**Data Centre Frontier**

Data Centre Frontier is a planning platform that turns complex site due diligence into clear, defensible decisions. Users draw a prospective data centre footprint and receive an immediate viability score with full breakdowns across electrical infrastructure, terrestrial and submarine telecoms, environmental hazards, climate, population and land-use zoning, and geological/topographic constraints. Using AI models and auditable datasets, the software also forecasts power and water demand, operating costs, and resilience trade-offs, enabling apples-to-apples comparisons between sites and designs. Every score is explainable: users can inspect inputs, weights and assumptions, export reports, and share evidence with stakeholders. With Data Centre Frontier, governments and organisations can choose locations that are faster to permit, cheaper to run, and better for grid and environment.

**1) We layer trusted public maps over your sketch.**  
When you draw a site, the tool quietly checks a set of government datasets in the background—electricity lines and substations, internet backbones and cable landings, climate and water, natural hazards, protected areas, population, and planning signals. Think of it like laying tracing paper maps on top of each other to see the full picture.

**2) We turn those maps into simple questions.**  
For each topic, we ask practical, siting questions such as:

* “How close is reliable high-voltage power?”
* “Is there decent backhaul internet nearby (on land or via a cable landing)?”
* “Is the area prone to flood, fire, or earthquakes?”
* “Is it too hot for efficient cooling, or is water access likely?”
* “Is the land environmentally sensitive or set aside as protected?”
* “Are there people and services within a reasonable distance?”
* “Do planning layers suggest this will be easier or harder to permit?”

**3) We score what we find—openly.**  
Each answer becomes a sub-score (0–100) with clear, human-readable reasons (“5 km to a major substation”, “inside a protected area”, “cooler climate zone”). The overall viability score is just a weighted summary of those sub-scores. You can see the weights and change them to match a smaller edge site, a cloud campus, or an AI-heavy build.

**4) We forecast basics using published facts.**  
Using the same public data (climate normals, typical cooling approaches, power availability signals), the tool gives first-pass estimates of power and water use, operating cost bands, and resilience trade-offs—so different sites can be compared fairly on “apples-to-apples” terms.

**5) We show our work.**  
Every score links back to named public sources (e.g., AEMO grid maps, the national Digital Atlas, Geoscience Australia, Bureau of Meteorology, ABS/Regional Data Hub). You can export a briefing that lists the layers used, what they said about your site, and how that affected the score—useful for internal reviews and stakeholder conversations.

**6) We keep it privacy-safe and procurement-friendly.**  
The prototype runs in your browser; your sketch doesn’t leave your computer. In fuller deployments, results remain traceable to the same public, auditable datasets so procurement teams and planners can trust and verify them.

**Bottom line:**  
Open data provides the **evidence** (where power, fibre, hazards, climate and people actually are). The platform converts that evidence into a **clear, explainable decision** for your specific site—so you know *why* a location looks strong, what could trip it up, and where to dig deeper before committing.

The Current Prototype made through the use of ChatGPT-5.0 is a proof of concept meant to show how the data could be used in a basic web program that runs offline by using stub datasets instead of live updating data and is missing many features of the final product that we envision. It serves as a proof of concept; a proof that out vision is worth investing into and looking further into so the full feature rich version of the platform with integration of live data as well as the ability for organizations to import their own data and an AI dedicated to the analysis and consolidation of data to provide greater and more accurate feedback for the end-user.

We believe truly for Australia to become the “data centre capital of the Asia-pacific”, to Host “digital embassies” it will require a platform like Data Centre Frontiers that can make the analysis and selection of sites for future data centres a simple task for both government and companies.