the Green Building Underwriting Standard Score
6. The asset's most recent commissioning report

Additional information requirements may be required based on the specific LEED® points in question to determine the score for a specific LEED credit on the Green Building Investment Underwriting Standard. Please refer to Sections 12.0 – 14.0 of this Standard for additional details.

Secondary market investors should require transparent reporting of the CMP Green Value Score® at both the asset level and the aggregated portfolio level.

4.1 IMPLEMENTATION – UNDERWRITING DATA REQUIREMENTS

Implementation of this Standard requires obtaining the additional asset-specific due diligence items outlined in Section 4.0 above. Once these information items are received, they must be appropriately tracked and reported alongside other asset-specific information.

Users of this Standard should track these additional data points by assigning new database fields to capture and store relevant asset-based information including:

- 1. EPA ENERGY STAR Score**
- 2. Year in which ENERGY STAR Score was obtained**
- 3. LEED® Rating Type**
 - LEED-NC – New Construction
 - LEED-EB:O&M – Operations and Maintenance
 - LEED-CS – Core and Shell
 - LEED-R – Retail
 - LEED-ND – Neighborhood Development
- 4. LEED® Rating Level**
 - None
 - Certified
 - Silver
 - Gold
 - Platinum
- 5. Year LEED® Rating was obtained**
- 6. Climate Neutral Certification (Y/N)**
- 7. Green Building Underwriting Standard Score (see Section 11.3)**
- 8. CMP Green Value Score®**

5.0 CONSENSUS STANDARDS – BACKGROUND INFORMATION

Voluntary consensus standards have regulated the real estate industry since 1898 when the industry standardized building heating and cooling requirements to prevent exploding boilers. This led to the creation of the American National Standards Institute (“ANSI”) in 1918 as the coordinator of the U.S. voluntary standards and conformity assessment system. Standards used by the real estate industry range from defining the tensile strength of steel to the hardness of backfill, cement, and concrete among hundreds of other building requirements. These standards have become components of municipal building codes.

Industry consensus standards are determined by accredited private industry groups and act as a primary facilitator of commerce, becoming the basis of a sound national economy by reducing risk and adding value.³ Further, industry-based standards are typically relied upon by government bodies over government-created standards.⁴ Besides building-oriented standards, other real estate industry standards include the Phase I Environmental Assessment report (“Phase I”) and the Property Condition Assessment report (“PCA”) used in financial due diligence and underwriting.

The financial markets and in particular investors and the risk rating agencies require comprehensive, transparent, technically rigorous market-driven consensus standards such as the Phase I and PCA as a basis for establishing the treatment of material risk-based attributes within the real estate industry so as to address and reduce investment risks and uncertainties.

Three consensus, transparent technically rigorous standards addressing high-performance, energy efficient ‘green’ buildings can be used to further assess risk in real estate investments – these standards include:

- EPA’s ENERGY STAR rating and certification
- USGBC’s LEED® rating and certification system
- Climate Neutral Certification
- IgCC™

Standards including international standards equivalent to LEED®, ENERGY STAR and Climate Neutral are acceptable for use and scoring in this underwriting standard. Equivalency decisions will be made on a case-by-case basis by the Green Building Investment Underwriting Standard committee as a “standard interpretation”. The burden of persuasion as to equivalency is on the applicant. Major components of The International Green Construction Code (IgCC™) have been determined to be equivalent and are incorporated into this Standard.

Financial institution adoption of this Underwriting Standard will substantially encourage commercial and residential green building certification to the ENERGY STAR, LEED® and Climate Neutral standards thus realizing substantial economic and social benefits.

³ Overview of the U.S. Standardization System – American National Standards Institute
<http://publicaa.ansi.org/sites/apd/Documents/News%20and%20Publications/Other%20Documents/US-Stdzn-System-FINAL.pdf>

⁴ Seventh Annual Report on Federal Agency Use of Industry Consensus Standards
http://www.whitehouse.gov/omb/inforeg/2003_report_voluntary_consensus.pdf

5.1 USGBC Leadership in Energy and Environmental Design (LEED®)

The LEED® rating system portfolio has several aspects applicable to commercial asset underwriting including the LEED-NC 2.2 rating system for new construction and major renovations, LEED-CS for core and shell ratings on buildings where tenants control the interior build-out, LEED-EB:O&M for operations and maintenance of existing buildings, and LEED-Retail (currently in pilot).

The USGBC's primary standard, LEED-NC, awards up to 69 points based on six major categories, all of which impact asset value directly and indirectly to varying degrees. LEED® is a voluntary, consensus-based standard that was adopted by the building industry in 2001 – a copy of these standards can be found at USGBC.org under "LEED". Assets certified under these standards acquire an aggregate rating based on the level of attainment, specifically a Certified, Silver, Gold, or Platinum level rating.

When underwriting LEED® certified buildings, understanding the aggregate level of LEED® achievement is only the first step. An asset's overall certification at the LEED Silver, Gold, or even Platinum levels is not fully sufficient from which to base valuation adjustments. As example, achieving LEED Silver certification requires a minimum achievement of 33 points which is 48% of the total LEED® points available. Certain LEED® points that have direct application to asset underwriting may or may not exist with a specific aggregate rating. As such, it is critical to dig deeper and investigate the specific points achieved and third-party verified on the LEED® scorecard so as to understand the exact points achieved and risks addressed for a particular certification level.

By parsing the LEED® scorecard during the underwriting process, it becomes evident that numerous LEED credits have a direct, positive application to financial underwriting while other credits do not result in direct asset value.

Intangible LEED® points adding indirect value include onsite recycling programs, the use of FSC certified wood and/or SMaRT certified sustainable products, and open space restoration among many others. These areas of LEED® provide value indirectly and should be reflected in an asset's brand value and market goodwill which impacts an underwriter's judgment on an asset's overall revenue potential. Intangible value is incorporated into this standard within the Capital Markets Partnership Green Value Score (see discussion in Section 8.0) which attributes a score to the asset's overall LEED® score within the Green Value Score calculation.

LEED-NC and LEED-CS are the primary focus of this Standard. An additional scoring path identifying the specific factors within LEED-EB:O&M that have tangible asset value is incorporated into the CMP Green Value Score® scoring process in Section 11.3, Step 2A on page 22.

5.2 EPA ENERGY STAR Certification

ENERGY STAR certified buildings provide increased cash flow and market competitiveness that positively impacts equity investment returns and debt default risk. The EPA’s ENERGY STAR program was first introduced in 1999 and has become the national symbol for energy efficiency in America. According to the EPA, commercial buildings and industrial facilities account for half of all energy consumption in the U.S. at a cost of over \$200 billion per year, more than any other sector of the economy. These facilities are also responsible for nearly half of U.S. greenhouse gas emissions and corresponding pollution.

The ENERGY STAR Portfolio Manager tool consists of a statistically robust database that generates a bell-curve rating with the median-performing property achieving a score of 50. Commercial buildings that score 75 or higher are eligible for ENERGY STAR certification indicating that they are among the top 25% for energy performance compared to the database. On average, ENERGY STAR certified buildings use 35% less energy than median score buildings; nearly 25% of ENERGY STAR certified buildings use 50% less energy.

Space Type	Area (ft ²)	Occupants	Operating Hours	Number of PCs
Garage	5,000	2	40	0
Office (General)	15,000	40	40	40

Facility Being Labeled	Facility Owner	Primary Contact for this Facility
Sample Facility 1234 Main Street Springfield, VA, 10000	Sample Owner 4567 Peach Ave. Springfield, VA, 10000 555-555-5555	Jane Smith 7890 Columbia Way Springfield, VA, 10000 555-555-5566 jsmith@jsmith.com

Year Built: 1999
 Gross Building Area (ft²): 20,000
 Energy Performance Rating² (1-100): 80

Site Energy Use Summary

Electricity (kBtu)	123,456
Natural Gas (kBtu) ³	123,456
Total Energy (kBtu)	246,912

Energy Intensity⁴

Site (kBtu/ft ² -yr)	6.2
Source (kBtu/ft ² -yr)	19.5

Emissions (based on site energy use)

CO ₂ (1000lbs/yr)	283
------------------------------	-----

Professional Engineer Stamp
 I certify that the information contained within this statement is accurate and in accordance with the PE Guidelines.

Professional Engineer
 License Number: 0000001
 State: VA
 John Doe
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 Springfield, VA 10000
 555-555-7788

The ENERGY STAR tool is applicable for the following commercial property types:

- Office Buildings
- Hotels
- Warehouses
- Retail Stores
- Supermarkets
- Medical Offices
- Bank Branches
- Hospitals

Because ENERGY STAR does not cover all building types, cross-referencing LEED® can be useful when accurately assessing this value.

Non-Eligible ENERGY STAR Commercial Buildings

For buildings not included in the commercial property types above which include regional malls, equivalent ENERGY STAR scores can be achieved by using the method set forth in the LEED-EB: OM Standard and Reference Guide as discussed in EA Prerequisite 2.

ENERGY STAR Proxy [Multi-Unit Residential Apartment Buildings]

The EPA ENERGY STAR rating system does not currently cover residential apartment buildings. Until such time that an ENERGY STAR rating system for apartments is released to the market, this Standard includes a methodology to replace the ENERGY STAR score for apartment assets. Please see Section 9.6 for the ENERGY STAR Proxy for Apartment Buildings.

5.3 Climate Neutral Certification

Climate Neutral Certification is a consensus national standard used for taking new and existing buildings to zero net emissions from conventional energy. Climate Neutral buildings are certified by a licensed architect or engineer upon achievement of Climate Neutral status through any combination of efficiency and Green-e Renewable Power.

Green-e Power can be achieved either onsite, offsite from the grid, through Green-e Certified offsets, or renewable energy certificates ("REC's").

Beyond incorporating building envelope and system energy efficiency measures, the Climate Neutral standard encourages the installation of on-site renewable energy including solar electric (photovoltaic), solar thermal, passive solar, wind, hot and cold geothermal, biogas, biomass, hydro, and/or renewable cogeneration.

Asset owners may offset any remaining energy use through renewable-based power purchased on the open market from sources that are certified through the Green-e Renewable Electricity Certification Program or generated by the same owner on a different site.

Climate Neutral is important given increased consumer and industrial electricity demands, grid infrastructure fragility and reliability, and long-term rising conventional energy costs stemming from 1) the sharp decline in the permitting of new coal fired power plants; 2) the high costs, long construction lead times, and onsite waste storage issues associated with nuclear power; and 3) global depletion of carbon-based fuels including oil and natural gas.⁵

Further, Wall Street's Carbon Principles recognize the impacts of climate change on the risk and pricing of carbon. These were adopted by JPMorgan Chase, Citi, Morgan Stanley and Bank of America among others in an effort to address pricing and risk issues associated with non-carbon neutral activities which is a leading indication and further validation of continued future price increases for carbon-based energy.

Information on the Green-e Renewable Electricity Certification Program can be found at Green-e.org and a copy of the Climate Neutral Building Standard can be obtained through ANSI.org at the following internet address:

<http://webstore.ansi.org/FindStandards.aspx?Action=displaydept&DeptID=3144>

⁵ See "Green Building Value Rating System – Appendix" and "Climate Neutral Building Standard Annex 1"

5.4 INTERNATIONAL GREEN CONSTRUCTION CODE

The International Code Council's International Green Construction Code™ (IgCC™) was developed and approved in 2012 in cooperation with the US Green Building Council, American Institute of Architects, ASTM International, Illuminating Engineering Society, and ASHRAE and covers new and existing commercial buildings and apartments greater than five stories.

Internationally, code officials recognize the need for a modern, up-to-date code governing the impact of buildings and structures on the environment. This first edition, the 2012 edition, of the International Green Construction Code™ (IgCC™), is designed to meet this need through model code regulations that contain clear and specific requirements with provisions that promote safe and sustainable construction in an integrated fashion with the ICC Family of Codes.

IgCC™ is a model code that provides minimum requirements to safeguard the environment, public health, safety and general welfare through the establishment of requirements that are intended to reduce the negative impacts and increase the positive impacts of the built environment on the natural environment and building occupants.

Since governments may adopt any or all of IgCC™, the certifier of compliance with this Standard must verify which components of IgCC™ were adopted by the relevant government and which of the green building attributes increasing value identified in this Standard are achieved in the relevant commercial building purporting to comply with the IgCC™.

IgCC™ establishes minimum regulations for building systems and site considerations using prescriptive and performance-related provisions. It is intended to be an overlay code to be used with, and is fully compatible with, all of the International Codes®, (I-Codes®) published by the International Code Council (ICC)®, including the International Building Code®, International Energy Conservation Code®, International Existing Building Code®, International Fire Code®, International Fuel Gas Code®, International Mechanical Code®, ICC Performance Code®, International Plumbing Code®, International Private Sewage Disposal Code®, International Property Maintenance Code®, International Residential Code®, International Swimming Pool and Spa Code®, International Wildland-Urban Interface Code®, and International Zoning Code®.

IgCC™ provisions provide many benefits, among which is the model code development process that offers an international forum for building professionals to discuss performance and prescriptive code requirements. This forum provides an excellent arena to debate proposed revisions. IgCC™ also encourages international consistency in the application of provisions.

Consistent with the unanimous approval of this Standard and its equivalency provision, the following IgCC™ components increase cash flow or reduce expenses and are recognized in this Standard as green building attributes increasing value:

1. Flood Hazard Area Avoidance for new construction as specifically required by the government adopting IgCC™, 402.2.1 & 402.2.2. Equivalent to 12.1.1 Site Selection– LEED Sustainable Sites SS-1 of this Standard
2. Surface Water Protection. 402.3, and Exception 1 only. Equivalent to 12.1.1 Site Selection– LEED Sustainable Sites SS-1 of this Standard.
3. Wetland Protection., 402.4. Equivalent to 12.1.1 Site Selection– LEED Sustainable Sites SS-1 of this Standard.
4. STORMWATER MANAGEMENT, SECTION 403. Equivalent to 13.11, SS 6-1 of this Standard.

5. LANDSCAPE IRRIGATION AND OUTDOOR FOUNTAINS, SECTION 404. Equivalent to 13.1.3 Water Efficient Landscaping, EB WE 3, WE 1-1, 1-2 of this Standard.
6. HEAT ISLAND MITIGATION, SECTION 408. Equivalent to 13.1.2 Heat Island Effect: Roof – LEED Sustainable Sites SS-7.2, of this Standard.
7. ENERGY CONSERVATION, EFFICIENCY AND CO₂e EMISSION REDUCTION, CHAPTER 6. Equivalent to 12.1.5 Energy Efficiency – LEED Energy and Atmosphere EA-1 (1-10 points) of this Standard.
8. BUILDING RENEWABLE ENERGY SYSTEMS, SECTION 610. Equivalent to 12.1.6 On-Site Renewable Energy – LEED Energy and Atmosphere EA-2 (1-3 points) of this Standard.
9. WATER RESOURCE CONSERVATION, QUALITY AND EFFICIENCY, CHAPTER 7. Equivalent to 12.1.4 20% Water Use Reduction – LEED Water Efficiency WE-3.1 30% Water Use Reduction – LEED Water Efficiency WE-3.2 of this Standard.
10. INDOOR ENVIRONMENTAL QUALITY AND COMFORT, CHAPTER 8. Equivalent to 12.1.14 Daylight and Views @ 75% – Indoor Environmental Quality LEED EQ-8.1, Daylight and Views @ 90% – Indoor Environmental Quality LEED EQ-8.2 of this Standard
11. COMMISSIONING, OPERATION AND MAINTENANCE, CHAPTER 9. Equivalent to 13.1.5 Commissioning – LEED Energy and Atmosphere Prerequisite

6.0 EMERGENCY NATURE OF THE STANDARD

This is an emergency standard due to the confluence of several very important global economic issues including:

- 1) Real estate and financial market credit crisis
- 2) Erosion of confidence in real estate financial underwriting standards
- 3) Long-term rising conventional energy costs and associated pervasive economic impacts
- 4) Increasing economic damages from dangerous climate change

Large scale adoption of the Standard can substantially mitigate adverse effects of these issues due to the recognition of risk reduction aspects of green building features. Specifically:

1. Increased Investor Confidence

- Higher value collateral
- Reduced risk (see Section 7.0)
- Improved investor confidence
- Improved goodwill due to social benefits of green buildings
- Increased liquidity

2. Energy Efficiency and Renewable Green-e Power

- Reduced energy consumption and associated expense reduction
- Reduced peak-load energy pricing
- Reduced grid reliance
- Hedge against increased economic constraints regarding carbon including cap-and-trade and tax effects (eg. *Carbon Principles*)
- Reduced exposure to conventional energy price volatility
- Improved energy security

3. Climate Change and Climate Credit Risk/Damage Reduction

- Carbon footprint reduction
- Efficiency cost savings
- Insurance availability and continuing coverage

A relevant Capital Markets Partnership report further addressing these issues is "*Creating an Economic Stimulus and Stopping Climate Credit Risk / Irreversibility*". This document is available through ANSI at the following link:

<http://webstore.ansi.org/FindStandards.aspx?Action=displaydept&DeptID=3144>

7.0 RISK REDUCTION

Green building techniques are synonymous with best management practices. These practices serve to enhance real estate asset value and reduce investment risk on a number of fronts. Real estate value is a combination of 1) cash flow, 2) timing and quality of that cash flow, and 3) the risks inherent to receiving that cash flow. Green buildings positively affect all three metrics.

Investment standards that incorporate green building features inform investors on evolving best practices regarding investment enhancements and risk reduction measures within the real estate industry. Critical market pressures that have accelerated a rapidly growing green building market include rising conventional energy costs, increased asset operating costs, tenant preferences swaying in favor of green buildings, and climate change issues. The resultant market shift has been to enhance the value of some assets and detract from the value of others.

Risk can be viewed as both an absolute reduction in risk exposure as well as the opportunity to achieve enhanced cash flow from an investment with one set of attributes as compared to an asset without those same attributes. Relative risk-based measures attributed to green buildings can be broken into categories as follows:

1. Revenue and Overall Cash Flow

- Increased asset desirability on lease-up / turnover relative to market
- Increased ability to achieve top-of-market rents relative to market
- Increased ability to attract high-credit tenants relative to market
- Increased length of time an asset can maintain a "Class A"/"Super Class A" market position
- Minimized risk probability of tenant default and reduced downtime to re-lease

2. Rent Growth, Occupancy Rate, and Ongoing Investment Cost Containment

- Decreased obsolescence risk relative to market
- Competitive stance in comparison to surrounding buildings over time
- Tenant renewal probability, downtime costs, and additional TI costs at lease turnover
- Exposure to future asset and/or operational retrofit costs

3. Asset Operating Expense Efficiency and Cost Escalation Containment

- Comprehensive operating procedures and operational checks via building commissioning
- Utility cost reduction strategies and efficiencies through asset design and technology
- Efficient systems that reduce financial exposure to utility cost escalation / price volatility
- Reduction in HVAC / lighting system maintenance and repair
- System longevity through ongoing commissioning and preventative maintenance
- Ability to qualify for insurance discounts

4. Depreciation and Obsolescence

- Asset competitiveness in macro/micro markets at future sale date
- Cap rate bonus / discount application at asset sale
- Positive value adjustments vs. market 'comparable' properties during underwriting
- Cost segregation analysis and associated tax advantages (building fixtures vs. features)

5. Risk Profile

- Reduced liability and business interruption exposure to indoor air quality ("IAQ") problems
- Lower default risk stemming from increased revenue potential, reduced operating expenses, exposure to energy price volatility, and base risk exposure from IAQ and mold
- Reduced financial exposure to climate change regulatory changes

6. Overall Factor Analysis

- Corresponding adjustments to the discount rate and terminal capitalization rate for green-certified assets when compared to non-certified assets

8.0 INTANGIBLE VALUE AND MARKET GOODWILL

Certain certified building attributes do not fall into any clear Proforma Revenue or Expense categories yet can positively impact asset level market goodwill and brand value as well as entity level market goodwill and brand value. Numerous attributes have been included in consensus green building certification standards based on their market value stemming from providing social and/or environmental macro benefits.

This added value may be factored in during consideration of intangible factors as it pertains to market goodwill, longevity of a Class A market classification, and/or obsolescence.⁶

This particularly applies to the aspects of the LEED® rating system that are not identified within this Standard. Notable among these aspects are certain LEED Materials and Resource credits including:

- Mandatory Onsite Recycling (MR Prerequisite)
- Building Reuse (MR 1)
- Construction Waste Recycling (MR 2)
- Resource Reuse (MR 3)
- Local / Regional Materials (MR 5)
- FSC Certified Wood (MR 7)
- SMaRT Certified Sustainable Products (LEED Innovation Credit, Climate Neutral Credit, and Green Star credit in Australia and New Zealand)
- Other – Light Pollution Reduction (SS 8)

While it is clear that intangible aspects can attribute a net positive value to a particular asset, no value scale is provided due to the subjective nature and varying asset-specific conditions.

Value ascribed to these asset features is accounted for through the asset's overall LEED rating (Certified, Silver, Gold, Platinum) and appropriately factored into the "CMP Green Value Score™" scoring system (see Section 9.0).

⁶ Enhancing Brand Value Through Corporate Social Responsibility, Lippincott Mercer 2006

9.0 CMP GREEN VALUE SCORE[®] SCORING SYSTEM

The Capital Markets Partnership Green Value Score[®] ("CMP Green Value Score[®]") is a score ranging from 0 to 100. This score is intended to rate an asset on its overall achievement of aspects relating to energy/water efficiency and associated operating costs, indoor environmental quality, and positive intangible factors.

The rating is intended to provide additional transparent insight into investment risks and risk mitigation strategies particularly important to investment fiduciaries.

This score is intended for use by all capital market participants in underwriting, loan decision making, rating agency reporting, and loan securitization data dissemination for rating agency rating and securitization information reporting among other uses.

The CMP Green Value Score[®] is derived using a weighted formula that reflects an asset's EPA ENERGY STAR score, overall LEED[®] rating, Climate Neutral Certification, International Green Construction Code (IgCC[™]), and performance on this Standard.

Suggested implementation includes assigning several database fields to capture and store relevant asset-based information. These data points were identified in Section 4.1 titled "Implementation – Underwriting Data Requirements".

9.1 VALIDATION

A CMP Green Value Score[®] must be validated by an accredited environmental professional, licensed architect, or licensed engineer. This validation can include a LEED Accredited Professional. Validation of the CMP Green Value Score[®] is required due to:

- An ENERGY STAR score below 75 is not certified by the EPA ENERGY STAR program. Scores below 75 are self-administered and must be independently verified.
- A LEED[®] certified building (any certification level) requires analysis and judgment as to the value range associated with the attainment of the various LEED points on the Green Building Underwriting Standard as discussed in Sections 12.0 thru 14.0.
- A non-LEED[®] certified building can be awarded points under this Standard as denoted in Section 11.3, Step 2B. These points are observational-based points that must be independently verified.

The professional must certify in writing with their typed name, signature, and affiliation, that their calculations and resulting ENERGY STAR Proxy and the calculated CMP Green Value Score[®] pursuant to this Standard and applicable sections, comply with the Federal Trade Commission Environmental Marketing Guides at 16 C.F.R. Part 260 (1998) for accurate, reliable, and documented communications.⁷

This certification must also state that "both the express and implied meaning of the certification about the data, responses to information, and provisions of the Standard, are reasonable and based on competent and reliable scientific evidence prepared by qualified professionals in the relevant area, using procedures to produce accurate and reliable results." See 16 C.F.R. § 260.5.

The certification and its documentation must be publicly available.

⁷ <http://www.ftc.gov/bcp/gmrule/guides980427.htm>

9.2 CMP GREEN VALUE SCORE[®] CALCULATION – OVERVIEW

The CMP Green Value Score[®] is based on a scoring matrix which is both thorough and easy to implement.

The CMP Green Value Score[®] matrix generates a numeric score ranging from 0 to 100 comprised of a weighted compilation of an asset’s ENERGY STAR score, performance on the Green Building Underwriting Standard, an asset’s overall LEED[®] rating, and Climate Neutral status.

This score is intended to ride with the asset during debt/equity underwriting, loan decision-making, securitization (if applicable), and capital market reporting.

Underwriters input the appropriate score / criteria, then apply a weighting factor (“Value Ratio”) to derive the Adjusted Score. The Adjusted Score, when totaled, equals the CMP Green Value Score[®] which can then be used in underwriting decision making and reported to investors along with other relevant asset information.

IMPORTANT NOTE:

Two sections produce numerical scores from 0-100 that are multiplied by the Value Ratio. These sections are highlighted with **red boxes** in the CMP Green Value Score[®] diagram below:

1. ENERGY STAR Score
2. Performance on the Green Building Underwriting Standard

The remaining sections concern certification to a particular standard, either the USGBC LEED[®] standard or the Climate Neutral standard. Due to this YES/NO absolute, a “Yes” is considered 100% and a “No” is considered 0%.

As example, a LEED Gold certified building also certified as Climate Neutral receives 10 points under the Adjusted Score for achieving LEED Gold, and 10 points under Climate Neutral [specific examples of how to derive the CMP Green Value Score[®] are contained in Section 9.4].

The CMP Green Value Score[®] formula is as follows:

CMP GREEN VALUE SCORE [®] MATRIX	Score	VALUE RATIO	Adjusted Score
ENERGY STAR Score	<input style="border: 2px solid red;" type="text"/>	40%	
Green Building Underwriting Standard Score	<input style="border: 2px solid red;" type="text"/>	35%	
LEED[®] Rating (intangible value)	NONE	0%	
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	
	NO	0%	
CMP GREEN VALUE SCORE		100%	

9.3 DISCUSSION – CMP GREEN VALUE SCORE® “VALUE RATIO”

An element of the CMP Green Value Score® is the “Value Ratio” (see second column of the CMP Green Value Score® chart **outlined in red** below) which weights the various components that comprise the Green Building Underwriting Standard. This Value Ratio is determined by placing principal focus on areas of tangible financial value and risk reduction, particularly energy prices and the impact on an asset’s current/future operating costs and leasing market competitiveness.

These direct tangible financial metrics are transparently identified through 1) the asset’s ENERGY STAR Score, and 2) the Green Building Underwriting Standard Score which has a significant weighting on energy and water operating costs as well as key location and indoor environmental quality aspects pertinent to leasing considerations. Further, assets that are Climate Neutral certified typically enter into long-range renewable energy contracts which insulate from energy price increases and associated price volatility.

This Value Ratio breakdown results in 85% of the CMP Green Value Score® focused on energy and water efficiency, location, and indoor environmental quality, all having positive tangible impact on an asset’s ongoing revenue generation capability and operating cost profile.

CMP GREEN VALUE SCORE® MATRIX	Score	VALUE RATIO	Adjusted Score
ENERGY STAR Score		40%	
Green Building Underwriting Standard Score		35%	
LEED® RATING	NONE	0%	
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	
	NO	0%	
CMP GREEN VALUE SCORE		100%	

The CMP Green Value Score® also recognizes the intangible value inherent to achieving LEED® certification. This intangible value stems from the recognition placed on third-party LEED® certification by the tenant market. Assets achieving LEED® certification gain significant positive value stemming from media coverage and public relations opportunities, elevated status in the CoStar database, increased appearances on tenant/broker short lists with clients seeking space, and/or other measures of market goodwill.

In addition, there is imbedded value in the environmental aspects contained within LEED® that are not specifically called to attention as ‘tangible’ value. Over its history, the US Green Building Council and its LEED® Rating System has had a transformative effect on both the real estate industry and the industries that service the industry including the construction, cleaning, office products, materials, and furniture segments. This impact happens through market-based “ripple effects” that result in numerous industries improving their environmental performance. Product examples include an increasing number of low-VOC paints / sealants / floor coverings, non-toxic green cleaning products, FSC certified wood, and Green-e power among numerous others.

While difficult to measure and incorporate this intangible value at the asset level, it is clear this value exists and must be recognized. As such, an asset's LEED® rating was allocated as much as 15 points based on a sliding scale with a higher LEED® rating worth a greater number of points.

This recognizes both the marketing and public relations benefits accruing to an asset as it climbs the LEED® rating scale, and the improved environmental aspects imbedded within LEED® at increasingly higher certification levels.

9.4 CMP GREEN VALUE SCORE® TRACKING OVER TIME

An important aspect of this Standard is to collect, use, and report relevant asset-level data thereby allowing the broader primary and secondary markets to assess risk and develop more appropriate risk-adjusted investment decisions. Measuring, tracking, and reporting relevant financially-tangible data allows for better process management, analysis, and risk management at both the primary (origination) and secondary (securitization and security investment) levels within the capital markets.

Deriving a CMP Green Value Score® as a benchmark assessment, then reporting this Score to broader market actors is the paramount objective of this Standard. Gathering relevant, financially tangible information that is third-party validated then transparently reporting this data will allow financial market mechanisms to determine risk-adjusted value over time.

Financial underwriters will note that all assets can achieve points on the CMP Green Value Score® regardless of a client's participation in the ENERGY STAR, LEED® IgCC™ or Climate Neutral programs. The ENERGY STAR benchmark score is readily accessible for most asset types. While encouraged, LEED certification is not a requirement as various points within the Green Building Underwriting Standard scoring system are observational and not dependant on LEED certification, thus available for non-certified projects. Climate Neutral is a stretch goal that has significant risk-reduction benefits due to upfront investments that reduce exposure to rising and/or volatile energy prices.

Because ENERGY STAR, LEED®, IgCC™ and Climate Neutral continue to be voluntary standard programs that are optional for adoption, at present time many assets may achieve what appears to be a low CMP Green Value Score®. It is important to emphasize that during the early adoption phase, seemingly low scores are acceptable – any CMP Green Value Score that achieves Tier 1 status [CMP Green Value Score => 25] demonstrates financially tangible risk reduction. This risk reduction increases as assets move up to Tier 2 or Tier 3.

This Standard purposefully does not make suggestions or assertions as to how financial markets will interpret the CMP Green Value Score®. It is recognized that many asset owners across all property types have adopted these voluntary assessment standards and are taking advantage of the short-term and long-term business and asset-based opportunities presented by incorporating these best practices into their operations.

FIRST IMPLEMENTATION STEPS

Financial institutions should request an ENERGY STAR score, the certified LEED scorecard if applicable, and a Climate Neutral Certification if applicable.

It is advised that all financial institutions require clients to obtain and report the asset's ENERGY STAR score as a condition of receiving financing.

9.5 CMP GREEN VALUE SCORE[®] SCORING EXAMPLES

Example I

A LEED Gold certified asset with an ENERGY STAR score of 80 achieves a Green Building Underwriting Standard score of 74 (see Section 11.3 for scoring methodology) and is Climate Neutral certified. The asset's CMP Green Value Score[®] equals 78 calculated as follows:

CMP GREEN VALUE SCORE [®] MATRIX	Score	VALUE RATIO	Adjusted Score
ENERGY STAR Score	80	40%	32
Green Building Underwriting Standard Score	74	35%	26
LEED [®] RATING	NONE	0%	10
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	10
	NO	0%	
CMP GREEN VALUE SCORE		100%	78

Example II

A non-LEED[®] certified asset with an ENERGY STAR score of 40 achieves a Green Building Underwriting Standard score of 9 (due to its location ½ block from a subway stop) and is not Climate Neutral certified. The asset's CMP Green Value Score[®] equals 19 calculated as follows:

CMP GREEN VALUE SCORE [®] MATRIX	Score	VALUE RATIO	Adjusted Score
ENERGY STAR Score	40	40%	16
Green Building Underwriting Standard Score	9	35%	3
LEED [®] RATING	NONE	0%	0
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	0
	NO	0%	
CMP GREEN VALUE SCORE		100%	19

9.6 DETERMINING ENERGY STAR SCORE – MULTI-UNIT RESIDENTIAL ASSETS

As of March 2010, the EPA ENERGY STAR Portfolio Manager and Target Finder tools only apply to commercial buildings. A multi-unit residential asset five (5) stories or less can earn the ENERGY STAR label if it has been verified to meet EPA's guidelines via a HERS rating. The ENERGY STAR residential program certifies energy efficiency through verification by independent third party RESNET-accredited technicians (see Section 9.6.2). This certification assesses building envelope thermal efficiency, air distribution, equipment, lighting and appliances.

Because ENERGY STAR does not currently cover the full range of multi-unit residential assets, to determine the ENERGY STAR Score for multi-family residential assets under this Standard underwriters must use either:

1. The ENERGY STAR Proxy ("Proxy") methodology as outlined in Section 9.6.1, or
2. A valid and certified HERS Rating Test as outlined in Section 9.6.2

The EPA continues to work on developing an ENERGY STAR rating for multi-unit residential buildings. Until such time as a rating system becomes available, underwriters may follow either the Proxy as outlined in Section 9.6.1 or obtain a HERS Rating as outlined in Section 9.6.2 and apply the HERS Rating score to the ENERGY STAR conversion table at the end of that Section.

Following any release by the EPA of an ENERGY STAR Rating For Multi-Unit Residential Buildings, all prior CMP Green Value Score[®] reports for the asset will remain valid. For future ratings, underwriters may choose the ENERGY STAR scoring system or may utilize either the Proxy or the HERS Rating Test as prescriptive compliance paths for the ENERGY STAR component of the CMP Green Value Score[®] at their discretion.

9.6.1 PATH 1 – ENERGY STAR Proxy for Multi-Unit Residential Assets

Numerous attributes can significantly affect a multi-unit residential property's energy intensity profile on the margin. These attributes can be broken down by the following simple matrix:

	Interior Energy Demand	Exterior Energy Demand
Landlord Control	Common Area Lighting Building Thermal Qualities HVAC Type [Common Area] HVAC Type [units] HVAC Maintenance [all] Appliance Type [units]	Parking Lighting Walkway Lighting
Tenant Control	Lighting Usage HVAC Usage Appliance Usage	Minimal

When determining an asset's Energy Intensity on either a "per unit" basis or a "per square foot" basis, multi-unit residential assets that provide conditions to minimize the impact of average tenant behavior on energy use are superior performing assets.

Through a straightforward assessment process that is primarily based on the ENERGY STAR rating of attributes that consume energy, the ENERGY STAR Proxy ("Proxy") transparently assesses asset conditions that affect the energy intensity of a multi-unit residential asset.

To determine the Proxy score, each asset is assigned a baseline score of 20 points – this simulates an asset built to code standards. By progressing through the Proxy scoring system, the Proxy score increases due to the energy efficiency characteristics in the Proxy scoring system that reduce the asset's energy intensity when compared to a 'market' asset.

Attributes that have the greatest marginal impact on energy intensity are as follows:

- Heating Type
- Air Conditioning Type
- HVAC Controls
- HVAC Maintenance
- Windows and Exterior Doors
- Appliances (refrigerator / water heater / dishwasher / washer | dryer)
- Outdoor Lighting Type
- Outdoor Lighting Controls
- Interior Common Area Lighting

The ENERGY STAR Proxy checklist rates each of the attributes above based on their marginal efficiency and assigns points. Once the assessment is complete, all points achieved are added to the baseline score to determine the overall ENERGY STAR Proxy score. Once the ENERGY STAR Proxy score is determined, the score is inserted into the CMP Green Value Score[®] formula as shown in red below.

CMP GREEN VALUE SCORE[®] MATRIX	Score	VALUE RATIO	Adjusted Score
ENERGY STAR Score	<input type="text"/>	40%	
Green Building Underwriting Standard Score		35%	
LEED[®] Rating (intangible value)	NONE	0%	
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	
	NO	0%	
CMP GREEN VALUE SCORE		100%	

Because of the significant differences between garden-style apartments and mid-rise | high-rise apartments, the ENERGY STAR Proxy breaks out these two types separately and scores each type based on relevant attributes.

The Proxy calculation formulas for garden-style multi-unit residential and mid-rise | high-rise multi-unit residential are shown on the following two pages.

Garden-Style Apartments	# Units in Compliance	Total Units	Unit % Ratio	Possible Points	TOTAL POINTS
STARTING BASELINE SCORE					20
Heating (Select One)				8 Points Maximum	
Hot / Cold Geothermal or Green-e Certifed Renewable Energy				8	
Natural Gas Furnace				8	
Heat Pump				6	
Other				Input Points 1-8	
Cooling (Select One)				8 Points Maximum	
Hot / Cold Geothermal or Green-e Certifed Renewable Energy				8	
ENERGY STAR Air Source Heat Pump				6	
ENERGY STAR Central Air AC				4	
None				8	
Other				Input Points 1-8	
HVAC Controls (Select One)				8 Points Maximum	
ENERGY STAR Thermostats				8	
Electronic Programmable Thermostats				6	
Digital Thermostats				4	
Mechanical Contact				2	
HVAC Maintenance				7 Points Maximum	
Air Filter Change Schedule (Select One)					
Monthly (best)				4	
Quarterly (recommended)				2	
Semi-Annual (sub-optimal)				1	
No Schedule (not recommended)				0	
Annual Tune Up - Documented (Select All Applicable)					
Heating: Connections / pressure / combustion / exchange				1	
Cooling: Clean coils & condenser / adjust refrigerant / adjust blower				1	
General: Connections / lubricants / controls / condensate drains				1	
Windows				8 Points Maximum	
ENERGY STAR Rated Windows				8	
Exterior Doors				8 Points Maximum	
ENERGY STAR Rated Patio / Entrance Doors				8	
Appliances (Select From Each Category)				13 Points Maximum	
Refrigerator				4 Points	
ENERGY STAR Rated Refrigerator				4	
Water Heater				4 Points	
Solar Powered Water Heating System				4	
Green-e Certified Renewable Energy Powered Water Heater				4	
ENERGY STAR Water Heater				3	
Dishwasher				2 Points	
ENERGY STAR Dishwasher				2	
None				2	
Washer / Dryer				3 Points	
ENERGY STAR In-Unit W/D				3	
ENERGY STAR Central Laundry				3	
None				3	
Outdoor Lighting Controls				4 Points Maximum	
Photocell				4	
Time Clocks				2	
None				0	
Outdoor Lighting Type - Parking / Landscape / Walkways				8 Points Maximum	
High Output Ceramic Metal Halide (90 l/w)				8	
High Pressure Sodium (80 l/w)				8	
Light Emitting Diode [LED] (60 l/w)				6	
Ceramic Metal Halide (60 l/w)				6	
Pulse Start Metal Halide (30 l/w)				4	
Switch Start Metal Halide (30 l/w)				4	
High Intensity Mercury Vapor (10 lumens/watt)				1	
Other				Input Points 1-8	
Lighting - Hallways / Service / Stairs / Vestibule / Common Areas				6 Points Maximum	
LED				6	
Compact Fluorescent				4	
Lighting - Exit Signs				2 Points Maximum	
LED				2	
Non-LED				0	
TOTAL SCORE					

Mid-Rise High-Rise Apartments	# Units with Feature	Total Units	Unit % Ratio	Possible Points	TOTAL POINTS
STARTING BASELINE SCORE					20
Heating (Select One)					8 Points Maximum
Hot / Cold Geothermal or Green-e Certified Renewable Energy				8	
Heat Pump				8	
Natural Gas Furnace				4	
Other				Input Points 1-8	
Cooling (Select One)					8 Points Maximum
Hot / Cold Geothermal or Green-e Certified Renewable Energy				8	
Chilled Water Central A/C				6	
ENERGY STAR Air Source Heat Pump				4	
None				8	
Other				Input Points 1-8	
HVAC Controls (Select One)					4 Points Maximum
ENERGY STAR Thermostats				4	
Electronic Programmable Thermostats				3	
Digital Thermostats				2	
Mechanical Contact				1	
HVAC Maintenance					7 Points Maximum
Air Filter Change Schedule (Select One)					4 Points
Monthly (best)				4	
Quarterly (recommended)				2	
Semi-Annual (sub-optimal)				1	
No Schedule (not recommended)				0	
Annual Tune Up - Documented (Select All Applicable)					3 Points
Heating: Connections / pressure / combustion / exchange				1	
Cooling: Clean coils & condenser / adjust refrigerant / adjust blower				1	
General: Connections / lubricants / controls / condensate drains				1	
Windows (Select One)					8 Points Maximum
ENERGY STAR Windows				5	
Operable				3	
Exterior Doors (Select One)					8 Points Maximum
ENERGY STAR Doors (patio doors as applicable)				8	
Appliances (Select From Each Category)					13 Points Maximum
Refrigerator					4 Points
ENERGY STAR Rated Refrigerator				4	
Water Heater					4 Points
Solar Powered Water Heating System				4	
Green-e Certified Renewable Energy Powered Water Heater				4	
ENERGY STAR Water Heater				3	
Dishwasher					2 Points
ENERGY STAR Dishwasher				2	
Washer / Dryer					3 Points
ENERGY STAR In-Unit W/D				3	
ENERGY STAR Central W/D				3	
Exterior Lighting Controls					2 Points Maximum
Photocell				2	
Time Clocks				1	
Outdoor Lighting Type - Garage Parking / Landscape / Walkways					6 Points Maximum
High Output Ceramic Metal Halide (90 l/w)				6	
High Pressure Sodium (80 l/w)				6	
Light Emitting Diode [LED] (60 l/w)				4	
Ceramic Metal Halide (60 l/w)				4	
Pulse Start Metal Halide (30 l/w)				2	
Switch Start Metal Halide (30 l/w)				2	
High Intensity Mercury Vapor (10 lumens/watt)				1	
Other				Input Points 1-6	
Lighting - Hallways / Service / Stairs / Vestibule / Common Areas					12 Points Maximum
LED				12	
Compact Fluorescent				8	
Lighting - Exit Signs					2 Points Maximum
LED				2	
Non-LED				0	
Interior Lighting Controls					2 Points Maximum
Motion Detectors (stairwells, laundry, restrooms, other)				2	
TOTAL SCORE					

9.6.2 PATH 2 – HERS Rating Test

The HERS Index is a scoring system established by the Residential Energy Services Network (“RESNET”) in which a residential structure built to the specifications of the HERS Reference Home (based on the 2006 International Energy Conservation Code) scores a HERS Index of 100, while a net zero energy residential structure scores a HERS Index of 0. Thus, the lower the HERS Index the more energy efficient it is in comparison to the HERS Reference score.

Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference score. Therefore, a residential structure with a HERS Index of 85 is 15% more energy efficient than the HERS Reference structure and a residence with a HERS Index of 80 is 20% more energy efficient.

The HERS score must be verified and field-tested by a Home Energy Rater who is an active ENERGY STAR Partner and certified by RESNET.

COMPLETE: Determine the HERS score, then apply the numeric conversion table below to determine the ENREGY STAR equivalent. Enter the number into the ENERGY STAR section of the CMP Green Value Score[®] matrix for an apartment asset.

HERS / ENERGY STAR - CONVERSION TABLE

HERS Rating	ENERGY STAR Equivalent Score
100	50
90	55
80	60
70	70
60	80
50	90
40	95
39 and below	100

9.6.3 Equivalency Certification

The ENERGY STAR equivalent options denoted in Path 1 and Path 2 can be used for general adherence to this Standard. To do this, environmental or LEED accredited professionals (as further defined in Section 9.1) must certify in writing with their typed name, signature, and affiliation, that their calculations and resulting ENERGY STAR Proxy and the calculated CMP Green Value Score⁸ pursuant to this Standard and applicable sections, comply with the Federal Trade Commission Environmental Marketing Guides at 16 C.F.R. Part 260 (1998) for accurate, reliable, and documented communications.⁸

This certification must also state that "both the express and implied meaning of the certification about the data, responses to information, and provisions of the Standard, are reasonable and based on competent and reliable scientific evidence prepared by qualified professionals in the relevant area, using procedures to produce accurate and reliable results." See 16 C.F.R. § 260.5.

Please see the Appendix for specific certification language to be included in the certifying professional's report.

The equivalency certification and its documentation must be publicly available.

⁸ <http://www.ftc.gov/bcp/grnrule/guides980427.htm>

10.0 LEED® STANDARD SELECTION – LEED-NC, LEED-CS, AND LEED-EB:O&M

The USGBC LEED standard has several sub-components including LEED for New Construction® (LEED-NC) and LEED Existing Building for Operations and Maintenance® (LEED-EB:O&M) which applies to existing buildings. There are additional LEED® standards that apply to schools, health care, neighborhood development, and retail (currently under pilot).

This Standard references LEED-NC and LEED-EB:O&M and rates assets that have achieved specific LEED® points under these two standards. The Standard is also applicable to LEED Core and Shell® (LEED-CS) which is very similar to LEED-NC with the majority of points overlapping.

Underwriters must be aware of which LEED® standard the asset is certified under so as to appropriately apply value. This is called to attention in Section 11.3 under Step 2 of the three-step scoring process.

Both LEED-NC and LEED-EB:O&M focus on financially tangible areas of energy efficiency, water use reduction and indoor environmental quality – these areas have been brought to the forefront in the Green Building Underwriting Standard scoring methodology.

Because LEED-NC focuses on new construction, numerous point credits are awarded for location attributes regarding site selection, site orientation, elevation, wetlands protection, and other aspects that do not apply to an existing building. As such, this Standard makes adjustments to these issues for buildings certified under LEED-EB:O&M, allowing underwriters latitude to utilize observational techniques regarding asset qualification on certain features. These features include green roofs, under floor air distribution, and certain site-specific location factors.

The slight variation in scoring methodology is clearly noted in Section 11.3 under Step 2 which outlines the three paths to achieving a score under the Green Building Underwriting Standard, specifically:

1. LEED-NC certified or LEED-CS certified
2. LEED-EB:O&M certified
3. Asset not LEED® certified

10.1 LEED-NC AND LEED-CS EQUIVALENCY

All LEED® points denoted under this Standard overlap between LEED-NC and LEED-CS. Underwriters can accept LEED-NC and LEED-CS certifications as equal. See also Section 12.0.2.

11.0 GREEN BUILDING UNDERWRITING STANDARD SCORING METHODOLOGY

The Green Building Underwriting Standard focuses attention on the LEED® scorecard and the achievement of critical LEED® points and equivalent IgCC™ sections identified in Section 5.4 of this Standard, exhibiting tangible financial value summarized in Section 12.0 thru Section 14.0 of this Standard which are directly applicable to an asset’s current and future revenue and/or expense financial results.

The Standard is structured to allow for professional judgment as to the applicability and relevance of these tangible revenue and expense factors by incorporating a range of magnitude for identified green attributes. This judgment is utilized in a structured fashion in conjunction with an “Adjustment Factor” which determines the CMP Green Building Underwriting Standard score.

The calculation methodology is simple for real estate finance professionals, underwriters, and appraisers to understand and implement. Underwriters can determine a Green Building Underwriting Standard Score via the following steps:

- STEP 1** Examine the LEED® scorecard to determine if the LEED® point was achieved
 - LEED New Construction
 - LEED Operations and Maintenance
- STEP 2** Assign a Score to each LEED® point as detailed in Sections 12.0 – 14.0
- STEP 3** Multiply this value by the fixed number under the “Adjustment Factor”
- STEP 4** Total the column to derive the score on the Green Building Underwriting Standard



Calculation Methodology – Green Building Underwriting Standard						
LEED-NC Certified Asset						
NOTE: Sorted by LEED Category	Green Point		Value Range		ADJUSTMENT	TOTAL
	YES	NO	Low	High	SCORE	
Site Selection (LEED SS-1)	x		0	1	1	1
Density/Connectivity (LEED SS-2)	x		1	3	3	3
Public Transportation Access (LEED SS-4.1)	x		2	5	5	3
Stormwater (LEED SS-6.1)	x		0	1	1	0.5
Heat Island Effect (LEED SS-7.2)	x		0	2	2	0.5
Water Efficient Landscaping (LEED WE-1.1/1.2)	x		0	1.5	1.5	1
Water Use Reduction (LEED WE-3.1/3.2)	x		0	2	2	2
Commissioning (LEED EA-Prerequisite)	x		1	3	3	1
Energy Efficiency (LEED EA 1 @ 1-10 points)	x		1	5	5	3
On-Site Renewable Energy (LEED EA-2)	x		1	3	3	3
Enhanced Commissioning (LEED EA-3)	x		2	4	4	1
Measurement and Verification (LEED EA-5)	x		2	5	5	1
IEQ - Outdoor Air Monitoring (LEED EQ-1)	x		0	2	2	0.5
IEQ - Ventilation Effectiveness (LEED EQ-2)	x		0	2	2	0.5
IAQ Management Plan (LEED EQ-3.2)	x		1	3	3	1
IEQ - Adhesives / Sealants (LEED EQ-4.1)	x		1	3	3	0.5
IEQ - Paints and Coatings (LEED EQ-4.2)	x		1	3	3	0.5
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)	x		1	3	3	0.5
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)	x		1	3	3	0.5
Daylight / Views (LEED EQ-8.1/8.2)	x		1	4	4	2
Under Floor Air Distribution	x		1	4	4	1
Green Roof	x		1	4	4	1
Integrated Design (LEED Innovation Credit)	x		1	4	4	1
Recycling (LEED MR-Prerequisite)	x		-1	1	1	1
TOTAL POINTS						100

STEP 4

11.1 DISCUSSION OF "ADJUSTMENT FACTOR"

The Adjustment Factor used within the Green Building Underwriting Standard scoring system is based on their overall financial / risk reduction value to the asset's financial performance. The Adjustment Factor ranges from a high of 3 to a low of 0.5 based on the financial relevance of the particular green attribute. **The adjustment factors are fixed components of the scoring system and cannot be changed.**

Four attributes – Energy Efficiency, Public Transportation Access, Density/Connectivity, and Onsite Renewable Energy – are assigned a "3" on the Adjustment Factor, the highest value in the range. This higher weighting is due to the strong financial value of these green attributes.

Energy Efficiency – Energy is one of the largest expense items within an asset's operating profile. Energy efficiency affects the asset's current financial profile as well as impacting the asset's future operating risk profile and market competitiveness given its exposure to energy price volatility.

Public Transportation Access – Assets with proximate access to public transportation offer alternative means with which to access the site. Access to public transportation is a high-value urban amenity as increasing transportation alternatives decreases a site user's overall transportation costs.

Density/Connectivity – Density and neighborhood connectivity is a location-based attribute that directly affects financial value due to nearby valuable tenant amenities that lower time costs and increase asset desirability.

Onsite Renewable Energy – Onsite energy generation capability can reduce the asset's peak load profile used to determine the overall utility rate, lowers the asset's overall grid-based energy use, and reduces risk exposure to future energy price increases and volatility.

The remaining green attributes are assigned an Adjustment Factor (see **red circle**) in accordance to their relative impact on financial value and financial risk.

Calculation Methodology – Green Building Underwriting Standard							
LEED-NC Certified							
NOTE: Sorted by Adjustment Factor, then Value Range	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
Energy Efficiency (LEED EA 1 @ 1-10 points)			1	5		3	
Public Transportation Access (LEED SS-4.1)			2	5		3	
Density/Connectivity (LEED SS-2)			1	3		3	
On-Site Renewable Energy (LEED EA-2)			1	3		3	
Daylight / Views (LEED EQ-8.1/8.2)			1	4		2	
Water Use Reduction (LEED WE-3.1/3.2)			0	2		2	
Measurement and Verification (LEED EA-5)			2	5		1	
Enhanced Commissioning (LEED EA-3)			1	4		1	
Under Floor Air Distribution			2	4		1	
Green Roof			1	4		1	
Integrated Design (LEED Innovation Credit)			1	4		1	
Commissioning (LEED EA-Prerequisite)			1	3		1	
IAQ Management Plan (LEED EQ-3.2)			1	3		1	
Water Efficient Landscaping (LEED WE-1.1/1.2)			0	1.5		1	
Site Selection (LEED SS-1)			0	1		1	
Recycling (LEED MR-Prerequisite)			-1	1		1	
IEQ - Adhesives / Sealants (LEED EQ-4.1)			1	3		0.5	
IEQ - Paints and Coatings (LEED EQ-4.2)			1	3		0.5	
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)			1	3		0.5	
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)			1	3		0.5	
Heat Island Effect (LEED SS-7.2)			0	2		0.5	
IEQ - Outdoor Air Monitoring (LEED EQ-1)			0	2		0.5	
IEQ - Ventilation Effectiveness (LEED EQ-2)			0	2		0.5	
Stormwater (LEED SS-6.1)			0	1		0.5	
TOTAL POINTS							100

11.2 GREEN BUILDING UNDERWRITING STANDARD – SCORING MECHANICS

Based on the green features present at the asset level, these criteria are identified and summarized as to its value impact. Each LEED® criteria identified has a description of underwriting impact. The description is followed by the graphic below denoting a range of impact on value. **Negative** impacts on value are depicted in **red**, **minimal/neutral** value impacts in **black**, and **positive** value impacts in **blue**.

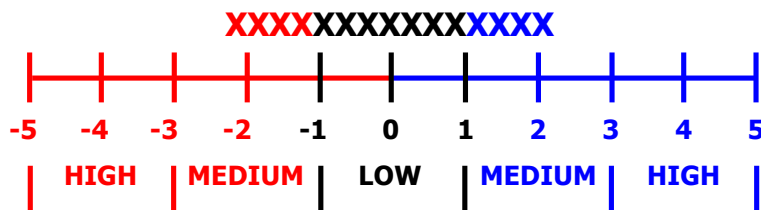
In each graphic, the “XXXX-ed” out area for the value continuum delineates a range which to apply this specific factor to asset underwriting using best professional judgment based on all relevant and/or situational information applicable.

Once these asset-specific features are identified and appropriate value is attributed through a numerical score on the Green Building Underwriting Standard, underwriters can use this information to appropriately assess an asset’s risk profile and determine the CMP Green Value Score®.

Once the CMP Green Value Score® is derived, it is intended to ride with the asset based on a vintage year. The CMP Green Value Score® is applicable to both internal decision making and external reporting to relevant parties including rating agencies, secondary market investors, corporate-level financial and environmental reporting, and other pertinent applications.

If the asset undergoes capital improvements at a future date, the CMP Green Value Score® should be recalculated, a new vintage year assigned, and then re-reported accordingly.

See also Section 12.0.1.



11.3 GREEN BUILDING UNDERWRITING STANDARD – SCORING PROCESS

The Standard is designed to be straightforward for borrowers and lenders to implement and easily understood by investors, rating agencies and other capital market participants.

ACQUIRING A CMP GREEN VALUE SCORE[®] REQUIRES THE FOLLOWING FOUR (4) STEPS:

STEP 1 – Secure proper underwriting documentation

- ENERGY STAR Score / Statement of Energy Performance
- LEED[®] Certification type (LEED-NC / CS or LEED-EB:O&M) and certified scorecard
- IgCC equivalent credit compliance from Section 5.4 of this Standard
- Climate Neutral Certification
- Commissioning report (recommended)

STEP 2 – Assess the certified LEED-NC scorecard for the specific credits attained and assign appropriate value scores. If the asset is LEED-EB:O&M certified, proceed to Step 2a. If the asset is not LEED-NC certified, proceed to Step 2b.

The example below shows a Green Building Underwriting Score of 54 on the Green Building Underwriting Standard using the LEED-NC calculation.

Check the Y/N box for points achieved corresponding to the specific LEED scorecard

Assign a Score based on the value ranges specified in this Standard corresponding with the LEED credit

Multiply the Score by the Adjustment Factor to determine the Total

EXAMPLE CALCULATION							
NOTE: Sorted by Adjustment Factor, Then by Total Points	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
Energy Efficiency (LEED EA 1 @ 1-10 points)	x		1	5	3	3	9
Public Transportation Access (LEED SS-4.1)	x		2	5	4	3	12
Density/Connectivity (LEED SS-2)	x		1	3	2	3	6
On-Site Renewable Energy (LEED EA-2)		x	1	3		3	
Daylight / Views (LEED EQ-8.1/8.2)	x		1	4	4	2	8
Water Use Reduction (LEED WE-3.1/3.2)	x		0	2	2	2	4
Measurement and Verification (LEED EA-5)		x	2	5		1	
Enhanced Commissioning (LEED EA-3)		x	2	4		1	
Under Floor Air Distribution		x	1	4		1	
Green Roof		x	1	4		1	
Integrated Design (LEED Innovation Credit)		x	1	4		1	
Commissioning (LEED EA-Prerequisite)	x		1	3	3	1	3
IAQ Management Plan (LEED EQ-3.2)	x		1	3	3	1	3
Water Efficient Landscaping (LEED WE-1.1/1.2)	x		0	1.5	1	1	1
Site Selection (LEED SS-1)	x		0	1	1	1	1
Recycling (LEED MR-Prerequisite)	x		-1	1	1	1	1
IEQ - Adhesives / Sealants (LEED EQ-4.1)	x		1	3	3	0.5	1.5
IEQ - Paints and Coatings (LEED EQ-4.2)	x		1	3	3	0.5	1.5
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)	x		1	3	3	0.5	1.5
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)	x		1	3	3	0.5	1.5
Heat Island Effect (LEED SS-7.2)		x	0	2		0.5	
IEQ - Outdoor Air Monitoring (LEED EQ-1)		x	0	2		0.5	
IEQ - Ventilation Effectiveness (LEED EQ-2)		x	0	2		0.5	
Stormwater (LEED SS-6.1)		x	0	1		0.5	
TOTAL CMP GREEN VALUE POINTS							54

EXAMPLE – Assigning a Score: If the LEED-NC scorecard shows that the asset achieved 5 of the possible 10 LEED® points under “EA-1 Energy Efficiency”, this asset can be scored a “3” for this credit as shown above (row 1). All scores on each credit are based on professional judgment.

STEP 2A – If the asset is LEED-EB:O&M certified, the LEED® scorecard will look slightly different than the LEED-NC scorecard although many of the credits overlap.

In the exhibit for LEED-EB:O&M below, four of the listed attributes highlighted in red are not LEED-EB:O&M credits and require physical inspection for verification. Two of these credits are LEED-NC credits while the other two are green building features.

Each of these four credits are discussed in detail in Section 12.0 as to what they entail and how to verify and score these attributes.

The remaining eleven attributes are components of the LEED-EB:O&M scorecard and can be appropriately scored with an inspection of the LEED-EB:O&M certification.

Calculation Methodology – Green Building Underwriting Standard							
LEED-EB:OM Certified Asset							
	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
Public Transportation Access (LEED-NC SS-4.1)	x		2	5	5	3	15
Density/Connectivity (LEED-NC SS-2)	x		1	3	3	3	9
Heat Island Reduction (LEED-EB SS-7)	x		0	2	2	1	2
Stormwater Management (LEED EB SS-6)	x		0	1	1	1	1
Water Efficient Landscaping (LEED-EB WE-3)	x		0	1.5	1.5	2	3
Water Efficient Fixtures (LEED-EB WE-2)	x		0	2	2	3	6
Energy Management Plan (LEED-EB EA-PR1)	x		1	2	2	1	2
Energy Efficiency (LEED-EB EA-1 @ 2-15 points)	x		1	5	5	3	15
Commissioning (LEED-EB EA-2)	x		1	5	5	2	10
Measurement and Verification (LEED-EB EA-3)	x		2	5	5	2	10
On-Site Renewable Energy (LEED-EB EA-4)	x		1	3	3	3	9
Recycling / Solid Waste Mgmt (LEED-EB MR-7.1/7.2)	x		-1	1	1	1	1
Under Floor Air Distribution	x		1	4	4	1	4
Green Roof	x		1	4	4	1	4
Green Cleaning (LEED-EB EQ-3)	x		1	3	3	3	9
TOTAL POINTS							100

STEP 2B – If the asset is not LEED-NC or LEED-EB:O&M certified, underwriters can derive a score for seven (7) criteria available under the CMP Green Value Score[®] system that can be verified outside of LEED[®] certification based on asset inspection techniques. These credits are **circled in green** and located above the **solid red line**. They include:

- Public transportation access
- Site density and connectivity
- Onsite renewable energy generation (as defined by the Green-e Standard)
- Under floor air distribution
- Green roof
- Onsite recycling program
- Site selection above FEMA floodplain and outside wetlands

To qualify for inclusion, these credits must be assessed and scored by a third-party real estate professional (MAI appraiser) or a LEED Accredited Professional. **NOTE:** If the asset has a green roof, underwriters can award up to an additional 1.5 points for non-LEED buildings attributed to the Heat Island Effect and Stormwater credits as highlighted by the **blue box** which correspond to benefits associated with green roofs.

Calculation Methodology – Green Building Underwriting Standard							
Non-LEED Certified Asset							
ASSETS CANNOT RECEIVE POINTS BELOW THE LINE WITHOUT THIRD-PARTY LEED CERTIFICATION	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
Public Transportation Access (LEED SS-4.1)	x		2	5	5	3	15
Density/Connectivity (LEED SS-2)	x		1	3	3	3	9
On-Site Renewable Energy (LEED EA-2)	x		1	3	3	3	9
Under Floor Air Distribution	x		1	4	4	1	4
Green Roof	x		1	4	4	1	4
Site Selection (LEED SS-1)	x		0	1	1	1	1
Recycling (LEED MR-Prerequisite)	x		-1	1	1	1	1
Heat Island Effect (LEED SS-7.2)	x		0	2	2	0.5	1
Stormwater (LEED SS-6.1)	x		0	1	1	0.5	0.5
Water Efficient Landscaping (LEED WE-1.1/1.2)		x	0	1.5		1	
Water Use Reduction (LEED WE-3.1/3.2)		x	0	2		2	
Commissioning (LEED EA-Prerequisite)		x	1	3		1	
Energy Efficiency (LEED EA 1 @ 1-10 points)		x	1	5		3	
Enhanced Commissioning (LEED EA-3)		x	2	4		1	
Measurement and Verification (LEED EA-5)		x	2	5		1	
IEQ - Outdoor Air Monitoring (LEED EQ-1)		x	0	2		0.5	
IEQ - Ventilation Effectiveness (LEED EQ-2)		x	0	2		0.5	
IAQ Management Plan (LEED EQ-3.2)		x	1	3		1	
IEQ - Adhesives / Sealants (LEED EQ-4.1)		x	1	3		0.5	
IEQ - Paints and Coatings (LEED EQ-4.2)		x	1	3		0.5	
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)		x	1	3		0.5	
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)		x	1	3		0.5	
Daylight / Views (LEED EQ-8.1/8.2)		x	1	4		2	
Integrated Design (LEED Innovation Credit)		x	1	4		1	
TOTAL POINTS							44.5

With a LEED[®] certified asset, there are 100 available points on the Green Building Underwriting Standard. Without LEED[®] certification, the total amount of available points falls to 44.5.

Financial institutions may wish to notify clients of this calculation methodology, as well as the additional 15 points available within the CMP Green Value Score[®] for attaining LEED[®] certification.

Clients can then use this information to make appropriate business decisions.

STEP 3 – Determine the CMP Green Value Score[®]. Information available should include:

- **ENERGY STAR Score**
- **Level of LEED[®] certification** (none, Certified, Silver, Gold, Platinum)
- **Point total on the Green Building Underwriting Standard including from IgCC in section 5.4 of this Standard**
- **Climate Neutral Certification**

EXAMPLE: CMP Green Value Score = 47

- 180,000 SF office asset
- ENERGY STAR score = 62
- LEED Silver certified
- Not certified as Climate Neutral
- Green Building Underwriting Standard Score = 50 (as seen below)

CMP GREEN VALUE SCORE MATRIX	Score	Value Ratio	Score
ENERGYSTAR Score	62	40%	24.80
Green Building Underwriting Standard Score	50	35%	17.5
LEED RATING			5.00
	NONE	0%	
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	
	NO	0%	
CMP GREEN VALUE SCORE		100%	47

Calculation Methodology – Green Building Underwriting Standard							
Example - LEED Silver Certified Asset							
NOTE: Sorted by Adjustment Factor and Total Score	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
Energy Efficiency (LEED EA 1 @ 1-10 points)	x		1	5	2	3	6
Public Transportation Access (LEED SS-4.1)	x		2	5	5	3	15
Density/Connectivity (LEED SS-2)	x		1	3	3	3	9
On-Site Renewable Energy (LEED EA-2)		x	1	3		3	
Daylight / Views (LEED EQ-8.1/8.2)		x	1	4		2	
Water Use Reduction (LEED WE-3.1/3.2)	x		0	2	1	2	2
Measurement and Verification (LEED EA-5)	x		2	5	5	1	5
Enhanced Commissioning (LEED EA-3)		x	2	4		1	
Under Floor Air Distribution		x	1	4		1	
Green Roof		x	1	4		1	
Integrated Design (LEED Innovation Credit)		x	1	4		1	
Commissioning (LEED EA-Prerequisite)	x		1	3	2	1	2
IAQ Management Plan (LEED EQ-3.2)	x		1	3	3	1	3
Water Efficient Landscaping (LEED WE-1.1/1.2)	x		0	1.5	1	1	1
Site Selection (LEED SS-1)	x		0	1	1	1	1
Recycling (LEED MR-Prerequisite)	x		-1	1	1	1	1
IEQ - Adhesives / Sealants (LEED EQ-4.1)	x		1	3	2	0.5	1
IEQ - Paints and Coatings (LEED EQ-4.2)	x		1	3	2	0.5	1
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)	x		1	3	2	0.5	1
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)	x		1	3	2	0.5	1
Heat Island Effect (LEED SS-7.2)		x	0	2		0.5	
IEQ - Outdoor Air Monitoring (LEED EQ-1)		x	0	2		0.5	
IEQ - Ventilation Effectiveness (LEED EQ-2)	x		0	2	2	0.5	1
Stormwater (LEED SS-6.1)		x	0	1		0.5	
TOTAL POINTS							50

STEP 4 – FINAL: Include as Due Diligence Exhibit or Appraisal Attachment

At this point, the following documents should be available for inclusion as an underwriting due diligence report or exhibit to the appraisal:

1. ENERGY STAR Statement of Energy Performance and/or ENERGY STAR certification
2. LEED® Certification and scorecard (if applicable)
3. CMP Green Value Score® (see Section 11.3 and Appendix)
4. Green Building Underwriting Standard worksheet (see Section 11.3 and Appendix)
5. Green Building Underwriting Standard Point Credit Evaluation narratives (see Appendix)
6. Listing of IgCC credits if a building in a jurisdiction that adopted IgCC and actually achieved the equivalent credits in the building
7. Commissioning report (if applicable)

For each point credit attested to on the Green Building Underwriting Standard, item #5 above requires a brief narrative regarding the score granted for a particular asset feature and reasoning for that score. The following format should apply – see Appendix for examples:

Credit Description: INSERT NAME OF CREDIT AWARDED

Score Assessed: INSERT SCORE

Score Range: _____Minimum to _____Maximum

Narrative: PROVIDE BRIEF WRITTEN DESCRIPTION INCLUDING RATIONALE FOR SCORE ASSESSMENT

USING THE CMP GREEN VALUE SCORE®

The CMP Green Value Score® is used by the primary market as a risk-management tool:

- Loan application review
- Loan committee decision making
- Purchase and sale negotiations

The CMP Green Value Score® is used by the secondary market as an investor and rating agency data point as they work to assess 1) asset quality, 2) attributes that reduce investment risk, and 3) operational management quality:

I. Portfolio Analysis and Disclosure

- Pooled debt/equity investment vehicles
- Private equity portfolios

II. Corporate Information Disclosure

- Private client reporting
- Quarterly or annual financial reports
- Regulatory reports
- Analyst conference calls

12.0 PROFORMA REVENUE INPUTS

The Standard addresses several areas of value that positively impact an asset's leasing desirability as compared to a 'market' peer group. Separate from determining the CMP Green Value Score[®], fully accounting for these attributes in the underwriting, financing and leasing processes can result in better understanding an asset's relative risk profile when compared to assets that do not have these attributes. This may lead to an asset achieving higher value when compared to other market assets that either 1) do not achieve these certifications, or 2) do not achieve the specific value attributes.

An important outcome is to provide an accurate profile of an asset's value under the mark-to-market underwriting scenario. Current underwriting practices may penalize buildings that achieve LEED[®], ENERGY STAR, IgCC and Climate Neutral Certification by associating these high-performance green buildings with a market peer group that have not achieved a third-party certification.

The transparency resulting from achieving key aspects of ENERGY STAR, LEED[®], IgCC, and Climate Neutral provides underwriters relevant asset-based value information in important areas including energy and water efficiency, location attributes including transit orientation, indoor environmental quality, and operational superiority demonstrated by the building commissioning process. Factoring these and other relevant issues into determining the 'market' peer group from which to assess value is a critical component of the underwriting process.

Real estate acquisition, finance, and appraisal professionals should incorporate these risk-based impacts within their revenue assumptions at underwriting during the construction and ongoing asset operation periods. Input assumptions positively impacted are:

1. Market Rent assumptions that impact overall Gross Potential Income

- Specific occupancy areas (floor height and views, floor layout, etc)
- Energy and water efficiency strategies employed as compared to market peers that reduce a tenant's overall occupancy cost
- Reduced business risks that can factor into overall occupancy cost (business interruption, insurance rates, grid brownouts, etc.)
- Neighborhood amenities, mass-transit connectivity, and reduced commutes
- Impacts from higher indoor air and indoor environmental quality
- Specific uses (1st floor retail, office, specialty, storage, etc.)
- Asset competitive profile and market position attributed to intangible goodwill

2. Vacancy Absorption

- Date of rent start
- Time vacant before re-lease absorption

3. Lease Term

- Term of new leases (# years)
- Renewal probability
- Renewal rate

4. Miscellaneous Rental Revenue

- Parking
- Retail percentage rent
- CPI adjustments, rent bumps, utility/other cost escalations
- Base year expense stops and expense pass-through amounts

12.0.1 RANGE DETERMINATION

Based on the green features present at the asset level, these criteria are identified and summarized as to its value impact. Each LEED® criteria identified has a description of underwriting impact. The description is followed by the graphic below denoting a range of impact on value. **Negative** impacts on value are depicted in **red**, **minimal/neutral** value impacts in **black**, and **positive** value impacts in **blue**.

In each graphic, the **"XXXX-ed"** out area for the value continuum delineates a range which to apply this specific factor to asset underwriting using best professional judgment based on all relevant and/or situational information applicable.



A CMP Green Value Score **must** be validated by an accredited environmental professional. This validation can include a LEED Accredited Professional of which there are in excess of 55,000 as of June 2008.

12.0.2 – LEED-NC AND LEED-CS EQUIVALENCY

All of the points denoted under this Standard overlap between LEED-NC and LEED-CS.

For the purpose of this Standard, underwriters can accept LEED-NC and LEED-CS certifications as equal. See Sections 10.0 and 10.1 for additional information.

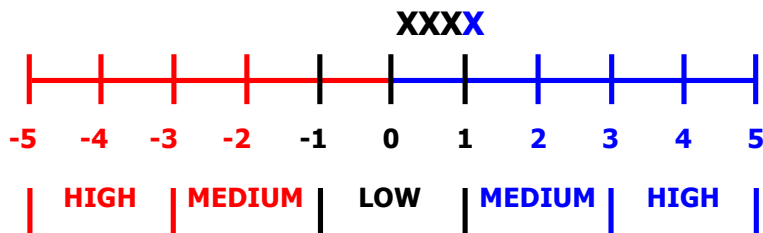
12.1 LEED-NC PROFORMA REVENUE ADJUSTMENTS

12.1.1 Site Selection– LEED Sustainable Sites SS-1

Description

LEED SS-1 requires buildings not to be built at an elevation lower than 5' above the FEMA 100-year flood designation, or within 100' of wetlands, or within 50' of a water body that supports wildlife recreation. Achieving LEED SS-1 adds to tenant desirability and GPI by positively reducing the building's flooding potential, business interruption aspects stemming from flooding or other storm-related hazards, and also positively impacts its overall loss profile for insurance purposes.

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

LEED Certification Waiver

For this particular criteria, LEED certification is not required. A review of location-specific FEMA floodplain maps and site-specific analysis using GIS mapping, Google Earth, or a similar tool is sufficient to determine criteria achievement outlined above. This information is likely contained within the asset's Environmental Impact Report dating back to the project's development.

For a non-LEED certified asset, a third-party accredited environmental professional (including a LEED AP) or appropriate real estate professional may attest to these criteria and provide an appropriate value score.

12.1.2 Development Density and Connectivity – LEED Sustainable Sites SS-2

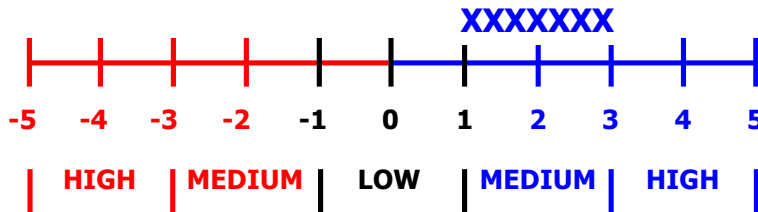
Description

LEED SS-2 requires buildings to be located on a previously developed site AND within ½ mile of a residential zone or neighborhood with an average density of 10 units per acre net AND within ½ mile of at least 10 basic services AND with pedestrian access between the building and the services.⁹

Achieving LEED SS-2 positively adds to tenant desirability and GPI as assets achieving this point are typically sited in urban infill locations which are by nature supply constrained. Urban assets in supply-constrained 24/7 cities outperform 'commodity' suburban assets over the long term.¹⁰ Building occupants have proximate access to basic services including eating establishments and daily needs positively affecting their overall time and transportation costs. Value and associated positive revenue impacts are defined by:

- Shortened tenant commutes – time and absolute cost
- Increased neighborhood amenities
- Faster project absorption
 - Office tenant worker attraction / retention
 - Increased demand
- Increased pedestrian access / friendliness

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

LEED Certification Waiver

For this particular criteria, LEED certification is not required. Onsite visual inspection and/or analysis using GIS mapping, Google Earth, or a similar tool is sufficient to determine criteria achievement outlined above.

For a non-LEED certified asset, a third-party accredited environmental professional (including a LEED AP) or appropriate real estate professional may attest to these criteria and provide an appropriate value score.

⁹ 1) Bank; 2) Place of Worship; 3) Convenience Grocery; 4) Day Care; 5) Cleaners; 6) Fire Station; 7) Beauty; 8) Hardware; 9) Laundry; 10) Library; 11) Medical/Dental; 12) Senior Care Facility; 13) Park; 14) Pharmacy; 15) Post Office; 16) Restaurant; 17) School; 18) Supermarket; 19) Theater; 20) Community Center; 21) Fitness Center; and 22) Museum.

¹⁰ Korpacz / ULI published cap rates show differences ranging from 100-700+ basis points between urban and suburban office properties; these quarterly reports have consistently reflected a cap rate premium ascribed to urban properties.

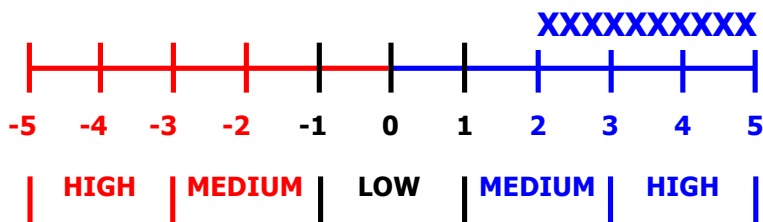
12.1.3 Public Transportation Access – LEED Sustainable Sites SS-4.1

Description

Achieving the LEED SS-4.1 credit requires buildings to be located within ½ mile of an existing or planned-and-funded commuter rail, light rail or a subway station, OR within ¼ mile of one or more stops for two or more public or campus bus lines usable by building occupants. Value and associated positive revenue impacts are defined by:

- Location premium due to transit-oriented development
- Increased commute choices / mass transit connectivity
- Increased site access

Relative Impact – Revenue



Underwriting Documentation / Verification

- Analysis / confirmation of LEED certification that includes this credit.

LEED Certification Waiver

For this particular criteria, LEED certification is not required. Onsite visual inspection and/or analysis using GIS mapping, Google Earth, or a similar tool highlighting proximity to transit stops is sufficient to determine criteria achievement outlined above.

For a non-LEED certified asset, a third-party accredited environmental professional (including a LEED AP) or appropriate real estate professional may attest to these criteria and provide an appropriate value score.

**12.1.4 20% Water Use Reduction – LEED Water Efficiency WE-3.1
30% Water Use Reduction – LEED Water Efficiency WE-3.2
EPA WaterSense Certification**

Description

LEED WE-3.1 and WE-3.2 require the asset to achieve significantly lower water consumption than the Energy Policy Act of 1992. One LEED point is awarded for achieving 20% below fixture performance requirements and a second point for a 30% reduction. These LEED points only apply to interior water use including water closets, urinals, lavatory faucets, showers and kitchen sinks; it excludes irrigation.

The extent this is relevant within the Proforma Revenue section requires judgment based on asset location and circumstance; water use reduction will also be covered in the Proforma Expense section and should not be double counted. Important considerations are potential impacts on the water utility rates over the occupancy term as cost increases will be paid by the tenant.

Important macro considerations include:

- Over the past five years, municipal water rates have increased 27% in the US, 32% in the UK, and 45% in Australia (average).
- The US currently ranks 14th in the world on municipal water costs; Germany's municipal water utility charges are 350% higher than the US; the UK is 300% higher.

Specific considerations include:

1. Trend data on past 3-5 years of municipality water pricing
2. A municipalities' current freshwater access and near-term need for infrastructure projects to acquire new supplies
3. Near-term wastewater treatment infrastructure needs
4. A utility's recent move or desire to change rate structure from a flat rate to a Volume Usage Pricing charge mechanism

Underwriters should look for building technologies and strategies that include high-efficiency fixtures, dual-flush water closets, waterless urinals, occupant sensors on wash basins, and faucet aerators. Additional strategies include reusing stormwater / greywater for non-potable applications (toilet / urinal flushing). The revenue benefit to the tenant stems from reduced exposure to water price increases, future price volatility, and water access issues.

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit
- Achievement of EPA Water Sense certification

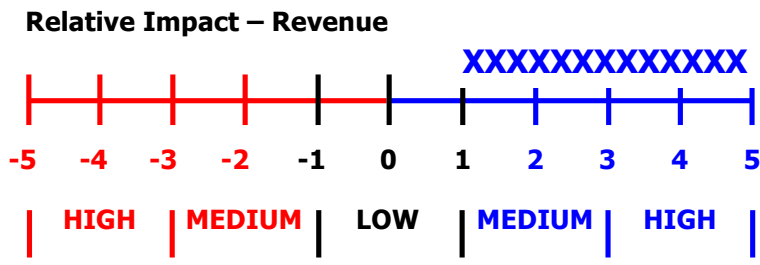
12.1.5 Energy Efficiency – LEED Energy and Atmosphere EA-1 (1-10 points)
Climate Neutral Certification
ENERGY STAR Certification (also see next page)

Description

There are ten (10) available LEED credits for this attribute. Building owners achieving one or more of the LEED EA-1 point credits have invested capital in aspects of building envelope insulation, lighting strategies, and/or HVAC systems that reduce the asset’s overall energy use and expense profile. These investments provide tenants a lower total occupancy cost. As a result, these buildings should command higher NNN face rent as an offset for the lower operating cost profile as well as additional consideration for reducing tenant exposure to future energy price volatility. Care should be taken not to ‘double count’ this credit in the Proforma Expense section.

Assets that fail to achieve certification for energy efficiency attributes will experience higher operating expenses and an overall higher total cost of occupancy that should hinder their market competitiveness at time of leasing or releasing.¹¹ Value and associated positive revenue impacts are defined by:

- Higher rent due to reduced tenant energy/operational costs
- Reduced tenant exposure to future energy price volatility
- Faster space absorption



GREEN BUILDING UNDERWRITING STANDARD POINT SCALE	
2 LEED Credits =	1 point
3-4 LEED Credits =	2 points
5-6 LEED Credits =	3 points
7-8 LEED Credits =	4 points
9-10 LEED Credits =	5 points

NOTE: Utilize the asset’s ENERGY STAR score as a cross-check verification method when awarding these points.

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes these credits
- Review of design-phase building energy modeling documentation
- Analysis of trailing one-year or two-year aggregate energy consumption data (if available)
- Analysis of the building’s ENERGY STAR score from the ENERGY STAR Portfolio Manager tool (see Section 8.5.1 – next page)
- Newly constructed buildings without 12 months of trailing data should acquire a score from EPA’s ENERGY STAR Target Finder (see Section 8.5.1)
- Climate Neutral Certification documenting either an ENERGY STAR rating of 60 or higher, or the alternate calculation method in the LEED-OM Reference Guide EA Prerequisite 2

¹¹ This also impacts increased likelihood of tenant turnover at time of lease rollover and corresponding time on market at time of release

12.1.51 ENERGY STAR Score – EPA ENERGY STAR Portfolio Manager

Description

Commercial buildings that score 75 or higher on the ENERGY STAR Portfolio Manager tool are among the top 25% of buildings for energy performance compared to the ENERGY STAR database. ENERGY STAR certified buildings use approximately 35% less energy than median score buildings. Buildings with ENERGY STAR scores at 90 or above use approximately 50% less energy.

It is relatively easy to acquire an ENERGY STAR score using the EPA ENERGY STAR internet tools. Existing buildings with 12 months of historical utility consumption data can use the ENERGY STAR Portfolio Manager tool while newly constructed buildings can use the ENERGY STAR Target Finder tool.

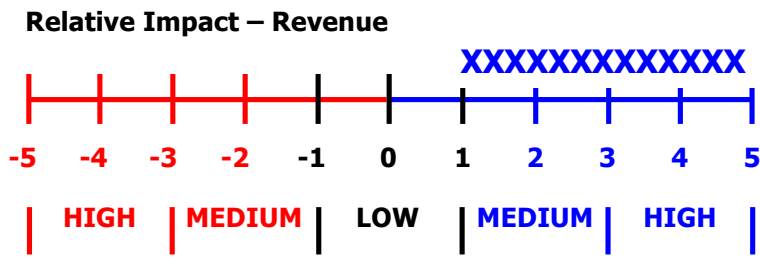
Underwriters should require documentation of the asset’s ENERGY STAR score and factor this score into the building’s energy cost profile during underwriting. Buildings with scores above the ENERGY STAR median of 50 should receive underwriting credit on energy costs when compared to ‘market’ assets.

Due to increased energy efficiency, building tenants will experience a lower total occupancy cost and thus bid up NNN face rent as an offset for a lower operating cost profile. Further, tenants will be less exposed to future energy price volatility. Landlords using a full-service lease structure should have an NOI advantage relative to market comparables that is reflected in higher asset values and result in lower loan default risk.

Assets that fail to achieve certification for energy efficiency attributes will experience higher operating expenses negatively impacting total occupancy cost; this should also hinder market competitiveness at time of leasing or releasing.

As with the previous section, care should be taken not to ‘double count’ this credit in the Proforma Expense section. Value and associated positive revenue impacts are defined by:

- Higher rent due to reduced tenant energy/operational costs
- Reduced tenant exposure to future energy price volatility
- Faster space absorption



GREEN BUILDING UNDERWRITING STANDARD POINT SCALE
ENERGY STAR SCORE CONVERSION
ENERGY STAR Score 50-59 = 1
ENERGY STAR Score 60-69 = 2
ENERGY STAR Score 70-79 = 3
ENERGY STAR Score 80-89 = 4
ENERGY STAR Score 90 + = 5

Underwriting Documentation

- Mandatory documentation of the asset’s ENERGY STAR score from Portfolio Manager or Target Finder

**12.1.6 On-Site Renewable Energy – LEED Energy and Atmosphere EA-2 (1-3 points)
 Onsite Green-e Power – Climate Neutral**

Description

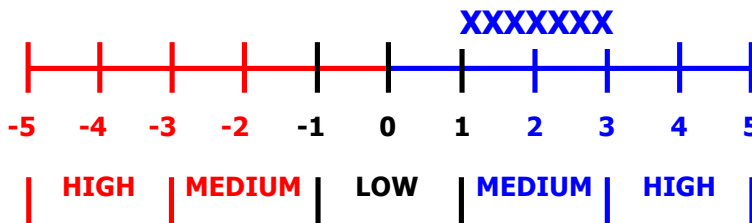
Successful achievement of the LEED EA-2 credit and/or Green-e renewable power in Climate Neutral buildings requires the implementation and use of onsite renewable energy generation including solar, wind, hot and cold geothermal, low-impact hydro, biomass, and bio-gas strategies.

Benefits of onsite energy generation capabilities include reducing the asset’s peak load profile which is used to determine the overall utility rate, as well as reducing the asset’s overall usage amount. For most commercial real estate, and especially office buildings, a building's daily load profile generally follows a bell-curve with the bulk of the energy being used during mid-day when energy costs are higher with a significantly reduced energy profile at night. Assets with a load profile as close to a straight line as possible qualify for prime electricity rates.

Onsite energy production lowers the building’s load profile and reduces the owners and tenants exposure to future energy price volatility thereby smoothing out operating cost fluctuations. This results in a more steady NOI (Net Operating Income) and DSCR (Debt Service Coverage Ratio) profile thereby lowering risk of debt default. Value and associated positive revenue impacts are defined by:

- Reduced peak rate energy charges
- Reduced annual energy costs – rate and amount
- Reduced exposure to future utility cost price volatility
- Reduced tenant operation downtime risk due to grid failures
- Reduced dependency on conventional energy
- Exposure to reduced grid-based energy availability for future needs

Relative Impact – Revenue



**GREEN BUILDING UNDERWRITING
 STANDARD POINT SCALE**

**ONSITE GREEN POWER
 CONVERSION**

1-10% onsite power = 1
 10-25% onsite power = 2
 >25% onsite power = 3

Underwriting Documentation

For this particular criteria, LEED certification is not required. Paths include:

- Analysis / confirmation of LEED certification that includes this credit, or
- Visual inspection of systems and third-party confirmation these systems are working as specified
- Climate Neutral Certification showing onsite Green-e Power generation equal to 3% or greater of total consumption

12.1.7 Outdoor Air Monitoring – LEED Indoor Environmental Quality EQ-1

Description

Successful achievement of the LEED EQ-1 credit requires buildings to install permanent monitoring systems that provide feedback on ventilation system performance to ensure that systems maintain designed ventilation requirements, particularly indoor CO2 concentrations and airborne contaminants.

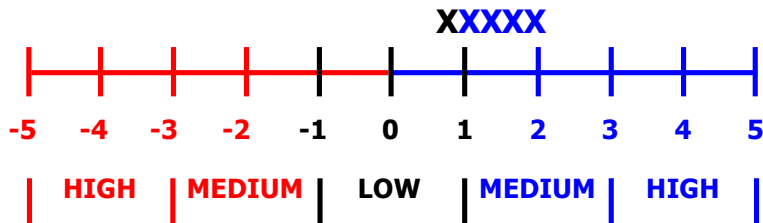
Air recirculation in mechanical systems represents a significant health hazard in the built environment by recirculating potentially polluted air. 100% outside air intake creates a safer and healthier indoor environment by eliminating the recirculation and cross-contamination of airborne contaminants such as bacteria and viruses from occupants and other indoor sources.

Optimizing outdoor air delivery can have a positive effect on occupant health and productivity which impacts a tenant's financial aspects and ability to pay future rent obligations. This factor improves tenant productivity which positively affects leasing metrics including leasing velocity, time-to-lease-up, and ongoing tenant retention. Underwriters should confirm the presence of installed CO2 and airflow measurement equipment with direct connection to the HVAC system and/or building automation systems.

Ideally this credit is coupled with the EQ-2 credit (next page) for full value impact. Value and associated positive revenue impacts are defined by:

- Reduced indoor air CO2 concentrations
- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.
- Verification of installation of CO2 and airflow monitoring equipment.

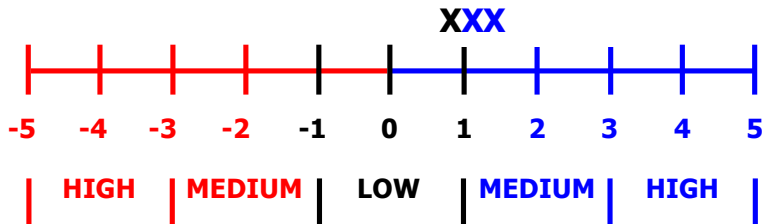
12.1.8 Ventilation Effectiveness – LEED Indoor Environmental Quality EQ-2

Description

LEED EQ-2 increases the outdoor air into the building by increasing breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1-2004. It is advised to verify the specific location of the outdoor air supply and confirm it is located adequate distance from a loading dock or other areas where vehicles are prone to idle for extended periods. Value and associated positive revenue impacts are defined by:

- Reduced indoor air CO2 concentrations
- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit

12.1.9 IAQ Management Plan – LEED Indoor Environmental Quality EQ-3.2

Description

Building owners achieving EQ-3.2 have developed and implemented an Indoor Air Quality (IAQ) Management Plan based on either a full building flush out with 14,000 cubic feet of air per square foot or by implementing an air testing plan following US EPA protocols that assures the following among others:

- **Formaldehyde** < 50 parts / billion
- **Particulates** < 50 micrograms / cubic meter
- **Volatile Organic Compounds** < 500 micrograms / cubic meter
- **Carbon Monoxide** < 9 parts / million and no greater than 2 parts / million above outdoor levels

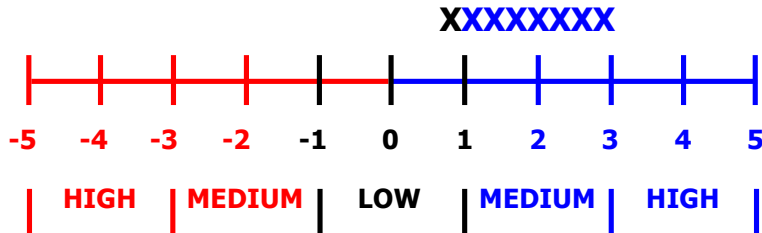
This process is performed after all interior finishes are installed including millwork, doors, paint, carpet and acoustic tiles. Protecting public and user health is at the root of current indoor air quality requirements. These requirements are part of the California Section 01350 Indoor Air Quality specifications which is currently the most comprehensive health-based building material specification in an industry area which is rapidly evolving in its stringency and testing.

Various building components are affected by this issue. Underwriters should be aware of specific products and certifications which are inherent to achieving this and other indoor environmental quality LEED points.

When assessing impact on value, this credit should be viewed in conjunction with EQ-4.1, EQ-4.2, EQ-4.4 and EQ-5 which, if all are attained, should push the relative impact to the higher end of the range. Tenant benefits include:

- Implementation of an ongoing IAQ testing protocol
- Screening for hazardous content
- Mold and mildew avoidance from construction practices
- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Potential for reduced absenteeism
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

12.1.10 Adhesives and Sealants – LEED Indoor Environmental Quality EQ-4.1

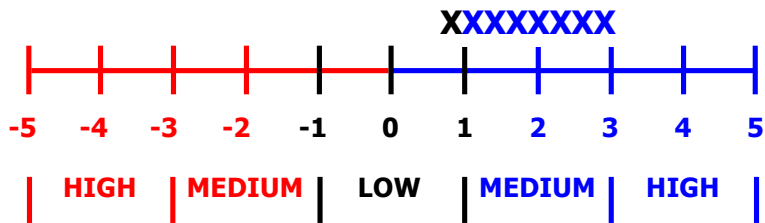
Description

Achieving EQ-4.1 requires a significant reduction in Volatile Organic Compounds (“VOC’s”) used as adhesives and sealants within the building that are odorous, irritating and/or harmful to the health, productivity and well-being of building occupants. This LEED credit definition lays out the maximum limits of VOC’s within various materials that affect other LEED EQ credits.

When assessing impact on value, this credit should be viewed in conjunction with EQ-3.2, EQ-4.2, EQ-4.4 and EQ-5 which, if all are attained, should push the relative impact to the higher end of the range. Tenant benefits include:

- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Potential for reduced absenteeism
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit

12.1.11 Paints and Coatings – LEED Indoor Environmental Quality EQ-4.2

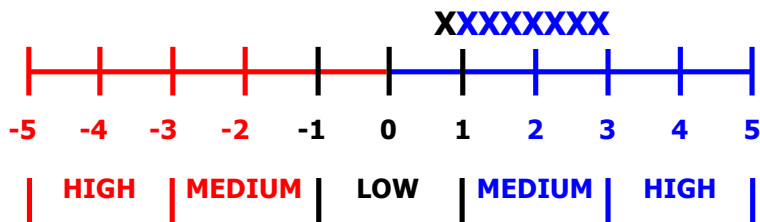
Description

The LEED EQ-4.2 credit is similar to the EQ-4.1 above but applies to paints and wall/floor coatings by requiring a reduction in VOC's.

When assessing impact on value, this credit should be viewed in conjunction with EQ-3.2, EQ-4.1, EQ-4.4 and EQ-5 which, if all are attained, should push the relative impact to the higher end of the range. Tenant benefits include:

- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Potential for reduced absenteeism
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit

12.1.12 Composite Wood / Agrifiber – LEED Indoor Environmental Quality EQ-4.4

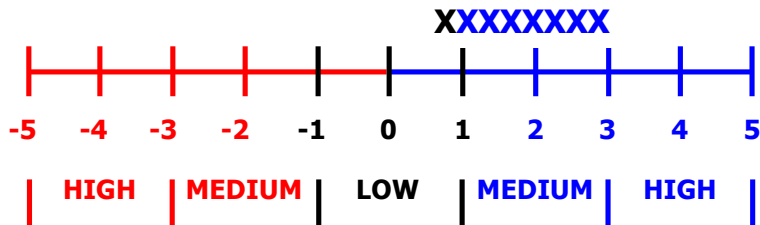
Description

The LEED EQ-4.4 credit is similar to the EQ-4.1, EQ-4.2 and EQ-4.3 credits above but applies to composite wood and agrifiber wall coverings. It requires the various products applicable to contain no added urea-formaldehyde resins which significantly impact indoor air quality.

When assessing impact on value, this credit should be viewed in conjunction with EQ-3.2, EQ-4.1, EQ-4.2 and EQ-5 which, if all are attained, should push the relative impact to the higher end of the range. Tenant benefits include:

- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Potential for reduced absenteeism
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit

12.1.13 Chemical/Pollutant Control – LEED Indoor Environmental Quality EQ-5

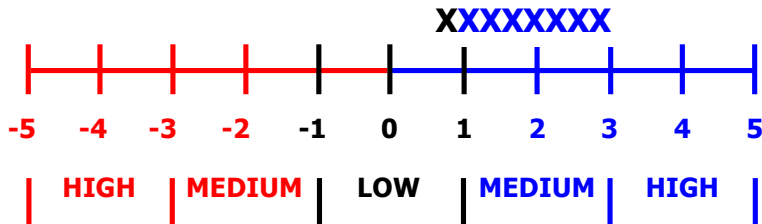
Description

The goal of the LEED EQ-5 credit is to minimize the building occupant's exposure to potentially hazardous particulates and chemical pollutants. This is accomplished by requiring permanent entryway systems to capture dirt and particulates; exhausting areas where hazardous gases or chemicals may be present with negative pressure, self-closing doors, and deck to deck partitions or a hard lid ceiling; and incorporating air filters with a Minimum Efficiency Reporting Value (MERV) rating of 13 or greater on both return and outside air.

When assessing impact on value, this credit should be viewed in conjunction with EQ-3.2, EQ-4.1, EQ-4.2 and EQ-4.4 which, if all are attained, should push the relative impact to the higher end of the range. Tenant benefits include:

- Quantifiably higher indoor air quality
- Increased occupant satisfaction, productivity and health
- Potential for reduced absenteeism
- Increased likelihood of tenant retention

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit

12.1.14 Daylight and Views @ 75% – Indoor Environmental Quality LEED EQ-8.1
Daylight and Views @ 90% – Indoor Environmental Quality LEED EQ-8.2

Description

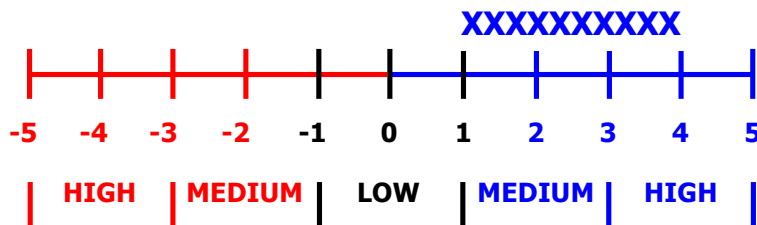
Providing daylight and view access to a significant portion of interior space is a significant tenant benefit. Achieving one or both of LEED credits EQ-8.1/EQ-8.2 enhances both leasing desirability and, if coupled with lighting controls, can have a material impact on building energy use through lessened light loads and associated heat generation and resultant HVAC use to remove this heat. Depending on strategies employed, it may also have a positive effect on future tenant improvement costs during sublet or releasing.

Strategies include using glass wall partitions for perimeter offices, modular walls, open bullpen office layouts, and similar arrangements. Office buildings achieving this LEED credit may have floor-to-ceiling windows that result in dramatic views while at the same time letting in significant daylight thereby reducing lighting loads and associated HVAC heat removal requirements. Other strategies include using interior light shelves coupled with bright ceiling tiles to bounce daylight deep into the building's core. Care should be taken to understand the constitution of the building's glass skin as solar heat gain, winter heat loss, and glare may become negative aspects.

Value is ascribed differently based on building orientation, height and type of views with a higher value placed on buildings that have greater perimeter areas with unobstructed views (as opposed to alleys or obstructed views) and the building's overall layout. Value and associated positive revenue impacts are defined by:

- Increased access to daylight and resultant occupant satisfaction
- Increased tenant views
- Increased likelihood of tenant retention
- Potential for reduced energy costs depending on overall systems

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

12.2 OTHER CONSIDERATIONS – GREEN STRATEGIES

Discussion

Two particular green strategies that play a part in achieving specific LEED points not previously discussed may also play into the Proforma Revenue equation. These are listed by feature definition with the applicable LEED point denoted.

Further, certain LEED points have a positive overall value impact that cannot be readily associated with a Revenue or Expense line item as they positively affect all line items.

While these attributes are listed on the following pages, it should be noted this list is not all-encompassing.

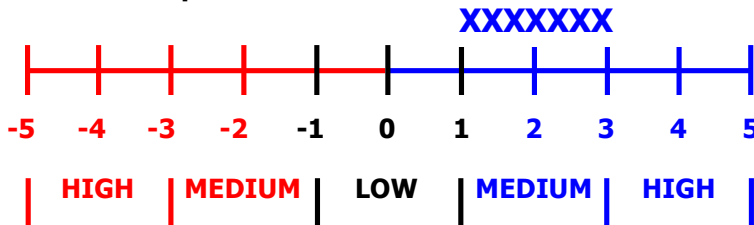
12.2.1 Green Roof

Two LEED Points SS7.2 Heat Island – Roof
 SS6.1 Stormwater Management

Positive revenue value should be ascribed to a green roof that is a habitable tenant amenity. Green roofs used as a tenant amenity allow occupants to access and enjoy the roof garden for fresh air, informal meetings, lunch, corporate entertainment functions, or other activities. Additional value should be ascribed to roof gardens that allow for a significant view (park/river overlook, landmark, etc.).

To the extent this amenity is provided as access to one or more specific tenants, higher asset value should be attributed to this amenity. This may result in either a higher base revenue or as additional revenue within ARGUS under the "Miscellaneous Revenue" section.

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

LEED CERTIFICATION WAIVER

For this particular criteria, LEED certification is not required. Onsite visual inspection and/or analysis of a green roof installation covering 66% or greater of the roof deck is sufficient.

For a non-LEED certified asset, a third-party accredited environmental professional (including a LEED AP) or appropriate real estate professional may attest to these criteria and provide an appropriate value score.

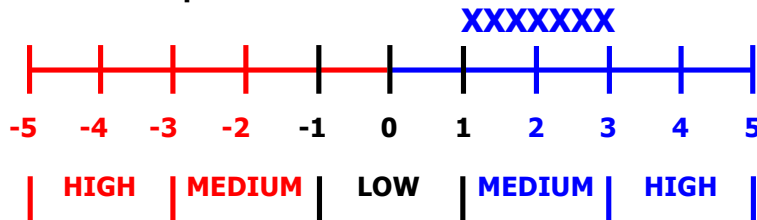
12.2.2 Under-Floor Air Distribution

Two LEED Points EQ-6 Controllability of Systems
EQ-7 Thermal Comfort

Positive revenue value should be ascribed to buildings employing under floor air distribution for the following reasons:

- Reduced configuration costs (churn costs) due to cabling and electrical access and flexibility, as well as easier tenant removal costs and fire code compliance upon lease termination.
- Increased tenant satisfaction due to the ability to control temperature in specific offices and/or workstations.
- Advantageous tax treatment as under floor air systems along with the carpet tile and various partitions are treated as a building feature depreciable on a faster depreciation rate schedule as opposed to the current 39½ year schedule.

Relative Impact – Revenue



Underwriting Documentation

- Analysis / confirmation that the asset includes this feature.

LEED CERTIFICATION WAIVER

For this particular criteria, LEED certification is not required. Onsite visual inspection and/or analysis of under floor air distribution throughout the entire building in lieu of overhead HVAC is sufficient. A review of the LEED scorecard confirming the asset attained LEED-NC EQ-6 and LEED-NC EQ-7 can serve as a guide to determining the range of value to apply.

For a non-LEED certified asset, a third-party accredited environmental professional (including a LEED AP) or appropriate real estate professional may attest to these criteria and provide an appropriate value score.

12.2.3 Integrative Process (IP)
One LEED Innovation Point – ID-2 Innovation in Design
Climate Neutral § 4.k – ANSI IP Standard 2.0

Description

Integrative Process (IP) is a discovery process that seeks to optimize all building elements and their interrelationships in the service of efficient, resource effective use. IP is the most valuable and aspect of achieving green-based design, construction and operational goals.

IP brings together all key project team professionals at the start of the process. There is heightened awareness that the design process itself determines the success and cost effectiveness of implementing and achieving green building outcomes. Success in implementing an integrative and collaborative design approach largely determines the final value of a project on energy and water efficiency, operational efficiency, and overall market appeal.

Failure to use integrated design can lead to the following:

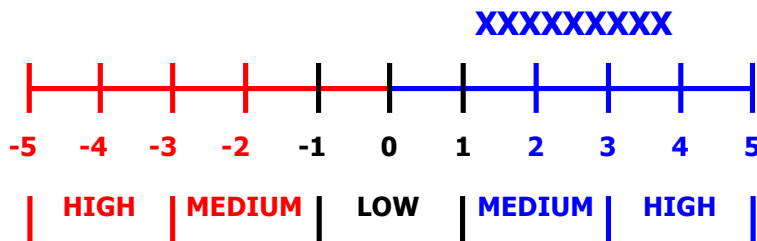
- Lack of clear and shared understanding of project design and ongoing operational financial goals during conceptual and schematic design.
- Suboptimal design team communication leading to increased likelihood of to errors and omissions, and assumptions that result in system over-sizing, redundancy, and/or disconnects in knowledge and performance affecting ongoing asset operations.

Following the IP ANSI 2.0 Standard impacts the asset’s overall value on both ProForma Revenue and ProForma Expense as it affects the ability to achieve a measurably higher LEED rating, and impacts ongoing operational efficiency. For these reasons, Fireman’s Fund published an IP Risk Reduction Statement. The IP 2.0 ANSI Standard is available at the ANSI Webstore:

<http://webstore.ansi.org/FindStandards.aspx?Action=displaydept&DeptID=3144>

For construction loans, an integrated design approach can have a positive impact on cost overruns, change order reduction, delays and other financial factors that impact budgeted line items and contingency reserves; conversely, not following IP usually has a negative financial impact. Underwriters should use professional judgment accordingly when accounting for this value.¹²

Relative Impact – Overall Value



¹² Fireman’s Fund Insurance Co. issued a September 2008 statement indicating that adherence to the IP ANSI Standard can significantly reduce potential liability to both the owner and design professionals.

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this specific innovation credit.

12.3 SUMMARY – LEED-NC PROFORMA REVENUE CONSIDERATIONS

A review of the Proforma Revenue inputs impacted is as follows:

1. Market Rent adjustments that impact overall Gross Potential Income

- Specific occupancy areas (floor height and views, floor layout, etc)
- Energy/water efficiency strategies employed that reduce overall occupancy cost
- Reduced risk factored into overall occupancy cost (business interruption, insurance, etc.)
- Neighborhood amenities, mass-transit connectivity, and reduced commutes
- Higher indoor air and indoor environmental quality
- Initial lease concessions/free rent (Base Rent abatements)

2. Vacancy Absorption

- Date of rent start
- Stabilized General Vacancy (% of Gross Potential Income and expense recoveries)
- Collection / credit loss (% of Gross Potential Income and expense recoveries)
- Time vacant before re-lease absorption

3. Lease Term

- Term of new leases (# years)
- Renewal probability
- Renewal rate

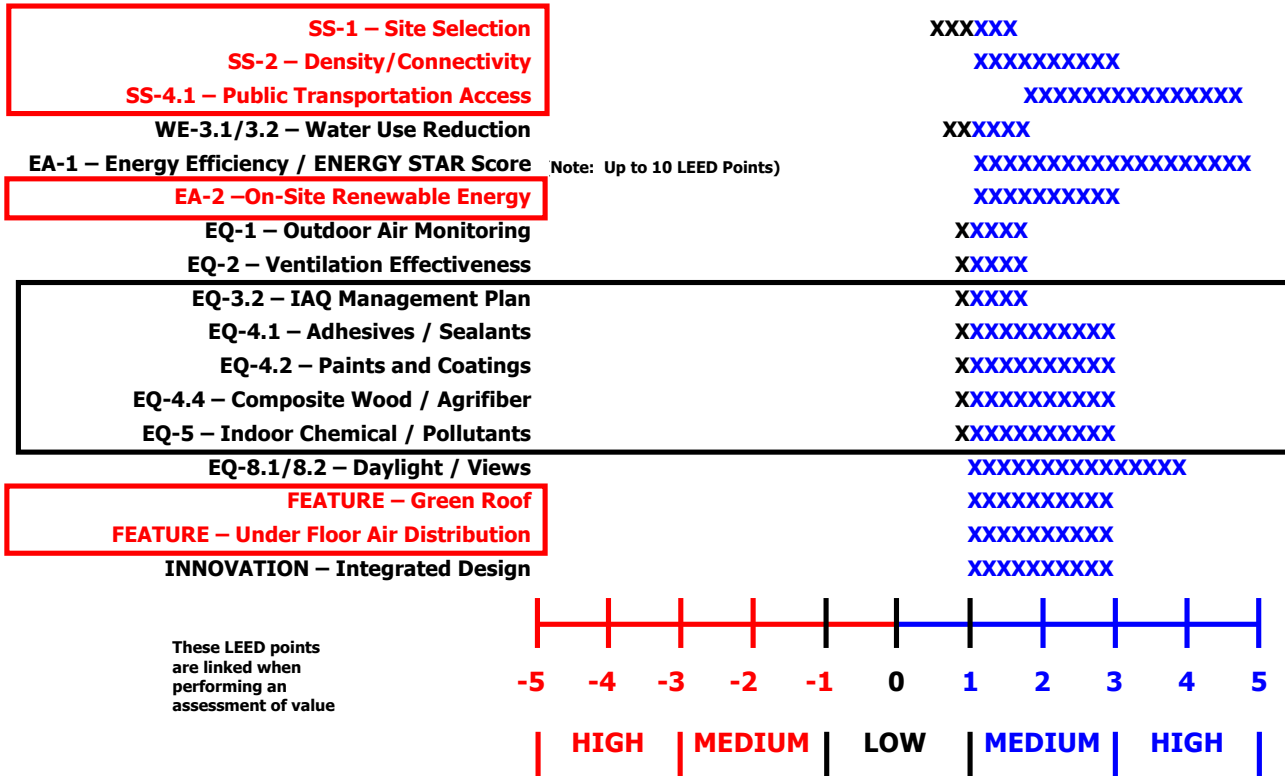
4. Miscellaneous Rental Revenue

- Parking
- Retail percentage rent
- CPI adjustments, rent bumps, utility/other cost escalations
- Base year expense stops and expense pass-through amounts
- Building naming rights

NOTE: CRITERIA IN RED WITHIN THE CHART BELOW DO NOT REQUIRE LEED CERTIFICATION TO ACHIEVE A SCORE ON THE "CMP GREEN VALUE SCORE" SCALE.

SEE SPECIFIC CRITERIA DISCUSSION PAGES.

Asset Attribute Value Analysis Summary



13.0 EXPENSE ASSUMPTIONS – PROFORMA INPUTS

In conjunction with areas outlined in Section 12.0 Proforma Revenue Inputs, this Standard addresses areas of value that positively impact an asset's Proforma Expense profile when compared to a 'market' peer group. Fully accounting for these attributes is a critical factor in providing greater insight into an asset's operating and risk profile.

As example, a multi-tenant office building asset that has attained a high ENERGY STAR score of 77 and/or five LEED-NC EA-1 credits for energy efficiency should be underwritten at the appropriate utility cost reduction level which can be approximated at 30% below comparative non-green buildings in that asset's market. An underwriter relying on information sources such as the BOMA Experience and Exchange Report which shows a median utility cost of \$2.00 per square foot for the asset's market should underwrite this particular asset at \$1.40 per square foot [(1-30% * \$2.00)] for the base year in question. Further reductions can be incorporated based on any onsite energy generation capacity such as solar, wind, hot and cold geothermal, etc.

It is important to understand the lease structure so as to not double-count energy and water savings in both the Proforma Revenue / Expense sections. As a general rule, assets with a Full Service lease structure should account for energy savings in the Proforma Expense section while assets with a NNN (Triple Net) lease structure can expect a revenue advantage based on the tenant's total occupancy cost profile, hence account for utility savings in Proforma Revenue.

To re-emphasize an earlier point discussed in Section 12.0, an important outcome is to provide an accurate profile of an asset's value under the "mark-to-market" underwriting scenario. Current underwriting practices may penalize buildings that achieve LEED®, ENERGY STAR and Climate Neutral Certification by negatively associating these high-performance green buildings with a market peer group that have not achieved a third-party certification.

The transparency resulting from achieving key aspects of these certification standards provides underwriters a deeper understanding of important expense-based aspects related to energy and water efficiency as well as ongoing operational benefits stemming from the building commissioning process. Factoring these and other issues into determining the 'market' peer group in assessing comparative value is a critical underwriting component.

Real estate acquisition, finance, and appraisal professionals should incorporate relevant risk-based impacts within their Proforma Expense assumptions at asset underwriting during the construction and ongoing asset operation periods.

Among the Proforma Expense inputs potentially impacted are:

- Payroll and Administrative
- Utilities – Electricity and Water
- Contracts – Janitorial / Security
- Repairs and Maintenance
- Landscaping
- Trash Removal
- Insurance
- Real Estate Tax
- Non-Operating Expense
- Reserve For Replacement
- Marketing and Public Relations

Each of these line items is briefly discussed on the following page. Specific areas within the LEED®, ENERGY STAR and Climate Neutral standards directly applicable to these Proforma Expense areas are detailed in Section 14.0.

Payroll and Administrative

- Adjustments may be made for staff level reductions resulting from automated operating systems.
- Commissioning can have a significant impact on staff resources dedicated to operations, troubleshooting, and corrective action; a review of the commissioning report is advised.

Utilities – Electricity and Water

- Energy and water use efficiencies and associated cost reductions are a significant component of LEED®; it is the sole component of the EPA's ENERGY STAR and WaterSense programs. Energy reduction issues are a primary focus of Section 14.0. Further positive operating expense impacts result from a thorough commissioning report; a review of the commissioning report is advised.

Contracts – Janitorial / Security

- Certain green cleaning strategies may result in reduced rates for cleaning contracts, particularly in assets that conduct cleaning during business hours. This policy has a positive effect on a building's energy use profile through the reduced amount of electricity needed for evening lighting. Underwriters should understand the specific cleaning and contractual arrangements.

Repairs and Maintenance

- A commissioned building may have less need for ongoing system repair, operations troubleshooting and corrective action.
- Buildings with green roofs may experience an increase in maintenance costs due to the need for ongoing plant maintenance, weeding, replacement, etc.

Insurance

- Select insurance carriers offer a discounted rate for certified green buildings.

Real Estate Tax

- Municipalities may offer property tax incentives to owners of certified green buildings. Underwriters should be aware of any tax implications regarding a specific asset as it pertains to the LEED® and ENERGY STAR certifications.

Non-Operating Expense

- This catch-all expense line item isn't likely to be impacted by green-based efficiency standards. Underwriters should use professional judgment as to any impact to this expense line item.

Management Fee

- Because this line item is generally based on a percentage of Effective Gross Income or other revenue-based metric, underwriters should anticipate no change in this area.

Replacement Reserves

- Replacement reserves are set-aside funds for unexpected capital costs. A recently commissioned building may require less reserves. A review of the commissioning report is advised.

Landscaping

- Landscape maintenance costs should be reduced for assets that implement xeriscape landscaping strategies and/or achieve LEED-WE 1.1 for water efficient landscaping.

Marketing and Public Relations

- There are significant marketing and public relations benefits associated with the achievement of the LEED®, ENERGY STAR and Carbon Neutral standards which can positively impact an asset's ongoing marketing budget. While these benefits will not replace 100% of the expense incurred by a traditional marketing and public relations program, underwriters should acknowledge these benefits either through a percentage expense reduction when compared to a non-green 'market' property or allow for this benefit when making assumptions on the amount of time vacant prior to lease-up.

13.1 LEED-NC PROFORMA EXPENSE ADJUSTMENTS

13.1.1 Stormwater Management: Rate/Quantity – LEED Sustainable Sites SS-6.1

Description

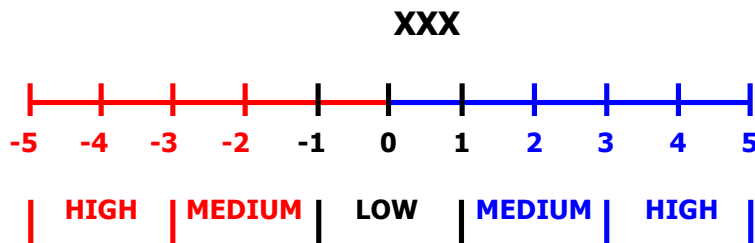
Stormwater management limits the amount of stormwater discharged into municipal sewers and treatment plants by either maintaining stormwater onsite or allowing stormwater to naturally dissipate.

Underwriters should look for asset-level strategies employed that capture and re-use stormwater in either greywater plumbing systems, cooling towers, or landscape irrigation. Existence of these systems will lead to a reduction in overall water use positively impacting utility bills. Further, certain municipalities may provide asset-based incentives or tax reductions for implementing strategies that result in lower treatment facility demands.

Value and associated positive expense impacts are defined by:

- Decreased sewer costs

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Sewer
- Real Estate Taxes (potential)

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

13.1.2 Heat Island Effect: Roof – LEED Sustainable Sites SS-7.2

Description

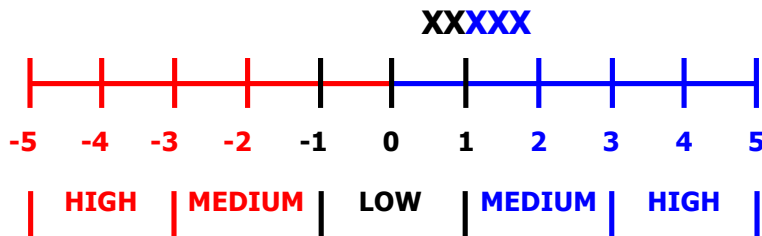
Reducing the heat island effect decreases the thermal gradient between developed and undeveloped areas, thus reducing the heat on the building's roof. The byproduct of this is to 1) reduce the amount of heat that may penetrate the building, 2) reduce the heat in and around any penthouse-based mechanical equipment, and 3) reduce the overall degradation of the roof membrane.

Heat island reduction measures undertaken at the roof level can result in positive impacts on operational costs, equipment life, and roof life which are reflected in lowering ongoing utility costs, reducing maintenance costs including equipment repair and time costs, and increasing equipment replacement cycles.

Value and associated positive expense impacts are defined by:

- Decreased energy operating costs
- Reduced maintenance costs
- Reduced unexpected repairs and equipment downtime
- Reduced capital outlays for repairs
- Increased equipment life
- Increased roof life

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Electricity
- Repairs and Maintenance
- Insurance
- Replacement Reserves

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

13.1.3 Water Efficient Landscaping – LEED Water Efficiency WE-1.1/1.2

Description

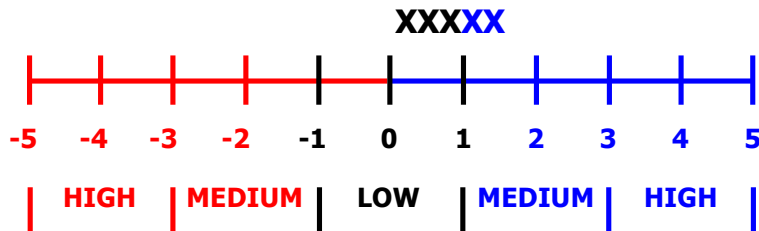
Assets that utilize water efficient landscaping will experience lower water utility costs through the reduction or elimination of potable water requirements as well as the potential for reduced ongoing landscaping maintenance costs.

Strategies employed include high-efficiency irrigation technologies, the use of captured and stored rainwater, the use of drought resistant plantings, and/or the use of treated and recycled water from the site.

Value and associated positive expense impacts are defined by:

- Reduced water costs
- Reduced landscape maintenance costs

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Water
- Landscape Maintenance

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit.

13.1.4 Water Efficiency – LEED WE-3.1 20% Water Use Reduction Water Efficiency – LEED WE-3.2 30% Water Use Reduction

Description

Assets that reduce water use will experience lower water utility costs and sewer charges through the reduction or elimination of potable water requirements in ongoing operations.

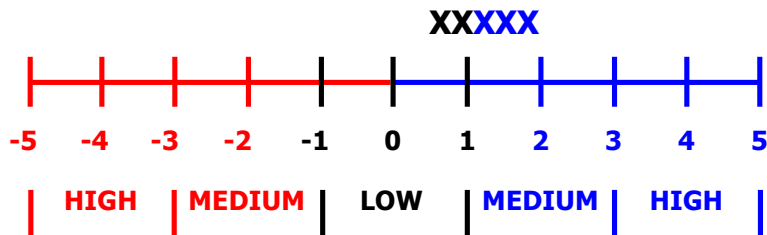
Strategies employed include low flow faucets, dual flush toilets, greywater recycling, and onsite treatment among others.

Note that this credit point was discussed in the ProForma Revenue section and should not be double-counted. The impact range is a result of the variation of water costs by locality; adjustments should be made based on current and future estimates of price and scarcity issues.

Value and associated positive expense impacts are defined by:

- Reduced water costs
- Reduced sewer costs

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Water
- Utilities – Sewer

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes these credits.

13.1.5 Commissioning – LEED Energy and Atmosphere Prerequisite

Description

Building commissioning is the systematic process of ensuring that a building's complex array of systems is designed, installed, and tested to perform according to the design intent and the building owner's operational needs. The commissioning of new buildings is most effective when considered throughout the planning stages and as early as schematic design.

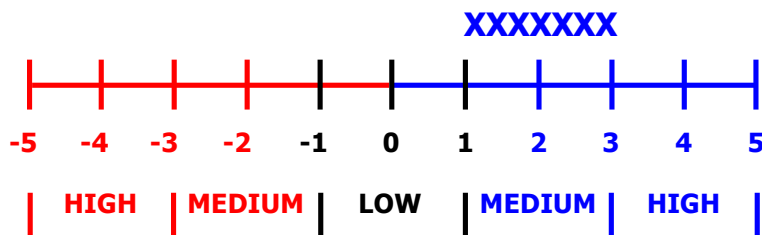
The primary value is to identify and correct major system flaws during the design and construction phase. Additional value is gained through ongoing system commissioning at regular intervals, in particular at the time of major lease rollovers or space re-purposing.

Commissioning can result in significantly improving overall building energy performance, streamlining maintenance, and preventing system failures that result in unanticipated capital expenditures.

Value and associated positive expense impacts are defined by:

- Decreased energy and water operating costs
- Building system failure prevention
- Reduced capital outlays for repairs
- Reduced hot/cold tenant calls and associated maintenance time and expense

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Electricity
- Utilities – Water
- Repairs and Maintenance
- Payroll and Administrative
- Insurance
- Replacement Reserves

Underwriting Documentation

- Review of the completed commissioning report.

13.1.6 Energy Efficiency – LEED Energy and Atmosphere EA-1 (1-10 points)
ENERGY STAR Certification (see 13.1.61)
Climate Neutral Certification (see 13.1.62)

Description

There are ten (10) available LEED credits for this attribute. Building owners achieving one or more of the LEED EA-1 point credits have invested capital in aspects of building envelope insulation, lighting strategies, and/or HVAC systems that reduce an asset’s overall energy use and expense profile. These investments reduce risk through lower current energy consumption and associated costs, and reduced exposure to future energy cost increases and price volatility. Energy efficient buildings maintain a reduced operating cost profile and less exposure to future energy price increases and/or volatility.

Assets that fail to achieve certification for energy efficiency attributes will experience higher operating expenses, an overall higher total cost of occupancy, and a higher risk profile.

Since for existing buildings the ASTM Building Environmental Assessment Standard (BEPA) is at least equivalent to ENERGY STAR, two points are available for a completed BEPA assessment for the building as specifically explained in the legally binding certification to this Standard by the qualified environmental professional. BEPA is available from ASTM:

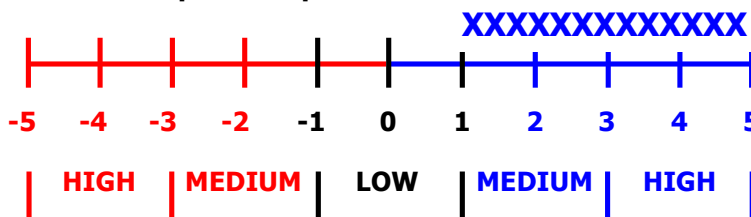
<http://www.astm.org/Standards/E2797.htm>

Note that energy efficiency was discussed in the Proforma Revenue section and should not be double counted within the underwriting analysis.

Value and associated positive revenue impacts are defined by:

- Reduced energy costs
- Reduced owner, lender, and/or tenant financial exposure to future energy price volatility and/or increases

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – All

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes these credits.
- Review of design-phase building energy modeling documentation.

**GREEN BUILDING UNDERWRITING
STANDARD POINT SCALE**

2 LEED Credits =	1 point
3-4 LEED Credits =	2 points
5-6 LEED Credits =	3 points
7-8 LEED Credits =	4 points
9-10 LEED Credits =	5 points

NOTE: Utilize the asset’s ENERGY STAR score as a cross-check verification method when awarding these points.

- Analysis of trailing one-year or two-year aggregate energy consumption data (if available).
- Analysis of the ENERGY STAR score with a higher score equating to a higher positive adjustment.
- Climate Neutral Certification documenting either an ENERGY STAR rating of 60 or higher, or the alternate calculation method in the LEED-EB Reference Guide EA Prerequisite 2.

13.1.61 ENERGY STAR Score – EPA ENERGY STAR Portfolio Manager

Description

All eligible commercial buildings should benchmark their energy use with an ENERGY STAR score using either Portfolio Manager or TargetFinder. Assets with an ENERGY STAR score 75 or higher on the ENERGY STAR Portfolio Manager tool are among the top 25% of buildings for energy performance compared to the ENERGY STAR database and eligible for official ENERGY STAR certification and recognition. ENERGY STAR certified buildings use approximately 35% less energy than median score buildings. Buildings with ENERGY STAR scores in the 90’s use 50% less energy than median scoring buildings.

It is relatively easy to acquire an ENERGY STAR Score by using the EPA ENERGY STAR internet tools. Existing buildings with 12 months of historical utility consumption data can use the ENERGY STAR Portfolio Manager tool while newly constructed buildings can use the ENERGY STAR Target Finder tool.

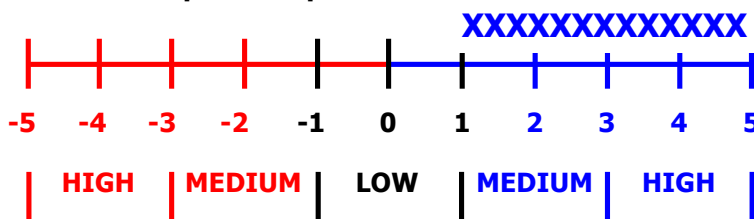
Underwriters should require documentation of the asset’s ENERGY STAR score and factor this score into the building’s energy cost profile during underwriting. Buildings with scores above the ENERGY STAR median of 50 should receive underwriting credit on energy costs when compared to ‘market’ assets.

Assets that fail to achieve certification for energy efficient attributes will experience higher operating expenses negatively impacting the tenant’s total cost of occupancy that should hinder the asset’s market competitiveness at time of leasing or releasing.

Note that energy efficiency was discussed in the Proforma Revenue section and should not be double counted within the underwriting analysis. Value and associated positive revenue impacts are defined by:

- Reduced energy costs
- Reduced owner, lender, and/or tenant financial exposure to future energy price volatility and/or increases

Relative Impact – Expense



**GREEN BUILDING UNDERWRITING
STANDARD POINT SCALE**

**ENERGY STAR SCORE
CONVERSION**

ENERGY STAR Score 50-59 = 1
 ENERGY STAR Score 60-69 = 2
 ENERGY STAR Score 70-79 = 3
 ENERGY STAR Score 80-89 = 4
 ENERGY STAR Score 90 + = 5

Expense Line Items Impacted

- Utilities – All

Underwriting Documentation

- Mandatory documentation of the asset’s ENERGY STAR score from Portfolio Manager or Target Finder.

**13.1.7 On-Site Renewable Energy – LEED Energy and Atmosphere EA-2 (1-3 points)
 Onsite Green-e Power – Climate Neutral**

Description

Successful achievement of the LEED EA-2 credit and/or Green-e renewable power in Climate Neutral Buildings requires buildings to implement onsite renewable energy generation including solar, wind, hot and cold geothermal, low-impact hydro, biomass and bio-gas strategies.

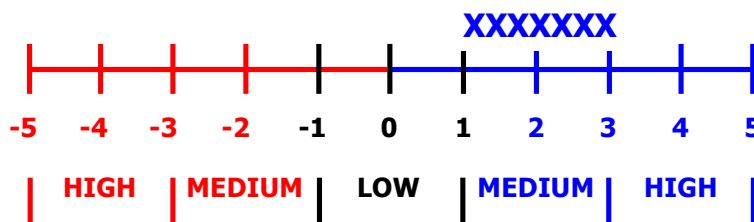
Benefits of onsite energy generation capabilities include reducing the asset’s peak load profile which is used to determine the overall utility rate, as well as reducing the asset’s overall usage amount. For most commercial real estate, and especially office buildings, a building's daily load profile is a bell-curve, with the bulk of the energy being used during mid-day when energy costs are higher and a significantly reduced energy profile at night. Assets with a load profile as close to a straight line as possible qualify for prime electricity rates.

Onsite energy production reduces the owners and tenant’s exposure to future energy price volatility thereby smoothing out operating cost fluctuations which result in a more steady NOI and DSCR profile and lowered risk of credit default on debt obligations.

Value and associated positive expense impacts are defined by:

- Reduced peak rate energy charges
- Reduced annual energy costs – rate and amount
- Reduced exposure to future utility cost price volatility

Relative Impact – Expense



**GREEN BUILDING UNDERWRITING
 STANDARD POINT SCALE**

**ONSITE GREEN POWER
 CONVERSION**

1-10% onsite power = 1
 10-25% onsite power = 2
 >25% onsite power = 3

Expense Line Items Impacted

- Utilities – Electricity

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit
- Confirmation systems are working as specified.
- Climate Neutral Certification showing onsite Green-e Power generation equal to 3% or greater of total consumption.

13.1.8 Enhanced Commissioning – LEED Energy and Atmosphere EA-3

Description

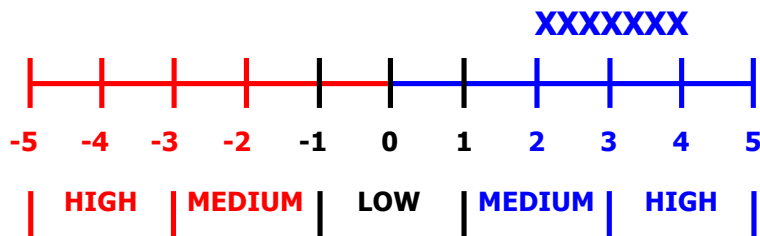
Enhanced commissioning goes further and deeper than standard commissioning during the design and construction stage to verify that fundamental building systems and assemblies are designed, installed and working as intended. The primary value is to identify and correct major system flaws during the design and construction phase. Additional value is gained through the creation of a detailed operational manual and laying the groundwork for ongoing system commissioning at regular intervals, of particular importance at the time of major lease rollovers or space re-purposing.

Commissioning can result in significantly improving building energy and water performance, streamlining maintenance, and preventing system failures that result in unanticipated capital expenditures.

Value and associated positive expense impacts are defined by:

- Decreased energy and water operating costs
- Preventing building system failures
- Reduced capital outlays for repairs
- Reduced hot/cold tenant calls and associated maintenance expense

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Electricity
- Utilities – Water
- Repairs and Maintenance
- Payroll and Administrative
- Insurance
- Replacement Reserves

Underwriting Documentation

- Analysis / confirmation of LEED certification that includes this credit

13.1.9 Measurement and Verification – LEED Energy and Atmosphere EA-5

Description

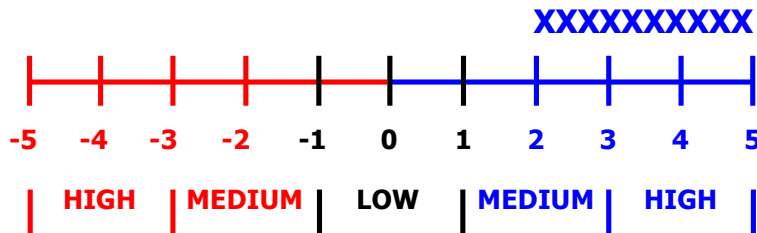
Measurement and verification provides ongoing accountability and optimization of building energy and water consumption over time. This is typically accomplished by installing continuous metering and control equipment for lighting, HVAC motors, chiller/boiler efficiency and loads, air distribution, water, and other mechanical systems.

Measurement and verification is important to improving an asset's energy performance, implementing preventative maintenance, identifying mechanical problems and/or failures that lead to significant energy loss at an early stage, and otherwise preventing system failures that result in unanticipated capital expenditures.

Value and associated positive expense impacts are defined by:

- Decreased energy and water operating costs
- Preventing building system failures
- Reduced capital outlays for repairs
- Reduced hot/cold tenant calls and associated maintenance expense

Relative Impact – Expense



Expense Line Items Impacted

- Utilities – Electricity
- Utilities – Water
- Repairs and Maintenance
- Payroll and Administrative
- Insurance
- Replacement Reserves

Underwriting Documentation

- Review of the completed commissioning report.
- Review of the completed Measurement and Verification plan and confirmation that it follows the *International Performance Measurement and Verification Protocol – Volume I*.

13.1.10 Recycling – LEED Materials and Resources Prerequisite

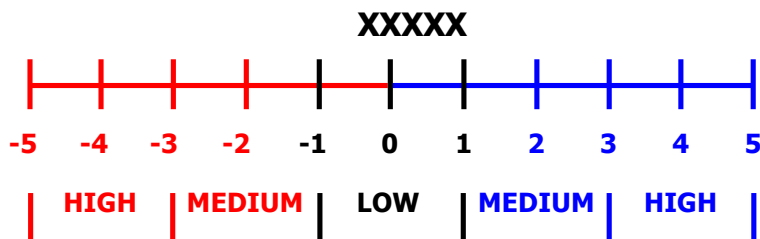
Description

Recycling is a LEED prerequisite – to the extent an asset has achieved LEED certification, it is certain there will be a recycling program for, paper, cardboard, glass, plastic, and metal. Additional recycling may exist for LED light bulbs, batteries, and used electronic equipment.

Value and associated positive/negative expense impacts are defined by:

- Decreased non-recyclable trash volumes resulting in less frequent dumpster pulls and associated trash removal costs.
- Increased revenue potential from various recycling items depending on specific market conditions.
- Increased potential expense costs associated with recycling certain items including LED light bulbs, batteries, and used electronic equipment.

Relative Impact – Expense



Expense Line Items Impacted

- Trash Collection

Underwriting Documentation

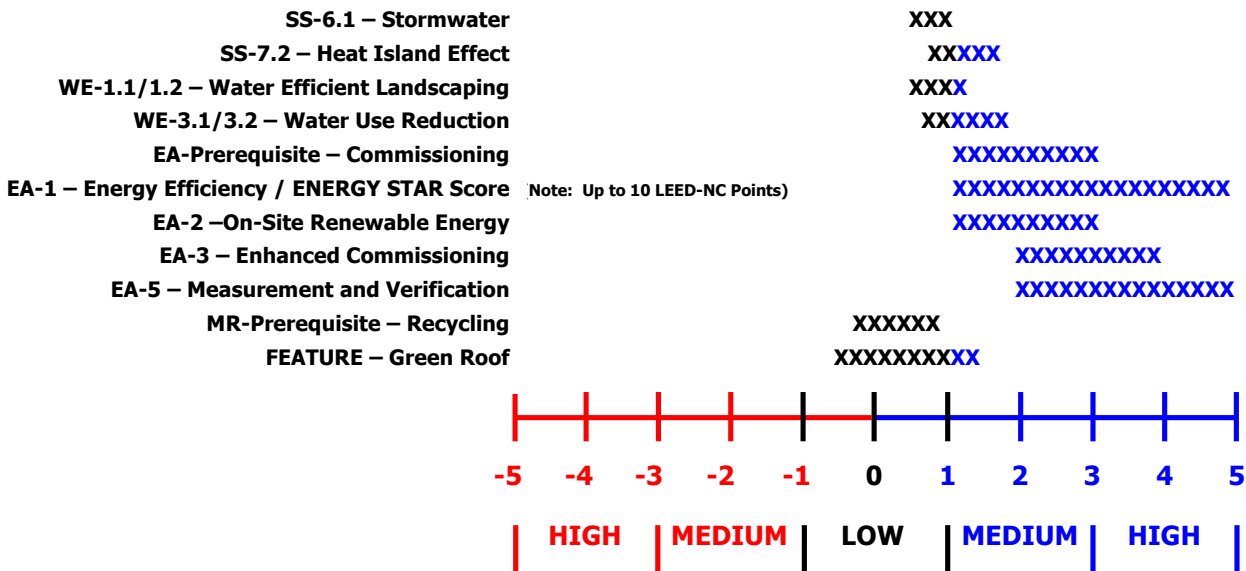
- None – Prerequisite will be in place as long as the building has achieved LEED certification at any level.

13.2 SUMMARY – PROFORMA EXPENSE CONSIDERATIONS

A review of the Proforma Expense areas impacted is as follows:

- Payroll and Administrative
- Utilities – Electricity and Water
- Contracts - Janitorial / Security
- Repairs and Maintenance
- Landscaping
- Trash Removal
- Insurance
- Real Estate Tax
- Non Operating Expense
- Management Fee
- Reserves
- Marketing and Public Relations

Asset Expense Analysis Summary



14.0 SUMMARY – ALL PROFORMA CONSIDERATIONS

The following is a summary of all Proforma considerations outlined within this standard for appropriately valuing buildings certified to the LEED®, ENERGY STAR and Climate Neutral industry standards when compared to buildings that are not certified to these industry standards.

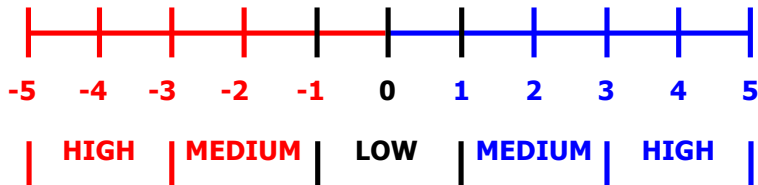
INCOME ANALYSIS SUMMARY

SS-1 – Site Selection	XXXXXX
SS-2 – Density/Connectivity	XXXXXXXXXX
SS-4.1 – Public Transportation Access	XXXXXXXXXXXXXXXXXX
WE-3.1/3.2 – Water Use Reduction	XXXXXX
EA-1 – Energy Efficiency / ENERGY STAR Score <small>Note: Up to 10 LEED Points)</small>	XXXXXXXXXXXXXXXXXXXXXX
EA-2 – On-Site Renewable Energy	XXXXXXXXXX
EQ-1 – Outdoor Air Monitoring	XXXXX
EQ-2 – Ventilation Effectiveness	XXXXX
EQ-3.2 – IAQ Management Plan	XXXXX
EQ-4.1 – Adhesives / Sealants	XXXXXXXXXXXX
EQ-4.2 – Paints and Coatings	XXXXXXXXXXXX
EQ-4.4 – Composite Wood / Agrifiber	XXXXXXXXXXXX
EQ-5 – Indoor Chemical / Pollutants	XXXXXXXXXXXX
EQ-8.1/8.2 – Daylight / Views	XXXXXXXXXXXXXXXXXX
FEATURE – Green Roof	XXXXXXXXXX
FEATURE – Under Floor Air Distribution	XXXXXXXXXX
INNOVATION – Integrated Design	XXXXXXXXXX

EXPENSE ANALYSIS SUMMARY

SS-6.1 – Stormwater	XXX
SS-7.2 – Heat Island Effect	XXXX
WE-1.1/1.2 – Water Efficient Landscaping	XXXX
EA-Prerequisite – Commissioning	XXXXXXXXXX
WE-3.1/3.2 – Water Use Reduction	XXXXXX
EA-1 – Energy Efficiency / ENERGY STAR Score <small>Note: Up to 10 LEED-NC Points)</small>	XXXXXXXXXXXXXXXXXXXXXX
EA-2 – On-Site Renewable Energy	XXXXXXXXXX
EA-3 – Enhanced Commissioning	XXXXXXXXXXXX
EA-5 – Measurement and Verification	XXXXXXXXXXXXXXXXXX
MR-Prerequisite – Recycling	XXXXXX
FEATURE – Green Roof	XXXXXXXXXXXX

Note: DO NOT DOUBLE COUNT THESE AREAS



15.0 APPLYING THE GREEN BUILDING UNDERWRITING STANDARD TO THE ARGUS SOFTWARE PROFORMA FOR A SPECIFIC LEED® RATED ASSET

Beyond deriving the Capital Market Partnership Green Value Score for the purposes of risk analysis and reporting, this scoring tool can be utilized as an overlay to normal real estate loan underwriting and decision making.

Users of this Standard can associate appropriate LEED® points, an asset's ENERGYSTAR score, and Climate Neutral aspects to areas within ARGUS and/or other proforma-based spreadsheet analysis tools that seek to determine real estate value.

ARGUS is the industry standard financial software suite used by over 8,000 of the industry's leading commercial real estate firms including owners, managers, financial institutions, appraisers, brokerages, REITs, and others concerned with asset valuation and financing. ARGUS's software suite plays a critical role in the financial aspects of the commercial real estate industry and includes modules for property management, asset valuation, portfolio management, budgeting, forecasting, reporting and lease management. More information can be found via the internet at ArgusSoftware.com.

Risk-based measures attributed to green buildings can be broken into categories as follows:

1. Revenue and Overall Cash Flow

- Asset desirability on lease-up / turnover relative to market
- Ability to achieve top-of-market rents relative to market
- Ability to attract high-credit tenants relative to market
- Length of time an asset can maintain a market position of "Class A" / "Super Class A"
- Risk probability of tenant default

2. Rent Growth, Occupancy Rate, and Ongoing Investment Cost Containment

- Decreased obsolescence risk relative to market
- Competitive stance in comparison to surrounding buildings over time
- Tenant renewal probability, downtime costs, and additional TI costs at lease turnover
- Exposure to future asset and/or operational retrofit costs

3. Asset Operating Expense Efficiency and Cost Escalation Containment

- Comprehensive operating procedures and operational checks via building commissioning
- Utility cost reduction strategies and efficiencies through asset design and technology
- Efficient systems that reduce financial exposure to utility cost escalation / price volatility
- Reduction in HVAC / lighting system maintenance and repair
- System longevity through ongoing commissioning and preventative maintenance
- Ability to qualify for insurance discounts

4. Depreciation and Obsolescence

- Cost segregation analysis and associated tax advantages (building fixtures vs. features)
- Asset competitiveness in macro/micro markets at future sale date
- Cap rate bonus / discount application at asset sale
- Positive value adjustments vs. market 'comparable' properties during underwriting

5. Risk Profile

- Reduced liability and business interruption exposure to indoor air quality ("IAQ") problems
- Reduced liability and business interruption exposure from mold reduction strategies
- Reduced financial exposure to climate change regulatory changes
- Lower default risk stemming from increased revenue potential, reduced operating expenses, exposure to energy price volatility, and base risk exposure from IAQ and mold

6. Overall Factor Analysis

- Corresponding adjustments to the discount rate and terminal capitalization rate for green-certified assets when compared to non-certified assets

Proforma Considerations – Revenue and Expense

A review of the revenue-based inputs within ARGUS that can be positively impacted relative to the asset's non-green market peer group is as follows:

1. Market Rent / Gross Potential Income

- Energy and water efficiency strategies employed as compared to market peers that reduce a tenant's overall occupancy cost
- Reduced business risks that can factor into overall occupancy cost (business interruption, insurance rates, grid brownouts, etc.)
- Neighborhood amenities, mass-transit connectivity, and reduced commutes
- Impacts from higher indoor air and indoor environmental quality
- Specific aspects of occupancy areas (floor height and views, floor layout, etc)
- Specific uses (1st floor retail, office, specialty, storage, etc.)
- Asset competitive profile and market position attributed to intangible goodwill

2. Vacancy Absorption

- Time on markets and date of rent start
- Time vacant before re-lease absorption
- Stabilized General Vacancy (% of Potential Income and expense recoveries)
- Collection (credit) loss (% of Potential Income and expense recoveries)

3. Lease Term

- Term of new leases (# years)
- Renewal probability
- Renewal rate

4. Miscellaneous Rental Revenue

- Parking
- Retail percentage rent
- CPI adjustments, rent bumps, utility/other cost escalations
- Base year expense stops and expense pass-through amounts
- Building naming rights

Among the expense-based inputs potentially impacted within ARGUS are:

- Payroll and Administrative
- Utilities – Electricity and Water
- Contracts – Janitorial / Security
- Repairs and Maintenance
- Landscaping
- Trash Removal
- Insurance
- Real Estate Tax
- Non-Operating Expense
- Reserve For Replacement
- Marketing and Public Relations

Based on the lease structure, one way this Standard and the scoring system can be applied to the Revenue and Expense components of the asset Proforma is as follows:

NNN Lease							
PERFORMANCE ANALYSIS – GREEN BUILDING UNDERWRITING STANDARD	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
REVENUE							
Site Selection (LEED SS-1)	x		0	1	1	1	1
Density/Connectivity (LEED SS-2)	x		1	3	3	3	9
Public Transportation Access (LEED SS-4.1)	x		2	5	5	3	15
Water Use Reduction (LEED WE-3.1/3.2)	x		0	2	2	2	4
Energy Efficiency (LEED EA-1 @ 1-10 Points)	x		1	5	5	3	15
On-Site Renewable Energy (LEED EA-2)	x		1	3	3	3	9
Outdoor Air Monitoring (LEED EQ-1)	x		0	2	2	0.5	1
Ventilation Effectiveness (LEED EQ-2)	x		0	2	2	0.5	1
IAQ Management Plan (LEED EQ-3.2)	x		1	3	3	1	3
Adhesives / Sealants (LEED EQ-4.1)	x		1	3	3	0.5	1.5
Paints and Coatings (LEED EQ-4.2)	x		1	3	3	0.5	1.5
Composite Wood / Agrifiber (LEED EQ-4.4)	x		1	3	3	0.5	1.5
Indoor Chemical / Pollutants (LEED EQ-5)	x		1	3	3	0.5	1.5
Daylight / Views (LEED EQ-8.1/8.2)	x		1	4	4	2	8
Green Roof (FEATURE)	x		1	4	4	1	4
Under Floor Air Distribution (FEATURE)	x		1	4	4	1	4
Integrated Design (LEED Innovation)	x		1	4	4	1	4
TOTAL REVENUE POINTS							84
% of Maximum Allowable	84 points maximum						100.0%
EXPENSE							
Stormwater (LEED SS-6.1)	x		0	1	1	0.5	0.5
Heat Island Effect (LEED SS-7.2)	x		0	2	2	0.5	1
Water Efficient Landscaping (LEED WE-1.1/1.2)	x		0	1.5	1.5	1	1.5
Water Use Reduction (LEED WE-3.1/3.2)							
Commissioning (LEED EA-Prerequisite)	x		1	3	3	1	3
Energy Efficiency (LEED EA-1 @ 1-10 Points)							
On-Site Renewable Energy (LEED EA-2)							
Enhanced Commissioning (LEED EA-3)	x		2	5	4	1	4
Measurement and Verification (LEED EA-5)	x		2	5	5	1	5
Recycling (LEED MR-Prerequisite)	x		-1	1	1	1	1
Green Roof (FEATURE)							
TOTAL EXPENSE POINTS							16
% of Maximum Allowable	16 points maximum						100.0%
TOTAL POINTS							100
% of Maximum Allowable	100 points maximum						100.0%

Full Service Lease								
PERFORMANCE ANALYSIS – GREEN BUILDING UNDERWRITING STANDARD	Green Point		Value Range		SCORE	ADJUSTMENT	TOTAL	
	YES	NO	Low	High		FACTOR		
REVENUE								
Site Selection (LEED SS-1)	x		0	1	1	1	1	
Density/Connectivity (LEED SS-2)	x		1	3	3	3	9	
Public Transportation Access (LEED SS-4.1)	x		2	5	5	3	15	
Water Use Reduction (LEED WE-3.1/3.2)								
Energy Efficiency (LEED EA-1 @ 1-10 Points)								
On-Site Renewable Energy (LEED EA-2)								
Outdoor Air Monitoring (LEED EQ-1)	x		0	2	2	0.5	1	
Ventilation Effectiveness (LEED EQ-2)	x		0	2	2	0.5	1	
IAQ Management Plan (LEED EQ-3.2)	x		1	3	3	1	3	
Adhesives / Sealants (LEED EQ-4.1)	x		1	3	3	0.5	1.5	
Paints and Coatings (LEED EQ-4.2)	x		1	3	3	0.5	1.5	
Composite Wood / Agrifiber (LEED EQ-4.4)	x		1	3	3	0.5	1.5	
Indoor Chemical / Pollutants (LEED EQ-5)	x		1	3	3	0.5	1.5	
Daylight / Views (LEED EQ-8.1/8.2)	x		1	4	4	2	8	
Green Roof (FEATURE)	x		1	4	4	1	4	
Under Floor Air Distribution (FEATURE)	x		1	4	4	1	4	
Integrated Design (LEED Innovation)	x		1	4	4	1	4	
TOTAL REVENUE POINTS							57	
% of Maximum Allowable							57 points maximum	100.0%
EXPENSE								
Stormwater (LEED SS-6.1)	x		0.5	1	1	0.5	0.5	
Heat Island Effect (LEED SS-7.2)	x		0.5	2	2	0.5	1	
Water Efficient Landscaping (LEED WE-1.1/1.2)	x		0.5	1.5	1.5	1	1.5	
Water Use Reduction (LEED WE-3.1/3.2)	x		0	2	2	0.5	1	
Commissioning (LEED EA-Prerequisite)	x		1	3	3	2	6	
Energy Efficiency (LEED EA-1 @ 1-10 Points)	x		1	5	5	3	15	
On-Site Renewable Energy (LEED EA-2)	x		1	3	3	3	9	
Enhanced Commissioning (LEED EA-3)	x		2	5	4	1	4	
Measurement and Verification (LEED EA-5)	x		2	5	5	1	5	
Recycling (LEED MR-Prerequisite)	x		-1	1	1	1	1	
Green Roof (FEATURE)								
TOTAL EXPENSE POINTS							43	
% of Maximum Allowable							43 points maximum	100.0%
TOTAL POINTS							100	
% of Maximum Allowable							100 points maximum	100.0%

16.0 MANDATORY REVISION

This Standard must be updated and/or amended at minimum every four years, including a minimum review by the Capital Markets Partnership Underwriting Committee every two years.

17.0 CAPITAL MARKETS PARTNERSHIP – MEMBERS

The following entities are members of the Capital Markets Partnership as of the September 3, 2008 approval date of this Standard:

Allianz
American Council for an Energy Efficient Economy
Government of Australia
Baltimore Green Building Council
Bank of America Securities
Building Owners and Managers Association Foundation
Building Owners and Managers Association International
Canada Green Building Council
Canada Mortgage & Housing Corporation
Citi
Citigroup Smith Barney
Citi Property Investors
City of Chicago
City of Dallas
City of Denver
City of New York
City of Oakland
City of Santa Monica
City of San Francisco
City of Seattle
CitiGroup Smith Barney
Citizens Bank of Canada
Corenet Global
Delaware Valley Green Building Council
Destiny USA
Dewey & LeBoeuf
Durst Development
EPA ENERGY STAR
Environmental Bankers Association
Evolution Partners Real Estate Advisors
Fannie Mae
Fireman's Fund / Allianz
First Affirmative Financial
Forbo Flooring
Forest Stewardship Council
Gerding Edlen Development
Goldman Sachs
Green Building Alliance
Global Green
Paul Epstein, Harvard Medical School
Hoffmann & Associates

Investor's Circle
JPMorgan Chase
Lafarge
Lorax Partnerships
Malachite LLC
Milliken
Mortgage Green
National Association of Realtors
New Jersey Green Building Council
New York Green Building Council
NYSERDA
Philips
Prohov & Associates, Ltd
Sempra Energy
Social Investment Forum
State of California
State of New Jersey
Swinerton Builders
Turner Construction
UBS Securities
Government of the United Kingdom
US Green Building Council
US Treasury Department
Vancity Bank
Vinson & Elkins
Wachovia
Wells Fargo
Wendel Rosen Black & Dean
West Coast Green
World Green Building Council

APPENDIX

Blank Scorecards

Calculation Methodology – Green Building Underwriting Standard							
LEED-NC Certified							
NOTE: Sorted by Adjustment Factor, then Value Range	Green Point		Value Range		SCORE	ADJUSTMENT	TOTAL
	YES	NO	Low	High		FACTOR	
Energy Efficiency (LEED EA 1 @ 1-10 points)			1	5		3	
Public Transportation Access (LEED SS-4.1)			2	5		3	
Density/Connectivity (LEED SS-2)			1	3		3	
On-Site Renewable Energy (LEED EA-2)			1	3		3	
Daylight / Views (LEED EQ-8.1/8.2)			1	4		2	
Water Use Reduction (LEED WE-3.1/3.2)			0	2		2	
Measurement and Verification (LEED EA-5)			2	5		1	
Enhanced Commissioning (LEED EA-3)			1	4		1	
Under Floor Air Distribution			2	4		1	
Green Roof			1	4		1	
Integrated Design (LEED Innovation Credit)			1	4		1	
Commissioning (LEED EA-Prerequisite)			1	3		1	
IAQ Management Plan (LEED EQ-3.2)			1	3		1	
Water Efficient Landscaping (LEED WE-1.1/1.2)			0	1.5		1	
Site Selection (LEED SS-1)			0	1		1	
Recycling (LEED MR-Prerequisite)			-1	1		1	
IEQ - Adhesives / Sealants (LEED EQ-4.1)			1	3		0.5	
IEQ - Paints and Coatings (LEED EQ-4.2)			1	3		0.5	
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)			1	3		0.5	
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)			1	3		0.5	
Heat Island Effect (LEED SS-7.2)			0	2		0.5	
IEQ - Outdoor Air Monitoring (LEED EQ-1)			0	2		0.5	
IEQ - Ventilation Effectiveness (LEED EQ-2)			0	2		0.5	
Stormwater (LEED SS-6.1)			0	1		0.5	
TOTAL POINTS							

Calculation Methodology – Green Building Underwriting Standard							
LEED-EB:OM Certified Building							
	Green Point		Value Range		SCORE	ADJUSTMENT	TOTAL
	YES	NO	Low	High		FACTOR	
Public Transportation Access (LEED-NC SS-4.1)			2	5		3	
Density/Connectivity (LEED-NC SS-2)			1	3		3	
Heat Island Reduction (LEED-EB SS-7)			0	2		1	
Stormwater Management (LEED EB SS-6)			0	1		1	
Water Efficient Landscaping (LEED-EB WE-3)			0	1.5		2	
Water Efficient Fixtures (LEED-EB WE-2)			0	2		3	
Energy Management Plan (LEED-EB EA-PR1)			1	2		1	
Energy Efficiency (LEED-EB EA-1 @ 2-15 points)			1	5		3	
Commissioning (LEED-EB EA-2)			1	5		2	
Measurement and Verification (LEED-EB EA-3)			2	5		2	
On-Site Renewable Energy (LEED-EB EA-4)			1	3		3	
Recycling / Solid Waste Mgmt (LEED-EB MR-7.1/7.2)			-1	1		1	
Under Floor Air Distribution			1	4		1	
Green Roof			1	4		1	
Green Cleaning (LEED-EB EQ-3)			1	3		3	
TOTAL POINTS							

Calculation Methodology – Green Building Underwriting Standard							
Non-LEED Certified Building							
ASSETS CANNOT RECEIVE POINTS BELOW THE RED LINE WITHOUT THIRD-PARTY LEED CERTIFICATION	Green Point		Value Range		SCORE	ADJUSTMENT FACTOR	TOTAL
	YES	NO	Low	High			
Public Transportation Access (LEED SS-4.1)	x		2	5		3	
Density/Connectivity (LEED SS-2)	x		1	3		3	
On-Site Renewable Energy (LEED EA-2)	x		1	3		3	
Under Floor Air Distribution	x		1	4		1	
Green Roof	x		1	4		1	
Site Selection (LEED SS-1)	x		0	1		1	
Recycling (LEED MR-Prerequisite)	x		-1	1		1	
Heat Island Effect (LEED SS-7.2)	x		0	2		0.5	
Stormwater (LEED SS-6.1)	x		0	1		0.5	
Water Efficient Landscaping (LEED WE-1.1/1.2)		x	0	1.5		1	
Water Use Reduction (LEED WE-3.1/3.2)		x	0	2		2	
Commissioning (LEED EA-Prerequisite)		x	1	3		1	
Energy Efficiency (LEED EA 1 @ 1-10 points)		x	1	5		3	
Enhanced Commissioning (LEED EA-3)		x	2	4		1	
Measurement and Verification (LEED EA-5)		x	2	5		1	
IEQ - Outdoor Air Monitoring (LEED EQ-1)		x	0	2		0.5	
IEQ - Ventilation Effectiveness (LEED EQ-2)		x	0	2		0.5	
IAQ Management Plan (LEED EQ-3.2)		x	1	3		1	
IEQ - Adhesives / Sealants (LEED EQ-4.1)		x	1	3		0.5	
IEQ - Paints and Coatings (LEED EQ-4.2)		x	1	3		0.5	
IEQ - Composite Wood / Agrifiber (LEED EQ-4.4)		x	1	3		0.5	
IEQ - Indoor Chemical / Pollutants (LEED EQ-5)		x	1	3		0.5	
Daylight / Views (LEED EQ-8.1/8.2)		x	1	4		2	
Integrated Design (LEED Innovation Credit)		x	1	4		1	
TOTAL POINTS							

NOTE: If a non-LEED® certified asset has a green roof, underwriters can award an additional 1.5 points for credit SS-7.2 and SS-6.1 as depicted by the **BLUE BOX**.

CMP GREEN VALUE SCORE® FORMULA

CMP GREEN VALUE SCORE® MATRIX	Score	Value Ratio	Adjusted Score
ENERGY STAR Score		40%	
Green Building Underwriting Standard Score		35%	
LEED® Rating (intangible value)	NONE	0%	
	CERTIFIED	2%	
	SILVER	5%	
	GOLD	10%	
	PLATINUM	15%	
Climate Neutral Certified	YES	10%	
	NO	0%	
CMP GREEN VALUE SCORE		100%	

MANDATORY ANNEX

LEGALLY BINDING CERTIFICATION

Express Warranty for Accurate Calculation of the CMP Green Value Score[®]

A professional must provide written signed certification of each CMP Green Value Score[®] pursuant to the Underwriting Standards and the work performed pursuant to this proposal for all properties evaluated. This is evidenced by expressly warranting the CMP Green Value Score[®] in writing which includes the professional's typed name, signature, and affiliation.¹³

I, _____, as the CMP Green Value Score[®] certifying professional hereby expressly warrant as part of this engagement agreement that the data gathered used in calculating the CMP Green Value Score[®], including responses to any third-party information requests, are accurate, reliable, and not misleading to the best of my knowledge.

Both the express and implied meaning of this certification concerning the data used, responses to information requests, and provisions of the Standard are reasonable and based on competent and reliable evidence prepared by a qualified professional using procedures to produce accurate and reliable results.

<Signature>

Name

Professional Designation

Date

¹³ Federal Trade Commission Environmental Marketing Guides at 16 C.F.R. Part 260 (1998)

CMP GREEN VALUE SCORE[®] – POINT CREDIT EVALUATION REPORT

For each point credit attested to on the Green Building Underwriting Standard, the underwriter / appraiser must provide a brief Credit Evaluation Report for each credit with the score granted and a brief description attesting to the reasoning for that score. The following format should apply for all credits awarded – see both below and next page for examples:

Credit Description:	<INSERT NAME OF CREDIT AWARDED>
Score Assessed:	<INSERT SCORE>
Score Range:	_____Minimum to _____Maximum
Narrative:	<PROVIDE WRITTEN DESCRIPTION INCLUDING RATIONALE FOR SCORE ASSESSMENT>

A summary of the Credit Evaluation Report and/or cover letter should contain the following:

Asset Information

Asset name
Address
City
State
Zip Code

Company Information (applies to company/individual signing report)

Company Name
Address
City
State
Zip
Phone
Fax
Email

Individual Name (person attesting to report)
Signature
Date

EXAMPLE: CMP GREEN VALUE SCORE[®] CREDIT EVALUATION REPORT

To the right is an example of a cover letter that should accompany the Credit Award Report for each credit that was granted a score on the Green Building Underwriting Standard.

Besides including the total amount of credit points awarded on the Standard, the memo should include observations on where the asset can most readily achieve additional points given future actions.

Below is a SAMPLE of the information required and format to report each credit attained on the Green Building Underwriting Standard.

It is important to include this information for each credit so as to provide future field data testing opportunities and other look-back techniques valuable to the finance industry.

CMP Green Value Score
Credit Evaluation Report

<Date>

Ms. Mary Moore
Director – Asset Management
<Company Name>
<City>, <State> <Zip>

RE: Liberty Place Office Tower
123 Main Street
<City>, <State> <Zip>

CMP Green Value Score = 53

Dear Mary:

Attached is the Green Building Underwriting Standard Point Credit Evaluation Report detailing each point credit awarded toward the CMP Green Value Score.

Overall, the asset scored very well and achieved 53 out of the possible 100 points.

Ways to improve the CMP Green Value Score in the future include:

- Increasing the asset’s ENERGY STAR score
- Installing onsite renewable energy
- Becoming Climate Neutral certified
- Pursuing LEED EB:O&M certification

Please contact me with any questions regarding this report.

Sincerely,



<Name>
<Full Contact Information>

SAMPLE DESCRIPTION

Credit Description:	Water Use Reduction – LEED WE 3.1/3.2
Score Assessed:	3
Score Range:	<u>1</u> Minimum to <u>3</u> Maximum
Narrative:	The asset is certified LEED Gold and achieved both LEED credits. Observed dual-flush toilets, waterless urinals, faucet aerators, and exterior drip irrigation. Building commissioned and verified in last year. Awarded at high end of the range.

Credit Description:	Roof Heat Island Effect – LEED SS-7.2
Score Assessed:	1
Score Range:	<u>0</u> Minimum to <u>2</u> Maximum
Narrative:	The asset has a white reflective roof which is a net positive in reflecting heat away from the building positively impacting ongoing energy costs. The asset does not have a green roof which provides additional insulation against heat gain/loss. Roof exposure to elements may result in earlier replacement than if covered with green roof materials.

EPA ENERGY STAR Statement of Energy Performance

	STATEMENT OF ENERGY PERFORMANCE Sample Facility Building ID: 123456 For 12-month Period Ending: July 31, 2007 ¹ Date SEP becomes ineligible: November 30, 2007		OMB Control No. 2060-0347															
			Date SEP Generated: August 1, 2007															
Facility Being Labeled Sample Facility 1234 Main Street Springfield, VA, 10000	Facility Owner Sample Owner 4567 Peach Ave. Springfield, VA 10000 555-555-5555	Primary Contact for this Facility Jane Smith 7890 Columbia Way Springfield, VA 10000 555-555-5568 jsmith@jsmith.com																
Year Built: 1999 Gross Building Area (ft ²): 20,000 Energy Performance Rating ² (1-100): 80																		
Facility Space Use Summary																		
<table border="1"> <thead> <tr> <th>Space Type</th> <th>Area (ft²)</th> <th>Occupants</th> <th>Operating Hours</th> <th>Number of PCs</th> </tr> </thead> <tbody> <tr> <td>Garage</td> <td>5,000</td> <td>2</td> <td>40</td> <td>0</td> </tr> <tr> <td>Office (General)</td> <td>15,000</td> <td>40</td> <td>40</td> <td>40</td> </tr> </tbody> </table>	Space Type	Area (ft ²)	Occupants	Operating Hours	Number of PCs	Garage	5,000	2	40	0	Office (General)	15,000	40	40	40			
Space Type	Area (ft ²)	Occupants	Operating Hours	Number of PCs														
Garage	5,000	2	40	0														
Office (General)	15,000	40	40	40														
Site Energy Use Summary Electricity (kBtu) 123,456 Natural Gas (kBtu) ³ 123,456 Total Energy (kBtu) 246,912																		
Energy Intensity⁴ Site (kBtu/ft ² -yr) 6.3 Source (kBtu/ft ² -yr) 19.5		Professional Engineer Stamp I certify that the information contained within this statement is accurate and in accordance with the PE Guidelines.																
Emissions (based on site energy use) CO ₂ (1000lbs/yr) 263		Professional Engineer License Number: 0000001 State: VA John Doe 1234 Vineyard Lane Springfield, VA 10000 555-555-7788																
Indoor Environment Criteria⁵ Indoor air pollutants controlled? Yes Adequate ventilation provided? Yes Thermal conditions met? Yes Adequate illumination provided? Yes																		
Notes: 1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA. 2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR. 3. Natural Gas values in units of volume (e.g. cubic feet) are converted to kBtu with adjustments made for elevation based on Facility zip code. 4. Values represent energy intensity, annualized to a 365 day calendar. 5. Based on meeting ASHRAE Standard 62-1999 for indoor air quality, ASHRAE Standard 55-1992 for thermal comfort, and IESNA Lighting Handbook for lighting quality.																		
			