

Annex 1: Unique features of SDE1 and SDE3

Key architectural highlights of SDE1 and SDE3 include:

- **The extended west facade** is designed as an equatorial envelope that engages with the tropical climate. It screens the building from heat gain by creating a deep veil, an aesthetic expression combining formal design and performance capabilities while establishing a visual resonance with neighbouring buildings.
- **Solar photovoltaic panels** are in place on the rooftop to generate green energy.
- A **sculptural staircase** in SDE3 links all levels of the design studios, creating opportunities for social exchange and interpersonal dialogue.
- A **hybrid cooling system**, which is a transformation of the approach deployed at the SDE4, replaces air-conditioning to create a low-carbon, low-energy, high-quality indoor environment. The hybrid system supplies rooms with 100% fresh pre-cooled air, albeit at higher temperatures and humidity levels, and augmented with an elevated air speed by ceiling fans.
- **Improvements in passive tropical design** have yielded net energy savings of about 20 per cent. SDE1 and SDE3 are also equipped with a large network of air quality sensors, which measure different parameters such as temperature, humidity and carbon dioxide. These sensors provide insightful data for building managers to better control the space for energy efficiency and comfort.

A video on SDE1 and SDE3 can be viewed [here](#).