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## Dug Technology sets sight on building carbon-free data centre in WA's Geraldton

Dug Technology said its Geraldton-based HPC campus will be completely powered by solar and wind. Plans to install an onsite hydrogen battery system are also being investigated.



 By [Aimee Chanthadavong](#) | May 26, 2021 -- 01:54 GMT (09:54 SGT) | Topic: [Data Centers](#)

Software firm Dug Technology has revealed plans to build a carbon-free high-performance computing (HPC) campus powered by renewable energy in Western Australia's coastal city of Geraldton.

The facility will be situated on 45 hectares of land, and will feature an initial six-megawatt data hall and a capacity of more than 200 petaflops. The company said there are plans to expand the campus to multi-exaflop scale once its proposed 10 data halls are commissioned.

The company further added the campus would utilise Dug's patented immersion-cooling technology, with the plan to ultimately power the site using solar and wind. The installation of an onsite hydrogen battery system is also being investigated, the company said.

"The majority of our clients are very concerned about climate change. This often manifests itself as questions asked about our carbon footprint in project discussions and tenders. Oil and gas companies are keen to maintain their 'social license to operate' and want this to be a part of their future," the company told ZDNet.

"The focus of our clients outside of the oil and gas industry is equally often on the carbon footprint of HPC ... the cost of power generated by renewables in the Geraldton region is also less than the cost of power off the grid. This decision is very good for business and the planet."

According to the company, the appeal to build in Geraldton is because the city is considered to be "one of the world's premier renewable energy regions", plus the site will be close to the city's TAFE, which has an AARNET fibre connection and latency is only 3.5 milliseconds from Geraldton to Perth.

"It has an ideal climate for both wind and solar, which complement each other to enable near round-the-clock power supply," the company added.

Dug Technology claimed that once completed, the Geraldton site would become the company's largest site within its global data centre network and will be used by clients including Harry Perkins Institute of Medical Research and Curtin University, as well as others in the resource sectors and in tertiary education.

The company has set aside an initial AU\$5 million to build the initial data hall, while cost details for the energy storage solution is yet to be finalised.

Construction of the site, subject to approval, is set to begin in the third quarter of 2021 with the stage 1 data hall due to be commissioned in the first half of 2022.

Last month, Dug Technology and Curtin University signed a decade-long partnership to collaborate on radio astronomy and green technology, as well as support the university's involvement in the [Square Kilometre Array project](#).

Even more recently, the company signed an agreement with Commonwealth Scientific and Industrial Research Organisation (CSIRO) Information Management and Technology to provide HPC and storage through its Dug McCloud platform.

Dug Technology, which listed on the Australian Securities Index only in August last year, reported during its 2021 half-year results that it achieved revenue of AU\$24.2 million and earnings before interest, tax, depreciation, and amortisation of AU\$4.2 million.

In a trading update on Wednesday, the company noted unaudited revenue from January 1 to 30 April 2021 was \$11.8 million, down \$2 million from the \$13.8 million recorded during the corresponding period last year. Despite this, the company said there are "positive" signs of growth for FY22.

"While revenue in the services division in the same four-month period has been below expectations, HPCaaS and application software revenues have continued to grow through the period," the company said.

Dug Technology further added that tender activity has increased due to recovering market conditions, pointing out it has written nearly \$46 million in new work proposals in the services division during the four months of 2021.

"This represents 10% growth on pre-COVID-19 levels over the same period in 2019," the company added. "This elevated level of activity has led to increasing project awards and is expected to contribute positively to revenue growth in FY22".