Rating systems provide a systematic and transparent approach to the project development process that influences decision making, measurement, and tracking.

Sustainability frameworks and rating/certification systems are structured guidelines that help organizations implement sustainable practices on projects in planning, design, construction, and/or operations and maintenance. These frameworks typically provide a systematic approach across a range of sustainability and resiliency topics, such as reducing environmental impacts, improving energy efficiency, and enhancing community well-being. They establish clear criteria for evaluating project elements with consideration for water use, access, biodiversity, materials sourcing, and a host of other topics.

Rating systems are broadly organized based the type of project they are reviewing—buildings, infrastructure, and communities. While, some rating systems focus on projects in a certain geography, most systems in use today can be applied globally.
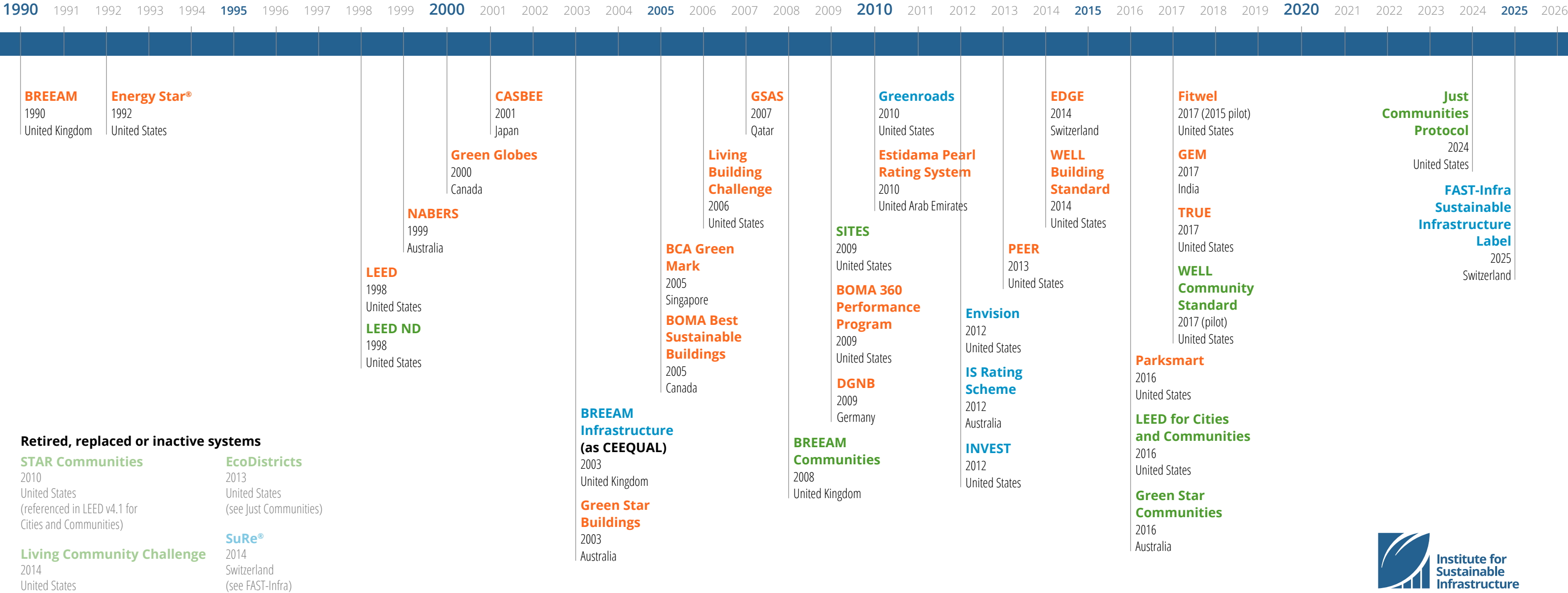
The following pages provide a brief overview and a side-by-side comparison for 6 infrastructure, 7 community, and 21 building rating and certification systems.

As evidenced on the sustainability rating and certification systems launch timeline, this space is ever changing and evolving to keep up with conditions, trends, and realities. Just within the last year, two new rating systems have emerged to fill what were seen as gaps in the rating system landscape.

Benefits of Rating Systems

- Provide a holistic foundation for triple bottom line assessment.
- Incentivize higher performance goals.
- Celebrate projects that make significant contributions to sustainability and resiliency.
- Provide a common language for collaboration and communication.
- Improve long-term viability.
- Lower costs through management and stakeholder collaboration.
- Reduce negative impacts on the community and the environment.
- Evaluate life-cycle considerations.
- Mitigate risk through design and preparation.
- Increase public confidence and involvement in decision-making.

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **LAUNCH TIMELINE**

1990 1991 1992 1993 1994 **1995** 1996 1997 1998 1999 **2000** 2001 2002 2003 2004 **2005** 2006 2007 2008 2009 **2010** 2011 2012 2013 2014 **2015** 2016 2017 2018 2019 **2020** 2021 2022 2023 2024 **2025** 2026

BREEAM
1990
United Kingdom

Energy Star®
1992
United States

CASBEE
2001
Japan

Green Globes
2000
Canada

NABERS
1999
Australia

LEED
1998
United States

LEED ND
1998
United States

BCA Green Mark
2005
Singapore

BOMA Best Sustainable Buildings
2005
Canada

GSAS
2007
Qatar

Living Building Challenge
2006
United States

SITES
2009
United States

BOMA 360 Performance Program
2009
United States

DGNB
2009
Germany

Greenroads
2010
United States

Estidama Pearl Rating System
2010
United Arab Emirates

Envision
2012
United States

IS Rating Scheme
2012
Australia

INVEST
2012
United States

EDGE
2014
Switzerland

WELL Building Standard
2014
United States

PEER
2013
United States

Fitwel
2017 (2015 pilot)
United States

GEM
2017
India

TRUE
2017
United States

WELL Community Standard
2017 (pilot)
United States

Parksmart
2016
United States

LEED for Cities and Communities
2016
United States

Green Star Communities
2016
Australia

Just Communities Protocol
2024
United States

FAST-Infra Sustainable Infrastructure Label
2025
Switzerland

BREEAM Infrastructure (as CEEQUAL)
2003
United Kingdom

Green Star Buildings
2003
Australia

BREEAM Communities
2008
United Kingdom

Retired, replaced or inactive systems

STAR Communities
2010
United States
(referenced in LEED v4.1 for Cities and Communities)

EcoDistricts
2013
United States
(see Just Communities)

SuRe®
2014
Switzerland
(see FAST-Infra)

Living Community Challenge
2014
United States

Institute for Sustainable Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **INFRASTRUCTURE**

BREEAM INFRASTRUCTURE V6
[Building Research Establishment Environmental Assessment Method]

BREEAM Infrastructure (formerly CEEQUAL) is the evidence-based sustainability assessment, rating and awards scheme for civil engineering, infrastructure, landscaping and public realm projects that was launched in 2003. The system aims to deliver improved project specification, design, and construction of civil engineering works. Clients, designers and contractors have the opportunity to go beyond the baseline to achieve distinctive environmental and social performance in their work. BREEAM Infrastructure gives project teams influence and support to develop and design in a sustainable way.

ENVISION V3

Launched in 2012, Envision is a framework managed by the Institute for Sustainable Infrastructure (ISI) that encourages systemic changes in the planning, design, and delivery of sustainable, resilient, and equitable civil infrastructure through education, training, and third-party project verification. It was developed through a collaboration between ISI, which was founded by ASCE, APWA, ACEC, and the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design. Suitable for infrastructure of all types and scales, the framework is used to assess projects for sustainability across 64 indicators, called credits.

FAST-INFRA SUSTAINABLE INFRASTRUCTURE LABEL V1.0

The FAST-Infra Label is a private-sector-led initiative, founded in 2020 and led by major financial institutions and global organizations including the Organization for Economic Cooperation and Development (OECD) and the World Bank Group's Global Infrastructure Facility (GIF). The FAST-Infra Label is designed to promote market integrity for sustainable infrastructure projects and enable comparability of metrics. It encourages transparency, disclosure, and reporting, while supporting investment decision-making.

GREENROADS V3

Introduced in 2010, the Greenroads® Rating System was created through a partnership of the University of Washington and CH2M HILL. The system is used to measure and manage sustainability on transportation projects.

Institute for
Sustainable
Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **INFRASTRUCTURE**

IS RATING SCHEME
[Infrastructure Sustainability]

The IS Rating Scheme (IS) is Australia and New Zealand's only comprehensive rating system for evaluating economic, social and environmental performance of infrastructure across the planning, design, construction and operational phases of infrastructure assets. The framework can assess the sustainability performance of infrastructure at the individual assets level, for portfolios or networks, or even at a regional scale.

INVEST V1.3
[Infrastructure Voluntary Evaluation Sustainability Tool]

Launched by the Federal Highway Administration (FHWA) in 2012, INVEST is a web-based self-evaluation tool comprised of voluntary sustainability best practices, called criteria, which cover the full lifecycle of transportation services, including system planning, project planning, design, and construction, and operations and maintenance. FHWA developed INVEST for voluntary use by transportation agencies to assess and enhance the sustainability of their projects and programs. To cover the full transportation lifecycle, the INVEST criteria are divided into four modules: System Planning for States (SPS), System Planning for Regions (SPR), Project Development (PD), and Operations and Maintenance (OM).

Institute for Sustainable Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **INFRASTRUCTURE**

	BREEAM Infrastructure v6	Envision v3	FAST-Infra Sustainable Infrastructure Label v1.0	Greenroads v3	IS Rating Scheme	INVEST v1.3
MANAGING BODY	BRE *Originally developed by a team led by the Institution of Civil Engineers (ICE), with financial support from the UK Government and from ICE's Research & Development Enabling Fund.*	Institute for Sustainable Infrastructure (ISI)	FAST-Infra Group	Sustainable Transport Council (STC)	Infrastructure Sustainability Council Australia (ISCA)	Federal Highway Administration (FHWA) *Infrastructure Voluntary Evaluation Sustainability Tool*
LAUNCHED	2003 (as CEEQUAL)	2012	2025	2010	2012	2012; Beta Version 2010
INTENDED FOR	Civil engineering works	Civil infrastructure	Infrastructure assets	Transportation infrastructure, primarily roadways	Civil infrastructure	New highway and transportation projects
GEOGRAPHIC RANGE	Global	Global	Global	Global, primarily North America	Australia and New Zealand	United States
PHASE(S)	Planning Design and Construction Operations and Maintenance	Planning Design and Construction	Planning Design and Construction Operations and Maintenance	Design and Construction	Planning Design and Construction Operations and Maintenance	Planning Design and Construction Operations and Maintenance
CATEGORIES / FOCUS AREAS	• Landscape and historic environment • Land use and ecology • Pollution • Communities and stakeholders • Resilience • Management • Resources • Transport	• Qualify of Life – Wellbeing, Mobility, Community • Leadership – Collaboration, Planning, Economy • Resource Allocation – Materials, Energy, Water • Natural World – Siting, Conservation, Ecology • Climate & Resilience – Emissions, Resilience	• Environmental Dimension – biodiversity, climate change mitigation, resources & circularity, pollution prevention • Social Dimension – inclusivity & gender, health & safety, human & labor rights, resettlement & land use, stakeholder engagement • Adaptation and Resilience Dimension – resilience & adaptation • Governance Dimension – anti-corruption, transparency & reporting, financial integrity, sustainability & compliance + Demonstrate that at least 1 criterion meets the positive contribution threshold to a sustainability objective.	• Environment & Water • Materials & Design • Construction Activities • Access & Livability • Utilities & Control	• Context • Leadership & management • Sustainable procurement • Resilience • Innovation • Options assessment & business case • Benefits • Energy & carbon • Green infrastructure • Environmental impacts • Resource efficiency • Water • Ecology • Stakeholder engagement • Legacy • Heritage • Workforce sustainability	Varies based on module selected. Project Development Module includes: • Economic Analyses • Life-Cycle Cost Analyses • Context Sensitive Project Delivery • Highway and Traffic Safety • Educational Outreach • Tracking Environmental Commitments • Habitat Restoration • Stormwater Quality and Flow Control • Ecological Connectivity • Pedestrian Facilities • Bicycle Facilities • Transit and HOV Facilities • Freight Mobility • ITS for System Operations
FEES	Vary based on contract value, client or engineer estimate, type of assessment.	Registration: $2,000 USD Verification: Varies based on project size, membership status, and verification pathway.	Vary based on the size, complexity, stage of development and availability of information.	Vary based on project value.	Varies based on location, scheme, member status, and project size.	Not applicable – self assessment only.
RENEWAL / RECERTIFICATION	BREEAM Infrastructure Term Contracts (BITC) certification requires annual recertification.	Not applicable.	Valid up to 36 months. If project updates surveillance audit data every 12 months, can re-apply for verification in the third year of their Verified Label, prior to expiration. After successful re-verification, projects get a Verified Label for another three years.	Not applicable.	Not applicable.	Not applicable.
RATING SCALE	Pass, Good, Very Good, Excellent, Outstanding	Verified, Silver, Gold, Platinum	FAST-Infra Self-Assessed Label, FAST-Infra Verified Label	Bronze, Silver, Gold, Evergreen	Bronze, Silver, Gold, Platinum, Diamond	Bronze, Silver, Gold, Platinum
# OF CERTIFIED PROJECTS	900+	200+	0	33+	217+	Self assessment only.

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **COMMUNITIES**

BREEAM COMMUNITIES
[Building Research Establishment Environmental Assessment Method]

Launched in 2008, the BREEAM Communities standard provides a framework to support planners, local authorities, developers and investors to integrate and assess sustainable design in the masterplanning of new communities and regeneration projects. The standard helps to improve, measure and certify the sustainability of developments at the neighborhood scale and beyond. It covers economic, social and environmental sustainability – assessing issues like housing provision, transport networks, community facilities, and economic impact. BREEAM Communities can be required by local planning authorities through their local plan.

JUST COMMUNITIES PROTOCOL 1.0
[Represents the next generation of the EcoDistricts Protocol 1.3]

The Just Communities Protocol 1.0, introduced in 2024, is an implementation framework and verification standard to empower resident leaders, community-based organizations, developers, and municipalities in advancing racially equitable and environmentally regenerative development of the built environment. It is designed to help deliver meaningful social, economic, and environmental outcomes in the areas of civic participation, housing, economic development, transportation, public health, safety, food, parks and open space, energy, water, and environmental protection. The protocol represents the next generation of the EcoDistricts Protocol v.1.3— reimagined with the input from over eighty leading equitable and sustainable development practitioners.

LEED FOR CITIES AND COMMUNITIES V4.1
[Leadership in Energy and Environmental Design]

Since 2016, LEED for Cities and Communities has been providing architects, planners, real estate developers, corporations, and other professionals in the built environment with a powerful framework and guide for sustainable urban planning, design, development and improvement. With a focus on equity, economic development, and environmental preservation, incorporating strategies and solutions, LEED for Communities is aimed at promoting net-zero practices and resilience in project planning and management. LEED for Communities applies specifically to places that don't necessarily have a formal governing body, such as corporate campuses, large-scale real estate developments, business improvement districts (BIDs), economic development zones, neighborhoods, campuses, airports, entertainment districts, universities, and military installations.

Institute for Sustainable Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **COMMUNITIES**

LEED FOR NEIGHBORHOOD DEVELOPMENT (LEED ND)
[Leadership in Energy and Environmental Design]

LEED ND was launched in May 2009 after four years of development and pilot testing by a partnership of the USGBC, the Natural Resources Defense Council, and the Congress for the New Urbanism. The rating system was engineered to inspire and help create better, more sustainable, well-connected neighborhoods. It looks beyond the scale of buildings to consider entire communities. Certification is available to projects that are in any phase of planning and design and up to 75% constructed (plan); and projects that are near completion or were completed within the last three years (built project).

GREEN STAR COMMUNITIES (V2)

Founded by Green Building Council of Australia in 2003, Green Star is an internationally recognized rating system setting the standard for healthy, resilient, positive buildings and places. Developed for the Australian environment, Green Star has certified thousands of sustainable fitouts, buildings, homes and communities across the country. The Green Star Communities rating tool provides guidance on developing precincts consider the public realm, sustainable transport and walkability, integrated water management, and place and community development to create healthy, resilient and positive places for people to live and work in. Green Star Communities v2 focuses on practical, real-world solutions to create vibrant, low-carbon and healthy communities that are ready for the future.

SUSTAINABLE SITES INITIATIVE V2

SITES, launched in 2009, is a rating system that guides, evaluates and certifies a project's sustainability in the planning, design, construction and management of landscapes and other outdoor spaces. With a comprehensive framework for designing, developing and managing sustainable and resilient landscapes and other outdoor spaces, it is an ideal tool to support nature positive design. SITES, which can be applied worldwide to a variety of projects types (with or without buildings), supports landscape architects, planners and others in implementing projects to enhance biodiversity and mitigate climate change, while conserving resources, improving public health and protecting critical ecosystems.

WELL COMMUNITY STANDARD

Introduced in 2017 and in the pilot phase, the WELL Community Standard aims to impact individuals not just within the walls of their home or workplace, but throughout the public spaces where they spend their days. A WELL community is designed to support health and well-being across all aspects and areas of community life. The vision for a WELL community is inclusive, integrated and resilient, with a strong community identity fostering high levels of social interaction and engagement. Resources in a WELL community— natural, human and technological—are used effectively, equally and responsibly to meet the community's current and future needs and priorities.

Institute for Sustainable Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **COMMUNITIES**

	BREEAM Communities 2012	**Just Communities Protocol 1.0**	**LEED for Cities and Communities v4.1**	**LEED for Neighborhood Development (LEED ND) v4**
MANAGING BODY	BRE *Building Research Establishment Environmental Assessment Method*	Partnership for Southern Equity *Represents the next generation of the EcoDistricts Protocol 1.3*	Green Business Certification, Inc. (GBCI) US Green Building Council (USGBC) *Leadership in Energy and Environmental Design*	Green Business Certification, Inc. (GBCI) US Green Building Council (USGBC) *Leadership in Energy and Environmental Design*
LAUNCHED	2008	2024	2016	2009
INTENDED FOR	Developments likely to have significant impacts on existing communities, infrastructure or the provision of local services, and regeneration projects that significantly change the urban fabric.	Communities – Business districts, campuses, existing neighborhoods, redevelopment.	New and existing: Communities (no formal governing body) and cities (governing body).	Neighborhoods and neighborhood-scale projects
GEOGRAPHIC RANGE	Global, locally adapted Communities standards in Netherlands and Spain	United States	Global	Global
PHASE(S)	Planning Design and Construction Operations and Maintenance	Planning	Planning Design and Construction Operations and Maintenance	Planning Design and Construction
CATEGORIES / FOCUS AREAS	• Governance • Social and economic well-being • Resource and energy • Land use and ecology • Transport and movement	• Belonging • Opportunity • Wellbeing • Mobility • Environment	• Integrative Process • Natural Systems and Ecology • Transportation and Land Use • Water Efficiency • Energy and Greenhouse Gas Emissions • Materials and Resources • Quality of Life • Innovation • Regional Priority	• Smart Location & Linkage • Neighborhood Pattern & Design • Green Infrastructure & Buildings • Innovation & Design Process • Regional Priority Credits
FEES	Registration and certification fees vary based on project size and stage assessment.	Registration: $1,000 Certification • Formation Endorsement; $2,500 • Governance Endorsement: $3,500 • Roadmap Endorsement: $4,500 Re-Certification (biennial) - Renewal Endorsement: $2,500 Full Certification Bundle: $10,500	Varies based on membership status, system being used, and project size; also fees for precertification, certification review, expedited review, and appeals.	Registration: $1,680 Certification varies based on size, type of review, stage, etc.
RENEWAL / RECERTIFICATION	BREEAM In-Use certification, are renewable every three years.	Within two years of certification, and annually thereafter, communities must submit a progress report to maintain their Just Communities Certified status.	Not available.	Not applicable.
RATING SCALE	Pass, Good, Very Good, Excellent, Outstanding	Just Communities Certified	Certified, Silver, Gold, Platinum	Certified, Silver, Gold, Platinum
# OF CERTIFIED PROJECTS	28+	Pilot projects in progress; 10+ EcoDistricts Certified Communities	48+	268+

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **COMMUNITIES**

	Green Star Communities v2	**Sites v2**	**WELL Community Standard**
MANAGING BODY	Green Building Council Australia	Green Business Certification Inc. (GBCI). *GBCI acquired the SITES program in 2015*	Green Business Certification Inc. (GBCI) International Well Building Institute
LAUNCHED	2016	2009	2017 (pilot)
INTENDED FOR	Range of precinct typologies, including airports, university campuses, greenfield residential projects and mixed-use urban regeneration.	Variety of projects types (with or without buildings), including: open spaces, streetscapes and plazas, commercial, residential, educational or institutional; minimum size 2,000 square feet.	Mixed-use developments and projects that meet at least two of these conditions planned daytime or nighttime population of 500 people or more, Planned total floor area of 50,000 m² [538,000 ft²] or more, planned total building count of 10 or more, total land area of two hectares [five acres] or more.
GEOGRAPHIC RANGE	Primarily applicable in Australia and New Zealand, and also used in South Africa	Global	Global
PHASE(S)	Masterplanning to completion	Planning New Construction and Major Renovation of Existing Sites Existing, Built Landscapes	Planning Design and Construction Operations and Maintenance
CATEGORIES / FOCUS AREAS	• Responsible • Healthy • Resilient • Positive • Places • People • Nature • Leadership	• Site Context • Pre-Design Assessment & Planning • Water • Soil & Vegetation • Materials • Human Health & Well-Being • Construction • Operations & Maintenance • Education & Performance Monitoring • Innovation/exemplary performance	• Air • Water • Nourishment • Light • Movement • Thermal comfort • Sound • Materials • Mind • Community
FEES	Based on project type and GBCA membership ($41,400-$60,200 AUD).	(see fee table below)	Registration $20,000 fee Certification fee charged per acre; capped at $98,000.
RENEWAL / RECERTIFICATION	Projects must undergo recertification within five years of initial certification.	N/A	Certification valid for five years.
RATING SCALE	1 to 6 Stars	Certified, Silver, Gold, Platinum	Silver, Gold, Platinum
# OF CERTIFIED PROJECTS	86+	101+	Pilot phase

Sites v2 FEES table:

($USD)	USGBC/ASLA MEMBER	NONMEMBER
REGISTRATION	$2,500	$3,000
PRECERT.	$2,500	$3,500
CERTIFICATION	$6,500	$9,000
COMBINED (reg + cert)	$8,000	$9,500

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

BCA GREEN MARK (GM: 2021) SCHEME
[Building and Construction Authority]

Launched in 2005, Green Mark certification is designed to evaluate a building's environmental impact and performance. It provides a comprehensive framework for assessing the overall environmental performance of new and existing buildings to promote sustainable design and best practices in construction and operations in buildings. Green Mark is tailored for the tropical climate and encourages the industry and professionals to collaborate and develop green building solutions, to benefit the built environment in Singapore.

BOMA 360 PERFORMANCE PROGRAM
[Building Owners and Managers Association]

Started in 2009, the BOMA 360 Performance Program evaluates buildings against industry best practices in six areas: building operations and management, sustainability and environmental initiatives, health and safety standards, tenant relations, and technology and innovation. All occupied commercial and industrial buildings are eligible to participate. Prerequisites include the following: Standard Operating Procedures manual; building a preventive maintenance program; and building energy performance benchmarked using EPA's ENERGY STAR® Portfolio Manager.

BOMA BEST 4.0 SUSTAINABLE BUILDINGS

Founded in 2005, BOMA BEST provides building management tools for sustainable and smart buildings, equipping building owners, managers, and operators with the tools required to optimize performance, enhance efficiency, and drive innovation—ensuring buildings are not only high-performing but also healthier, smarter and more resilient for the people who live, work, and play in them. BOMA BEST provides a consistent framework for assessing the environmental performance and management of existing buildings of all sizes.

BREEAM
[Building Research Establishment Environmental Assessment Method]

Introduced in 1990, BREEAM is a globally recognized certification system that evaluates the environmental performance of buildings. The standards are designed to promote sustainable building practices across the entire lifecycle of a building—from design and construction to operation. BREEAM supports solutions to reduce carbon emissions to net zero, improve whole life performance, manage health and social impacts, boost circularity, resilience and biodiversity, and support disclosures and reporting.

Institute for
Sustainable
Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

CASBEE FOR BUILDING (2014)
[Comprehensive Assessment System for Built Environmental Efficiency]

Established in Japan in 2001 through government, industry, and academic collaboration, with support of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), CASBEE is a method for evaluating and rating the environmental performance of buildings and the built environment. It is a comprehensive assessment of the quality of a building, evaluating features such as interior comfort and scenic harmony, in consideration of environment practices that include using materials and equipment that save energy or achieve smaller environmental loads.

DGNB CERTIFICATION SYSTEM
[Deutsche Gesellschaft für nachhaltiges Bauen (German Sustainable Building Council)]

In 2009, DGNB launched a certification system with the intent to make sustainable building applicable, measurable, and comparable. Since that time, DGNB has evolved the methodology into an internationally recognized system with variants for buildings, districts and interiors. The system also has variants to accommodate all phases of a building's lifecycle - from planning to deconstruction. DGNB works strategically with system partners in Denmark (DK-GBC), Austria (ÖGNI), Switzerland (SGNI), Spain (GBCe) and Croatia (CGBC).

EDGE (v3.1)
[Excellence in Design for Greater Efficiencies]

EDGE is a green building standard and international green building certification system that helps property developers build more resource efficient buildings. Launched by the International Finance Corporation (IFC) in 2014, EDGE is supported by free software that encourages solutions to reduce energy, water and the energy used to make building materials by at least 20 percent, which is the standard for EDGE certification.

ENERGY STAR©

The ENERGY STAR© program started in 1992 as a joint program of the U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy. Through ENERGY STAR©, EPA helps building owners and managers determine the most cost-effective approach to managing their energy use—enabling organizations to save energy, increase profits, and boost competitiveness. U.S. manufacturers also use the program's strategic energy management resources to foster an organizational culture focused on continuous improvement of energy performance. ENERGY STAR© Portfolio Manager is an interactive resource management tool to benchmark energy use of any building type.

Institute for Sustainable Infrastructure

SUSTAINABILITY RATING AND
CERTIFICATION SYSTEMS: **BUILDINGS**

ESTIDAMA PEARL RATING SYSTEM (PRS)

The Pearl Rating System was published by the Abu Dhabi Urban Planning Council in 2010 to promote sustainable development in Abu Dhabi by evaluating and certifying buildings based on their environmental performance. It includes rating systems specific to the design and construction of communities, building and villas. The regional rating systems are intended to guide development that is economically, environmentally, socially, and culturally relevant and rate sustainability performance throughout a development's lifecycle, from design through construction to operation.

FITWEL (v3)
[Facility Innovations Toward Wellness Environmental Leadership]

Publicly launched in 2017, Fitwel is intended to enhance health and well-being in buildings and portfolios. The standard, which was created by the U.S. Centers for Disease Control (CDC) and Prevention and U.S. General Services Administration, is managed by the Center for Active Design (CfAD). Fitwel addresses health as an interconnected system by reviewing 70+ evidence-based design and operational strategies that enhance buildings and sites by addressing a broad range of health behaviors and risks.

GEM SUSTAINABILITY CERTIFICATION PROGRAM

The GEM Sustainability Certification Rating system, which focuses on sustainable building design and development, was launched in 2017 by ASSOCHAM National Council for Green & Eco-friendly Movement (CGEM). GEM aims to address the sustainability of a given development throughout its lifecycle from design through construction to operation. The GEM Sustainability Certification Reference guide provides design guidance and detailed requirements for rating a project's potential performance.

GREEN GLOBES (NC 2024)

Introduced in 2000, the Green Buildings Initiative's (GBI) Green Globes assesses a building's environmental performance, health & wellness, and resilience. To achieve this vision, Green Globes incorporates a range of rigorous criteria that encourage the use of design, construction, and operational practices that enhance performance, improve occupant wellness, and provide community benefit. The science-based building certification system is designed to allow building owners and managers to select which sustainability features best fit their building and occupants. The assessment and certification system can be applied to all commercial building types, regardless of size, budget, or function.

Institute for
Sustainable
Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

GREEN STAR BUILDINGS (v1)

Founded by Green Building Council of Australia in 2003, Green Star is an internationally recognized rating system setting the standard for healthy, resilient, positive buildings and places. Developed for the Australian environment, Green Star has certified thousands of sustainable fitouts, buildings, homes and communities right across the country. Launched in 2020, Green Star Buildings was designed to deliver assets that both meet today's expectations and are future ready, looking at climate action, nature, and circularity.

GSAS
[Global Sustainability Assessment System]

The Global Sustainability Assessment System (GSAS), designed for assessing and rating buildings and infrastructure for their sustainability impacts, is the first integrated and performance-based system in the Middle East and North Africa (MENA) region. The framework was introduced in 2007 by the Gulf Organization for Research & Development (GORD). Representing green building regulations within Qatar Construction Specifications, GSAS is aimed at improving the design, construction and operations of buildings while also identifying sustainability challenges specific to MENA's built environment.

LEED BD+C (V5)
[Leadership in Energy and Environmental Design]

LEED is the world's most widely used green building rating system. LEED certification provides a framework for healthy, highly efficient, and cost-saving green buildings, which offer environmental, social and governance benefits. LEED certification is a globally recognized symbol of sustainability achievement, and it is backed by an industry of committed organizations and individuals paving the way for market transformation. LEED v5, the newest version of LEED, marks a transformative milestone in the built environment's alignment with a low-carbon future and addresses critical imperatives such as equity, health, ecosystems and resilience.

LIVING BUILDING CHALLENGE (LBC) (V4.1)

Introduced in 2006, the Living Building Challenge is a philosophy, advocacy tool, and certification program defining today's most advanced measure of sustainability in the built environment. It is suitable for all buildings at all scales and is an inclusive tool for transformative design. Whether the project is a single building, a renovation, an infrastructure project, or a park, the Living Building Challenge provides a framework for designing, constructing, and improving the symbiotic relationships between people and all aspects of the built and natural environments.

Institute for Sustainable Infrastructure

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

NABERS
[National Australian Built Environment Rating System]

A NABERS rating helps building owners to accurately measure and communicate the environmental performance and progress of buildings. It also identifies areas for savings and improvements. Since 1999, the rating system has helped users measure and reduce energy use, waste, and water, and more recently it introduced ratings for embodied carbon, renewable energy, and partnered with Climate Active to provide a Carbon Neutral certification.

PARKSMART (V2.4)

Introduced in 2016, Parksmart is the world's only certification system designed to advance sustainable mobility through smarter parking structure design and operation. Developed by industry experts, the Parksmart framework guides projects toward innovative, solutions-oriented strategies intended to provide lifecycle through reduced operational costs, increased energy efficiency, and better lighting and ventilation.

PEER (V2)
[Performance Excellence in Electricity Renewal]

Launched in 2014, PEER was the first certification program to measure and improve power system performance and electricity infrastructure, with the goal of supporting global grid modernization efforts and to inspire, influence, and enable the energy sector to comprehensively address electricity demand, distribution, resiliency, and reliability. The certification recognizes industry leaders for improving efficiency, day-to-day reliability and overall resiliency in severe events like flooding and hurricanes. PEER certification helps projects and utilities solve aging infrastructure, find cost savings, build for resiliency, enhance tracking to identify deficiencies and prevent failures, and share best practices.

TRUE (V1)
[Total Resource Use and Efficiency]

TRUE is the first zero-waste certification program dedicated to measuring, improving and recognizing zero waste performance by encouraging the adoption of sustainable materials management and reduction practices which contribute to positive environmental, health and economic outcomes. Started in 2017, TRUE's whole systems approach advocates for the adoption of sustainable resource management and waste reduction practices that have positive environmental, health, and economic outcomes. It encourages processes that take into account the entire lifecycle of products used within a facility.

Institute for
Sustainable
Infrastructure

SUSTAINABILITY RATING AND
CERTIFICATION SYSTEMS: **BUILDINGS**

WELL BUILDING STANDARD (v3)

Introduced in 2014, WELL focuses on health-first factors that help building occupants by supporting physical and mental health across 10 core concepts. Certification requires rigorous performance standards for design interventions, operational protocols and company-wide practices. The intent is for buildings and organizations to deliver more thoughtful and intentional spaces that enhance human health and well-being. Each WELL project is verified through on-site testing of building performance.

**Institute for
Sustainable
Infrastructure**

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

	BCA Green Mark (GM: 2021) Scheme	**BOMA 360 Performance Program**	**BOMA Best 4.0 Sustainable Buildings**	**BREEAM**	**CASBEE for Building (2014)**	**DGNB Certification System**
MANAGING BODY	Building and Construction Authority (BCA)	Building Owners and Managers Association (BOMA) International	BOMA Canada	Building Research Establishment (BRE) *Building Research Establishment Environmental Assessment Method*	Japan Sustainable Building Consortium (JSBC) *Comprehensive Assessment System for Built Environmental Efficiency*	Deutsche Gesellschaft für nachhaltiges Bauen (German Sustainable Building Council) (DGNB)
LAUNCHED	2005	2009	2005	1990	2001	2009
INTENDED FOR	New buildings, existing buildings	Existing buildings – occupied commercial & industrial buildings	Existing Buildings – in operation for at least 12 months	New buildings, existing buildings, interiors, core & shell	New buildings, existing buildings, renovation	New buildings, existing buildings, interiors, core & shell, districts
GEOGRAPHIC RANGE	Primarily Singapore; projects rated in 12 countries including Indonesia, Malaysia, China, and Vietnam	Global, but most widely recognized in North America	Primarily North America	Global	Japan	Global, primarily in Europe
PHASE(S)	Design and construction Operations and maintenance	Operations and maintenance	Operations and maintenance	Planning, design, and construction Operations and maintenance	Design and construction Operations and maintenance	Planning, design, and construction Operations and maintenance
CATEGORIES / FOCUS AREAS	• Energy Efficiency (EE) • Health and Well-being (Hw) • Whole Life Carbon (Cn) • Resilience (Re) • Maintainability (Mt) • Intelligence (In)	• Building operations and management • Life safety, security and risk management • Training and education • Energy • Environmental/sustainability • Tenant relations/community involvement	• Energy and Carbon • Water • Indoor Air Quality and Hazards • Accessibility and Wellness • Custodial and Waste • Resilience and Site	• Management • Water • Energy • Transport • Health & wellbeing • Land use & ecology • Resources • Resilience • Pollution • Materials • Waste • Innovation	Built Environmental Efficiency (BEE) • Quality (Q) – Indoor environment, quality of service, and outdoor environment • Load (L) – Energy, resources and materials, and the off-site environment	Can vary based on project type • Life cycle assessment • Holistic approach • Performance orientation • Environmental Quality • Climate action and energy • Water • Materials and recycling • Economy Quality • Operating costs • Risk management and long-term asset value • Procurement and operations • Socio-cultural quality • Indoor comfort • User satisfaction • Mobility +Technical quality, process quality, site quality
FEES	Vary based on project type and size.	Application Fee: Member Pricing: $995.00 Non-Member Pricing: $1,500.00	Vary based on project type and size, BOMA member status, and location.	USA/Canada New Construction: Registration: $1,750 Certification: $4,000-$15,000 depending on assessment size	Vary based on project type and size	Certification fees – vary based on scheme, project size, and applicant membership status. Auditor fees – vary based on project and scope of services.
RENEWAL / RECERTIFICATION	Renewal assessment required every two years to maintain the validity.	Required every three years.	Certifications valid for 5 years.	For In-use standards, buildings must undergo a re-assessment every three years.	Not applicable.	Varies. New construction certificates valid indefinitely. Buildings In Use certifications valid for three years; can be recertified.
RATING SCALE	Certified, Gold, GoldPLUS, Platinum	BOMA 360 designation	Baseline, Bronze, Silver, Gold, Platinum	Unclassified, Pass, Good, Very Good, Excellent, Outstanding	Poor (C), Slightly Poor (B-), Good (B+), Very Good (A), Superior (S) + Life-cycle assessment of carbon dioxide (LCCO2) rating: 1-5 Stars	Bronze, Silver, Gold, Platinum
# OF CERTIFIED PROJECTS	4,600+	13,000+	7,000+	600,000+	Not available	10,000+

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

	EDGE (v3.1)	**ENERGY STAR©**	**Estidama Pearl Rating System (PRS)**	**Fitwel (v3)**	**GEM Sustainability Certification Program**
MANAGING BODY	International Finance Corporation (IFC) a member of the World Bank Group *Excellence in Design for Greater Efficiencies*	Administered by the U.S. Environmental Protection Agency (USEPA)	Abu Dhabi Urban Planning Council (UPC)	Center for Active Design (CfAD) Fitwel was originally created by the U.S. Centers for Disease Control and Prevention (CDC) and U.S. General Services Administration. The CDC remains the research and evaluation partner for Fitwel. *Facility Innovations Toward Wellness Environmental Leadership*	ASSOCHAM
LAUNCHED	2014	1992	2010	2015 beta, 2017 public	2017
INTENDED FOR	New buildings, existing buildings	New buildings, existing buildings – commercial; industrial	All new developments in the United Arab Emirates	New buildings, existing buildings	New buildings, existing buildings, interiors
GEOGRAPHIC RANGE	Global – EDGE certification is available in more than 130 emerging market countries	Global	Middle East	Global	India
PHASE(S)	EDGE certification has two stages: design and construction	Design Operations and Maintenance	Design and construction Operations and maintenance	Design and construction Operations and maintenance	Pre-design Design and construction Operations and maintenance
CATEGORIES / FOCUS AREAS	• Energy • Water • Material	• Energy Use • Water Use • Waste Tracking	• Integrated Development Process • Natural Systems • Livable Buildings • Precious Water • Resourceful Energy • Stewarding Materials • Innovating Practice	• Impacts Surrounding Community Health • Reduces Morbidity and Absenteeism • Supports Social Equity for Vulnerable Populations • Instills Feelings of Well-Being • Enhances Access to Healthy Food • Promotes Occupant Safety • Increases Physical Activity	30 Principles, including: • Construction Management Best Practices • Propagating Passive Design Strategies • Landscape Best Practices • Preserve and Plant Trees Onsite • Irrigation Best Practices • Measurement of Energy and Water Consumption • Post-occupancy Waste Management • Reduced Exposure to VOC • Local Sourcing of Construction Materials • Healthy Indoor Air Quality
FEES	Registration – generally around $350. Certification – varies based on project location, certifier, project type and size, auditing, etc. $1,000 (approximately) to certifying partner.	No cost for certification, but applications must be verified and stamped by a licensed Professional Engineer (PE) or Registered Architect (RA), which typically costs around $1,500.	Not available.	Registration fee: $500 USD Certification fees dependent on project size and type, and membership.	Certification fees vary based on project type and size.
RENEWAL / RECERTIFICATION	Required for Level 3: Zero Carbon certification, every four years with 100% renewables and every two years with purchased offsets.	Must be renewed annually.	Not available.	Required every three years.	Not available.
RATING SCALE	Level 1: EDGE Certified, Level 2: EDGE Advanced, Level 3: Zero Carbon	ENERGY STAR© Certification	1 to 5 Pearls	1 to 3 Stars	GEM 1 to GEM 5
# OF CERTIFIED PROJECTS	12,400+	43,000+	400+	2,300+	Not available

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

	Green Globes (NC 2024)	**Green Star Buildings (v1)**	**GSAS**	**LEED BD+C (v5)**	**Living Building Challenge (v4.1)**
MANAGING BODY	USA: Green Building Initiative (GBI)	Green Building Council Australia (GBCA)	Gulf Organization for Research and Development (GORD) GSAS Trust *Global Sustainability Assessment System*	Green Business Certification, Inc. (GBCI) US Green Building Council (USGBC) *Leadership in Energy and Environmental Design*	International Living Future Institute (Living Future)
LAUNCHED	2000	2003	2007	1998	2006
INTENDED FOR	New buildings, existing buildings, interiors, core & shell	New buildings, existing buildings, interiors	New buildings, existing buildings	New buildings, existing buildings, interiors, core & shell, renovations	New buildings, existing buildings, interiors, landscape or infrastructure
GEOGRAPHIC RANGE	United States and Canada (primarily)	Australia, New Zealand, South Africa	Middle East and North Africa (MENA) region	Global	Global
PHASE(S)	Design and construction Operations and maintenance	Design and construction Operations and maintenance	Design, Construction Operations and maintenance	Design and construction Operations and maintenance	Design and construction Operations and maintenance
CATEGORIES / FOCUS AREAS	• Project Management • Site • Energy • Water Efficiency • Materials • Indoor Environment • ESG Management (Existing Buildings only) Also available: Green Globes Distinctions for health & wellness, resilience; and a Journey to Net Zero Program.	• Responsible • Healthy • Resilient • Positive • Places • People • Nature • Leadership +Climate Positive Pathway	• Urban Connectivity • Site • Energy • Water • Materials • Indoor Environment • Cultural & Economic Values • Management & Operations	• Integrative Process, Planning, and Assessments • Location and Transportation • Sustainable Sites • Water Efficiency • Energy and Atmosphere • Materials and Resources • Indoor Environmental Quality • Project Priorities And Innovation	20 imperatives grouped into seven petals: • Place • Water • Energy • Health + happiness • Materials • Equity • Beauty
FEES	Registration: $1,500 USD. Assessment fees vary based on building/project type, size, boundaries, phase, complexity, etc.	Based on rating tool, contract value, and GBCA membership, starting at $15,600 AUD.	N/A	Registration: $1,350 USD for Silver, Gold and Platinum level members; $1,700 USD for Organizational level members or nonmembers. Certification fees vary based on membership status, type of review, and project size.	Registration: $5,000 USD. Certification fees based on program requirements, associated support, complexity of audit, and project size.
RENEWAL / RECERTIFICATION	Not required, but recommended every 3-5 years; Journey to Net Zero program requires reassessment at least every three years.	No renewal for Green Star Building certifications. Yearly reviews required to maintain a Green Star – Performance rating.	Not mandatory, but can be recertified for operations and maintenance.	Certifications under the LEED BD+C rating system and LEED ID+C rating system do not expire, but projects are encouraged to recertify. Projects are required to submit energy and water use data to USGBC for five years after certification.	Every three years.
RATING SCALE	1-4 Green Globes	Green Star Certified: 4 Star, 5 Star, and 6 Star, representing Best Practice, Australian Excellence and World Leadership	GSAS Design & Build – 1-6 Stars GSAS Construction Management – Class D, Class C, Class B, Class A, Class A* GSAS Operations – Bronze, Silver, Gold, Platinum, Diamond	Certified, Silver, Gold, Platinum	Core certification, Petal Certification, Living certification Zero Energy Certification™ (ZE) Zero Carbon Certification™ (ZC)
# OF CERTIFIED PROJECTS	4,200+	4,500+	2,400+	195,000+	250+

SUSTAINABILITY RATING AND CERTIFICATION SYSTEMS: **BUILDINGS**

	NABERS	**Parksmart (v2.4)**	**PEER (v2)**	**TRUE (v1)**	**WELL Building Standard (v3)**
MANAGING BODY	NABERS is a national government program administered by the New South Wales (NSW) Government (the National Administrator) *National Australian Built Environment Rating System*	Green Business Certification Inc. (GBCI)	Green Business Certification Inc. (GBCI) *Performance Excellence in Electricity Renewal*	Green Business Certification Inc. (GBCI) *Total Resource Use and Efficiency*	Green Business Certification Inc. (GBCI) International Well Building Institute
LAUNCHED	1999	2016	2013	2017	2014
INTENDED FOR	New buildings, existing buildings	Parking structures	Power systems; guidance structured around three core project types: cities and utilities, campuses, transit	Existing buildings, events Construction – any work carried out in the construction of new structures and/or major renovation of existing structures; no maximum or minimum size to be eligible for certification.	New buildings, existing buildings, interiors, core & shell
GEOGRAPHIC RANGE	Australia, New Zealand, and United Kingdom	Global	Global	Global	Global
PHASE(S)	Operations and maintenance	Design and construction Operations and maintenance	Design and construction Operations and maintenance	Operations and maintenance	Design and construction
CATEGORIES / FOCUS AREAS	• Energy • Water • Waste • Indoor environment	• Management • Programming • Technology and Structure Design • Innovation	• Reliability and resiliency • Energy efficiency and environment • Operations, management and safety • Grid services • Innovation and Exemplary Performance • Regional Priority	• Redesign • Reduce • Reuse • Compost (re-earth) • Recycle • Zero Waste Reporting • Diversion • Zero Waste Purchasing • Leadership • Training • Zero Waste Analysis • Upstream Management • Hazardous Waste Prevention • Closed Loop • Innovation	• Air • Water • Nourishment • Light • Movement • Thermal Comfort • Sound • Materials • Mind • Community Also well ratings focused on: Health and Safety, Performance, and Equity.
FEES	Two parts: NABERS administration fees: vary based on product, sector/ building type, and rating type. Assessor fee: Varies by assessor.	($USD) / SILVER, GOLD, PLATINUM MEMBER / ORGANIZATIONAL AND NON-MEMBER: REGISTRATION: $1,200 / $1,500 CERTIFICATION – NEW CONSTRUCTION: $5,500 / $6,500 CERTIFICATION – EXISTING BLDG: $4,500 / $5,500	($USD) / USGBC MEMBER / NONMEMBER: REGISTRATION: $1,200 / $1,500 PRECERTIFICATION: $2,500 / $3,200 CERTIFICATION (if pre-certified): $6,000 / $8,000 CERTIFICATION (not pre-certified): $8,000 / $10,000	($USD) / SILVER, GOLD, PLATINUM MEMBER / ORGANIZATIONAL AND NON-MEMBER: REGISTRATION: $1,200 / $1,500 PRECERTIFICATION: $2,500 / $3,125 CERTIFICATION – Construction: $5,000 / $6,250 CERTIFICATION – EXISTING BLDG: Varies based on member status and project size.	Enrollment fee: $3,000 (valid for 3 years) Program fee: Certification: $0.16/sq ft; starting at $8,000 and capped at $98,000 Program fee: Core: $0.08/sq ft; starting at $8,000 and capped at $98,000 Optional precertification: $0.05 /sq ft
RENEWAL / RECERTIFICATION	Required annually.	Required after three years.	Required to report performance data annually and recertify every three years. Recertification fees: ($USD) / USGBC MEMBER / NONMEMBER: ANNUAL DATA PROVIDED: $2,000 / $2,500 ANNUAL DATA LAPSED: $2,500 / $3,200	Required to report performance data annually and recertify every three years. Recertification fees: ($USD) / SILVER, GOLD, PLATINUM MEMBERS / ORG. AND NON-MEMBERS: ANNUAL DATA PROVIDED: $500 / $625 ANNUAL DATA LAPSED: $1,000 / $1,250	Every three years. Recertification: $0.05/sq ft; starting at $6,000 and capped at $30,000. Core Recertification: $0.03/sq ft; starting at $6,000 and capped at $98,000.
RATING SCALE	1 to 6 stars	Existing facilities: Parksmart Pioneer New Construction: Bronze, Silver, Gold	Certified, Silver, Gold and Platinum	Certified, Silver, Gold and Platinum	Bronze, Silver, Gold, Platinum
# OF CERTIFIED PROJECTS	2,500+	150+	20+	350+	13,000+