

# Case Study on Sodar Bankability: Clarke Creek Wind Farm

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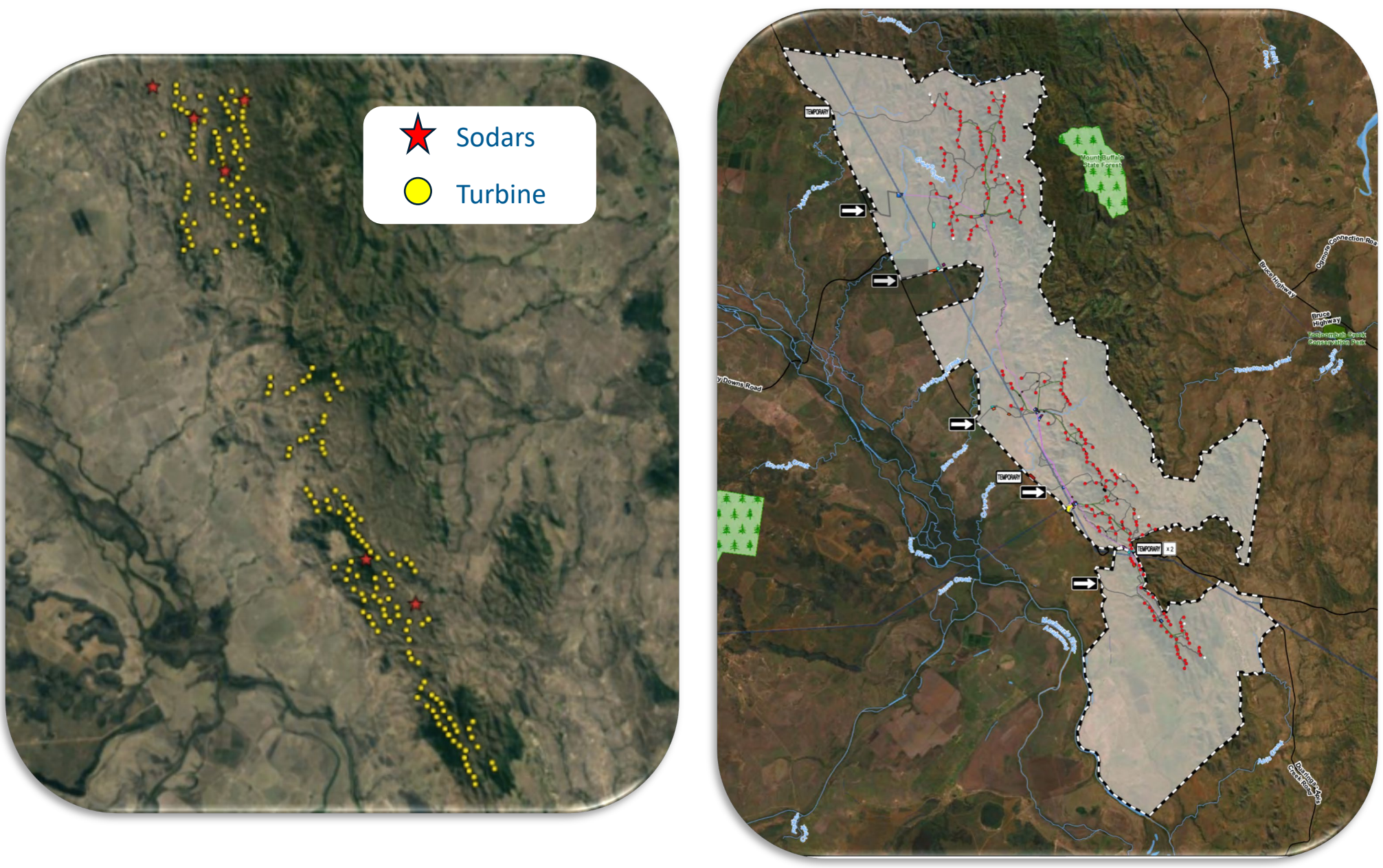
### Intro

Clarke Creek is a 1.2GW wind, solar and battery storage project being developed by Lacour and Goldwind in Queensland, Australia. It includes:

- 800MW wind (Built in 2 Stages).
- 195 turbine locations distributed over 40 miles of complex terrain.
- 150m proposed hub height including blade swept area.

### Objective

Achieve a bankable yield assessment for project financing.



“Fulcrum3D’s involvement in the development of the Clarke Creek Wind Farm was essential in providing the data we needed to increase confidence and ensure bankability of the project.”

*Mark Rayner*  
Director of Lacour Energy



Learn more about the Fulcrum3D Sodar.



### Method

- Designed a comprehensive wind monitoring campaign utilizing:
  - 1x90m and 1x110m tall met towers
  - 5x Fulcrum3D Sodars
- Sodar data filled the gaps left by a limited number of met masts on the large 40 x 6-mile site. Measuring speed and direction at 10m height intervals up to 200m, the Sodars provided measurement data for the entire blade swept area up to the proposed 150m hub height.
- Sodars were relocated every 3-12 months to 17 site locations between 2016 and 2020.

### Results

Clarke Creek received a bankable yield assessment from DNV and WSP. The data from the Sodars reduced critical measurement and spatial uncertainties, resulting in an overall reduction in project yield uncertainty that enabled financing. The wind farm is currently under construction with generation expected in 2025.

### Acknowledgments

- <sup>1</sup>Source: Clarke Creek Planning Report.
- <sup>2</sup>Source: Fulcrum3D FlightDECK.

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