Elixir Energy

ASX ANNOUNCEMENT

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GOBI H2 UPDATE

HIGHLIGHTS

- Very high quality wind data confirmed
- Water exploration program commences and makes discovery
- Closely working with SB Energy Corp
- Agreement signed with National University of Mongolia

Elixir Energy Limited ("Elixir" or the "Company") is pleased to provide an update on its Gobi H2 green hydrogen project in Southern Mongolia.

Renewable energy resources

Elixir first deployed SODAR equipment to measure wind resources to a bankable standard over a year ago. A first annual report from local renewable energy consulting company, EBN Energy Trade LLC (EBN Energy), who manage the data collection and interpretation from the SODAR, has recently been provided to the Company.

Based on the first year's full data set, a capacity factor of 38-39% (at a hub height of 80 metres) has been determined.

To put this into context, this would place a wind-farm on this site firmly in the top quartile of operating wind-farms in Australia (which is itself one of the strongest wind power locations in the world), as measured by Rystad Energy.

EBN Energy are currently installing 2 new SODARS in locations in the Gobi region. The deployment strategy is designed to gather both site specific data and also establish regionally relevant information along an extensive > 100 kilometre "strike" line adjacent to infrastructure and water resources.

Last year Elixir acquired the pre-development Solar Ilch project in the Gobi region and has since installed Australian sourced solar monitoring equipment thereon. To date the data garnered is in line with expectations for the latitude and Mongolia's very clear skies. Notwithstanding its cool continental

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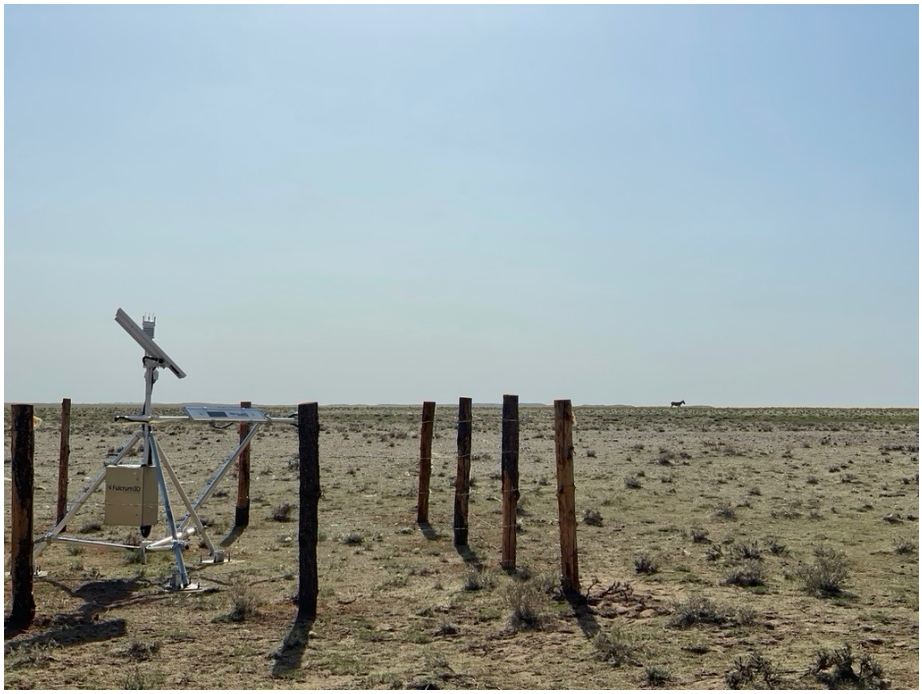
climate, the South of Mongolia is in fact on the same latitude as the North of Spain and its solar potential (greatly assisted by its lack of precipitation and clear skies) is accordingly strong.



The Solar Ilch solar site – with in the distance a rare Mongolian wild ass

Water

After renewable sourced electricity, water is the key input required for the production of green hydrogen. Although the Gobi region is an arid one, there are substantial sources of groundwater in the region, as demonstrated by the usage at large scale mines such as the Rio Tinto operated Oyu Tolgoi copper/gold mine.

The volumes of water required for a multi gigawatt scale green hydrogen project that Gobi H2 has the potential to become are substantially less than currently used in such mining operations. Irrespective of this, the Company seeks to demonstrate to local communities (and other national stakeholders) that new sources of ground water (i.e. ones not currently being used for purposes such as feeding livestock) can be established. If such sources are too saline for agricultural usage, then that gives rise to only an immaterial additional cost for green hydrogen production, but is then not a source that the local stakeholders would otherwise use.

Elixir has recently drilled three water exploration wells in the Gobi. One established a flow rate of 0.5 litres per second – around half that required for the planned pilot project. It is accordingly Elixir's view that it has started to demonstrate that new sources of water can readily be found (at modest cost). Further water exploration wells will be drilled later this year once location(s) for the proposed pilot production plant have been finalized with our partner SB Energy (see below).

On a regular basis Oyu Tolgoi commissions an independent (and public) audit report into its water usage. The most recent report was issued in January this year:

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(https://www.ot.mn/media/otnew/content/IESC_Compliance_Monitoring_Report.pdf).

The report notes Oyu Tolgoi is permitted to draw upon ~ 1,000 litres per second of water – around 6 times more than a multi giga-watt scale green hydrogen project producing 500,000 tonnes of green hydrogen per annum. No sustained draw-down of ground water resources or other environmental concerns were identified.

SB Energy MOU

Elixir announced the execution of a MOU related to the Gobi H2 project with SB Energy Corp (SBE), a wholly owned subsidiary of Japan's SoftBank Group Corp, on 20 June 2022. Representatives of Elixir and SBE recently toured the Gobi region, including visiting SBE's operating Tsetsii Wind-farm.

Under the MOU the parties are currently pursuing the following activities:

- Elixir is investigating water supply options, for both a planned pilot project and for the longer term gigawatt scale project. As noted above, this includes both desk-top and drilling work.
- Both parties are engaging with Ulaanbaatar based international finance institutions (IFIs) who would be a likely source of project finance for the pilot project. The IFIs are to date very supportive of the Gobi H2 project, as their energy related investment mandates are increasingly focused on de-carbonisation business activities.
- Additionally, SBE is investigating various potential sources of Japanese Government fiscal support.
- Elixir has engaged AECOM to undertake a pre-feasibility study (PFS) into the proposed pilot project. AECOM is one of the world's leading engineering infrastructure consulting firms with a growing business in the hydrogen sector.
- SBE is leading an engagement process with potential hydrogen customers in both Mongolia and China. Mining companies in the region are seeking to reduce their scope 1 and 2 emissions over the next few years and potentially using hydrogen to replace diesel in mine trucks is a key focus area for the global mining industry.
- Both parties have existing programs to garner bankable quality renewable energy data in the Gobi region.
- Site options for the proposed pilot are being jointly evaluated. Existing infrastructure in the Gobi region includes good road and rail links to China, which is relevant not only to delivering green H2 to customers, but will also underpin a low cost structure for installing renewable energy and electrolyser facilities.

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Stakeholder engagement

Successful resources projects rest on support from multiple stakeholders as much as technical proficiencies and it is Elixir's view that green hydrogen production will be no different. The Company's existing CBM operations in the South Gobi region provide Gobi H2 with a platform of multiple level Government engagement and support provided to local communities. In addition, the following hydrogen specific stakeholder engagement activities are being pursued:

- A contract for research and development has been signed with the Laboratory for Clean Energy Technology Development within the National University of Mongolia with respect to the potential for green hydrogen to be used to produce ammonia in the country. In Mongolia at present, all ammonia, the key ingredient in fertilizer and mining explosives, is imported and there is accordingly strong political support for an indigenous alternative.

Contract execution at the Laboratory for Clean Energy Technology Development

- Elixir's subsidiary GOH Clean Energy LLC recently was one of the sponsors of the 80th Anniversary of the establishment of South Gobi Aimag.

- Elixir (and SBE) continue to brief the central Government's Ministry of Energy under the MOU signed with it.

Elixir's Managing Director, Mr Neil Young, said: *"The Gobi H2 project – now being pursued jointly with a party of the exceptional quality of SB Energy, is making great progress on multiple fronts. The renewable resources in the Gobi region are truly world class and the other key ingredient for green hydrogen production – water – is proving readily available."*

By authority of the Board:
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