

## Muceha Silica Sand Project

### Supplying Western Australia with sustainable, high-purity silica sand for a new hi-tech, ultra-clear glass manufacturing industry

VRX Silica Limited, a Perth-based ASX listed company is developing the high-grade, long-life Muceha Silica Sand Project 50km north east of Perth and other silica sand projects in the Mid-West. VRX is pursuing the establishment of a glass making facility in Western Australia to manufacture specialist glass for use in solar panels, LCD screens and other high-tech products. This globally scarce resource will support the establishment of new local downstream industries with significant investment and job creation.

- Muceha is one of only a few world-class silica sand projects with an exceptionally long life and an outstanding grade of 99.9% SiO<sub>2</sub>. This level of purity means it is perfectly suited to the booming ultra-clear solar panel flat glass industry.
- Muceha has a world-class Mineral Resource of 208Mt. This enormous resource will have an initial 25-year mine life once operational, and the potential to extend to more than 100 years of production.
- Muceha is located adjacent to a railway line to Kwinana Port and Brand Highway, making it easily accessible and serviceable by existing and underutilised infrastructure.
- The manufacture of solar panel flat glass requires two key inputs; reliable energy and high purity silica sand. Muceha's sand grade, location adjacent to major gas pipelines and proximity to the Mid-West Renewables Hub makes it the perfect site to establish a glass manufacturing plant.
- The establishment of a glass manufacturing industry would create new highly-skilled jobs and attract more than \$1 billion in international investment to regional areas due to the soaring demand for solar panels around the world as economies transition to net-zero.
- The estimated \$30 million capital expenditure required to build the 2Mtpa Muceha operation is expected to yield \$3.3 billion in revenue over the initial 25-year life. The simple plant construction means that VRX can commence production at Muceha within a short time following final environmental and mining approvals.
- VRX is considering a number of options for powering mining, processing and glass production, including a combination of solar, wind, LNG and hydrogen. Along with its sustainable mining practices, VRX is committed to creating the smallest carbon footprint possible.
- VRX has established a strong relationship with Traditional Owners, the Whadjuk People and has entered into a Mining Project Agreement clearing the path to project

development and providing for shared beneficial outcomes.

- VRX takes its ESG credentials seriously. Our made-for-purpose Vegetation Direct Transfer (VDT) mining method puts rehabilitation of mined land at the centre of mining. The VDT model uses a custom-designed front-end loader bucket to take a 3x3m, 40cm-deep sod of topsoil from the area to be mined and transfers it directly to the previously mined area. This 40cm sod contains the vast majority of native flora and invertebrate fauna while the root systems, near-surface humus and all microbial contents remain intact – for immediate restoration.

## **A brand-new manufacturing industry for WA**

### **Downstream processing Muchea's world-class silica**

- Once operational, Muchea will open up the Gingin-Muchea communities to a new mining and export opportunity that will create local jobs and lay the foundations for a sustainable glass-making industry for ultra-clear glass for solar panels and other hi-tech products requiring a substantial capital investment and generating direct and indirect new employment requirements.

### **Proximity to high-quality silica and reliable energy**

- Solar panel glass plants are usually located close to key production inputs not end markets. The production of solar panel glass is underpinned by its two most important ingredients – highest-quality silica and reliable and affordable energy.

### **Solar panel glass manufacturing in Perth's North-East Corridor**

- Muchea's outstanding grade of 99.9% silica sand and critical low iron content meet the stringent standard for ultra-clear glass for solar panels. Energy makes up almost 80% of the glass manufacturing input cost and Muchea's proximity to two major gas pipelines, the Mid-West Renewables Hub, access to a strong domestic gas industry and access to underutilised rail and road transport infrastructure are ideal pre-conditions for a solar panel plant to be located north-east of Perth.

### **Maximising local benefits from our natural advantage**

- The global solar panel industry is growing by more than 30% year-on-year and is already worth over \$8 billion annually. WA can realise the economic benefits of increased international investment through establishing solar panel glass manufacturing in the State. This will drive jobs growth and expand our downstream processing track record. Muchea's highest-quality silica sand and access to reliable and affordable energy opens the doors for solar panel glass to be manufactured in WA – to be exported domestically and to the world. Key defence industry materials also require hi-tech glass and other silicon products.