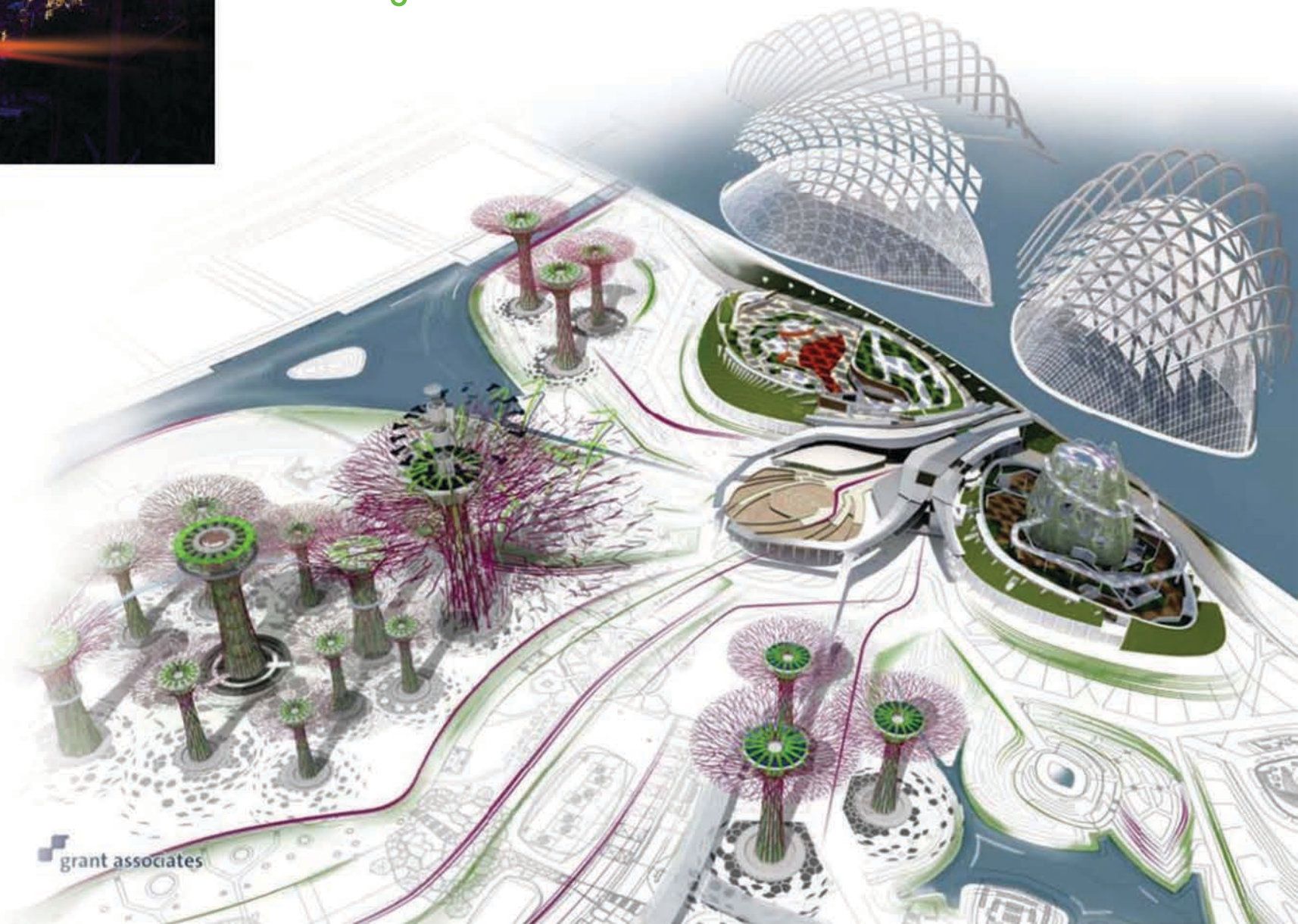


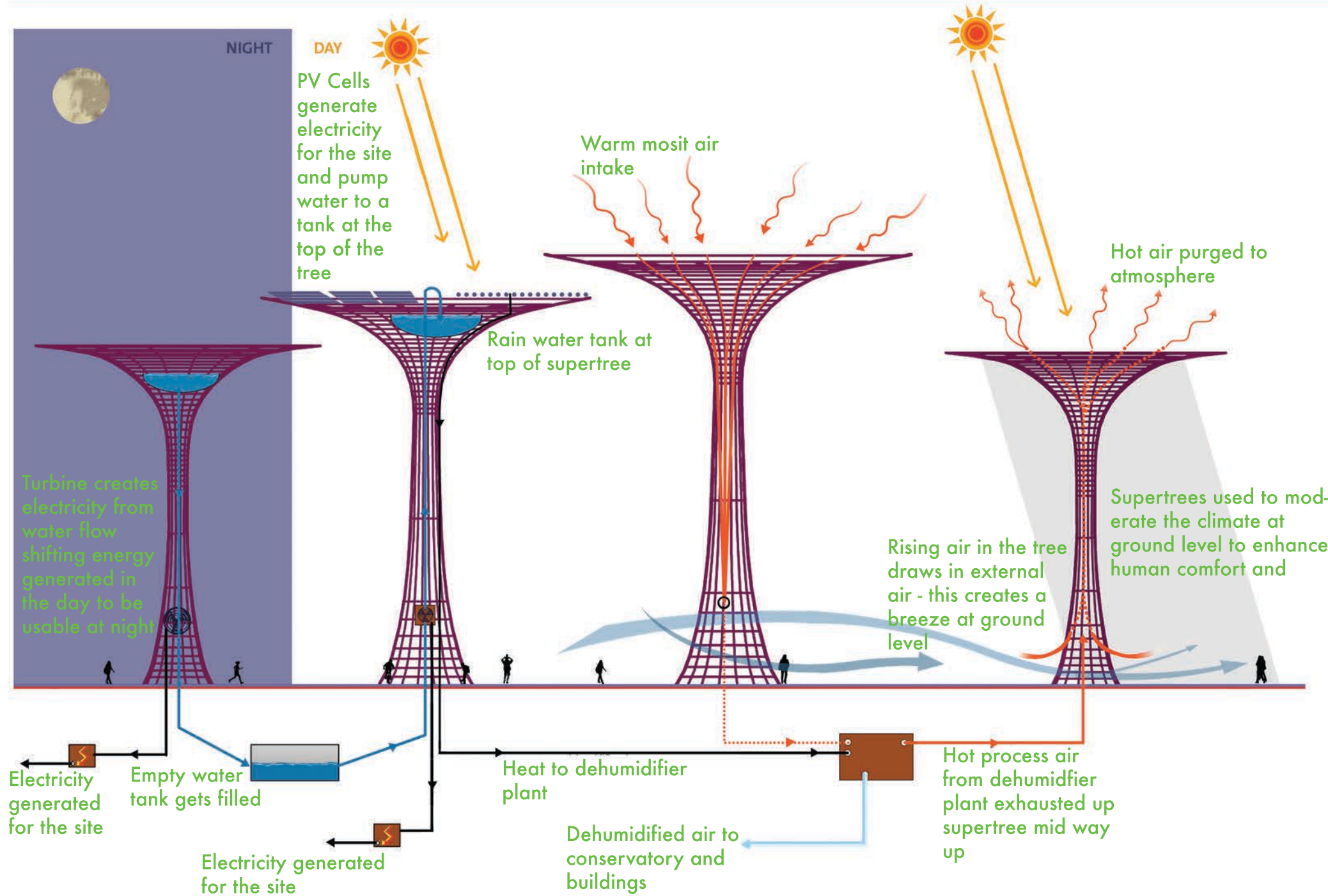
SUPER TREE GROVE - Gardens by the Bay - Grant Associates



Gardens by the Bay is a project by Grant Associates that started in 2011 and aimed to create a retreat from the city within the city. An overarching vision that the Singapore government had was to make Singapore into a Garden city by enhancing the greenery through projects like the Gardens by the Bay. The Gardens are comprised of several species of flora and a variety larger trees, but also introduce technology into the mix with the iconic Super trees that are both beautiful lit up with their array of colors, and provide great views on its skybridge to view the rest of the gardens that encompass the 250 acre complex. A beautiful mix of technology and nature, this landscape is a step toward a greener future.



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The walkway between the two larger supertrees, the OCBC Skyway, allows visitors to have a full scenic view of the Gardens and beyond to to city skyline



the Gardens are essentially sustainable cycles integrated throughout the Gardens. The energy from the water towers in the supertrees along with the PV Cells are used to power the lights that illuminate the supertree grove at night. They are also used to power the pumps of the watertowers and help to cool the conservatories. There are a total of 18 Supertrees throughout the Gardens with 11 of them utilizing Photovoltaic cells to harvest solar energy and the others to serve as air exhaust receptacles to help cool the conservatories. The supertrees are made up of 4 parts.

The Core, Trunk, Planting panels, and the canopy. The core is made of reinforced concrete that ultimately holds up the supertree. The trunk is a steel frame attached to the core and the planting panels are installed on the trunk with the canopy reaching out over the top. These trees are home to over 200 species of ferns orchides and flowers between the 18 supertrees. Between the plants and trees of the garden and the supertrees, the Gardens by the bay is a system that cleanses the air and create a cool, comfortable climate.