



PPIAF

Enabling Infrastructure Investment

Fostering the Development of Greenfield Mining-Related Transport Infrastructure

Critical Factors To Consider When Designing Third-Party Financed Shared Use Transport Mining Infrastructure



PHYSICAL INFRASTRUCTURE DESIGN CONSIDERATIONS

Determining the size, capacity and location/route of mining-related infrastructure is one of the most critical challenges facing the various project stakeholders. The magnitude of this issue is amplified in situations where there is considerable uncertainty around who will use the infrastructure and to what degree and, whether or not, the infrastructure footprint will be national or regional.

Since infrastructure operations are characterized by very high fixed costs, the ability to use any infrastructure capacity to the highest possible degree will be essential to determine the competitiveness of transport tariffs that will be charged to users and/or clients by the infrastructure owners. In this respect, securing, from the start of operations, one large anchor client that can deliver a high level of infrastructure usage, or a pool of clients who can achieve a similar outcome, will be a key driver to the feasibility of overall mining project(s).

PHYSICAL INFRASTRUCTURE CONSTRUCTION TIMEFRAME

Since larger infrastructure projects will take, at best, three to five years to be built, there are considerable risks during the buildup timeline: 1) commodity prices that underpin the feasibility of the anchor off taker to pay a certain tariffs are volatile. This heightens the risk of a downward adjustment, especially if the concessionaire of the infrastructure is not majority owned by the anchor mining client; 2) host governments

Table 1: Mining Projects Asset Type Characteristics

	Mine	Mine-Associated Rail	Conclusion
Liquidity	High - Tradable asset	Low	✓ Mining assets are more tradable
Co-Dependency	Medium - The existence of the infrastructure increases the value of the mine, but the underlying value of the deposit depends on the quality and volume of the resource	High - The value of the rail is highly dependent on the volume the mine can produce	✓ Mining assets have higher intrinsic value
Scalability	High - Can be partially exploited	Low - Has to be built for highest expected demand	✓ Mining operations are highly scalable
Physical Control	Easily manageable and clearly defined mining area	Significant right-of-way over hundreds of km with little control over outside incursions	✓ Mining site is easier to secure/control

Source: IFC.

prove unable to stay the course in terms of regulatory and business conditions agreed upon at the time of project's financial close; and, 3) the anchor mining client decides to sell its stake in the mine to another mining company which might legitimately expect to re-open negotiations on the terms and conditions of the infrastructure access with the infrastructure concessionaire.

PHYSICAL INFRASTRUCTURE MONETIZATION

Unlike a mining license, physical infrastructure is not easily tradable/sellable. As a result, its value is predicated upon the level of usage that can be made of it multiplied by the applicable tariffs it can command from its clients/users. While in Greenfield projects one could argue that the price paid for the mining license(s) should be tied to the availability of a logistics solution to export the mine minerals, temporal misalignment between the time that the mining license is sold and the Greenfield transport infrastructure concession is signed has often resulted in a disconnect between these two approaches. As a result, physical transport infrastructure tends to be seen as "stranded" non-tradable assets, which further complicate their financing (see Table 1).

LEGAL AND REGULATORY ISSUES

A legal and regulatory framework is necessary for an infrastructure project to be financed, developed and operated. Virtually all business arrangements between all of the parties involved in an infrastructure project will have to be enacted through project contracts and/or codified and enforced through the host government's laws and regulations. Also, a contractual framework needs to be developed (and enforced) to provide additional clients (non-owners) with access to the infrastructure.

TIMING ISSUES

The timing of the negotiations for the infrastructure design and usage terms can have a significant impact on the success of the infrastructure as well as the mine(s). In general, it is preferable to negotiate all material issues related to a project (mining and infrastructure)

concurrently. In the case of mining company ownership, the infrastructure and the mine are developed essentially as one integrated project, so negotiating the terms for both at the same time would be best practice. In reality, however, the mine development terms (such as royalties) are frequently negotiated prior to removing uncertainties regarding the infrastructure itself.

Another (related) timing issue that requires resolution is how to allow for additional client usage of the infrastructure at a later date. This can impact physical design of the infrastructure, the capital costs required and the allocation of investment costs between the anchor client and the other clients that begin using the infrastructure later on.

STRUCTURING OFF-TAKE CONTRACTS AND TARIFF CONSIDERATIONS

One of the basic challenges that third-party infrastructure owners will face is how to structure the off-taker agreements with necessary carve-outs for additional client use. The capacity allocation, performance guarantees, as well as tariff levels, will have to be determined and agreed upon between the host government, the concessionaire and the new clients. Alternatively, in instances of mine company ownership of the infrastructure, a fair and equitable tariff system will have to be designed. The mining company should be compensated for developing and operating the infrastructure; however, the host government needs to ensure that access to the infrastructure is provided to other clients/users at rates that are fair and non-discriminatory.

This can be achieved by ensuring that off-take and tariff regimes (for both the mining anchor investor and third parties) are agreed up-front and stable over the life of the project, ideally via the project concession and related agreements. This approach provides certainty for investors, lenders, host governments, and future third-party users. The host government role as a "tariff regulator/arbitrator" is in such case manifested as: i) participating in up-front agreement of a detailed off-take/tariff regime, subsequently incorporated in the project concession, and ii) ensuring enforcement of this detailed regime further down the line (i.e., regulation by contract).

DETERMINING MINING COMPANY'S ROYALTY PAYMENTS TO THE GOVERNMENT

Any developments that add uncertainty to the integrated project's cost structure will impact mining company's consideration of other cost components. In cases where the infrastructure financial parameters (capital and operating costs, usage revenue from other clients) are uncertain, the mining company may insist on reducing other cost items of the project, one of which is the royalty payments to the government. The mining company might insist on royalty payments that are low enough to provide a sufficient "cushion" should the overall infrastructure costs prove higher than expected. One potential solution would be for a host government and the mining company to agree into a mechanism whereby the royalty payments would be adjusted if the infrastructure costs deviate from an agreed range up to a maximum amount.

INFRASTRUCTURE EXPANSION CONSIDERATIONS

Infrastructure expansion considerations arise in third-party ownership cases where the infrastructure requires expansion and capacity upgrades to allow for additional clients/users. In such instances, it is necessary to determine who is responsible for the cost of the upgrade – the concessionaire or the new client. If the new client provides the capital, then they could demand an equity stake in the concessionaire, in which case a mechanism would have to be developed to determine how the project revised equity would be allocated. In light of the complexity that such approach may entail, it could be easier for a new client to simply fund the infrastructure expansion cost through a take or pay contract against which a loan could be issued in exchange for a secured access to the additional transport capacity created by the expansion works.