

# World Class Renewable Energy Potential

# Highlights

- 60 gigawatt (GW) of solar and 15 GW of wind potential estimated by leading consultant
- Significantly in excess of requirement for proposed green products strategy
- Enhanced viability of a large scale green hydrogen development at North Onslow
- Partnering strategy with an established renewable energy project developer underway

**Fin Resources Limited (ASX: FIN) ("FIN"** or the **"Company")** is pleased to provide an update regarding its progress on the North Onslow Solar Salt Project (**"NOSSP**")

## Multi Gigawatt Renewable Energy Generation Potential

A leading independent renewable energy consultant has confirmed the multi gigawatt potential of FIN's 905km<sup>2</sup> strategic tenure position at the North Onslow project area in the Pilbara region of Western Australia. This tenure position is comprised of 386 km<sup>2</sup> of granted tenements and 519 km<sup>2</sup> of tenement applications.

The total solar resource has been estimated to be substantial at 60 GW with the total wind resource estimated at 15 GW. Of this, 29 GW and 8 GW respectively is outside of the proposed development footprint of a 5.4 Mtpa solar salt field and could be utilised for the generation of considerable surplus green power for additional uses.

This renewable energy potential has been estimated based on the independent consultant's assessment of the solar resource to be between 2,344 and 2,362 kWh/m<sup>2</sup>/yr and the wind resource to be between 6.2 and 6.8 m/s across the project area using capacity factors derived from HOMER Pro and Wind Pro modelling software.

The wind resource could be optimised by micrositing turbine locations at higher elevation areas that are known to exist within the North Onslow project area, resulting in higher wind speeds than used in the initial assessment.

#### **Value-Added Processing Power Requirements**

FIN is pursuing a value-added processing strategy through a staged, large scale integrated solar salt, sulphate of potash (SOP), chlor-alkali and hydrogen project development. Based on the currently proposed scale of this development, the total power requirement is up to 358 MW. The chlor-alkali process produces multiple products, including caustic soda, for which there is a large existing market in Western Australia. This market is currently filled by overseas manufacturers using fossil fuel based energy. Chlorine and hydrogen are also produced as part of the chlor-alkali process, with chlorine being an input for the production of ethylene dichloride (EDC), a high value product used in the manufacture of polyvinyl chloride (PVC), an important building material.

	Salt and SOP	Chlor-Alkali	EDC / PVC	Total
Power (MW)	13	169	18 / 176	200 / 358

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#### Corporate Directory

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A second stage opportunity has been identified to expand the renewable energy generation capacity beyond 200 or 358 MW by incorporating desalination into the solar salt production process and producing additional green hydrogen on a larger scale than envisaged under the chlor-alkali process. The medium to longer term opportunity is to supply a green hydrogen or derivative product, such as ammonia, once the market demand for such products has been established and is economically viable.

# **Renewable Energy for Green Hydrogen**

Based on the independent estimate of the solar resource potential of the North Onslow project area being 29 GW outside of the proposed solar salt development footprint, notwithstanding a potential reduction in capacity based on land suitability, the project area clearly has the potential to support the generation of considerable green power for additional uses, including, but not limited to, a large scale green hydrogen development.

The viability of a large scale green hydrogen development at North Onslow is enhanced by the operational and economic synergies of green hydrogen production with an integrated solar salt, SOP and chlor-alkali development model and the close proximity of the North Onslow project area to existing gas transmission and export infrastructure.

## **Renewable Energy Partner Strategy**

FIN's strategy is to partner with an established renewable energy project developer for the supply of renewable energy at the North Onslow project area. This is proposed to be on a staged approach of:

- Stage 1 Supporting an integrated solar salt, SOP and chlor-alkali power requirement currently estimated to be up to 358 MW, and
- Stage 2 Incorporating desalination and green hydrogen production to take advantage of the 29 GW of solar resource potential of the North Onslow project area outside of the proposed solar salt development footprint.

Initial discussions have indicated there is potentially strong interest from a broad range of groups seeking this type of opportunity and FIN will now seek to actively engage with these groups.

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