

Scaling Grid Friendly Data Centres with Thermal Storage

At TSI we understand the global need for data centre growth, and the challenges developers face. We provide underground Long Duration Energy Storage to enhancing sustainability where it matters most.



Data Centre Pain Points

- Water Consumption
- Peak Demand Charges
- Immense Emissions
- Grid Availability

The Solution

We enable grid-friendly data centres by using thermal storage to allow for the production of cooling energy during off-peak hours.

- Dry Fluid Cooler / Cold BTES / PV Thermal
- Hybrid Microgrid = Resilience
- Free Cooling: Diurnal + Seasonal Energy Storage (**BETTER**)
- Closed Loop Cooling + Renewable Augmented (**FASTER**)
- Thermal Battery = Peak Shifting (**CHEAPER**)

What You Can Expect

- Dramatic Reduction in Carbon Emissions
- PUE of 1.0 – 1.1
- Zero Water Consumption
- 15-25% Peak Grid Demand Reduction
- 20-25% Total Annual Consumption Reduction

ThermaStor is a Canadian startup with global ambitions to decarbonize the built environment.

Mission: Design cost-effective, grid-friendly decarbonization solutions that optimize **Cost**, **Carbon**, and **Demand**. Our thermal energy storage innovations enhance building performance, decouple electrification from grid constraints, and deliver scalable, future-ready systems while demonstrating superior lifecycle performance.

In partnership with **ThermaCity Energy**, we deploy long-duration energy storage (LDES) solutions for both retrofits and new builds that makes electrification better, faster, and cheaper with their patent pending innovative approach to construction.

WIN-WIN-WIN for all stakeholders: **citizens**, **corporations** and **government**

Contact

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