

SG GREEN



SUSTAINABLE INTERIORS: HEALTH, WELLBEING & BEYOND

INSIDE:
**MAKING A GREEN MARK
FOR INTERIOR SPACES**

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**SINGAPORE HAS BEEN
WELL THOUGHT OF**

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SG GREEN

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MESSAGE FROM THE EDITORIAL TEAM

illustration by Freepik.com

If our parks, streets, and public spaces are designed to support healthier lives, what role should our indoor environments play?

This question informs the latest issue of SG Green. Singapore has shown that a dense city can also be a green city. Today, that ambition is evolving: from reducing environmental impact to creating regenerative spaces that restore ecosystems and support human wellbeing. With the average Singaporean spending more than 90 percent of their time indoors, the interiors we inhabit are active contributors to health, not neutral backdrops.

This issue examines that shift from multiple angles. Our contributors explore how interior design is moving beyond aesthetics toward a deeper purpose: supporting human biology, resilience, and wellbeing. Light, air, sound, temperature, and materials are no longer merely design decisions—they are environmental signals the body responds to, with physiological consequences.

The new Green Mark for Interiors (GMI) certification scheme takes centre stage. Launched for applications in November 2025, it consolidates evaluation criteria across multiple interior space types and represents the next frontier in Singapore's building sustainability journey. Tenants are responsible for more than 60 percent of total building energy consumption, making interiors a critical lever for achieving Singapore Green Building Masterplan targets.

We also explore the convergence of global wellness benchmarks with local practice. The WELL Building Standard finds surprising resonance within Singapore's existing regulatory framework—suggesting that Singapore has been “WELL thought of” for some time. Urban farming, hybrid cooling, and preventive health in residential design further illustrate how sustainability and human wellbeing are becoming inseparable.

What emerges is clear: the future of sustainable interiors lies in moving beyond environmental compliance to embrace human outcomes. The greenest interior is not simply one that uses fewer resources, it is one that creates a healthier, more comfortable, and more supportive environment for the people inside. That is sustainability from the inside out.

We hope this issue inspires you to rethink the spaces you create and occupy, whether you are a designer, building owner, tenant, or someone who believes the places we live and work in should support both the planet and the people it sustains.

Yours Sincerely,
SG Green Editorial Team





REGENERATIVE CITIES: RESTORING PEOPLE AS WELL AS PLACES

From concrete jungles to thriving ecosystems, regenerative cities restore nature and build stronger, healthier communities.



Regenerative Cities: Restoring People as Well as Places

Singapore has become one of the world's leading examples of sustainable urban development. Through the BCA Green Mark scheme, ambitious urban greening and a long-standing commitment to liveability, it has shown that a dense city can also be a green city.

Today, that ambition is evolving. The goal is no longer simply to reduce environmental impact, but to create regenerative cities — cities that restore ecosystems and generate positive outcomes for future generations. This shift reflects a growing recognition that the spaces around us are closely linked to our health. As evidence has accumulated that access to nature can reduce stress, improve mental wellbeing and strengthen resilience, our urban planners have responded by weaving nature back into the fabric of the city.

Alongside this, Singapore has placed preventive health at the centre of its national healthcare strategy, recognising that keeping people well matters as much as treating them when they fall ill. Two national ambitions — a greener city and a healthier population — are converging on the same idea: that our surroundings are not a neutral backdrop to health, but an active contributor to it.

Today, the average Singaporean spends more than 90% of their time indoors which raises the question:

If our parks, streets and public spaces are now being designed to support healthier lives, what role should our indoor environments play?

ENVIRONMENTAL MISMATCH: BIOLOGY IN A 21ST-CENTURY WORLD

The evolutionary geneticist Theodosius Dobzhansky famously wrote:

"Nothing in biology makes sense except in the light of evolution."

Humans have existed for roughly 300,000 years, and for 99% of that history our biology developed in close contact with the natural world — bright days and dark nights, changing temperatures, moving

air, natural sounds, shifting terrain and seasonal variation. Our modern indoor environment occupies only a tiny fraction of that timeline.

Singapore makes the speed of this transformation strikingly visible. In little more than a century, our surroundings have changed almost beyond recognition. Today, much of life is spent behind glass, under electric light and in mechanically cooled, increasingly controlled environments.



*Kampong house," late 19th–early 20th century, Singapore
Collection of the National Museum of Singapore, Accession No.
1995-01616.*

Our environment has changed far faster than biology can adapt. The result is a mismatch between the conditions our biology evolved for and the world we live in now. This is not an argument for returning to the past — modern buildings have delivered extraordinary gains in safety, comfort and quality of life. The opportunity is to bring what we now understand about human biology into the way we design the modern world.

THE EXPOSOME: A NEW WAY OF THINKING ABOUT BUILDINGS AND INTERIORS

The science of the exposome is changing the way we think about the buildings and interiors we create. The exposome describes how health is shaped not only by our genes, but by the lifestyles and environments we experience across a lifetime — and unlike the genome, the exposome is something that can be changed.



THE MEASURABLE HOME



Air Quality:

CO₂ 640 ppm

PM_{2.5}: 5 µg/m³

Noise: 27dB

Humidity: 62%

**Morning Melanopic EDI:
250 Lux**

Sleep Efficiency: 89%

HRV: 56

Credit: Science Of Sanctuary

Designers have understood intuitively that some environments calm while others stimulate. What has changed is our ability to measure how. For interior designers, this is a meaningful shift. Light, air, sound, temperature, humidity, materials, even views are no longer merely design decisions; they are part of the environment the body responds to, with physiological consequences.

Singapore has already begun to translate this thinking into practice. The Green Mark for Interiors certification scheme, together with recent guidance on lower-emission materials, reflects a growing recognition that healthier indoor environments matter — encouraging early steps toward a larger opportunity.

SLEEP AND CIRCADIAN HEALTH: FROM SCIENCE TO PREVENTIVE HEALTH

2022 - Sleep recognised as essential to heart health

The American Heart Association added sleep to Life's Essential 8, its key measures for cardiovascular health.

2025 - Circadian disruption recognised as a risk factor for cardiac and metabolic disease

An American Heart Association Scientific Statement highlighted the importance of circadian health for cardiovascular and metabolic health, including risks associated with type 2 diabetes, high blood pressure and cardiovascular disease.

It identifies light as the primary time cue.

Credit: Science of Sanctuary

THE HOME AS A HEALTH ENVIRONMENT

Today, the biological consequences of design are visible. Advances in environmental sensing, wearable technology and building science are allowing us to observe what was previously invisible — how the environments interior designers create affect sleep, stress and autonomic regulation, in itself changing physiology.

And what we can measure, we can design for.

Our parks, streets and public spaces are being designed to support healthier lives. The next frontier is the one interior environment we spend more time in than any other.

The home.

We think about homes in many ways — as places of comfort and belonging, where families are raised, milestones celebrated and people recover from illness. Yet the home is also where the exposome impact is strongest. It is where light, air, sound and materials act on the body more hours of the day, and more consistently, than anywhere else. That gives residential interior designers an unparalleled opportunity: to support health and resilience in the place that shapes us most persistently. And if there is one room where that opportunity is greatest, it is the bedroom.

SLEEP: THE BODY'S DAILY REGENERATION PROGRAMME

Over the past two decades, sleep science has fundamentally changed our understanding of health. Sleep is no longer viewed as a passive period of rest, but as the body's primary period of regeneration. Each night, while we sleep, the brain consolidates memories, regulates emotions and clears waste, while the body coordinates immune function, restores metabolic balance, repairs tissues, supports cardiovascular health and prepares itself for the day ahead. It is, in the fullest sense, foundational to both physical and mental resilience.

"Sleep is a basic human need no different from our need for clean water, air and nutritious food."

**Professor Michael Chee,
Centre for Sleep and Cognition,
Yong Loo Lin School of Medicine, NUS.**

And for most of us, the bedroom is where this daily regeneration takes place. If regenerative cities are intended to restore living systems, then the bedroom is where that regeneration begins.

THE BEDROOM: DESIGNING FOR RECOVERY

How well the body recovers overnight depends, in part, on the environment around it.

Morning daylight. Darkness at night.

Clean air. Comfortable humidity and temperature

Quiet and Healthy materials.

The body does not read a clock or a calendar. Instead, it uses environmental signals to determine when it is time to be alert and active, and when it is time to rest and repair. A bedroom should do more than look restful; designed well, it can become a form of preventive health.

DESIGN IN THE AGE OF BIOLOGY

Homes have always provided shelter, comfort, beauty and belonging. Today we can ask a deeper question of them: how does the home support the body's natural capacity to repair, restore and regenerate?

For interior designers, this represents a paradigm shift. It expands the purpose of design beyond aesthetics, comfort and function to include human health and flourishing, and it begins by recognising that homes are not biologically neutral. Every design decision is an opportunity to support human biology, resilience and wellbeing.

Just as sustainability transformed the way we think about energy, water and materials, the next evolution of design will consider not just how a building affects the planet, but how it supports the people living within it.

Because a truly regenerative city should not only restore ecosystems. It should regenerate the people it is built for. ✓

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What Designers Can Do Today

Design Intervention	Why It Matters
Plan layouts around natural daylight	Supports healthy daily light exposure and reinforces circadian rhythms
Incorporate accessible outdoor spaces	Encourages daylight exposure, fresh air and connection with nature
Design lighting to reflect the natural progression of the day	Better aligns indoor lighting with the body's daily rhythms
Provide effective ventilation and kitchen extraction	Helps maintain healthier indoor air quality and reduce pollutant build-up
Control humidity through effective ventilation, particularly in bathrooms and wet areas	Helps reduce dampness, mould growth and moisture-related indoor air quality problems.
Design for comfortable night-time temperatures	Creates conditions for restorative sleep and overnight recovery
Design the bedroom as the home's primary recovery environment	Supports restorative sleep and the body's overnight regeneration
Specify healthier, lower-emission materials	Helps reduce unnecessary indoor chemical exposures

Credit: Science of Sanctuary





MAKING A GREEN MARK FOR INTERIOR SPACES

The Green Mark for Interiors certification scheme is designed for interior fit-out projects, enabling environmentally-friendly spaces, sustainable operations, and enhanced occupant health and wellbeing.

GMI for Office Spaces

The Singapore Green Building Masterplan outlines the “80-80-80 in 2030” targets, which aim to unlock the next phase of building energy efficiency improvements. These targets are: (i) achieving 80 percent of buildings to be green by 2030, (ii) ensuring 80 percent of new developments are Super Low Energy buildings from 2030, and (iii) achieving an 80 percent improvement in Energy Efficiency performance for best-in-class buildings by 2030. Since 2005, steady progress has been made towards these goals by enhancing the performance of base building core and shell systems. Interior spaces have now been identified as the next frontier for pushing

the boundaries of total building performance in order to meet these targets.

Recent studies highlight the significance of tenants as a key stakeholder group within buildings, both in terms of occupied floor area and energy consumption. Figures 1 and 2, sourced from the Annual Reports and Sustainability Reports of Frasers Centrepoint Trust (FCT) and CapitaLand Integrated Commercial Trust (CICT) respectively, show that tenants are responsible for about 60 percent of total building energy consumption, as well as a significant share of energy consumption intensity measured per floor area.

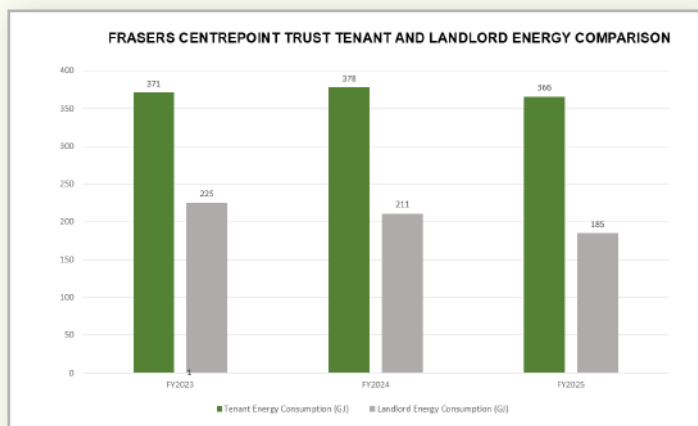


Figure 1: FCT Tenant and Landlord Energy Consumption Comparison (Reference: FCT ESG Report 2025)

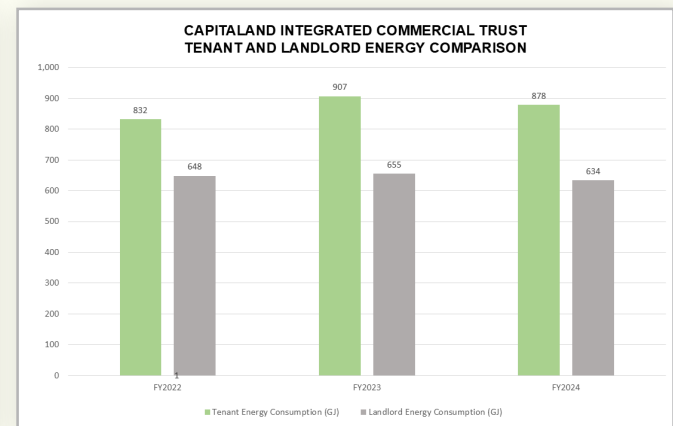


Figure 2: CICT Tenant and Landlord Energy Comparison

Reference: information for Figures 1, 2, 3 sourced from annual reports and sustainability reports of FCT and CICT. Adapted with permission.

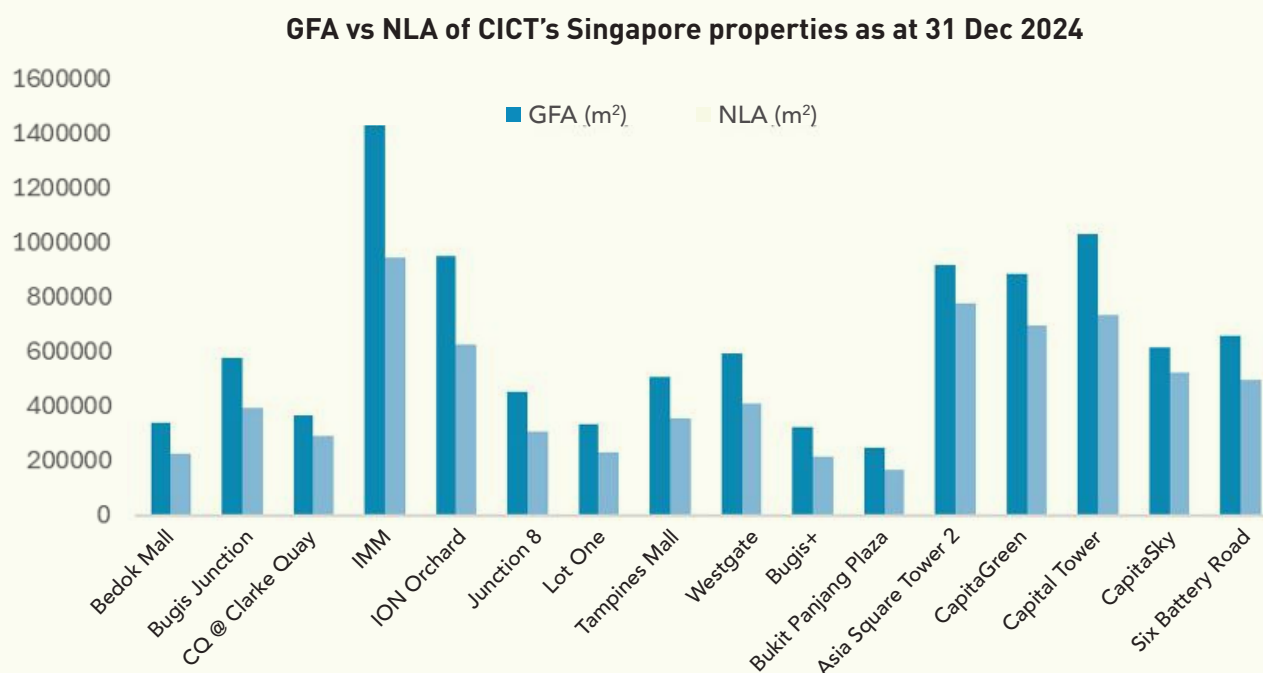


Figure 3: GFA vs NLA of CICT's Singapore properties as at 31 Dec 2024

Figure 3 further illustrates that the Net Lettable Area (NLA) for CICT's retail and office properties in Singapore often constitutes around 65-85 percent of the total building gross floor area (GFA).

Thus, while tenants may view themselves as part of industries related to their daily operations—such as food and beverage, petrochemicals, logistics, finance, or others—they should recognise that they are, in fact, critical stakeholders within the built environment sector. Their actions have a significant impact on building sector targets and overall sustainability outcomes.

WHY GREEN MARK FOR INTERIORS?

Despite the significant influence tenants have on building-level performance, these considerations may not always be top-of-mind concerns, as they do not directly affect day-to-day operations or bottom lines. Nevertheless, tangible benefits can be realised from both human-centric and business-focused perspectives when improving interior spaces.

The interior environment is experienced physically, and performance across indoor environmental quality metrics—such as temperature, air movement, acoustics, lighting, indoor air quality, and access to

greenery—can have a lasting impact on the mood, performance, and productivity of staff. Furthermore, it leaves lasting impressions of the organisation on visitors and customers.

From a business standpoint, better management of lighting, cooling, plug loads, and other energy-consuming equipment can lead to significant savings on energy bills. At the same time, the lasting impression of a high-performing interior space contributes to valuable marketing and branding positions, supporting organisational sustainability targets such as mandatory carbon emissions reporting. There is also a growing observation that young talent increasingly value workplace sustainability credentials as part of the overall employment package.





WHAT IS GREEN MARK FOR INTERIORS?

The Green Mark for Interiors (GMI) certification scheme evaluates an interior space based on its holistic green building and sustainability performance. Launched in November 2025 for applications, it is a refresh of the previous BCA Green Mark User-Centric scheme administered by the Building and Construction Authority (BCA), which comprised Healthier Workplaces, Retail, Restaurants, Supermarkets, and Laboratories. Complementing the broader BCA Green Mark building certification scheme, GMI consolidates the evaluation criteria of these five types of interior spaces, allowing all of them to be assessed under a single, unified standard. The Singapore Green Building Council (SGBC) has been designated by BCA to provide administration, assessment and certification services for GMI applications.

ELIGIBILITY AND SCOPE

The public sector is leading the way in pursuing sustainable development under the GreenGov.sg initiative, mandating that its offices are to be GMI-certified, while remaining voluntary for

other interested, non-public sector tenants. GMI certification comprises a one-time performance assessment of fitted-out, occupied, and functioning spaces that have been in operation for at least three months. Only furniture, fixtures, and equipment owned and operated by the tenant are assessed; items that the landlord is responsible for are excluded from evaluation.

MINIMUM REQUIREMENTS

Gold, Gold^{PLUS}, Platinum, and Platinum Zero Energy (Platinum ZE) are the possible rating awards that can be achieved under the GMI scheme. The scheme includes prerequisites to ensure minimum performance in energy and health parameters.

One of the main prerequisites is ensuring that light fittings are highly energy efficient; they must be at least 10 percent better than the prevailing baselines set by the Singapore Standards SS530:2024 Code of Practice for Energy Efficiency for Building Services and Equipment. To achieve higher ratings, the space must demonstrate additional sustainability features that are recognised within a point-scoring system. A total of 70 points are available within the scheme.

SUSTAINABILITY SECTIONS

A wide spectrum of points is available, categorised within five sustainability sections: Energy, Health and Wellbeing, Environmental Stewardship, Smart, and Carbon.

Beyond lighting, the Energy section requires applicants to evaluate their spaces for opportunities and limitations regarding further energy efficiency improvements. It also reviews any ancillary air conditioning systems installed by the tenant and requires reporting on their energy use intensity.

GMI Rating	Gold	GoldPLUS	Platinum	Platinum ZE ¹
Lighting energy improvement	10%	20%	30%	35%
Performance scores (70 points total)	25 points	30 points	35 points	35 points
Prerequisite Requirements	Basic Prerequisites	Basic Prerequisites	Additional Prerequisites	Additional Prerequisites

Figure 4: GMI Award Rating Framework

Making a Green Mark for Interior Spaces

The Health and Wellbeing, Environmental Stewardship, Smart, and Carbon sections address the holistic sustainability of interior spaces beyond energy performance. Achieving 12 out of 15 available points in any of these sections will be rewarded with the corresponding sustainability badge. These sections cover human-centric parameters such as access to greenery and mould-resistant wet areas, and also consider sustainable material use by encouraging reuse and end-of-life planning for interior fit-out products.

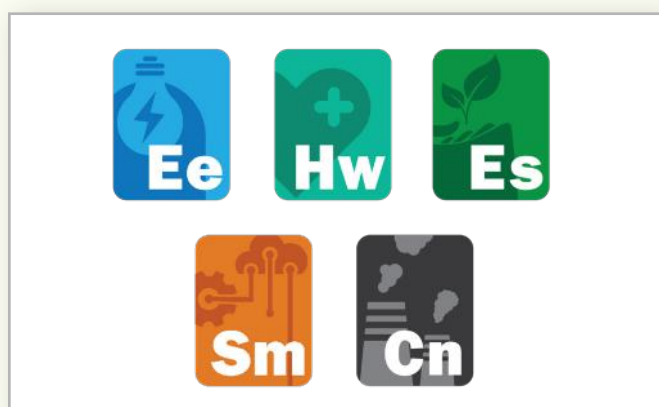


Figure 5: The 5 Sustainability Sections in the GMI Scheme

SUPPORTING RESOURCES

GMI is eligible for tenants from any industry, but some applicants may find it challenging to understand the technical performance requirements needed for compliance. Supporting resources are available to better guide applicants attempting GMI certification.

The **GMI Technical Guide** covers every requirement within the GMI scheme, providing detailed elaborations and guidance notes to explain the requirements and clarify how to demonstrate compliance with each criterion. Performance criteria that require calculations also include templates that provide the necessary formulas and input data to fulfil the criteria.

For applicants who still find the scheme voluminous or daunting, the **GMI Gold Readiness Pathway** filters a list of criteria of up to 30 points and organises them into three themes: base building

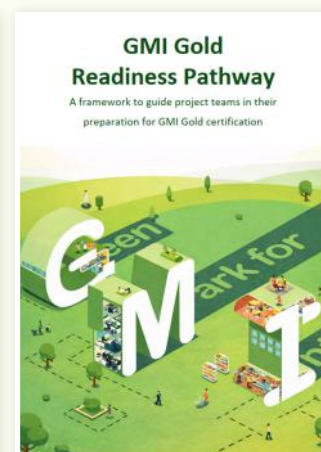


advantages, implementable office practices and policies, and simple premise implementations. These shortlisted criteria identify lower-hanging fruits that are cost-effective and readily implementable, enabling applicants to achieve the entry-level GMI Gold award rating without having to work through the full list of GMI criteria.

GETTING STARTED

The GMI scheme is supported by an online portal that provides a full suite of information to facilitate the GMI certification process. The application process is conducted through this portal, which serves as a one-stop shop for tracking your application, reviewing the GMI criteria, and downloading any supporting resources you may require.

Get started on your GMI journey towards environmentally-friendly spaces, sustainable operations, and enhanced occupant health and wellbeing today. ✓







SETTING A NEW BENCHMARK FOR SUSTAINABLE WORKPLACE DESIGN

The CCS Office: where every design decision serves a greater purpose

Setting a New Benchmark for Sustainable Workplace Design



Today's workplaces are expected to do far more than accommodate employees. They shape organisational culture, influence wellbeing and increasingly reflect an organisation's commitment to sustainability. As expectations continue to evolve, the most successful workplaces integrate sustainability into every decision—from planning and design to construction, operations and the everyday employee experience.

For the Competition and Consumer Commission of Singapore (CCS), this philosophy guided the creation of its new office at Keppel South Central. Sustainability formed the foundation of the project, informing every stage of the workplace journey. From spatial planning and material selection to premise performance and employee engagement, each decision was guided by a shared vision of creating a workplace that delivers lasting value for people, the environment and the organisation.



The outcome is more than a contemporary office. It is a workplace designed to perform efficiently, adapt to changing needs and support the wellbeing of its occupants, demonstrating how environmental responsibility and operational excellence can reinforce one another.

DESIGNING FOR LONGEVITY

The foundations of a sustainable workplace are established long before construction begins. By locating its office within Keppel South Central, a Green Mark Platinum Super Low Energy development, CCS aligned itself with a building that already reflected strong environmental performance.



Setting a New Benchmark for Sustainable Workplace Design

Excellent public transport connectivity, facilities that encourage active commuting and access to surrounding greenery provided a natural platform for creating a healthier and lower-carbon workplace.

Inside the office, the design philosophy focused on longevity rather than trends.

Inspired by the honesty of brutalist architecture, the workplace expresses simplicity through concrete-inspired finishes, natural timber textures and a restrained material palette. Every design decision was guided by a desire to create a timeless environment that would remain relevant well into the future, reducing the need for frequent refurbishment and unnecessary material replacement.

Functionality was considered just as carefully as aesthetics. Materials were selected for their durability and ease of maintenance, ensuring they would continue performing throughout the workplace lifecycle. Flexible work settings, adaptable meeting spaces and provisions for future expansion allow the office to evolve alongside organisational needs, reinforcing the belief that the most sustainable workplaces are often those designed to last.

The workplace also embraces nature as an essential part of the employee experience. Abundant daylight, indoor planting and views of the surrounding landscape create bright, welcoming spaces that encourage collaboration while supporting health, comfort and productivity.

PERFORMANCE DESIGNED IN

Some of the workplace's most impactful sustainability features are those that operate quietly in the background, seamlessly supporting both premise performance and the everyday experience of its occupants.

CCS adopted an integrated approach to workplace performance, where efficient lighting, intelligent controls, optimised air-conditioning and data-driven energy management systems work together to reduce energy consumption while maintaining a comfortable and productive environment. Real-time performance monitoring provides ongoing operational insights, enabling continuous optimisation throughout the project's lifecycle.



Setting a New Benchmark for Sustainable Workplace Design



This same integrated approach extends to occupant wellbeing. Careful material selection with the use of SGBP-certified products helped create healthier indoor spaces by reducing sources of indoor pollutants, while enhanced air filtration and ventilation strategies support good indoor air quality. Together with thoughtful thermal comfort, acoustic planning and generous access to natural daylight, these measures create an environment where employees can focus, collaborate and perform at their best.

By integrating environmental performance with occupant-centred design, the workplace delivers lasting value on multiple fronts—operating efficiently behind the scenes while providing a healthy, comfortable and productive environment for the people who use it every day.

BUILDING A CULTURE OF SUSTAINABILITY

Creating a sustainable workplace extends beyond the physical environment.

One of the project's most meaningful sustainability decisions was recognising the value of what already existed. Instead of defaulting to replacement, the project team carefully evaluated existing furniture, fittings and building components, retaining and integrating them wherever practical. This approach reduced construction waste, preserved embodied carbon and demonstrated that thoughtful reuse can often have a greater environmental impact than purchasing new sustainable products.

That same philosophy continues into everyday operations. Water-efficient fixtures, reusable pantry items and sustainable workplace practices encourage employees to make environmentally responsible choices as part of their daily routines. Supporting initiatives such as the Go 25 national

Setting a New Benchmark for Sustainable Workplace Design

movement, Staff Green Guide, Sustainable Operations Plan and Zero-Waste campaign reinforce the idea that sustainability is not solely achieved through design, but through the collective actions of the people who occupy the space.

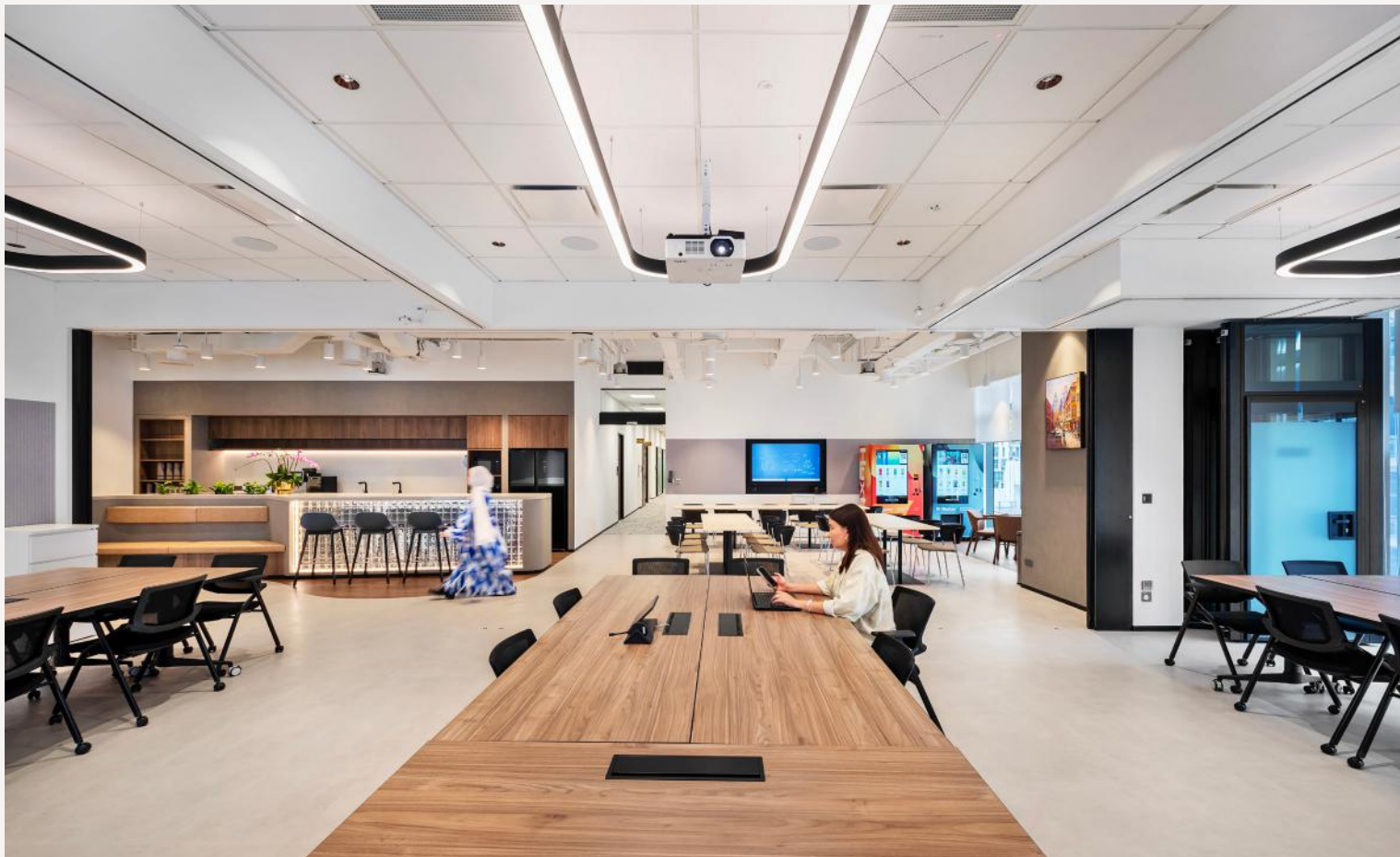
By embedding sustainability into workplace culture, CCS has created an environment where responsible behaviours become part of everyday working life.

A WORKPLACE FOR THE FUTURE

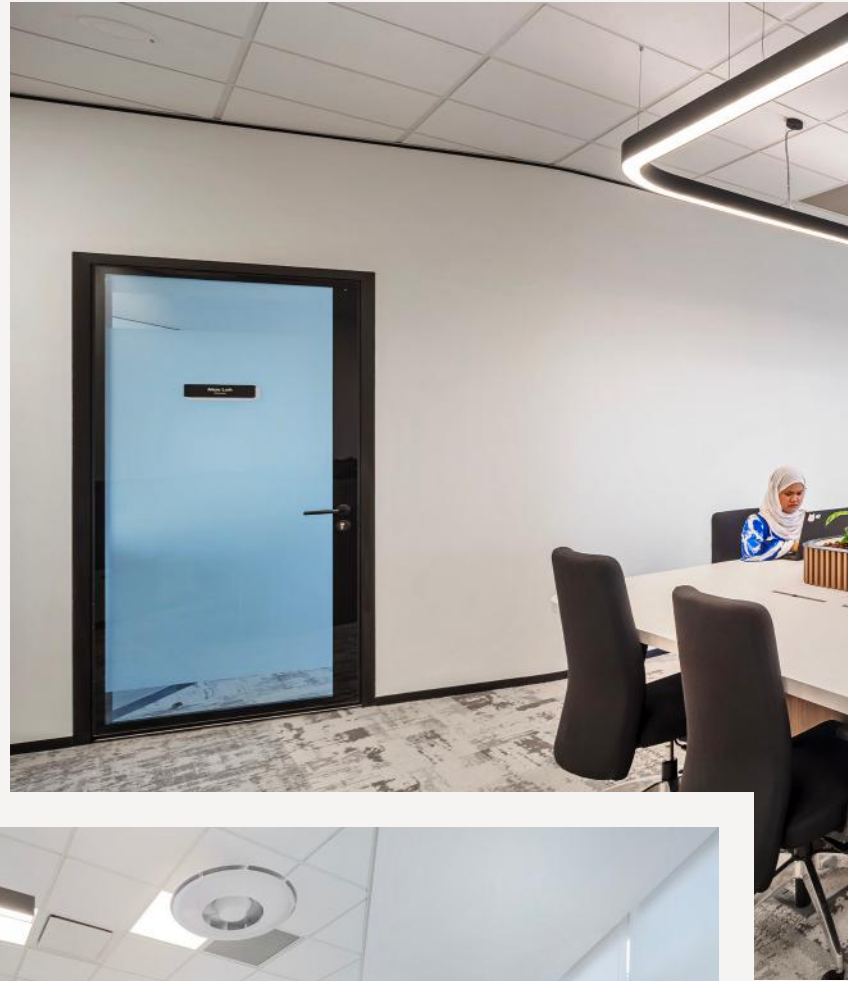
The CCS office demonstrates that sustainability delivers its greatest value when it is considered holistically. Every decision—from workplace planning and material selection to operational strategies and employee engagement—contributes to a shared vision of creating a healthier, more resilient and future-ready workplace.

This achievement was made possible through close collaboration between the tenant, landlord, consultants and contractors, ensuring sustainability objectives remained aligned throughout the project. The result is a workplace where environmental performance, operational efficiency and employee wellbeing work together to create lasting value.

Early operational performance has already demonstrated the effectiveness of this integrated approach. Within the first three months of occupation, the office recorded energy performance exceeding benchmark expectations, contributing to reductions in projected Scope 1 and Scope 2 carbon emissions. Post-occupancy evaluations also reflected positive employee experiences across thermal comfort, indoor air quality, lighting quality, acoustics and workplace ergonomics, highlighting that sustainable design can deliver tangible benefits for both organisations and their people.



Setting a New Benchmark for Sustainable Workplace Design



Setting a New Benchmark for Sustainable Workplace Design



Ultimately, the success of the CCS office is measured not only by lower energy consumption or reduced carbon emissions, but by the everyday experience it creates for the people who work there. By bringing together thoughtful design, responsible resource management and a workplace culture that encourages sustainable behaviours, CCS has created an environment that is healthier for its people, lighter on the planet and ready to adapt to the needs of tomorrow.

Throughout the journey, the Green Mark for Interiors framework provided a valuable roadmap for integrating sustainability across the workplace lifecycle. The CCS office stands as a compelling example of how purposeful design can create workplaces that deliver lasting value for people, organisations and the environment. 🌱

“Achieving the Green Mark for Interiors certification reflects our commitment to creating a workplace that is environmentally responsible, resource-efficient, and supportive of employee well-being. Beyond meeting sustainability standards, the certification journey enabled us to identify opportunities for continuous improvement, strengthen our environmental stewardship, and demonstrate leadership in advancing healthier and greener workplaces. The certification affirms our belief that well-designed, sustainable workplaces can positively impact both organisational performance and the experience of those who use them every day.”

Teo Wee Guan
Group Director
(Corporate Affairs) & (International,
Communications & Planning)
Competition and Consumer Commission
of Singapore (CCS)

The project is a certified Green Mark for Interiors Gold^{PLUS} office, with an awarded Sustainability Badge of Environmental Stewardship (ES).

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- Interior Designer – WOLF Studio
- M&E Consultant – W2Square Consultancy Pte Ltd
- ES Consultant – Adapt D&B LLP
- Main Contractor – DecoFurn Pte Ltd

Images courtesy of the Competition and Consumer Commission of Singapore (CCS)

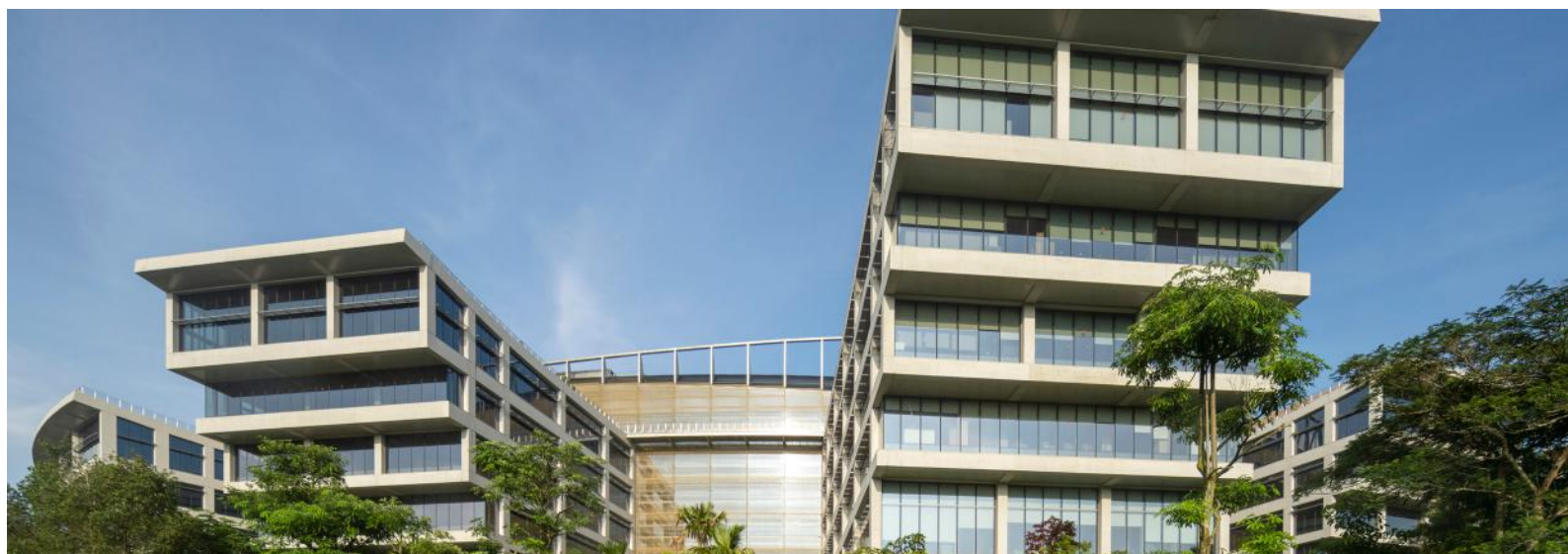




THE EVOLVING GREEN BUILDING: DESIGNING FOR HEALTH, WELLBEING AND PERFORMANCE

The SJ Campus is designed as a living laboratory for sustainable and human-centred design.

The evolving green building: Designing for health, wellbeing and performance



For decades, the green building movement has focused on reducing environmental impact. Advances in energy efficiency, water conservation, resource optimisation and low-carbon design have transformed how buildings are planned, constructed and operated.

These priorities remain essential. At the same time, greater attention is being given to the quality of indoor environments and how buildings are experienced by those who use them. Air quality, thermal conditions, daylight, acoustics, access to nature and opportunities for movement all contribute to the workplace experience.

This is expanding how building performance is understood. Environmental and occupant considerations are connected through decisions about architecture, engineering systems, workplace planning and operations. Ventilation affects indoor air quality and cooling demand. Façade design influences daylight, views and solar heat gain. Building controls determine how systems respond to occupancy and environmental conditions.

Considering these relationships from the outset can help project teams align health and wellbeing objectives with environmental and operational priorities.

SJ CAMPUS: AN INTEGRATED APPROACH

SJ Campus, the global headquarters of Surbana Jurong (SJ Group) in Singapore's Jurong Innovation District, illustrates how these principles can be translated into practice. Completed in 2023, the 742,000 square feet campus was designed as a living laboratory for sustainable and human-centred design, combining high-performance building systems, biophilic environments and smart technologies to create a workplace that supports both environmental objectives and human wellbeing.

Its recognition in the Health & Wellbeing award sub-category of the SGBC-BCA Leadership in Sustainability Awards 2026 reflects how sustainability, engineering, workplace strategy and occupant experience were brought together within a single development. SJ Campus has also achieved WELL Core Platinum and BCA-HPB Green Mark for Healthier Workplaces Platinum.

INDOOR ENVIRONMENTAL QUALITY

Indoor environmental quality is shaped by ventilation, air distribution, cooling, occupant density, the building envelope and controls. At SJ Campus, these considerations informed the design of the building's environmental systems from the outset.



The evolving green building: Designing for health, wellbeing and performance



A key feature is Singapore's largest underfloor air distribution (UFAD) system across its office zones. Rather than supplying conditioned air from ceiling level, the system introduces low-velocity air closer to occupied areas. It was developed to support indoor air quality and thermal comfort while allowing greater flexibility in workplace layouts.

Computational fluid dynamics analysis and occupancy-based controls were used to optimise the system's design. Compared with conventional systems, the UFAD system reduces energy use by up to 16 percent.

The campus also incorporates monitoring of air quality, temperature, humidity and occupancy. AI-enabled chilled water optimisation, occupancy-based ventilation and building controls respond to occupancy and environmental conditions. The monitoring provides facility teams with information to support operational review.

Together, these strategies reflect the coordination of air distribution, cooling, controls and workplace planning around environmental and occupant considerations.

DAYLIGHT AND NATURE

Natural light, greenery and access to nature are important considerations in how occupants experience a workplace. At SJ Campus, these

elements were integrated throughout the architecture and landscape.

The building's staggered massing creates a series of internal courtyards and garden spaces that blur the boundaries between indoors and outdoors. More than 27,000 square feet of indoor gardens, rooftop terraces and landscaped spaces provide opportunities for respite, interaction and informal collaboration.

Access to daylight was also prioritised through façade design and space planning. More than 88 percent of workstations are located within five metres of façade glazing, providing access to daylight and outward views. High-performance glazing and shading strategies balance visual comfort with solar heat control.

Among the campus' most distinctive features are its climate-controlled atrium gardens, which introduce lush greenery and provide alternative settings for collaboration and quiet reflection.

Located adjacent to Jurong Eco Garden, the campus also extends these connections beyond the workplace, linking occupants to a broader network of green spaces.



The evolving green building: Designing for health, wellbeing and performance



MOVEMENT, INCLUSION AND SOCIAL CONNECTION

Workplace wellbeing is also shaped by how people move through and interact within a space. Increasingly, sustainable workplaces are being designed to encourage healthier behaviours, foster social connections and create inclusive environments for diverse users.

At SJ Campus, open and visible prominent staircases were designed to encourage movement between floors, complemented by point-of-decision signage that promotes stair use over lifts. End-of-trip facilities support active mobility and sheltered pedestrian connections support walking and cycling as part of daily routines.

The campus also provides communal spaces that support collaboration and informal interaction, including internal courtyards, atrium gardens, breakout areas and rooftop terraces.

Inclusivity was a key design consideration. Amenities such as childcare facilities, lactation rooms and accessible pathways support a diverse

workforce, while the campus' publicly accessible green spine creates opportunities for interaction between occupants and the wider community. Together, these features help foster wellbeing, social connection and a sense of belonging.

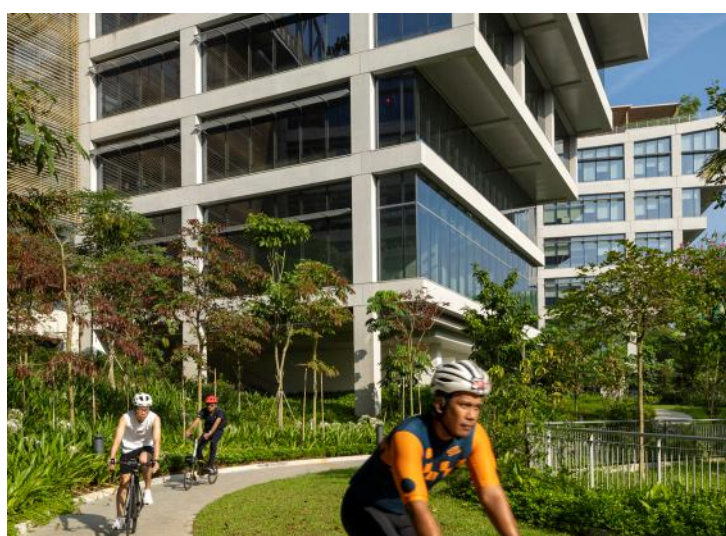
MONITORING WELLBEING OUTCOMES

Design intent alone does not guarantee wellbeing outcomes. Monitoring and post-occupancy feedback add another dimension by providing information on how a building performs in use.

Post-occupancy feedback provides information on how occupants experience the workplace and helps inform operational and wellbeing initiatives. Combined with indoor environmental monitoring, this gives facility teams a basis for reviewing conditions and considering operational adjustments.

This connection between design and operations supports the campus' role as a living laboratory. It allows teams to track performance, review feedback and continue developing their understanding of how design and operational strategies perform in an occupied tropical workplace.

The evolving green building: Designing for health, wellbeing and performance



This approach recognises that healthy workplaces are not static achievements but environments that require ongoing stewardship and refinement throughout their lifecycle.

HEALTH AS PART OF BUILDING PERFORMANCE

Healthy building strategies need to respond to each project's climate, building type, users, operational requirements and commercial objectives. The experience at SJ Campus highlights the value of considering environmental and occupant outcomes together from the beginning.

For developers and asset owners, this means establishing intended outcomes early, understanding how different systems and design decisions interact, and maintaining attention on performance after occupation. Bringing the relevant disciplines into these decisions can strengthen the connection between sustainability objectives, occupant needs and long-term asset performance.

SJ Campus provides a practical example of how architecture, engineering, environmental design, technology and operational thinking were coordinated in a large-scale tropical workplace. The experience gained through the project can inform strategies for other developments, adapted to their context, requirements and intended outcomes.

As expectations of sustainable buildings evolve, environmental efficiency will remain fundamental. The opportunity is to consider it alongside the quality of indoor environments and how buildings serve the people who use them. An integrated approach gives project teams a stronger basis for translating these objectives into practical design and operational decisions. 🟢

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COOLING SMARTER, BUILDING GREENER: SINGAPORE'S ALTERNATIVE COOLING REVOLUTION

As Singapore races towards its ambitious 80-80-80 targets, a quiet revolution is underway in how we cool our buildings. Alternative Cooling Technologies are proving that we can stay comfortable while dramatically cutting energy use—and the winners of this year's SGBC-BCA Leadership in Sustainability Awards are leading the way.

The GEAR, Kajima's regional headquarters in Singapore
Photo credit: Daici Ano

COOLING SMARTER, BUILDING GREENER: SINGAPORE'S ALTERNATIVE COOLING REVOLUTION

In Singapore's tropical climate and rising global temperatures, air-conditioning is no longer a luxury but a necessity. Yet this necessity comes at a significant environmental cost. Buildings account for over 20 percent of Singapore's carbon emissions, with cooling systems consuming a staggering 40 to 60 percent of a building's total energy. As the nation pushes towards the Singapore Green Building Masterplan (SGBMP) target of 80-80-80 in 2030, the industry is transitioning to broader adoption of Alternative Cooling Technologies (ACTs) to further drive decarbonisation.

Currently, best-in-class buildings have already achieved EE improvements of 72%. The recent Design Prototyping for Decarbonisation (DPfD) consultancy study commissioned by the Building and Construction Authority (BCA) confirmed that achieving the 80 percent EE improvement target under the SGBMP is technically feasible for new and existing offices, new hotels, and new mixed-use developments. However, to do so, conventional efficiency measures alone may not suffice, particularly for structures with high cooling loads. This is where ACTs come in, helping to reduce energy consumption while maintaining, and even improving, occupant comfort.

THE HEART OF THE SOLUTION: ALTERNATIVE COOLING TECHNOLOGIES

ACTs represent a paradigm shift in how we cool our buildings. Instead of relying solely on energy-intensive conventional air-conditioning, these innovative systems leverage natural principles and smarter design to deliver comfort while saving energy. ACTs include diverse options, from hybrid cooling, to passive displacement cooling, to active chilled beams.

Hybrid Cooling is one of the most accessible options for existing buildings. It operates at higher indoor temperature setpoints, typically between 25.5°C and 27°C, compared to the conventional 23°C to 24°C, supplemented by fan-assisted air movement. This can result in cooling energy savings of up to 35 percent with a payback period as low as four years.

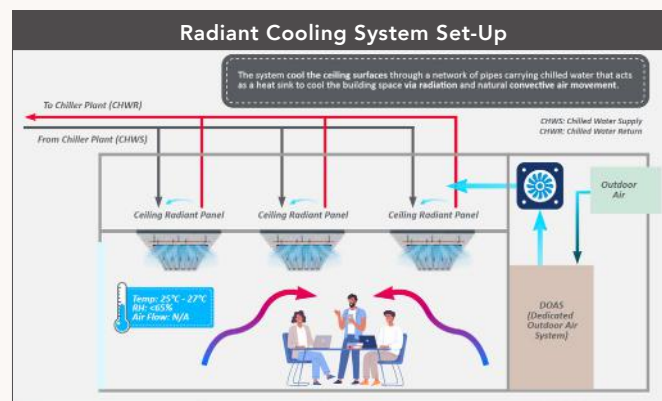
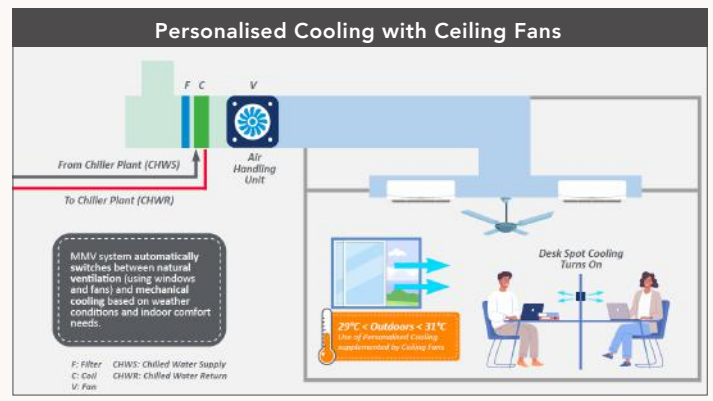
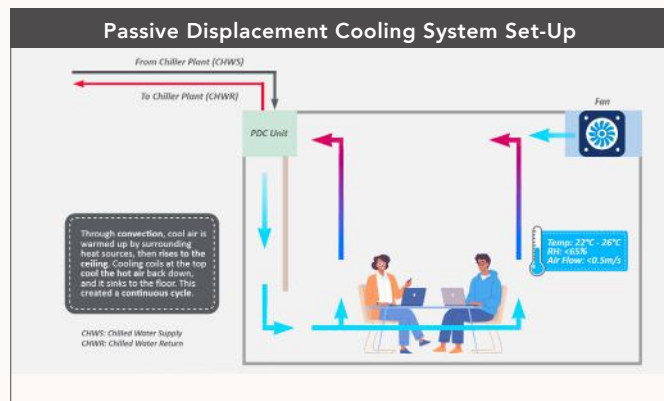
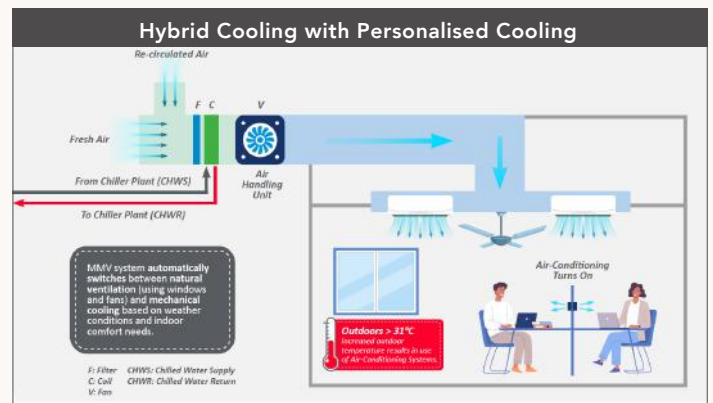
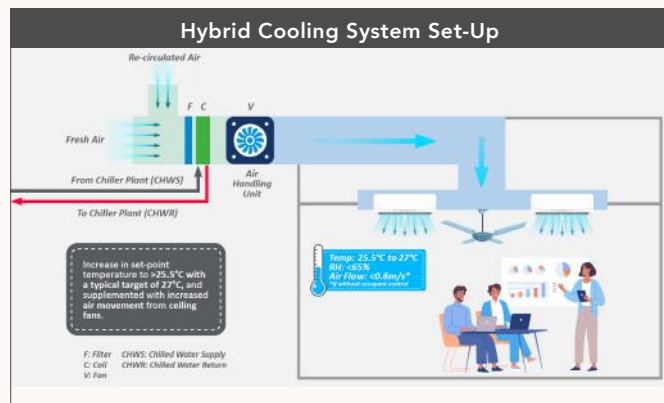
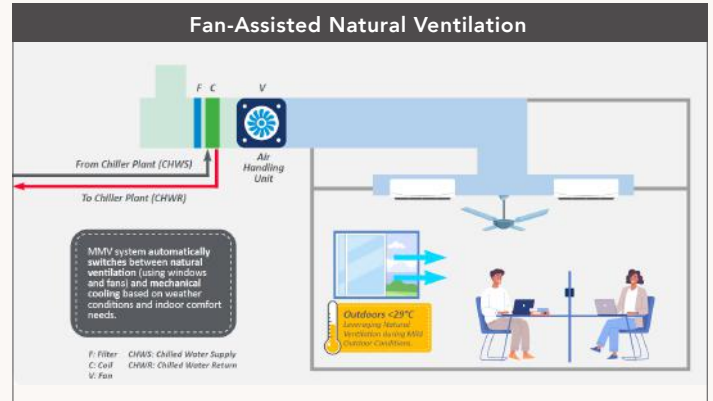
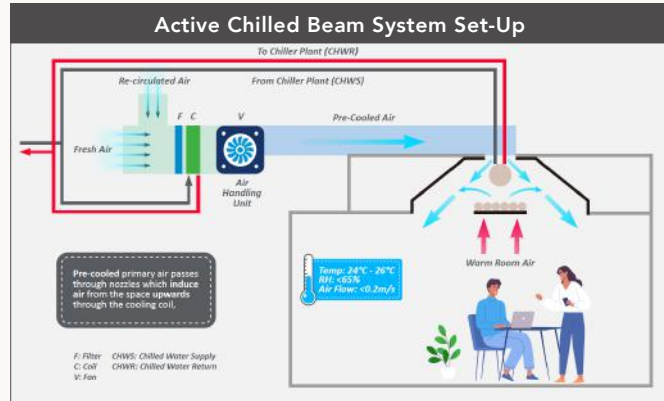
Passive Displacement Cooling (PDC) is particularly well-suited for new buildings. It leverages natural convection currents to cool indoor spaces, delivering cooling energy savings of up to 50 percent with a payback period as low as five years, while eliminating the need for air-side equipment upkeep.

Active Chilled Beam (ACB) systems provide both cooling and ventilation through ceiling-mounted units, offering up to 50 percent cooling energy savings with a payback period as low as five years.



COOLING SMARTER, BUILDING GREENER: SINGAPORE'S ALTERNATIVE COOLING REVOLUTION

ACT SET-UPS



COOLING SMARTER, BUILDING GREENER: SINGAPORE'S ALTERNATIVE COOLING REVOLUTION

KEY INSIGHTS FROM THE DPfD STUDY

The DPfD study yielded two critical insights shaping industry approaches towards EE improvements. First, the crucial role of ACTs in achieving thermal comfort and space cooling while reducing energy consumption. ACTs are particularly effective in buildings with high cooling loads.

Second, collaboration among stakeholders through active management of building tenants' energy consumption such as plug load management is essential. Tenant plug loads form a significant part of total building energy consumption, and incorporating sub-meters and green leases enables owners and tenants to jointly track and reduce consumption.

EXEMPLARY ACTS ADOPTION

This year's SGBC-BCA Leadership in Sustainability Awards honoured several green building projects that have demonstrated exemplary adoption of ACTs.

The GEAR, Kajima's regional headquarters in Singapore, was designed and constructed by Kajima and is operated by the Kajima Group. It stands as a testament to what can be achieved when cutting-edge design meets sustainable intent. The facility integrates passive and active strategies, combining high-performance radiant cooling panels with ductless dehumidified outdoor air ventilation and ceiling fans to form an energy-efficient hybrid cooling approach. The building achieved a 45 percent reduction in energy consumption compared to reference buildings, with most occupants perceiving the workplace as both productive and supportive of wellbeing. The GEAR has achieved BCA Green Mark Platinum Super Low Energy and is the first new building in Singapore to receive WELL Certification v2 Platinum. Its semi-outdoor workspace, K/PARK, seamlessly transitions between environments through opening and closing windows, achieving comfort and energy savings through natural ventilation combined with ceiling fans. More than 100 cases of computational fluid dynamics analysis were

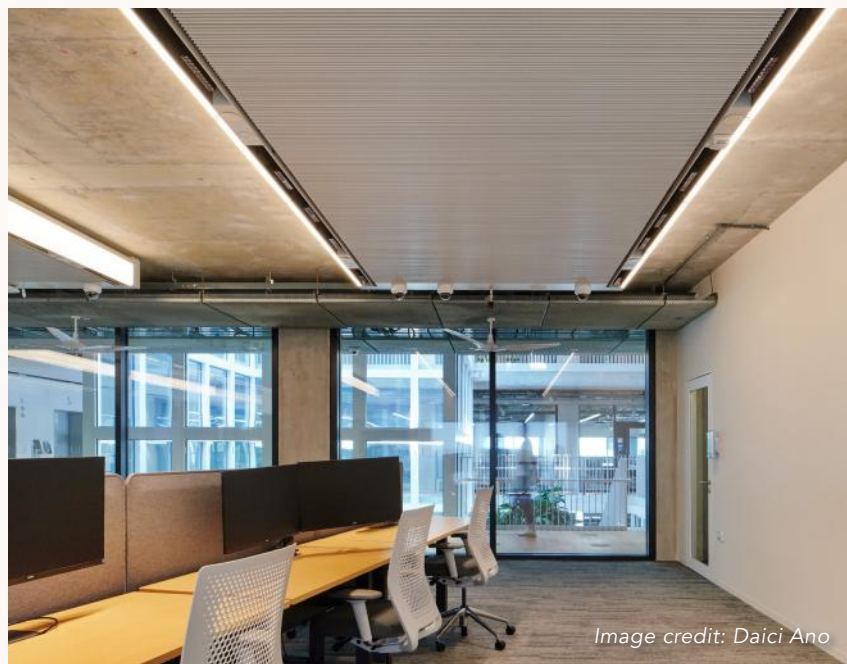


Image credit: Daici Ano

conducted to optimise the building's shape for maximum ventilation performance.

The Greenhouse at Dulwich College (Singapore),

Singapore's first international school building certified BCA Green Mark Platinum Zero Energy, has extensively deployed Passive Displacement Cooling (PDC) across classrooms, its auditorium, and collaborative spaces. The system achieved a 49.5 percent reduction in energy use compared to baseline, translating to approximately 38,300 kWh in energy savings. Notably, no cost premium was observed for the PDC system compared to a conventional system. Since adopting PDC, the College has observed clear improvements in occupant comfort, with more stable thermal conditions, reduced drafts, improved air quality, and quieter acoustic conditions that support concentration and wellbeing.

Paya Lebar Green adopted Active Chilled Beam systems along its building perimeter, operating at elevated chilled water temperatures to improve chiller efficiency. Combined with a high-efficiency dual-temperature chiller plant, the development achieved cooling energy savings of 45 percent and was awarded the BCA Green Mark Platinum Super Low Energy with all five sustainability badges.

COOLING SMARTER, BUILDING GREENER: SINGAPORE'S ALTERNATIVE COOLING REVOLUTION



Image credit: Jiwen, courtesy of DP Architects

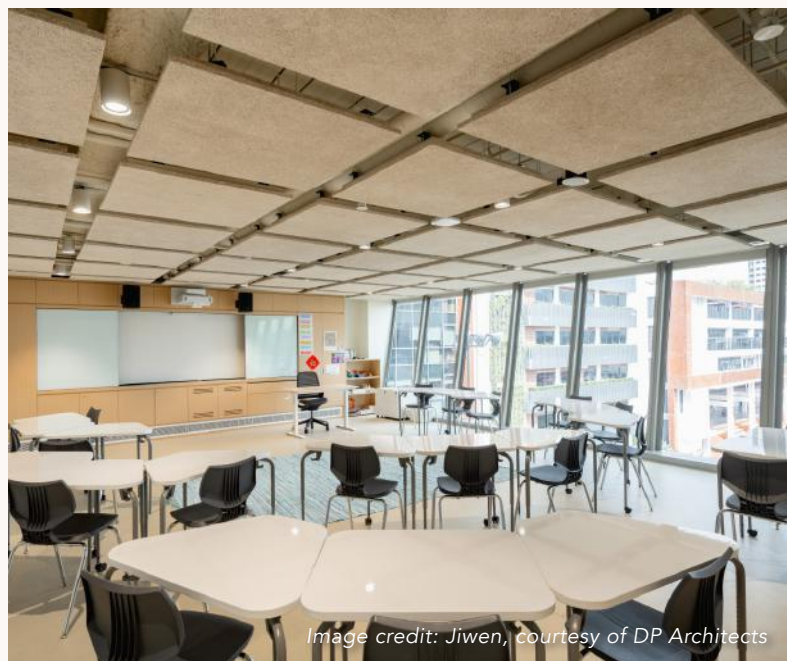


Image credit: Jiwen, courtesy of DP Architects

Additionally, **The Clifford at Raffles Place** will be test-bedding PDC solutions in the building's retail space through the Green Buildings Innovation Cluster Demonstration programme, with an ambitious target to raise the office building's EE performance from 65 percent to 75 percent.

THE BROADER ACT ADOPTION LANDSCAPE

As of July 2026, at least 33 public buildings and 14 private buildings in Singapore have adopted ACTs. Notable examples include the CDL Office @ Republic Plaza implementing hybrid cooling with 85 percent staff comfort, PSA Tuas achieving 46 percent energy savings through PDC, and the Eastern Integrated Health Campus incorporating natural ventilation in patient wards.

THE FUTURE IS COOLER: GO 25 AND BEYOND

The momentum is further supported by the national **Go 25** movement, launched in May 2025, encouraging Singaporeans to set air-conditioning temperatures at or around 25°C. Research shows energy savings of up to 12 percent for each degree raised from 23°C to 25°C in offices, with no increase in occupant discomfort. Demonstrations carried

out in BCA's Zero Energy Building Plus building validated that hybrid cooling achieves 32 percent savings when temperature increases from 24°C to 26.5°C.

A SUSTAINABLE FUTURE WITHIN REACH

The leadership demonstrated by the award winners with implemented ACTs provides a powerful blueprint. By embracing alternative cooling technologies, we can decarbonise our built environment, enhance occupant wellbeing, and create a truly sustainable future for Singapore. The 80-80-80 targets are ambitious, but with ACTs proving their technical feasibility and commercial viability, Singapore is well-positioned to achieve—and potentially exceed—these goals. The journey requires commitment from all stakeholders, but the solutions are proven, the business case is compelling, and the environmental imperative is clear. 🌱

For more information on Alternative Cooling Technologies, including technical references, please visit <http://www.go.gov.sg/act-portal>.





HYBRID COOLING: A STRATEGIC APPROACH TO SUSTAINABLE BUILDING CLIMATE CONTROL

Rethinking cooling for a warming world

Hybrid Cooling: A Strategic Approach to Sustainable Building Climate Control



INTRODUCTION: THE GROWING CHALLENGE OF BUILDING COOLING

Across homes, offices, schools or even healthcare facilities, people increasingly expect comfortable indoor environments regardless of outdoor temperatures. The conventional response has always been relying heavily on air-conditioning and lower thermostat settings to achieve thermal comfort. However, this approach presents a growing challenge.

At the recent Singapore Green Building Council Awards Gala Dinner 2026, Guest-of-Honour Minister Grace Fu noted that scientific data clearly shows the world is getting warmer, making appropriate cooling methods increasingly important as outdoor temperatures rise. She emphasises that cooling should be an adaptation strategy for a warming world, not solely to reduce energy consumption but also evolving current indoor cooling practices.

The real opportunity is shifting the question from “How cold can we make the room?” to “How can we keep people comfortable with less energy?” Hybrid cooling addresses this by using airflow ventilation and air-conditioning together. Instead of relying only on lower thermostat settings, it uses air movement to help people feel cooler, so buildings can run air-conditioning more efficiently while maintaining comfort.



DEFINING HYBRID COOLING: BRIDGING PASSIVE AND ACTIVE

Buildings account for about half of Singapore’s electricity use, while air-conditioning and mechanical ventilation can easily make up to 70 percent of a building’s energy consumption. That makes cooling a practical point to start when businesses start to think about reducing electricity bills and emissions without asking people to accept uncomfortable spaces.

Fundamentally, hybrid cooling is about using the right cooling solution at the right time. It combines natural airflow and ventilation with mechanical systems such as ceiling fans and air-conditioning, allowing them to work together rather than independently. During favourable conditions, natural ventilation and fans can do much of the cooling work. When temperatures rise, air-conditioning steps in to supplement the system, creating a comfortable indoor environment with lower energy consumption than conventional cooling approaches.

Hybrid Cooling: A Strategic Approach to Sustainable Building Climate Control



Photo: Singapore Sustainability Academy at City Square Mall (CDL)

Ceiling fans aid with facilitating air across the skin and improve perceived cooling. This means a room can often feel comfortable even when the thermostat is set higher, such as 25°C to 27°C. In practice, the technical set-up should be planned around three things: fan placement and speed, air-conditioning setpoint, and occupancy patterns. The optimal results come when the fan, thermostat, and ventilation settings are coordinated, not operated as separate devices.

WHY HYBRID COOLING SUITS THE BUILT ENVIRONMENT

Building cooling is one of the largest electricity loads in Singapore's built environment. According to the BCA Alternative Cooling Technologies (ACTs) guide, cooling alone can account for more than 50 percent of a commercial building's total energy use in Singapore, while hybrid cooling can achieve about 25 percent to 35 percent energy savings and is especially suitable for offices and classrooms. The guide describes hybrid cooling as using a higher air-conditioning setpoint, typically above 25.5°C and around 27°C, supported by increased air movement from fans. This aligns well with the direction of the Go 25 movement, where indoor comfort is achieved through smarter cooling rather than simply lowering thermostat settings.

For example, one room may use air-conditioning at 24°C with little air movement, while another uses air-conditioning at 26.5°C to 27°C with ceiling fans. The second room is warmer on paper, but

moving air helps the body release heat more effectively, allowing users to feel comfortable without overcooling the space. This shows that colder spaces do not always mean better comfort. Many people still experience cold drafts, uneven temperatures, or stuffy areas even in highly air-conditioned buildings.

From a cost perspective, the logic is simple: it is usually cheaper to move air than to cool air. Ceiling fans use electricity too, but their role is to reduce the cooling load required from energy-intensive air-conditioning. By allowing buildings to raise thermostat settings while maintaining comfort, hybrid cooling can lower electricity consumption and reduce operating costs over time.



Photo: A retail showroom outlet

TECHNICAL DETAILS TO MAKE CONCEPT CREDIBLE

Hybrid cooling should be presented as a coordinated system, not just "turning on a fan". A credible set-up includes:

- **Thermostat setpoint:** raise the air-conditioning setpoint gradually, for example from 24°C towards 26°C or 27°C, while checking user comfort.
- **Air movement:** use ceiling fans to reduce stagnant air and improve perceived cooling across occupied areas.
- **Controls:** adjust fan speed and cooling output based on occupancy, indoor temperature and user needs.

Hybrid Cooling: A Strategic Approach to Sustainable Building Climate Control



- Measurement: track kWh, cost and comfort feedback monthly so savings are visible and operational issues can be corrected early.

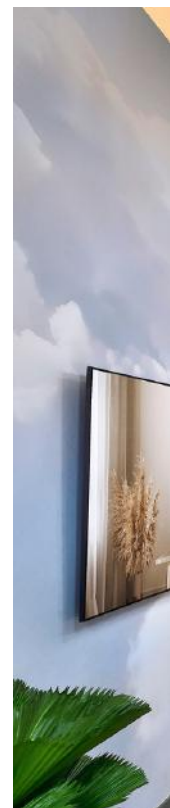
APPLICATION ACROSS BUILDING TYPES

In homes, hybrid cooling helps residents avoid running air-conditioning at very low temperatures throughout the night. A resident can raise the setpoint and use ceiling fans to keep the space comfortable. Over time, this can translate into meaningful utility savings for households that use air conditioning regularly.

In offices, hybrid cooling is useful because people have different thermal preferences. Better air circulation can reduce hot and cold spots, while higher thermostat settings help facility teams manage electricity use. For community spaces such as retail outlets, community centers and recreational areas, hybrid cooling can create spaces that feel lively and comfortable while keeping operating costs under control.



Photo: Singapore Sustainability Academy at City Square Mall (CDL)



ENABLERS

The number one enabler is a human-centred comfort mindset. The goal is not to make every space colder, but to make people comfortable. The second is high-performance air movement, where ceiling fans are selected and positioned to support the room layout and typical occupancy. The third is public education. Many people still link comfort only with low temperatures. Simple messages, such as “raising the temperature adds airflow,” can help users understand why hybrid cooling works.

KEY CONSIDERATIONS

Hybrid cooling is not a one-size-fits-all solution. The right design depends on the building type, ceiling height, occupancy pattern, activity level, and existing HVAC infrastructure. Comfort expectations also differ, so facility teams should use surveys or simple feedback channels when testing higher

Hybrid Cooling: A Strategic Approach to Sustainable Building Climate Control



setpoints. Building owners should evaluate lifecycle value, including lower electricity bills, reduced cooling load, longer equipment life, improved user comfort and progress towards sustainability targets.

CONCLUSION

The future of sustainable cooling is not about creating colder buildings. It is about creating comfortable, healthy, and resilient spaces that use energy wisely. Hybrid cooling provides a practical pathway by combining air-conditioning with effective air movement and ventilation. For Crestar, it also connects naturally with its wider sustainability story: energy-efficient ceiling fans, customer education, responsible operations, and measurable ESG progress. Done well, hybrid cooling helps buildings deliver more comfort with less energy. ✓

Article contributed by:
SPIN Pte Ltd (SPIN Fans)

Cooling Method	Wattage Use/hr	Annual Cost* (8 hrs/day)	Benefits	Savings
2-Tick Air-Con @ 18°C	~2200Wh / 2.2kWh	\$2,235	☑	~2200W\$1,870 per year
5-Tick Air-Con @ 18°C	~1500Wh / 1.5kWh	\$1,523	☑ Faster cooling ☑ Good for quick temperature drop	Saves ~32% vs 2-Tick @ 18°C
5-Tick Air-Con @ 22°C	~1200Wh / 1.2 kWh	\$1,219	☑ Faster cooling than 25°C ☑ Still energy efficient as 5 Tick	Saves ~45% vs 18°C AC
5-Tick Air-Con @ 25°C	~1100Wh / 1.1 kWh	\$1,117	☑ Highest efficiency ☑ Lower compressor load ☑ Quieter & stable operation	Saves ~50% vs 18°C AC
Hybrid Cooling (Fan + 5-Tick AC @ 25°C)	~1130Wh / 1.13 kWh	~\$1,148	☑ Faster perceived cooling ☑ Better air circulation ☑ Improved comfort at higher set points ☑ Ideal for elderly & babies	≈ Cost-neutral vs 8h @ 25°C AC (+~2%)· Comfort gain rather than energy savings
Hybrid Cooling (4h 5-Tick AC @ 25°C + 4h Fan)	4h @ 1100Wh + 4h @ 7-45Wh / 4h @ 1.1 kWh + 4h @ 0.045kWh	\$562 ~ \$581	☑ Halves AC runtime while keeping comfort ☑ Quieter nights ☑ Good for babies & elderly	Saves \$450 vs 8h @ 25°C (48%)· Saves \$1,380 vs 2-Tick @ 18°C (74%)
Ceiling Fan (DC)	7Wh to 45Wh / 0.007 kWh to 0.045 kWh	\$7 to \$45	☑ Ultra low energy use ☑ Gentle breeze ☑ Space saving	95% cheaper

Singapore Tariff (July to Sep 2026): 34.78 cents/kWh)

Calculation method for 1 year: kW X no.of hours X 365 days X Singapore Tariff



A modern office interior featuring large windows on the right side, reflecting the outdoors. On the left, there is a desk with a computer monitor and keyboard. A wall-mounted lamp and two potted plants in wooden crates are visible on the left wall. The floor is made of polished concrete.

SINGAPORE HAS BEEN WELL THOUGHT OF

The WELL Building Standard has been well regarded globally as a benchmark for sustainable interiors, that looks into the health and wellbeing of the occupants. In this article, Emily Tan, Principal Consultant of Earth-In-Mind, shares insights about how the Singapore Standards have already incorporated WELL features into its requirements.

SINGAPORE HAS BEEN WELL THOUGHT OF



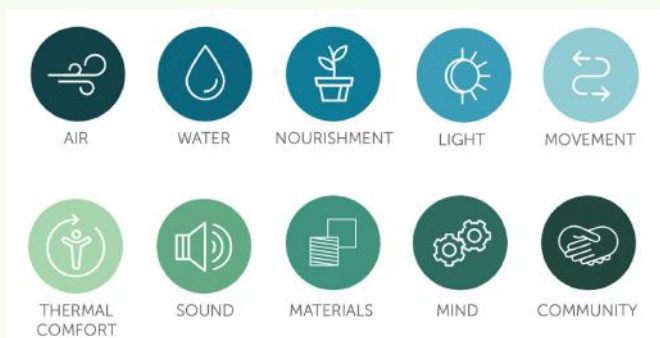
For decades, the sustainability of buildings has been largely defined by their environmental performance. Energy efficiency, water conservation, carbon reduction, sustainable materials and waste management have become familiar measures of what makes a building “green”. But as the built environment evolves and resource efficiency becomes an established metric, a broader question is emerging: How well does a building support the people who occupy it? How can human efficiency be optimized?

This question has placed health and wellbeing firmly on the global sustainability agenda, and few frameworks have brought this perspective to the forefront as prominently as the WELL Building Standard.

Developed by the International WELL Building Institute (IWBI), WELL is an evidence-based building standard that focuses on the health, wellbeing and experience of people within the built environment. While conventional green building standards focus primarily on reducing a building’s environmental impact, WELL examines the conditions experienced by occupants. Its framework encompasses Air, Water, Nourishment, Light, Movement, Thermal Comfort, Sound, Materials, Mind and Community.

The growing global adoption of WELL reflects a fundamental shift in how sustainability is understood. A building can be highly energy efficient and environmentally responsible, but if its occupants are exposed to poor air quality, uncomfortable temperatures, inadequate lighting, excessive noise or contact with unhealthy materials, can it truly be considered sustainable?

WELL is not intended to replace established environmental rating systems. Rather, it complements them. Green building rating systems such as the BCA Green Mark and the USGBC LEED address environmental performance, while WELL places greater emphasis on the human outcomes of the built environment. Together, they represent a more holistic approach to building performance—one that considers both environmental responsibility and human wellbeing.



SINGAPORE HAS BEEN WELL THOUGHT OF

This shift is particularly relevant to sustainable interiors.

People experience buildings primarily from the inside. They breathe the air, drink the water, experience the lighting, hear the surrounding noise, feel the temperature and interact with the materials, furniture and spaces around them. Sustainability cannot be limited to the building envelope or mechanical systems. It must extend into the everyday experience of the occupant.

This is where sustainable interiors can be redefined—through greening from the outside in, to greening from the inside out.

Though expected, one may still be surprised at how Singapore already demonstrates the principles behind the global wellness movement in our regulatory and standards framework.

A review of the correlation between WELL features and Singapore Standards identifies several areas where local requirements already reinforce the objectives of WELL. These include aspects of Air, Water, Nourishment and Light, just to name a few.

For example, WELL A02 – Smoke-Free Environment is supported by Singapore’s smoking prohibition regulations, which restrict smoking in prescribed

indoor and public environments and establish smoke-free areas around building entrances and openings. This directly supports the WELL objective of protecting occupants from exposure to environmental tobacco smoke.

Similarly, WELL A10 – Combustion Minimisation is reinforced by Singapore’s environmental regulations relating to vehicular emissions and unnecessary engine idling. These requirements help reduce exposure to combustion-related pollutants around buildings and contribute to healthier environments.

Water provides another strong example. WELL W01 – Fundamental Water Quality and W02 – Water Contaminants are closely aligned with Singapore’s comprehensive drinking-water regulatory framework. The Environmental Public Health (Water Suitable for Drinking) Regulations establish requirements for drinking-water quality, while PUB monitors the national water supply. The correlation also identifies W04 – Enhanced Water Quality as an area supported by Singapore’s regulated water-quality parameters.

These examples demonstrate that healthy buildings are not an entirely new concept for Singapore. Many of the fundamentals required to protect occupant health are already embedded within our national framework.



SINGAPORE HAS BEEN WELL THOUGHT OF



The same principle extends beyond air and water.

WELL N02 – Nutritional Transparency is reinforced by Singapore’s food legislation, including requirements relating to food labelling, ingredients, allergens and nutritional information where applicable. This provides consumers with information that supports more informed food choices.



Lighting provides another interesting connection. WELL L02 – Visual Lighting Design aligns with the principles contained within SS 531 – Code of Practice for Lighting of Workplaces, which provides guidance for appropriate workplace lighting. Lighting is therefore not simply an issue of energy consumption or lighting power density; it is also about creating conditions that support visual comfort and occupant performance.

Taken together, these correlations reveal an insightful revelation: Singapore has been “WELL thought of” for some time.



One point to note, the Singapore’s regulations are not equivalent to WELL certification. Government regulations serve to establish essential requirements for health, safety and environmental protection, whereas WELL provides a broader, evidence-based framework that encourages projects to go beyond minimum compliance and demonstrate enhanced performance for human wellbeing.

SINGAPORE HAS BEEN WELL THOUGHT OF

There are also many WELL features that go beyond existing regulatory requirements. Areas such as movement, thermal comfort, sound, mental wellbeing, materials and community require additional design strategies, operational practices, occupant engagement or performance verification. These are opportunities for projects to move beyond compliance and create interiors that actively contribute to healthier and more productive lives.

This is where the future of sustainable interiors lies.

The next generation of sustainable interiors should not be judged solely by the recycled content of a material, the efficiency of an air-conditioning system or the reduction in energy consumption. These remain important, but they are only part of the story.

As we move towards human efficiency, the how-to questions that influences designs should be: how do we make the air healthier? How do we make the lighting more comfortable? How do we design the space to be more acoustically supportive? How does the environment encourage movement? Does the environment support mental wellbeing? How do we ensure thermal comfort is achieved? Do people feel connected and included?

As the talk about green building moves towards healthy building, the conversation is not saying that environmental sustainability is no longer considered. The relationship between the built environment and human wellbeing are intertwined and interconnected. A truly sustainable building should minimise its impact on the planet while creating a positive environment for the people who use it.



For Singapore, this is an eureka advantage. Rather than viewing global wellness standards as something entirely new that must be imported into our built environment, we can recognise that many of their underlying principles are already embedded within our own regulations and Singapore Standards.

Singapore has been WELL thought of all along.

The opportunity now is to build upon that foundation—to move beyond compliance, connect environmental sustainability with human wellbeing, and redefine what it means for an interior to be truly sustainable.

Because ultimately, the greenest interior is not simply one that uses fewer resources. It is one that uses resources responsibly while creating a healthier, more comfortable and more supportive environment for the people inside.

That is sustainability from the inside out. 🌱

Article contributed by:
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Principal Consultant
Earth-In-Mind Pte Ltd

Sign up for the SGBC Industry Course on WELL Essentials to learn more about the WELL Building Standard.





HOW URBAN FARMING DELIVERS REAL SUSTAINABILITY VALUE, EVERY DAY

Urban farming is actively reducing food waste, cutting transport emissions, and creating greener, more resilient communities.

How Urban Farming Delivers Real Sustainability Value, Every Day



Singapore's green building movement has spent the last decade getting good at measuring energy performance, water efficiency and embodied carbon, all tracked and certified. What has been harder to measure is whether the people inside those buildings actually feel it. That gap is where SGBC Member Grobrix has spent the last four years working, and it has become one of the region's leading names in bringing sustainability into daily office life.

Grobrix is a Singapore-based urban farming company, founded in 2020 to build and manage what it calls the world's first modular, edible, soilless green wall. Its systems are functioning micro farms installed inside offices, hotels and mixed-use developments, monitored and maintained by its own team, with produce grown metres from where it is eaten. The network moves over 3,000 seedlings out of its nurseries every week across Singapore, Kuala Lumpur and Boston, distributing roughly 500kg of pesticide free, farm to table produce weekly.

THE VALUE URBAN FARMING BRINGS TO SUSTAINABLE BUILDINGS

For anyone responsible for a building's sustainability outcomes, the calculation on urban farming is straightforward. A working Grobrix wall contributes directly toward the certification frameworks Singapore's building sector is already working through, at a fraction of the cost of comparable interventions.

Installations support up to 20 percent of the points required for BCA Green Mark Gold Certification, covering healthy eating initiatives, active workplace design, biophilic features and workplace health policies. Under the WELL Building Standard, they support up to 25 percent of the points required for Bronze Certification, including prerequisites around nutrition programs and mindfulness spaces.

For teams already budgeting toward certification, that is a meaningful contribution from a single wall, with design consultancy and technical coordination at no additional cost, and no maintenance burden placed on the facilities team.

How Urban Farming Delivers Real Sustainability Value, Every Day



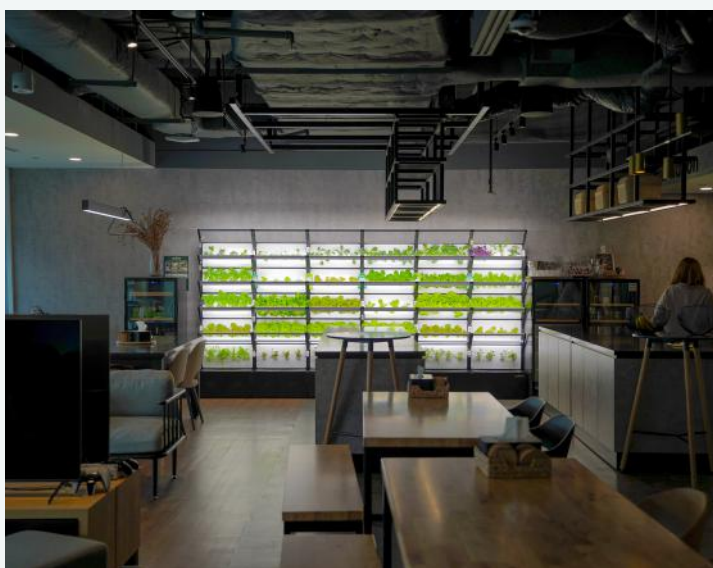
The environmental case is just as direct. A modest six-unit wall, over a single year, grows up to 370kg of fresh produce, saves up to 42,000 litres of water, and prevents up to 185kg of food waste, without a single chemical pesticide. Singapore imports over 90 percent of its food and has less than one percent of its land for traditional agriculture, so that contribution matters more here than in most cities.

WHY EMPLOYEE ENGAGEMENT IS PART OF THE SUSTAINABILITY CASE

Certification points explain why a building might consider urban farming. They rarely explain why it keeps working years later. The answer usually comes down to the people using it.

A Grobrix wall follows a deliberate rhythm from day one, first harvest around day 20, another harvest every two weeks after that, with a workshop each quarter. It is fully supported and cloud monitored, so no maintenance burden falls on the facilities team. What remains for employees is the good part, harvesting something, eating it, discussing it with a colleague they might not otherwise have spoken to that day.

Across more than 1000 employees at 70 client sites, surveyed over four years, nearly two thirds report the experience strengthened their sense of community at work, and close to 98 percent say it shifted them toward more sustainable, eco conscious daily habits. That combination, environmental outcome and social outcome arriving together, is what tends to keep a green initiative alive well past its launch.



How Urban Farming Delivers Real Sustainability Value, Every Day



PART OF THE INTERIOR, NOT ADDED TO IT

For an interior team, the practical question is usually simpler than certification math: where does this go, and does it disrupt the space. A Grobrix wall answers that quietly. It can sit flush against an existing wall, anchor to a window frame, or be built directly into a renovation alongside interior designers and contractors, with a finished, built-in look rather than an obvious retrofit. Underused corners, the dead zones every building has, become the most natural fit.

The result reads less like an addition to the space and more like a feature of it. For a fit-out already leaning on biophilic design, that is the difference between a plant wall people notice once and a living element they interact with every week.

LINKEDIN: MAKING THE OFFICE WORTH THE COMMUTE

At LinkedIn's Singapore office, the challenge was giving employees a genuine reason to return on its monthly "In Days." Herbs and edible flowers now grow just metres from where they are served, feeding monthly workshops where staff turn what they just picked into herbal teas and salads, not a one off, but a fixture on the calendar. "Employees love it, and nothing else we tried came as close to making the office genuinely worth the commute," said Natalie Hall, International Workplace Program Manager at LinkedIn.

How Urban Farming Delivers Real Sustainability Value, Every Day



STATE STREET: ONE SPACE, FIVE ENTITIES, SHARED

At State Street, a compact wall became the one shared space for employees across five separate entities in a single, high-density office. Monthly hands-on salad bars now bring people together to harvest and build their own meals, with zero food miles and zero single use packaging by design, repeated monthly rather than staged once. "It was central to clearing prerequisites the building would otherwise have struggled to meet toward BCA Green Mark Gold. Internally, 87 percent of our employees said the program made sustainability feel real for the first time," said Ralph Davies, VP, Head of Real Estate (APAC ex India) at State Street.

One problem was voluntary, the other certification driven, and both produced the same result, a habit people kept choosing, week after week.

A GROWING NETWORK ACROSS SINGAPORE'S SKYLINE

Grobrix now works alongside organisations including Amazon, Meta, Spotify, CBRE, JLL, KPMG, CDL, Standard Chartered and Marina Bay Sands, part of a growing list of buildings choosing to practice sustainability rather than simply report it.

As more of the built environment moves this way, the question stops being whether urban farming belongs in an office and starts being what it could look like in a particular building. It is a conversation I am always glad to have, starting with a look at what is already working elsewhere, at www.grobrix.com. 🌱

Article contributed by:
Mathew Howe
Founder
Grobrix.*







THE ROAD TO AUTONOMOUS BUILDINGS

Moving from meeting green standards towards
continuously improving building performance



Singapore has spent two decades raising the bar for sustainable buildings. Today, however, the conversation is shifting from how efficiently a building is designed, to how intelligently it can operate once it is in use.

Buildings account for more than 20 percent of Singapore's carbon emissions, making the performance of the built environment a critical part of the country's decarbonisation plans.

The BCA Green Mark framework reflects this evolution. While energy efficiency remains central, there is now greater emphasis on smart technologies, operational performance, resilience and indoor environmental quality. In particular, the intelligence criteria encourage the use of sensors, data and building systems to support more responsive and continuously optimised operations.

Yet, as buildings become smarter on paper, the next natural step is moving from automation to autonomy, where systems can continuously interpret conditions, anticipate changes and adjust operations with minimal human intervention.

FROM AUTOMATION TO AUTONOMY

Building automation is not new. Over the past decade, sensors and building management systems have enabled facilities managers to monitor occupancy, temperature, humidity, air quality and energy use, and to adjust lighting, ventilation and air-conditioning based on predefined rules.

This has delivered meaningful improvements in efficiency and control. But most systems still operate within fixed logic. They respond to conditions as they change, rather than learning from how a building behaves over time.

The Road to Autonomous Buildings



This is where Artificial Intelligence (AI) is changing the conversation.

By analysing large volumes of operational data, including weather patterns, occupancy trends, indoor environmental conditions, equipment performance and energy consumption, AI systems can begin to identify relationships that are not immediately visible through rule-based control.

Instead of simply reacting to thresholds being crossed, systems can start to anticipate demand and adjust operations proactively, balancing energy use, comfort and indoor air quality in a more dynamic way.

The implications are particularly significant for HVAC (Heating, Ventilation, and Air Conditioning) systems, which operate in constantly changing conditions and account for a large share of building energy use.

Research is demonstrating the potential of AI-driven HVAC optimisation. A 2019 study involving real-world deployment in an existing office building found that a deep reinforcement learning-based control framework reduced heating demand by 16.7 percent compared with the building's previous rule-based control over a 78-day deployment period. More recent research has continued to explore how deep reinforcement learning can adapt HVAC operations to changing conditions, with results from a 2024 study reporting potential energy reductions of approximately 2 percent to 14 percent while improving indoor temperature comfort.

While results differ across buildings and operating environments, the overall trend shows that AI is successfully helping building systems evolve from rule-based automation to adaptive optimisation.

THE HVAC OPPORTUNITY

HVAC is a natural starting point for this shift. Conventional systems rely on fixed schedules and setpoints, while automated systems can respond to occupancy and environmental conditions. An autonomous approach goes further, using AI to interpret inputs such as occupancy, weather, indoor conditions and energy patterns to anticipate demand and optimise cooling in real time.

For example, if occupancy is expected to fall, the system could adjust the cooling loads, air distribution and setpoints in advance, while continuously recalibrating as conditions change. Facilities managers move from manually managing systems to setting performance objectives and operating boundaries, with optimisation happening continuously in the background.

BRINGING THE BUILDING TOGETHER

For such systems to function effectively, they cannot operate in silos.

Modern buildings generate data across multiple domains, including HVAC, lighting, power, indoor air quality and occupancy. When these systems remain fragmented, opportunities for optimisation are often limited to individual subsystems rather than the building as a whole.

Integrated building systems therefore form an important foundation for more advanced optimisation.

Energy monitoring platforms provide visibility into consumption patterns across major loads such as cooling and lighting. Indoor air quality monitoring adds another layer of insight, tracking parameters such as temperature, humidity, carbon dioxide, particulate matter and volatile organic compounds. When combined with occupancy and environmental data, these inputs allow building systems to respond more holistically to real-world conditions.

The Road to Autonomous Buildings

The value is not simply in collecting more data, but in enabling better coordination between systems and ultimately more informed operational decisions.

FROM REACTIVE TO PREDICTIVE COOLING

Consider a 20-storey commercial office with multiple tenant zones and a centralised HVAC system. Rather than relying on fixed cooling schedules, an AI-enabled system could combine occupancy trends, weather forecasts, historical energy data and real-time conditions to anticipate demand.

If several floors are consistently under-occupied, the system could adjust cooling in advance, reducing loads in low-occupancy areas while maintaining comfort and air quality. If conditions change, it can recalibrate in real time.

Facility teams would still define comfort ranges, IAQ thresholds and equipment constraints, while the system continuously optimises within those parameters.

Research into reinforcement learning-based HVAC control has demonstrated energy savings while maintaining comfort, including double-digit reductions in some simulated and real-world applications. The broader shift is from systems that follow rules to systems that learn from building behaviour.

Delta Electronics, a global leader in power management and smart green solutions, is one such company embracing AI to enhance building automation across both hardware and software platforms. By integrating building data, intelligent controls, and AI-driven analytics, Delta is developing more predictive and adaptive solutions that optimise HVAC performance, anticipate changing operating conditions, and improve energy efficiency while ensuring occupant comfort.



The Road to Autonomous Buildings



BEYOND GREEN MARK

The BCA Green Mark framework has helped shape Singapore's approach to sustainable building design and operations. The next phase is to build on this foundation by moving beyond meeting green standards towards continuously improving building performance.

This means shifting from static efficiency targets to buildings that can sense, interpret and respond to changing conditions. Ultimately, high-performance buildings will depend not only on efficient design and equipment, but on how intelligently their systems work together in operation.

"Green buildings should perform well beyond the certification baseline and continue to evolve over time. AI gives us an opportunity to continuously optimise building operations, improving energy efficiency while maintaining occupant comfort. The opportunity now is to use AI to make buildings not only greener, but smarter," said Mr. Jacob Sng, Platform Head (Building Automation), Delta Electronics Southeast Asia & Oceania. ✓

Article contributed by:
Delta Electronics Southeast Asia & Oceania

References:

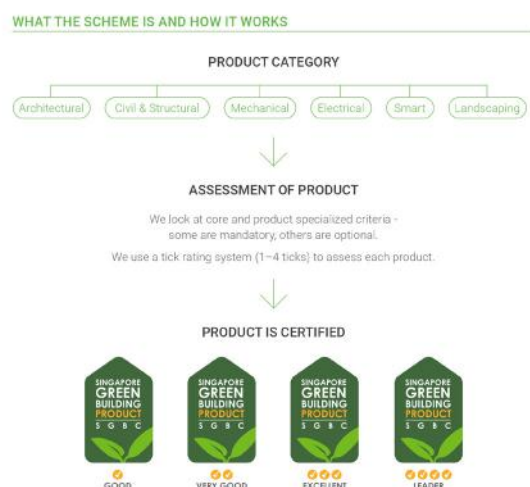
- Energy and Buildings (15 Sept. 2019): Whole building energy model for HVAC optimal control: A practical framework based on deep reinforcement learning
- Energy (15 Mar. 2024): Successful application of predictive information in deep reinforcement learning control: A case study based on an office building HVAC system

An aerial photograph of a modern building with a green roof. The building has multiple levels with balconies and a central vertical structure. The roof is covered in lush green vegetation, and a person is walking on a path on the roof. The building is surrounded by trees and greenery.

GREENING THE GREEN BUILDING VALUE CHAIN

The Singapore Green Building Council (SGBC) administers the Singapore Green Building Product (SGBP) and Singapore Green Building Services (SGBS) certification schemes to raise industry standards and complementing the BCA Green Mark Scheme, Singapore's national green building rating tool.

Greening the Green Building Value Chain



To realise a low-carbon and energy-efficient future, the environmental performance of building products and the expertise of the professionals who specify, install, and manage them cannot be left to chance. Buildings are permanent structures, often standing for decades, and their cumulative impact on resource consumption, carbon emissions, and occupant health is immense. The materials used in construction play a decisive role in determining a building's whole-life carbon footprint, while the quality of design, engineering, and facilities management services determines whether that building performs as intended over its operational lifespan. Green building materials, rigorously certified for their environmental attributes, combined with sound green building design and a culture of sustainability, are essential in creating buildings that are greener and healthier for both occupants and the environment.

While Singapore's national-level BCA Green Mark Scheme sets the overarching benchmark for green buildings, achieving excellence in sustainability requires a more granular and comprehensive approach. This is where SGBC's certification programmes are instrumental. Complementing the BCA Green Mark Scheme, SGBC certifications delve deeper, focusing on the individual components and professional services that collectively impact a building's overall environmental performance. Together, the SGBP and SGBS schemes form a holistic value-chain approach, ensuring that both the physical materials and the human expertise behind green buildings meet the highest standards of credibility, transparency, and continuous improvement.

SINGAPORE GREEN BUILDING PRODUCT (SGBP) CERTIFICATION

The SGBP scheme is a voluntary, third-party certification for green building products and materials, developed based on robust scientific and engineering principles. It draws upon the collective knowledge of the building and construction industry, advancing the built environment towards a greener, more carbon-efficient future while facilitating sustainable procurement. The scheme ensures that sustainability targets are met by providing verified transparency and credibility to the products chosen for construction and renovation projects.



METHODOLOGY, ASSESSMENT CRITERIA, AND RATING TIERS

The SGBP certification scheme is a key benchmark for green building products in Singapore and the wider Southeast Asian region. Products certified under the SGBP are highly recognised under the BCA Green Mark Scheme, allowing them to accrue points that directly contribute to a project's BCA Green Mark rating. The scheme employs a tiered rating system of 1 to 4 ticks, where a higher tick rating indicates superior sustainability performance across multiple environmental impact categories. The more highly rated a product, the more points are awarded towards the BCA Green Mark score, creating a strong market incentive for manufacturers to pursue higher tiers.

The assessment criteria cover a comprehensive range of environmental indicators, including recycled content, renewable materials, low volatile organic compound (VOC) emissions, resource efficiency during manufacturing, durability, and

Greening the Green Building Value Chain

end-of-life recyclability. The SGBP scheme complies with many requirements of ISO 14024, the global standard for Type I environmental labelling, ensuring rigorous, transparent, and internationally aligned certification. This compliance also facilitates acceptance by regional green building rating tools, making SGBP-certified products viable for export-oriented manufacturers.

ACCREDITATION AND FUTURE ROADMAP

The SGBP certification scheme has been accorded accredited status by the Singapore Accreditation Council (SAC), signifying its adherence to the stringent ISO/IEC 17065 standard for certification bodies. This underscores SGBC's commitment to rigorous standards, impartiality, and transparency. Looking ahead, future versions of the SGBP may provide additional recognition for products that excel in addressing social issues, circular economy principles, and low embodied carbon. SGBC is also exploring governance enhancements to allow mutual recognition with other internationally leading eco-labels, such as Cradle to Cradle, DECLARE, Global Green Tag, and Good Environmental Choice Australia.

BENEFITS FOR THE INDUSTRY

For product suppliers, SGBP certification offers expert analysis of sustainability performance, product development insights, and greater market awareness. For designers, specifiers, and builders, the SGBP Directory of Certified Products simplifies the selection of sustainable materials and provides confidence in environmental claims. Certificates are valid for two years, with a renewal process requiring continued compliance and demonstrated improvements where applicable.

SINGAPORE GREEN BUILDING SERVICES (SGBS) CERTIFICATION

Complementing the SGBP scheme, the Singapore Green Building Services (SGBS) certification—launched in October 2012—is the first of its kind in Singapore. While building products are essential, they are only as effective as the firms who design, specify, install, and manage them. The SGBS scheme recognises professional services firms that deliver best-in-class green buildings aligned with the latest industry benchmarks, particularly the BCA Green Mark 2021 framework.

SCOPE AND PROFESSIONAL DISCIPLINES

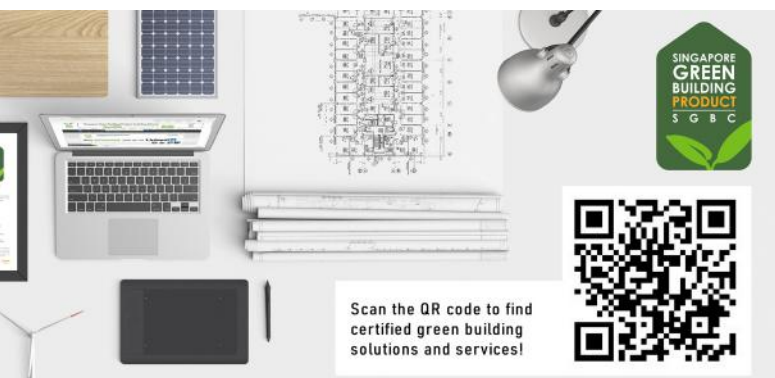
The SGBS certification provides a platform to recognise firms with a strong track record in BCA Green Mark projects and demonstrable capabilities across various sustainability fields. The professional services covered include Architecture, Environmental Sustainability Design, Mechanical & Electrical Engineering, Green Facilities Management, Energy Performance Contracting, and Quantity Surveying.

ASSESSMENT CRITERIA, ELIGIBILITY, AND RENEWAL

The assessment criteria are rigorous and multi-faceted, focusing on

- Track record and capability: the firm's portfolio of Green Mark projects and rating levels achieved
- Staff competencies and development: the proportion of staff holding accredited green building credentials and the firm's investment in continuous training
- Green corporate practices: internal sustainability policies, carbon reduction targets, and employee wellness programmes
- Industry contribution: participation in SGBC committees, research publication, and mentorship.

To be eligible, firms must demonstrate a minimum number of BCA Green Mark projects within a specified period and maintain a required ratio of accredited Green Mark Professionals (GMP).



Greening the Green Building Value Chain

RECOGNITION, BENEFITS, AND STRATEGIC IMPACT

SGBS-certified firms are formally recognised under the BCA Green Mark scheme: Green Mark 2021 accords credits for engaging an SGBS-certified firm, incentivising project owners to select certified service providers. The certification is also recognised as a Quality attribute under the Quality Fee Method (QFM) Framework for public sector construction consultancy tenders, giving certified firms a tangible competitive advantage in government procurement. Beyond project benefits, SGBS certification signals proven expertise and a commitment to sustainability, while granting access to SGBC's networking events and collaborative platforms that drive innovation across the sector.

A HOLISTIC FRAMEWORK FOR A SUSTAINABLE BUILT ENVIRONMENT

Through these two complementary schemes - SGBP for building products and SGBS for building services

- SGBC provides a holistic framework that guides product development, recognises professional excellence, and creates a more sustainable, resilient, and transparent built environment. By addressing both the materials that constitute a building and the expertise that delivers its performance, these certification programmes ensure that sustainability is embedded at every stage of the building life cycle, from design and construction to operations and end-of-life. As Singapore pursues its ambitious climate goals, including the 80-80-80 targets, the SGBP and SGBS schemes will play a critical role in driving industry transformation and positioning Singapore as a regional hub for green building excellence. ✓

Read on to find out more about industry-ready green building products and green building services put forward by SGBC Member organisations, showcased at the SGBC Pavilion @ BEX Asia 2026.



AIRMAZE CORPORATION PTE LTD

Established in 2015, Airmaze Corporation Pte Ltd is dedicated to advancing sustainable air quality solutions through innovative air filtration, air treatment, and green technologies. Backed by extensive industry expertise, Airmaze delivers high-performance products that meet international testing standards while addressing evolving environmental challenges.

Airmaze's commitment to sustainability drives them to create cleaner, healthier spaces and support a greener future for businesses and communities alike. Airmaze champions sustainability initiatives and empowers the environmental ecosystem.





INDEPENDENT CERTIFICATION FOR STEEL, CONSTRUCTION AND STRUCTURAL ASSURANCE

CARES provides SAC accredited Specialist Builder Certification scheme for:

- In-Situ Post Tensioning Works
- Precast Concrete Products
- Ground Support and Stabilisation works for ERSS
- Piling work

CARES provides SAC/UKAS/HKAS accredited Certification scheme for:

- Reinforcing Steel to SS560 / BS4449 / CS2
- Processing and/or supply of steel products to BS8666
- Steel Fabric to SS561 / BS4483
- Application of mechanical couplers to ISO 15835
- Production of billets and wire rod for further processing

Other certification service:

- SAC accredited BCI Alternative Structural Steel to Eurocode 3 certificate
- Sustainable Construction Steel (SCS) Certification
- Environmental Product Declaration to EN 15804 (3rd party verified EPD Report)
- Product carbon foot-printing (CF Report)

CARES Certification Pte Ltd

CARESSingapore.com

Contact: Chin Seng YAP

email: chinsengyap@carescertification.com



CARES Cloud App



Assured Steel Certification
Independent | Impartial | Trusted
carescertification.com

CARES CERTIFICATION PTE. LTD.

CARES is the world's leading independent certification body for the constructional steels industry, operating in more than 50 countries.

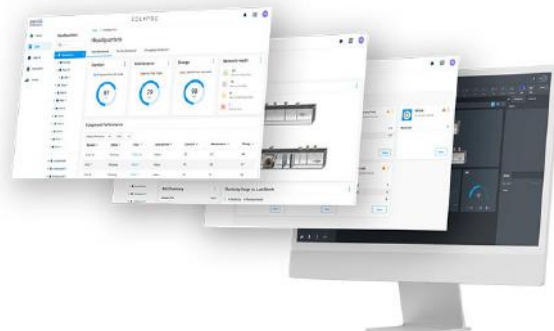
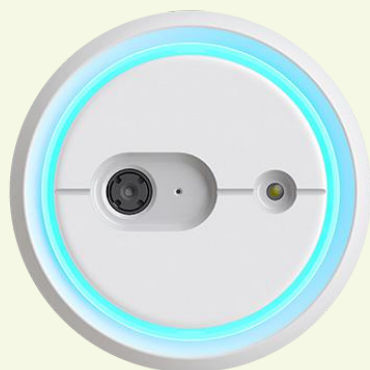
With over 40 years of experience, CARES provides trusted assurance on product quality, performance, provenance, and sustainability. CARES' advanced digital ecosystem delivers transparency, efficiency, and confidence across complex global supply chains.

Infrastructure clients, consultants, designers, and specifiers rely on CARES for reliable certification, sector expertise, and seamless digital assurance solutions.

DISTECH CONTROLS INC

Distech Controls connects people with intelligent building solutions through our forward-thinking technologies and services.

Distech Controls partners with customers to deliver innovative solutions that can provide better health, better spaces, and better efficiencies. Our passion for innovation, quality and sustainability guides our business, which serves multiple market segments through worldwide business divisions, service offices and a superior network of Authorised System Integrators and Distributors.

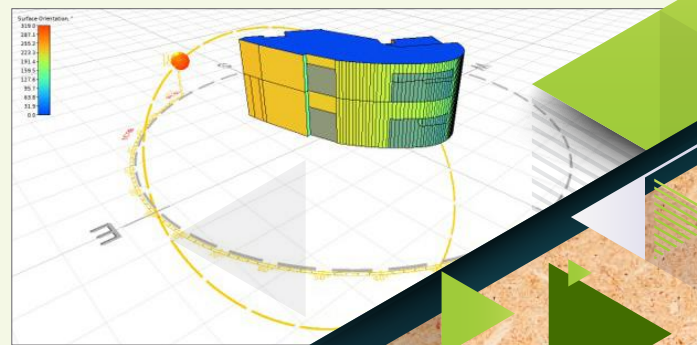
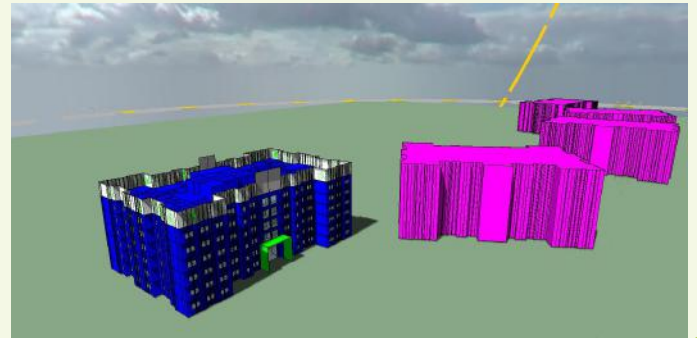


HY M&E CONSULTANCY SERVICES PTE. LTD

HY M&E Consultancy Services is a premier Professional Engineering firm delivering comprehensive mechanical and electrical consultancy solutions to prominent building and infrastructure developers. To provide specialised, end-to-end project support, the company operates two dedicated subsidiaries: Commodore and BeeCon.

Commodore functions as the firm's specialized testing and commissioning division, ensuring rigorous quality assurance, operational efficiency, and regulatory compliance across all engineered systems. Complementing this, BeeCon serves as the sustainability division, driving forward-thinking green building initiatives, energy optimisation, and environmental stewardship.

Together, this integrated corporate structure enables HY M&E to deliver seamless, high-performance engineering excellence.



PANDUIT SINGAPORE PTE LTD

Panduit, a global leader in electrical and network infrastructure solutions, thrives on ingenuity and enterprise. We focus on solving problems and achieving success through our comprehensive portfolios, helping organisations navigate digital, fuel, and workforce transformations for sustainable growth.

Customer needs are at the core of Panduit's strategy, ensuring its R&D investments lead to continuous breakthroughs in business-continuity products. Panduit's unwavering commitment to customer success ensures exceptional solutions and seamless support worldwide.

With a dedication to innovation, extensive global presence, and deep industry expertise, Panduit is making the connections that matter.

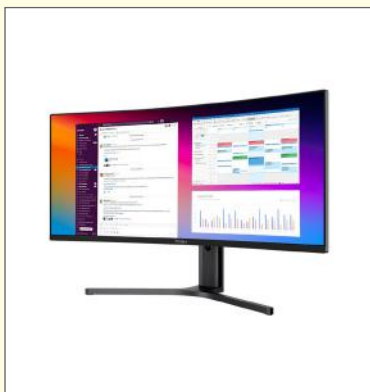


PRISM+

PRISM+ is a leading Singaporean consumer electronics brand that has grown from its 2017 founding into a comprehensive smart-home solutions provider.

Central to its corporate offering are its smart ceiling fans, such as the Oasis and Laguna models, which feature integrated dimmable LED lighting, whisper-quiet DC motors, and app-based control via the PRISM+ Connect platform, allowing users to automate settings and integrate with other smart appliances for a seamless living experience.

Beyond fans, the brand offers a full ecosystem of home appliances including air conditioners, refrigerators, and TVs, all backed by a direct-to-consumer model that keeps high-tech features accessible without compromising on quality or after-sales support.



REPUBLIC POLYTECHNIC

Republic Polytechnic (RP) is more than an educational institution; it is a strategic partner for industry innovation, talent development, and business transformation.

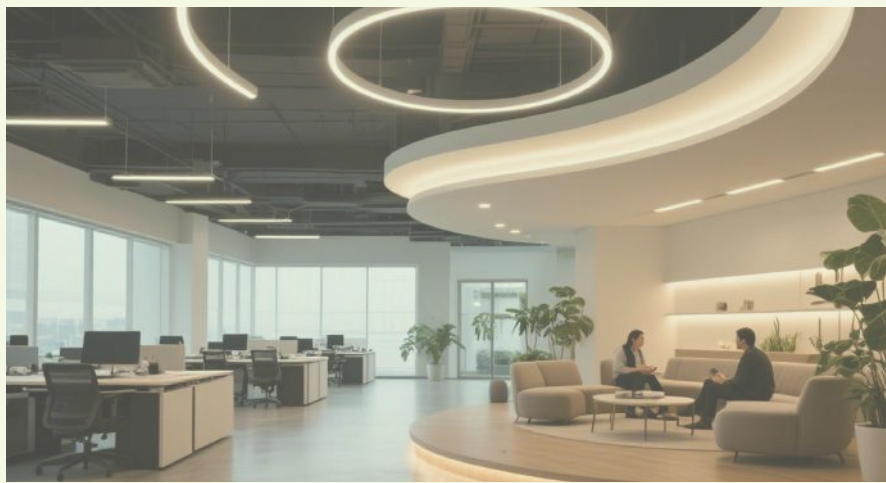
Through a wide range of collaboration options - including applied research, IP commercialisation,



consultancy, internships, staff attachments, and workforce training - RP helps businesses upskill employees, improve operational efficiency, and tap into cutting-edge technologies. The polytechnic takes a holistic, multidisciplinary approach, working closely with partners to co-develop effective solutions that bridge the gap from lab to market.

With a network of over 252 industry partners and a track record of developing more than 79,800 future-ready learners, RP has a proven impact across key sectors such as Agri-Food Innovation, Health and Wellness, and Supply Chain Management, making it a key driver of business competitiveness and growth.



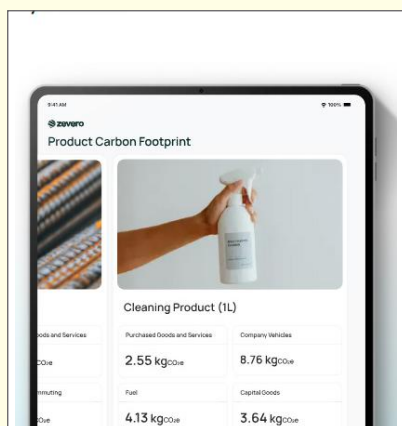


SIGNIFY SINGAPORE PTE LTD

Signify is the world leader in lighting, delivering innovative professional lighting and IoT-enabled solutions that help organisations create smarter, more sustainable, and future-ready spaces.

Through connected lighting systems, data-driven insights, and advanced controls, Signify enables building owners and facility managers to optimise energy consumption, enhance occupant comfort, and improve operational efficiency.

Signify's global brands include Philips, Signify Interact, Signify Dynalite, and Color Kinetics.

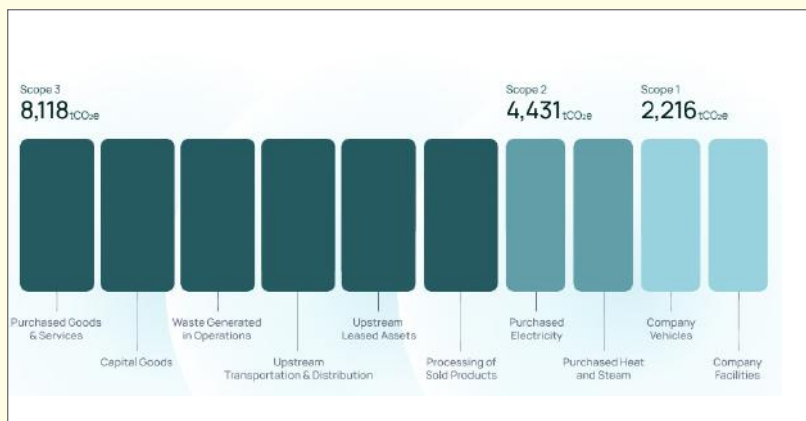


ZEVERO PTE LTD

Zevero is a global carbon management and sustainability platform helping organisations measure, manage, and reduce their environmental impact with confidence.

Combining AI-driven technology with in-house sustainability expertise, Zevero supports businesses across climate strategy, ESG disclosures, and Environmental Product Declarations (EPDs).

Trusted by organisations worldwide, Zevero delivers end-to-end solutions - from emissions tracking to third-party verified EPDs - enabling companies to meet regulatory requirements, access new tenders, and demonstrate credible sustainability leadership.



GO
25



Make comfort sustainable

Find out more about
the Go 25 movement at
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