



**1. INNOVATIVE /  
PERFORMANCE ENHANCEMENT  
TECHNOLOGIES  
APPROVED FOR PREVIOUS  
NB PROJECTS  
(NB May 24)**

# Introduction

- (1) These slides contain innovative / performance enhancement technologies that have been approved in previous BEAM Plus NB (New Buildings) projects.
- (2) The approval years are given in brackets / at left lower corner.
- (3) Users are reminded that technologies approved as IA points for a past project do not necessarily mean that they would attain the same IA scores for other projects. Project assessment will take into account individual circumstances.

## Introduction (cont'd)

### Definitions of IA1 and IA2 under NB v1.2

- **Innovative Techniques (IA1)** – Advance practices and new techniques not yet been widely adopted in Hong Kong or even elsewhere with environmental benefit.
- **Performance Enhancements (IA2)** - Strategies and techniques perform sig. better than BEAM requirements.

# Introduction (cont'd)

## “IA” definition under NB V2.0

Present evidence of the application of new practices, technologies and/ or techniques that are

- (1) not described in this manual;
- (2) not market mainstream implementation; or
- (3) multiple aspect achievement;

There is only IA1 in NB v2.0. No IA2 is present.

# **LIST OF PAST CASES**



## IA 1 - Innovation Techniques

### Application of battery power supply system for construction site

*(Usage period: Mar 2020 – May 2021;  
Equipment supported: 1 tower crane, 1 material hoist and hand tools;  
Carbon reduction: 147 tons compared to diesel generator).*



(v1.2 FA; Approved in 2023)



## IA 1 - Innovation Techniques

### Recycled material for façade finish

A bespoke cast aluminium brick façade wraps the new building. The aluminium bricks were made from 100% recycled alloy wheels.

The interlocking modules of bricks span between vertical members of the perimeter trusses. Mock-ups were tested for wind loading and approved by the authorities.



(v1.1 FA; Approved in 2023)

# Remarks about IA1

- (1) The assessment body will consider the **kind of technology** and the **extent of application** to judge whether it is an innovation worthy of a bonus (IA1) point. Typically, this would require newer kind of technology and a significant installation rather than a small trial.
- (2) As time goes by, some of the above features may be adopted by more and more projects. There is a possibility that the features will **no longer** be counted as innovations due to their prevailing popularity.





## IA2 - Performance Enhancement

### Operational Carbon Neutral (Performance Enhancement under EU 6)

*The Applicant submitted the energy simulation report of the EU 1 credit to demonstrate the sufficient PV system to offset 100% of carbon emission caused by building energy consumption. According to the assessment results of the EU 1 credit as well as the EU 6 credit, showing that these credits are achieved.*



(v1.2 PA project; Approved in 2024)



## IA2 - Performance Enhancement

### IAQ real-time sensors

*The Applicant submitted IAQ sensor catalogue and dashboard sample screen image to demonstrate the IAQ Real time sensors have been installed in common area to allow 7x24 IAQ monitoring with real-time display. Real time data is available for review by the property management company, and they can adjust the HVAC system immediately to improve the air quality if necessary.*



(v1.2 PA project; Approved in 2023)

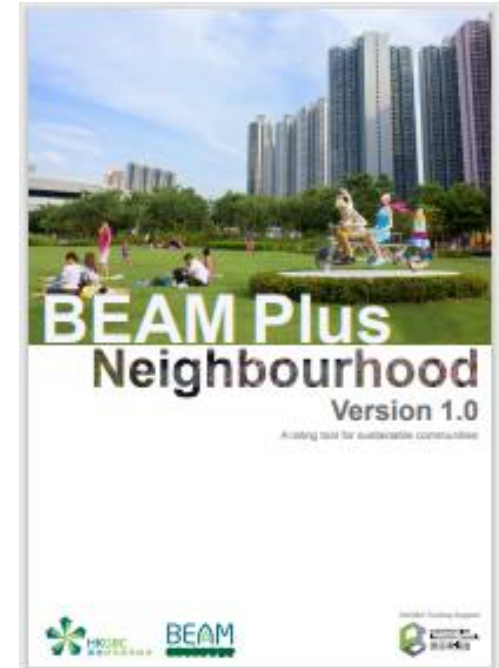


## IA2 - Performance Enhancement

### BEAM Plus Neighbourhood Certification

*The Applicant claimed IA2 by an ND certificate obtained in the planning stage. Evidence includes: (1) copy of the certificate, screen capture of the BEAM Plus Neighbourhood Project Directory from HKGBC and extract of the BEAM Plus Neighbourhood Assessment Report showing that the master site of the development has achieved Platinum rating under BEAM Plus Neighbourhood (ND) Assessment; and (2) copy of the building plan approved by Buildings Department showing that the site planning is the same as the master plan defined in the ND certification.*

(v1.2 PA project; Approved in 2023)



## Remark about IA2

The above list is not exhaustive. IA2 also includes initiatives where the quantitative achievements (e.g. percentage roof area covered, percentage material recycled, etc.) are significantly higher than those specified in the BEAM Plus Manual. For simplicity sake, these are not included in the slides.