

*In-Person Event*

# BRI-HDB-SGBC Seminar 2025: Building a Sustainable & Resilient Singapore

Friday, 14 November 2025  
9:30 AM to 12:15 PM

HDB Centre of Building Research  
10 Woodlands Ave 8  
Singapore 738973

Jointly organised by:



**Building & Research Institute**



**SINGAPORE  
GREEN  
BUILDING  
COUNCIL**

# Synopsis

The annual BRI-HDB-SGBC Seminar, co-organised by the Singapore Green Building Council (SGBC) with the HDB Building Research Institute (BRI), offers an in-depth exploration of how foundational research, design innovation, and construction technology are being harnessed to shape a greener built environment. This session will provide actionable insights and real-world solutions for industry professionals, policymakers, and sustainability leaders.

The Seminar will begin with a focus on how HDB has integrated sustainability into the heart of public housing, presenting its roadmap for reducing carbon emissions, enhancing liveability, and embedding circular economy principles. This offers a powerful model for deploying green strategies at scale in both public and private sector projects.

SGBC Members will then present approaches to build climate resilience:

- ❖ CPG Corporation will highlight integrated design strategies such as passive design and biophilic architecture.
- ❖ Tremco will focus on how Deep Energy Retrofits of the building envelope provide a critical, system-level solution to reduce urban heat and energy demand in existing structures.
- ❖ Technoform will showcase how innovations in thermal insulation for window systems address specific thermal bridges.

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# Seminar Programme

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- 9:30 AM **Introductions & Admin Matters**
- 9:40 AM **Welcome Address**  
*Mr. Tan Sze Tiong*  
*Group Director, Building Research Institute, Housing & Development Board (HDB)*  
*Board Member, Singapore Green Building Council (SGBC)*
- 9:50 AM **HDB's Sustainability Journey: From Innovation to Implementation**  
*Mr. Tan Sze Tiong*  
*Group Director, Building Research Institute, Housing & Development Board (HDB)*
- 10:00 AM **Designing for a Climate Resilient and Decarbonised Future**  
*Mr. Gavin Chan*  
*Senior Vice President (CPG Green), CPG Consultants Pte Ltd*
- 10:30 AM **Deep Energy Retrofits: The Future of Sustainable Buildings**  
*Ms Shevonne Kok*  
*Head of Specifications, APAC, Tremco Construction Products Group*
- 11:00 AM **Engineering Climate-Resilient Façades for Singapore's Green Future**  
*Mr. Amos Seah*  
*General Manager, Technoform Edge Bond Solutions Singapore*
- 11:30 AM **Networking Reception**
- 12:15 PM **End of Seminar**

# HDB's Sustainability Journey: From Innovation to Implementation



## **TAN SZE TIONG**

*Group Director, Building Research Institute (BRI)  
Housing & Development Board (HDB)*

### Presentation Abstract

Discover how HDB has integrated sustainability into the heart of public housing—from piloting green technologies to deploying them at scale. This session will cover HDB's roadmap toward reducing carbon emissions, enhancing liveability, and embedding circular economy principles in housing development, offering a model for public and private sector projects alike.

### Biography

As the Group Director of the Building & Research Institute (BRI), a research set-up under the Housing & Development Board (HDB) of Singapore, Mr. Tan Sze Tiong leads HDB's efforts in spearheading innovative, cost effective solutions and technologies to create a better living environment and achieve greater sustainability. Appointed concurrently as HDB's Chief Sustainability Officer (CSO), Sze Tiong champions HDB's sustainability strategy and aligns sustainability efforts across HDB to further support Whole-of-Government's sustainability growth areas.

# Designing for a Climate Resilient and Decarbonised Future



## **GAVIN CHAN**

Senior Vice President (CPG Green)  
CPG Consultants Pte Ltd

### Presentation Abstract

Buildings are major contributors to energy consumption and carbon emissions. To mitigate their impact on climate change, we must rethink how buildings are designed and operated—placing emphasis on user-centric thermal comfort and climate resilience. We will examine the key drivers of energy use related to thermal comfort and explore strategies for designing buildings that prioritize occupant well-being. Each design decision influences thermal performance, and we aim to take a systematic approach to enhance building efficiency.

Our process begins with massing and orientation to optimize layout. We then incorporate biophilic and nature-based elements to reduce the urban heat island effect, followed by the adoption of efficient cooling technologies, such as district cooling systems, to further improve energy performance.

### Biography

Gavin leads the group's ESG strategy and decarbonisation initiatives. He is also the Senior Vice President of the Green Consultancy arm of CPG Consultants Pte Ltd. With over 14 years of experience in engineering and sustainability, Gavin has been instrumental in aligning CPG's operations with global ESG trends and driving the delivery of decarbonized solutions across the building lifecycle—from design and construction to operations and circularity.

A Green Mark Accredited Professional, Gavin has overseen more than a dozen Green Mark Certified projects and actively contributes to industry transformation through policy development and capability building. His expertise spans whole-life carbon assessment, sustainable design, and climate adaptation planning.

# Deep Energy Retrofits: The Future of Sustainable Buildings



## **SHEVONNE KOK**

Market Segment Director APAC - Sealants, Glazing & Façades  
Tremco Construction Products Group

### Presentation Abstract

With 80% of today's buildings still standing in 2050, deep energy retrofits (DER) are a strategic imperative for achieving Singapore's net-zero goals. This presentation makes the case for a holistic DER approach, which can reduce a building's energy use by over 40% by comprehensively upgrading the thermal envelope, systems, and integrating smart technologies.

We will explore how this strategy offers a stronger return than shallow retrofits by drastically cutting operational costs and embodied carbon. Through real-world case studies and a look at key technologies, the session demonstrates that DER is a crucial business lever for building resilience, competitive advantage, and a sustainable urban future.

### Biography

Shevonne Kok is the Market Segment Director for Sealants, Glazing & Façades APAC and Head of Specifications APAC at Tremco Construction Products Group (Tremco CPG). With over 20 years of experience in the building materials industry, she leads sustainable innovation and system-based solutions across the region. Shevonne has been instrumental in driving green certifications, including the prestigious Singapore Green Building Product (SGBP) labels for several façade-related sealant technologies. A passionate advocate for low-carbon construction and high-performance smart façade systems, Shevonne actively engages with architects, consultants, and developers to promote best practices in specification and design. Her expertise spans across building envelop solutions includes structural glazing, air moisture barrier system, weatherproofing, and sustainable smart façade integration. She is a frequent speaker at industry forums and has conducted numerous educational workshops across Asia Pacific.

# Engineering Climate-Resilient Façades for Singapore's Green Future



## AMOS SEAH

General Manager

Technoform Edge Bond Solutions Singapore

### Presentation Abstract

Acting as the interface between the outdoor environment and indoor comfort, the building façade regulates thermal exchange. Thoughtfully designed façades can significantly reduce reliance on mechanical cooling, enhance occupant well-being, and contribute to a more sustainable urban fabric.

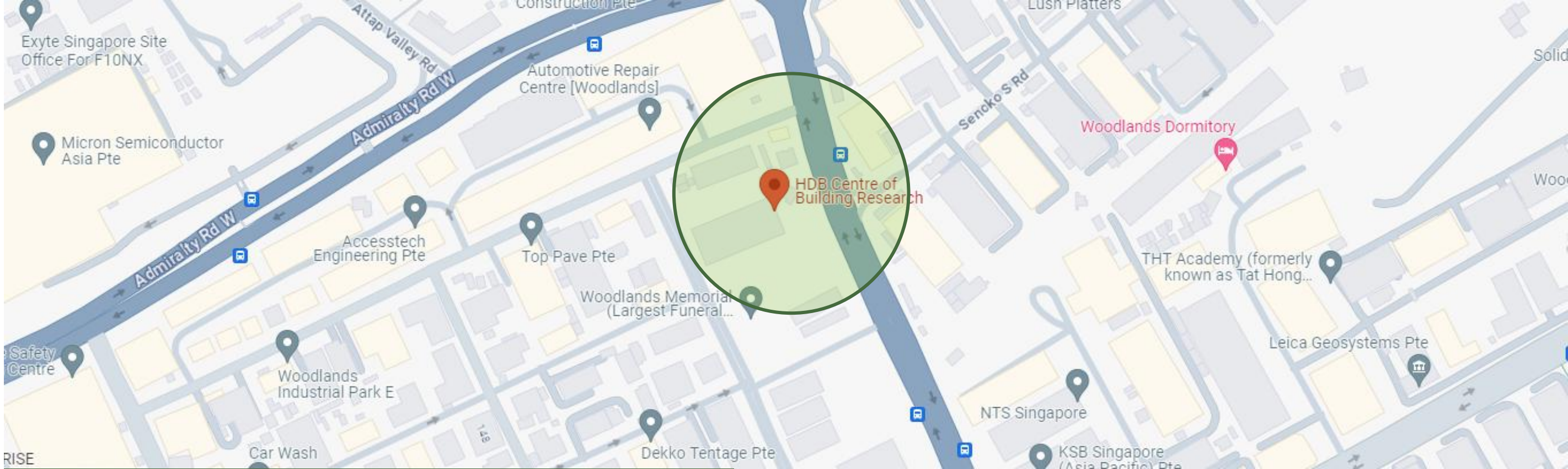
This presentation explores how thermal insulation technologies for windows, doors and facades play a pivotal role of the building envelope strategy to achieve these outcomes. By addressing critical heat bridges and enhancing façade performance, Technoform's thermal insulation solutions help lower cooling loads and carbon emissions across both residential and commercial buildings. Aligned with Singapore's carbon reduction goals under the Green Plan 2030, these solutions enable the design of greener, more energy efficient and thermally comfortable buildings in tropical cities – supporting the nation's vision for a sustainable and liveable built environment.

### Biography

Amos Seah is the General Manager of Technoform Edge Bond Solutions Singapore. He is a dedicated professional with over 10 years of expertise in the facade industry, specialising in fenestration performance and energy-efficient building envelope solutions.

As a solutions specialist, he leads the technical team responsible for designing and implementing thermally broken fenestration systems in global projects. He has a proven track record of delivering technical consultations to optimise window systems' thermal performance, with sensitivity to local contexts.

Amos was part of the Envelope Taskforce for the development of Green Mark for Non-Residential Buildings (GM NRB:2015). He also actively contributes to the dissemination of technical knowledge pertaining to fenestration performance at international conferences, with a focus on heat gain reduction and energy efficiency.



## Event Venue

Centre of Building Research  
10 Woodlands Ave 8, Singapore 738973  
([Google Maps](#))

Nearest Parking:  
Northtech Building ([Google Maps](#))

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