

Material Delivery – Nyngan Solar Plant

Knowledge type: Construction

Knowledge category: Logistical

Technology: Solar photovoltaic

Key learning

Opportunities for cost reduction exist in the optimisation of material delivery – specifically through the evaluation of multiple delivery points (Adelaide vs. Sydney) and form of transport (road vs. rail). It is also important to monitor the existing transport networks to maximise regional transport hubs.

Implications for future projects

Following the experience in Nyngan, First Solar has established and built on existing relationships with transportation and logistics companies. Significantly, Adelaide has been identified as the optimal Port for module shipment for the Nyngan project.

Knowledge gap

Early deliveries to site were handicapped by delays to the completion of the elevated access road and the deceleration lane on the main highway. Transport and logistics costs in Australia are noticeably higher than in global market – estimated to be 30-50% higher than in the USA.

Background

Process undertaken

Material delivery for the Nyngan project has involved the following work items:

- Module delivery by rail and road from Port Adelaide,
- Table delivery by rail and road from Sailsbury South (SA),
- Rail deliveries to Warren and truck transport to Nyngan,
- Power Conversion Station (PCS) delivered from Newcastle,
- Photovoltaic Combining Switchgear (PVCS) and Photovoltaic Interconnection Switchgear (PVIS) delivered to Nyngan from Adelaide, and
- Multiple other components delivered from global and regional locations.

Supporting information



Photo: Module Delivery



Photo: Module Delivery



Photo: PVCS Delivery



Photo: PVIS Delivery