

9 March 2022

**ASX ANNOUNCEMENT**

## Hydrogen Supply MOU with Xodus Group

### Highlights:

- **Non-binding MOU with Xodus Group for the supply of renewable (green) hydrogen to the Arrowsmith North and Muchea Silica Sand Projects in Western Australia**
- **Industrial-scale development of Xodus' Project MercurHy will produce sufficient supplies to also power energy-hungry glass-manufacturing facilities, potentially at both projects**

VRX Silica Limited (**VRX** or **Company**) is pleased to announce that it has signed a non-binding memorandum of understanding (**MOU**) with Xodus Group Pty Ltd (**Xodus**) to explore the future supply of renewable hydrogen to the Company's silica sand projects as well as to potential, nearby glass-manufacturing facilities to enable the production of net-zero glass.

Given the high quality and volume of silica sand at both Arrowsmith and Muchea and the close proximity to energy infrastructure at both locations, VRX is exploring – in consultation with the Western Australian Government and significant international industry players – the potential for the development of glass-manufacturing facilities to take advantage of this tremendous opportunity.

Glass manufacturing requires considerable energy inputs. The supply of renewable hydrogen to power such glass-manufacturing facilities could potentially lead to the production of net-zero glass.

Xodus, a global energy consultancy, specialises in the integration of environmental science, engineering and management to provide holistic support and services in energy transition. An Xodus-led consortium is developing Project MercurHy for the industrial-scale production of hydrogen gas using renewable energy in the Mid West region of Western Australia.

VRX's Managing Director Bruce Maluish said: *"The Mid West is increasingly being recognised for its potential to become a substantial hub to supply renewable energy and the production of hydrogen for both local consumption and export."*

*"Glass making requires huge amounts of energy and significant R&D is underway in Europe to incorporate renewable power and substitute natural gas with hydrogen in glass-making furnaces."*

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### **ASX: VRX**

#### **Capital Structure**

Shares on Issue:

558.4 million

Unlisted Options:

35.3 million

#### **Corporate Directory**

**Paul Boyatzis**

*Non-Executive Chairman*

**Bruce Maluish**

*Managing Director*

**Peter Pawlowitsch**

*Non-Executive Director*

**David Welch**

*Non-Executive Director*

**Ian Hobson**

*Company Secretary*

#### **Silica Sand Projects**

*Arrowsmith Silica Sand Projects, 270km north of Perth, WA.*

*Muchea Silica Sand Project, 50km north of Perth, WA.*

*Boyatup Silica Sand Project, 100km east of Esperance, WA.*

*The Company is actively assessing other silica sand projects in Australia.*

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*“Our Muchea Silica Sand Project is ideally situated to take advantage of the high-grade silica sand resource to supply a glass manufacturing facility that is powered by a hydrogen energy source for net-zero production of ultra-clear glass for solar panels.”*

Stephen Swindell, Managing Director at Xodus added: *“This was a unique but not unfamiliar project for us from the get-go where, rather than waiting to be approached with a challenge, we proactively identified an opportunity using our vast network of industry experts. We are uniquely positioned to become trusted advisors and architect of this project as we have access to industry and government insight, and a wide variety of energy specialists with different skillsets, both within and out of Xodus. As a global energy consultancy, we unite our unique and diverse people to share knowledge, innovate and inspire change within the energy industry. We provide support across the energy spectrum, from advisory services to supply chain advice. Including all of the engineering and environmental expertise needed in between. Our people strive to ensure global energy supply as we all work together to realise a net zero world.”*

The MOU with Xodus establishes a platform for strategic confidential communication and future co-operation between the parties. It contemplates the sharing of information with a view to a future offtake of between 9,000 tonnes to 11,000 tonnes of hydrogen per annum, which is adequate to supply a substantial glass-making facility.

The MOU expires on 30 June 2023 and may be extended by mutual consent for a further 12 months. VRX may novate the MOU to a third party intending to establish a glass-making facility using VRX-supplied silica sand.

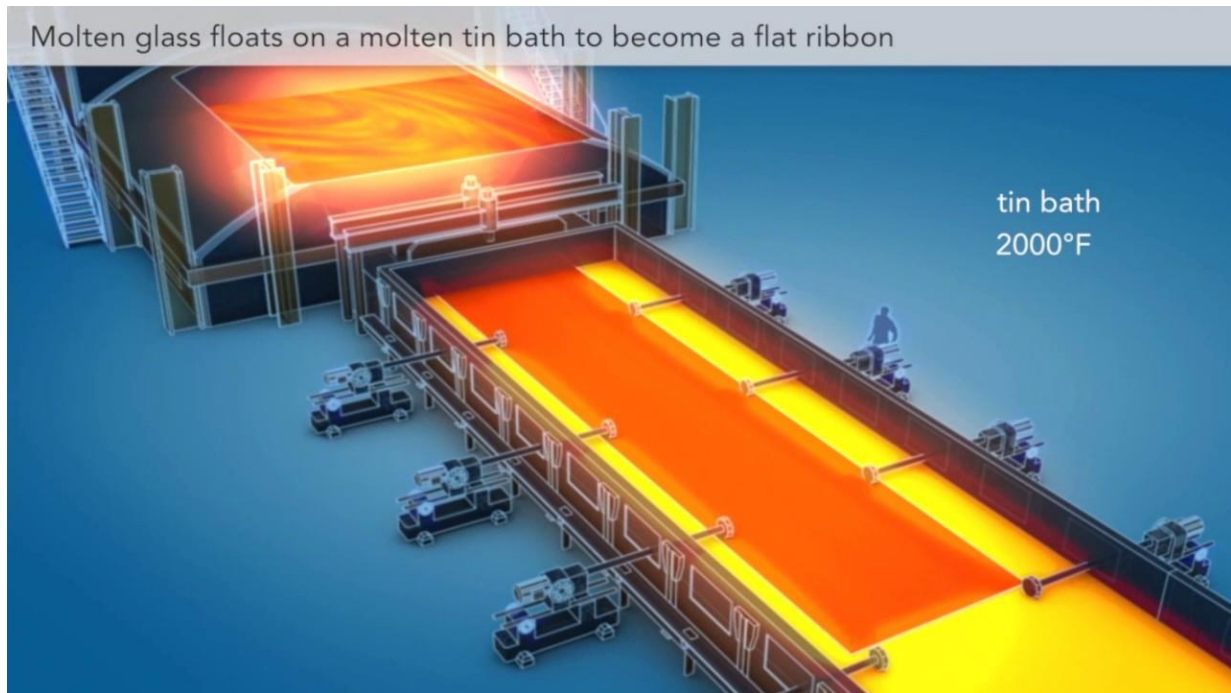
The MOU is otherwise on terms customary for a non-binding arrangement of this nature.

### **Potential for Glass Manufacturing in Western Australia**

VRX owns high-quality silica sand projects at the Arrowsmith Silica Sand Project, located 270km north of Perth, and the Muchea Silica Sand Project, 50km north of Perth. Both locations have substantial Mineral Resources that comprise high-quality silica sand suitable to manufacture glass, with Muchea in particular suitable for solar panel glass.

The high quality and substantial volumes of silica sand at both projects lend themselves to the potential for development of nearby glass-manufacturing facilities. This potential has attracted the interest of the Western Australian Government and international glass manufacturers and could deliver potentially billions of dollars in foreign investment into the State.

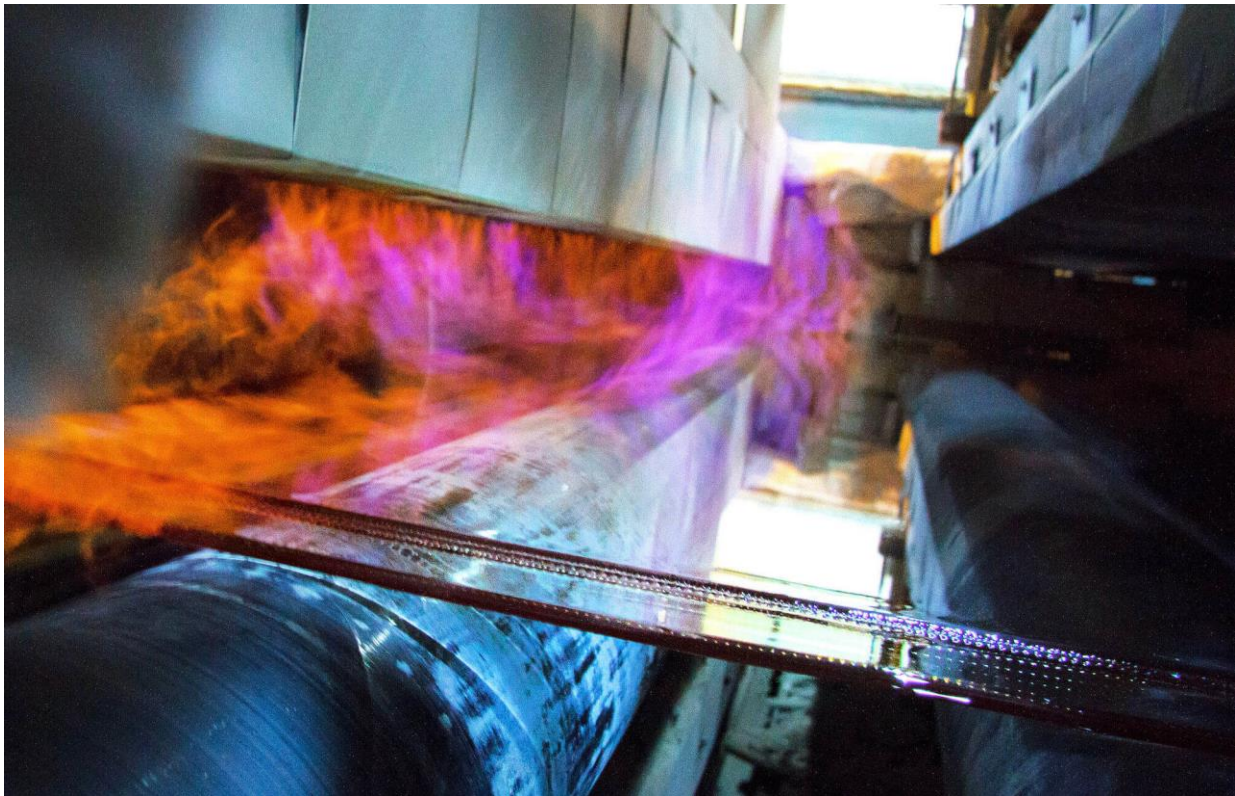
As well as high quality and volumes of silica sand, glass manufacturing requires substantial energy inputs. VRX has been exploring the potential for the supply of renewable hydrogen to power glass manufacturing facilities to produce net-zero glass.



**Figure 1. Glass production float process**

Research into replacing natural gas with hydrogen to power glass-manufacturing plants is well advanced. Nippon Sheet Glass (NSG Group) recently announced that it had successfully manufactured architectural glass at its facility in the UK in a world-first trial that used hydrogen (<https://www.nsg.com/en/media/ir-updates/announcements-2021/ag-production-powered-by-hydrogen>).





**Figure 2. Glass plant furnace requiring substantial energy**

The establishment of a glass-making facility in Western Australia would trigger a substantial industry investment, provide long-term production based on VRX's long-life silica sand supplies and generate a significant number of long-term, permanent jobs in the State. Glass production could manufacture solar panel-quality glass from Muchea and containers and flat glass from Arrowsmith North, including considerable recycling of glass which is increasingly at the forefront of glass production in Australia

(<https://www.afr.com/companies/manufacturing/visy-raises-glass-to-a-record-month-20200928-p55zkw>).

This announcement has been authorised for release to the ASX by VRX Managing Director Bruce Maluish.

**Further information:**

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## About VRX Silica

VRX Silica Ltd (ASX: VRX) is developing world-class, high-grade silica sand projects in Western Australia.

The Arrowsmith North and Arrowsmith Central Silica Sand Projects, 270km north of Perth, comprise five granted exploration licences and two granted mining leases. Bankable feasibility studies for both projects have demonstrated exceptional financial metrics.

The Muchea Silica Sand Project, 50km north of Perth, comprises two granted and one under-application exploration licences as well as one granted mining lease. Muchea is a world-class project with high-purity silica sand in situ. A bankable feasibility study has demonstrated outstanding financial metrics.

The Boyatup Silica Sand Project, 100km east of Esperance, comprises two adjacent granted exploration licences. Initial indications are that this project can complement the Arrowsmith and Muchea projects and add to the range of silica products VRX Silica may be capable of producing.

## Proven Management

VRX Silica's Board and Leadership Team have extensive experience in mineral exploration and mine development-to-production and in the management of publicly listed mining and exploration companies.

## Project Locations

