



Case Study

Integrated Structural & Energy Solutions

Data Centre - **Singapore**

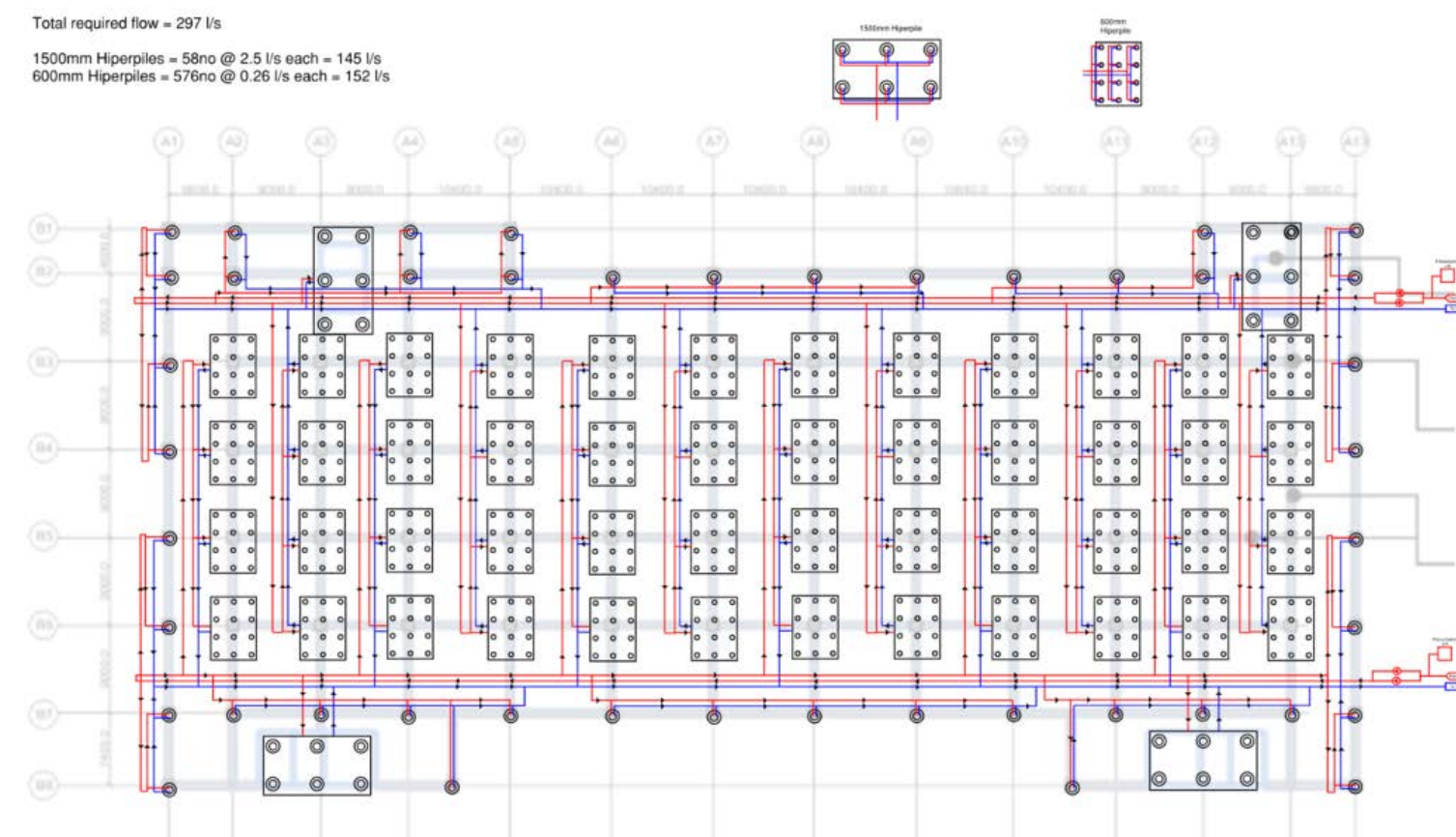


Introduction: Singapore

50MW DC: Scheme

Hiperenergy Ltd were contacted by an international infrastructure developer and asset owner to derive an alternative Hiper solution for a new, large data centre development in Singapore.

An innovative Hiper solution was proposed as a supplementary cooling solution, providing the option of 10% continuous cooling capacity or a peak cooling capacity of 40% of the DC requirements over a period of 4hrs.



MEP Strategy

- Utilise the Hiperpiles as heat rejection, reducing the work required of the evaporative cooling plant during the afternoon, across a 4hr period.

Hiper MEP Solution

- Hiperpiles act as supplementary cooling source, recharged daily and with the ability to pre-cool the cooling water circuit on return prior to passing to the evaporative cooling plant.
- Active recharge processes, flowing groundwater and the natural, at-rest temperature of the ground assist in the rejection of heat via the Hiperpiles such that they perform repeatedly across a daily cycle.
- The Hiper solution is not considered critical infrastructure, the DC has sufficient cooling plant, meeting peak conditions independently.



Singapore Data Centre Hiper solution – ValueSummary

- Concrete volume saving of 10,000m³
- Embodied carbon saving of 40% within the piled foundations
- Water saving of ~70M litres per year
- WUE reduction of 10%
- Annual cost saving of ~300,000 SD

**Hiper solutions.
Today's Foundations.
Tomorrows Assets.**

Contact us

enquiries@hiperenergy.com

+4402076431000

hiperenergy.com