Department of State Development

Port Funding & Financing Options for the Resources Infrastructure Taskforce

Project Summary

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Project background

Scope

PwC was engaged by the South Australian Department of State Development (Resources Infrastructure Taskforce) to provide advice and recommendations for potential funding and financing options with respect to a potential greenfield port, drawing on market sounding interviews with infrastructure investors - in particular a potential investor mix of:

- Australian bank;
- Investment bank;
- Superannuation fund;
- Private equity funds (two); and
- Sovereign wealth fund.

Approach

Our approach, agreed with the Department of State Development, included:

- Desktop review of case studies;
- Market sounding with infrastructure investors; and
- Reporting.

Research was conducted from publicly available and industry sources, PwC global case studies and sources, and in consultation with the South Australia Departments of State Development, Premier and Cabinet, and Planning, Transport and Infrastructure.

Reporting

The review was conducted over three weeks. This report contains a summary of our findings.

Notional project and demand scenarios

The project was undertaken on the basis of a notional port scenario reflecting the Government's position that no individual port solution would be identified as 'preferred' at this point.

Within that context, the market soundings were based on potential scenarios that were broadly reflected the solutions being considered by the market on Spencer Gulf.

The market sounding scenarios were also broadly consistent with companies' public statements around scale, users, location, extent of infrastructure investment, and potential volumes. For example, a port with attributes of:

- 20-30Mtpa throughput;
- Predominantly Iron Ore with the possibility of including other commodities, e.g. grain;
- Located on the Spencer Gulf; and
- Multi-user port.

Key concepts for this report

The concepts of funding and financing are often confused or used interchangeably but have very specific meaning for infrastructure projects:

- **Financing** refers to the capital required to finance the upfront costs associated with developing a project. This typically includes a range of debt and equity investments by a mix of investor types; and
- **Funding** refers to the source of funds used to pay upfront financing over time.

The optimal financing solution will typically be driven by market forces and mix of investor types and profiles, based on a funding scenario articulated in a business case.

At the time of writing, neither a privately financed and funded port solution nor wholly publicly financed and funded solution has been identified.

Within this context, much of the market sounding focussed on innovative ways the government could work with private investors to play a role in financing or funding of a future greenfield port solution.

Global iron ore context

Within the context of the market sounding exercise, it is necessary to keep in mind some of the key features of the global market context and history of port development projects in Australia and internationally.

Context of global and Australian iron ore production

Existing Australian iron ore ports provide limited precedent or instructive examples for development of port infrastructure in SA:

- Australia ranks number one in the world for value of iron ore exports at $67.2b USD (Figure 1).
- The majority of Australia's iron ore is exported to China, Japan and South Korea.
- At the time of writing, iron ore was trading at approximately USD$60/tonne, after reaching a high of USD$190/tonne in Q1 2011.
- As Figure 2 shows, a proposed SA port would be a modestly sized port (highlighted green) estimated at 30Mt proposed capacity. Global production is approximately 2,000 Mtpa.
- The majority of Australia's Iron Ore exports are through the three ports of Port Hedland, Dampier and Cape Lambert (Figure 2) in the Northwest of Australia, which carry large volumes from BHP, Rio Tinto and Fortescue Metals. The scale of these ports is globally significant.
- The remaining ports carry small amounts of iron ore ranging from 0.1Mt to 8.9Mt, including a number of smaller historic ports developed around regional townships.

Implications for future port development

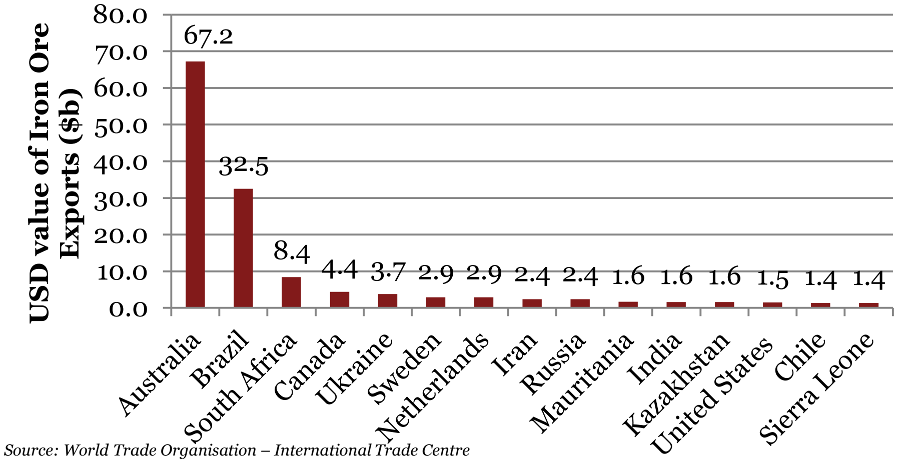
A Spencer Gulf port faces several unique and potentially challenging factors including scale, distance from key markets, operational complexities, infrastructure, underlying asset profile. These factors, in the context of current low iron ore prices, highlight the challenging situation in SA and why a high level of coordination and support is required to see a greenfield port project proceed on the Spencer Gulf.

Global project cases

Broadly speaking within a global port development context, we observe that:

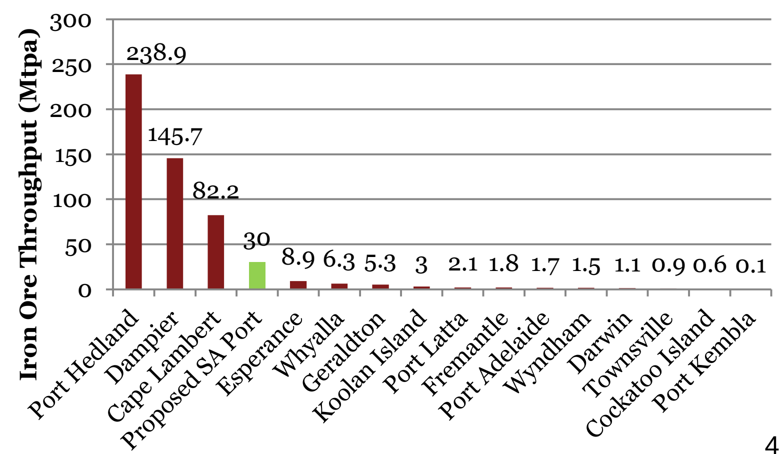
1. While bulk ports are typically funded by the commercial revenues of single users, there are examples of governments providing financial and other support to accelerate investment;
2. Governments usually support port developments with broader economic developments (e.g. multiple users, allow transport links, and result in economy wide benefits).
3. Governments often seek to exit ports investment once the operations are commercial; and
4. Governments will respond to market failure in port infrastructure investment by providing funding or financing support to projects, or take a 'landlord' approach to development.

Figure 1– Top 15 iron ore exporting countries by USD value (2013)



Source: World Trade Organisation – International Trade Centre

Figure 2 – Iron ore exports by Australian ports (2013)
(Proposed SA port capacity highlighted green)



Source: Department of Infrastructure & Regional Development – Freightline 2 – Australian iron ore freight transport

Market sounding feedback

The market sounding interviews were conducted with a mix of typical investors in the Australian infrastructure market (Investment/Retail Banks, Superannuation Funds, Sovereign Wealth Funds & Private Equity) and identified a number of consistent themes.

Theme 1 — the State has a key role to play in accelerating delivery of port infrastructure

Participants expressed a strong view that Government has a role to play in managing the development of a coordinated regional port solution on the Spencer Gulf:

Government has a coordination role

- Traditionally the market has not delivered multiple user port developments. The market is unlikely to create the optimal technical or commercial solution without intervention.
- Government should consider using levers such as conditional and time limited approvals where necessary to compel mining companies to cooperate. The absence of such leverage in the private sector limits the ability of investors to bring together multiple miners.

Regulatory certainty and active approvals support

- For investors to seriously consider the port, it should be at an advanced stage of development in terms of approvals, access, logistics, regulatory framework etc.
- Investors are unlikely to accept all the risks associated with approvals and regulation – these can have the potential to impact timelines significantly, but investors have limited ability to manage them.
- Investors will want policy certainty around other port developments as well as mechanisms for third party access.

Funding/financing role for Government

- There is an opportunity for port assets (and therefore mines) to be brought online early if port investors are able to better manage volume/demand risks as the mining sector 'ramps up' in the region.
  - Funding certainty can be provided by volume/revenue guarantees and subsidies.
  - Financing assistance (to reduce the overall cost of capital) can be provided by low order debt (such as concessional loans, which rank below private debt sources).
- Several participants noted they have participated in deals where government shares investment upside. There was a degree of comfort around the idea of concessional loans and government 'upside' over the medium to long term. The key issue was preference for the State to be a passive investor in such an arrangement.

High quality and robust feasibility analysis is required

- High quality business case analysis needs to be done for the government to engage with investors in a meaningful way. Questions raised included:
  - Where is the land? What are the site and physical infrastructure configuration options? What are the demand scenarios? Are approvals in place? What are the delivery and operational structures?

Theme 2 — Any funding solution must balance the needs of Government, industry and investors

Capital markets are competitive and will finance projects with high quality business cases

- Participants explained how global competition for brownfield assets is strong due to less demand and development risk. The port solution in SA would be a small to modest investment for global funds and have higher risks – as such it may have challenges getting investor attention in this crowded market, unless the project can be de-risked.
- Global competition for finance suggests major players may quickly discount a project that is still in the early stages of development, rather than investing significant time to understand the project. This underscores the need to bring robust feasibility / business case analysis to market.
- If financiers need to evaluate novel or overly complex funding arrangements, or are required to bear unacceptable project risks, there may not be sufficient appetite.
- Further market engagement once more of the detail is resolved, and prior to bringing the project to tender, was encouraged.

Government as a co-investor can work if structured appropriately

- Participants expressed concern over potentially conflicting objectives of investors, e.g. generating economic return vs social and other policy objectives.

Market sounding feedback (cont'd)

- Participants saw co-investment in equity as presenting some significant challenges but were far more comfortable with the concessional loan (subordinated debt) model recently proposed by the Commonwealth (Westconnex and Northern Australia Infrastructure Facility).

Demand is a key constraint on port development and guarantees can support a marginal business case

- Private investment in the port infrastructure is predicated on a degree of committed throughput i.e. the quantum of available debt funding would be sized relative to the amount of guaranteed revenue.
- Government can support private funding through the provision of revenue guarantees and allow investment in the port before mining output reaches critical mass.

The "landlord" model can provide an efficient allocation of project risks

- The Moorebank Rail development was cited as a successful government/private investor relationship, where the Government initiated the project and then stepped back to let the developer take over.

Theme 3 — Investors will carefully consider how key risks will be managed

Market sounding participants identified that a robust strategy to manage key risks is critical to securing private finance and facilitating project development.

Demand (or Revenue) risk

- Participants identified that securing a sustainable revenue source is a key issue for most investors - availability of capital is not an issue if there is strong demand.
  - 'Take or pay' arrangements that guarantee throughput volumes/revenue would be required to mitigate this risk. These arrangements need to be underpinned by sustainable mining operations that can withstand fluctuating commodity prices, or supported by corporate guarantees (from entities with an investment grade credit rating).
  - There is a possibility of investment in the port being lead by either miners, government, or a major global customer that could take a very long term view on supply objectives.

Customer diversification

- Participants noted a preference to spread demand risk across a pool of customers, rather than a single miner, however that this is only an effective risk strategy if the individual mining operations are generally high quality / low on the cost curve.
- In a South Australian context where there is no dominant or large miner, it is desirable to have several high quality parties from a risk perspective.
- Participants noted it ultimately comes back to the underlying project economics of the mining assets and supply chain competitiveness, i.e. they would only consider investing in the port infrastructure if the mine (or mines) it serviced were cost competitive (on an individual or blended basis) with other global producers.

Commodity diversification

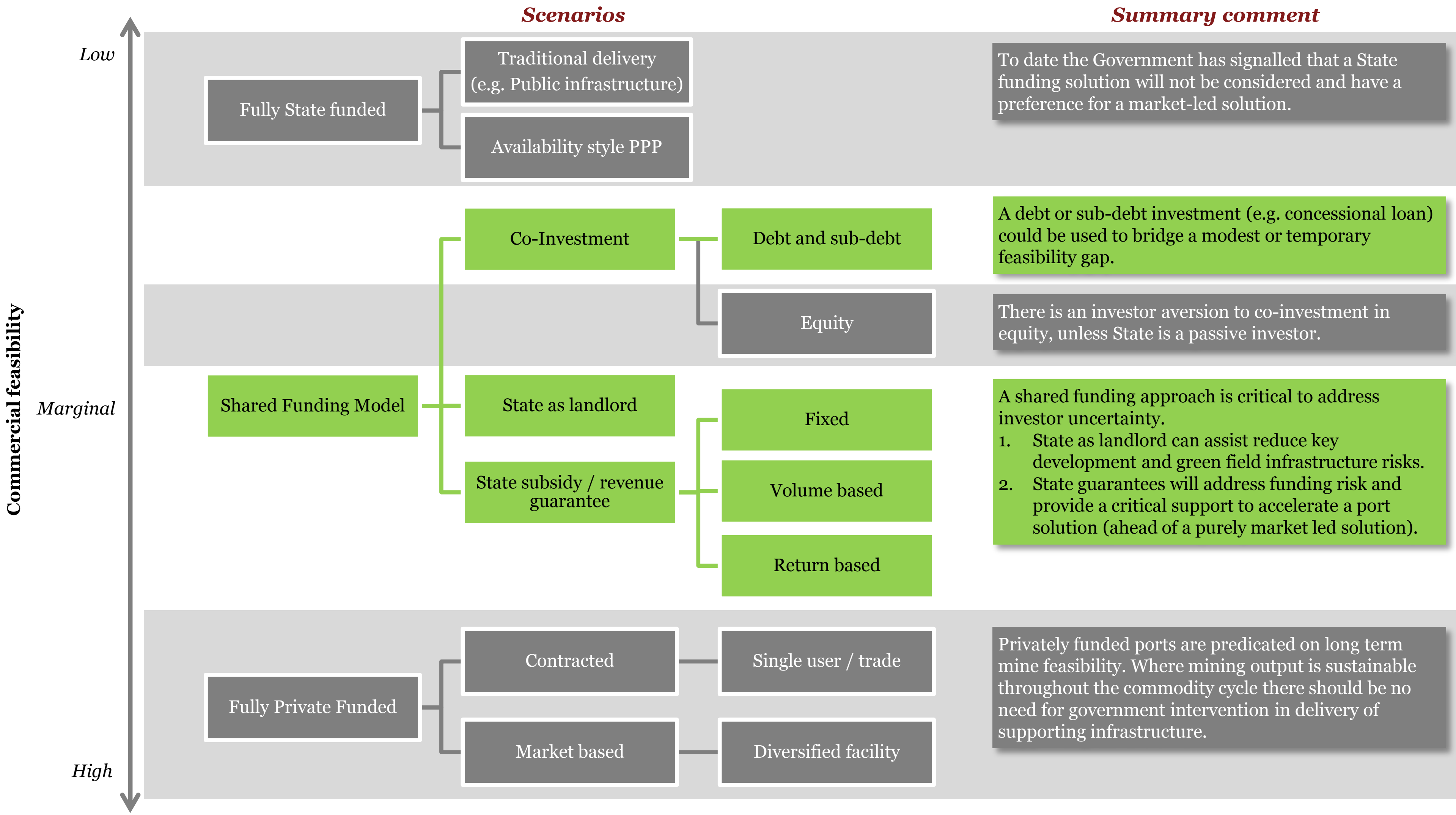
- Participants noted a general preference for a port to service multiple commodities (to diversify risk). In relation to grain however, the cyclical nature and weather dependence means they place limited value on these additional revenues.
- There are limited Australian examples of bulk ports diversifying across products.

Risks associated with green field asset development

- Participants suggested that key development issues, including regulatory and approvals issues, in particular Environment Protection Authority, Native Title, Planning should be resolved before the Project is brought to market.
- The infrastructure market generally understands the development risk of a new asset and investors are generally able to accept these risks and manage them efficiently.
- Brownfield assets are the predominant asset class being assessed by infrastructure investors due to reduced demand risk and in general a better line of sight over the economics.

Market feedback on alternative models

The figure below shows the high-level conceptual funding and financing options for port infrastructure. The summary of the market feedback indicates that shared funding models have potential to bridge the project viability gap. While these approaches can be implemented differently, these encompass the broad range of scenarios.



Overview of selected shared funding models

State subsidy (or revenue guarantee)

Under the State subsidy options the State needs to establish a view on the commercial viability associated with the port development and the efficient structuring of a subsidy to bridge the 'feasibility gap'.

Several means of implementing the guarantee have been considered:

- **Fixed** - a fixed annual subsidy payment to the port special purpose vehicle would be set upfront to meet the shortfall in funding / cash flow requirements predicted by financiers.
- **Volume based** - similar to the above but paid on a "per tonne" volume basis.
- **Return based** - return based guarantee, where the State makes variable payments that ensure the port special purpose vehicle makes a minimum level of revenue or return on capital.

The key differences between the approaches are:

- Fixed subsidies provide the greatest certainty to Government as to its financial obligations.
- Fixed and volume based payments may result in excess returns to private investors (where volumes exceed expectations) but also mean they take risk on underlying take or pay arrangements (i.e. their return is not guaranteed by Government)
- Return based payments are less certain (for Government) since Government only pays where revenue support is required. Although this provides the strongest basis to secure private finance, it can lead to 'gold plating' of infrastructure and remove the incentive on private operators to maximise through-put.

State as landlord

Under this model the Government develops core wharfage infrastructure and leases the port to private sector, which develops landside and ancillary infrastructure. This reduces the capital outlay required from private investors.

In the short-term, the Government can effectively subsidise miners by not passing on port charges.

As landlord, Government can monetise future cash flows/rental income by sales or long-term lease of the port (once revenues have ramped up and normalised). As such, an alternate view of this strategy is the medium-term creation of a brownfield asset which is relatively more attractive to private finance.

Concessional loan

If the feasibility gap is small a concessional loan instrument may help bridge the financing gap.

Such a financing tool reduces total financing cost to allow a project to be funded by customer revenue streams, i.e. enabling private sector to fund the port development.

Interest would accrue until threshold volumes are reached. When there is sufficient cash flow then State would be repaid. The design of the scheme could include 'upside' return for state (through a premium interest rate, 'stepped' return profile, or convertible equity).

This model has been used on the NSW 'Westconnex' project and it has recently been announced that State Governments and Private Developers will gain access to a concessional loan scheme to build infrastructure in Australia's North – the 'Northern Australia Infrastructure Facility'.

Summary project findings

What funding/financing options are available to the State?

The results of the case study analysis and investor interviews confirmed there are a range of options to deliver port infrastructure.

Where there is a marginal business case, shared funding models offer the ability to leverage state investment to achieve a development outcome, including:

- **State as landlord** — this approach allows the State to take a role in developing core port infrastructure (e.g. wharfage) while the private sector funds and develops landside infrastructure (e.g. rail and storage);
- **Co-investment models** — allows the State to invest in the project as a debt (e.g. concessional loans) or equity investor, with the potential for 'upside' returns; or
- **Revenue guarantees** — guarantee a portion of project revenues by value, volume, or return.

What are the key messages from financial investors?

A number of messages from typical investors in infrastructure projects (Investment/Retail Banks, Superannuation Funds, Sovereign Wealth Funds & Private Equity), provide context to the State's forward strategy, including:

- Capital markets are competitive but will finance projects with high quality business cases — investors are typically chasing brownfield investments and will focus on projects of a critical scale and robust investment case;
- The State as a co-investor can work if structured appropriately — markets are open to the State making potential 'upside' returns, but prefer the State having a passive investment approach;
- Underlying demand is a key issue for port development — the project needs close to 100% pre-commitment of volumes under take or pay arrangements and the underlying economics of mine assets needs to be robust; and
- The "landlord" model can provide an efficient allocation of project risks — various port case studies identified models where the State develops key infrastructure. This model is well understood by investors and can remove uncertainty from major transactions.

De-risking the project in planning and approvals stages

In addition to the financial mechanisms, the State can de-risk the project while sending a strong signal to financial markets through:

- Obtaining and managing approvals processes through state-sponsored mechanisms / development vehicles;
- Coordinating miners and aggregating demand;
- Investing in high quality business case analysis; and
- Building an environment of bi-partisan project support and 'social licence to operate'.

Market feedback on the State's role more broadly

The State can play a number of potential roles in the development of a bulk commodity port beyond funding / financing assistance.

Messages from financial markets included:

- Markets cautioned against the notion 'build the port and the miners will come' — underlying mining project economics will drive port usage and that this is a key to investor willingness to finance development;
- It is a good time for the State to 'act now' to prepare for the next upturn in iron ore prices, so that a greenfield port solution can be brought to market quickly;
- The role of the state in de-risking project planning and approvals is key; and
- There are some perceptions of sovereign risk in Australian infrastructure projects (e.g. deals that do not eventuate due to political decisions).

Summary project findings *(continued)*

What are the implications of the market feedback for the State?

The market sounding revealed broadly consistent views amongst participants, the implications for the State being that:

1. There are a **range of feasible funding & financing options** which could be structured to address project risks and elicit investor appetite;
2. Under all scenarios, the funding/financing solution must be informed by a **high quality business case** and assessment of **underlying mining project economics**;
3. The State's role in a funding/financing solution is **not a choice between the feasible options *per se***. Rather, for the State to achieve an investment outcome, it is a **function of what the market will bear** and how investors value project risks;
4. The **market appetite will be determined by the quality of the business case** and the State's ability to show leadership and coordinate the sector; and
5. Based on further business case analysis and market sounding, **the State will be positioned to structure a funding / financing approach that maximises investor interest**.

Concluding remarks

The eventual choice of the State approach to support project funding or financing should be made in the future considering a full business case analysis, future market appetite and timing within the commodity cycle, and the State's broader policy objectives.

Prior to this decision, however, the State can maximise the chances of building a robust business case and achieving a successful future investment outcome by:

- Working with miners to prove that the underlying mining project/s economics are robust to a range of development assumptions;
- Developing a business case to attract investors based on high quality, 'arms length' analysis of mining and infrastructure projects;
- State leadership and coordination of mining projects to achieve collaboration between the miners; and
- State taking an active strategy to de-risk the regulatory/approvals process and achieve an environment of bipartisan project support.

Next steps

For the Government to pursue these shared funding models in the future requires significant industry leadership, sustained effort, and a strong commercial lens.

The high-level decision tree (over page) shows a potential decision making framework to reach a decision on any financing or funding assistance.

Illustrative decision approach