

south west lithium supply chain study

October 2018

Western Australia is home to the largest lithium mineral resource in the world. The state is well positioned to capture an increasing share of this lithium value chain by onshore processing. This opportunity can be further enhanced by reducing community impacts and supply chain freight costs.

rail supply chain pre-feasibility study

The study is investigating the costs and benefits of developing end to end connectivity on the South West Main railway corridor for the lithium related products being mined at Talison's Greenbushes mine site.

It's anticipated the supply chain will need new infrastructure at multiple locations to support a rail based transport solution.

1. Siding connection and loading facilities for the Greenbushes mine;
2. An upgrade to the rail line from Greenbushes to Picton;
3. A new rail connection into Kemerton Industrial Estate for the planned Albemarle lithium processing facility;
4. Unloading facilities at Bunbury Port for any planned export facilities;
5. Access to unloading facilities at Kwinana and transfer infrastructure to lithium plant currently under construction.

The South West Main railway is highly congested at certain locations with 12.2 million tonnes per annum transported on the line as well as the daily passenger service.

The requirement for track duplication has also be considered as part if this study.

who are the study partners?

Talison Lithium, South West Development Commission (SWDC) along with **Arc Infrastructure**, manager of the WA freight rail network, are investigating the feasibility of a rail based supply chain transport the current and future tonnes of spodumene off road.

The study will also provide an opportunity to determine if there are other products being moved by road based supply chains that may benefit from access to rail.

wa lithium players

Talison Lithium is jointly owned by Tianqi (51%) and Albemarle (49%) and operates the Greenbushes mine site.

Mine production is scheduled to increase from its current 0.65 million tonnes per annum (mtpa) to over 2mtpa within 4 years.

Talison Lithium will supply lithium concentrate to Tianqi's lithium downstream processing facility under construction in Kwinana and

the Albemarle lithium processing facility planned for Kemerton.

Bulk spodumene will continue to be exported through Bunbury Port.

early study findings

As of mid-October the South West Lithium Supply Chain study is in the final draft stages.

Results are indicating that rail as a transport solution could be competitive with road.

However, there are significant capital investments required across the entire supply chain, from mine through to port and processing facilities.

The next phase is to attain state government support to proceed with a more detailed assessment of the most viable rail supply chain solution.

There are numerous agencies who will need to support and feed into the next stage of the study.

Project partners are seeking guidance on the most appropriate state government agency to support proceeding to the next phase.

