Overview of the framework

Need for a framework

Life cycle costs should be considered

Traditional procurement relies on acquisition of assets, equipments and machinery that conform to detailed specifications as stipulated in the bid documents. This does not take into account the likely cost of operation and maintenance of such assets and as a result, the assets may be procured for a lower purchase price, but may turn out to be costlier in terms of life cycle costs. Judged by the value for money, a procurement strategy based on long-term purchase-cum-maintenance contracts has the potential of delivering cost-effective assets, besides relieving the government (the "**Purchaser**") of the day-to-day burdens of maintenance. A long-term contract would also aggregate the supplies over time and thus enable the bidders to offer a comparatively lower price.

This volume responds to the need for evolving a model procurement-cum-maintenance agreement (the "**PCMA**") that provides a contractual framework for addressing the concerns of public policy on the one hand and bankability of projects on the other. It enables the selected project sponsor (the "**Supplier**") to create capacity for production, supply and maintenance of assets on a long-term basis. Insofar as the Supplier makes significant investments in creating capacity that is dedicated to the Purchaser, the contract acquires the characteristics of a Public Private Partnership (PPP) which requires a different treatment compared to the usual procurement contracts.

A comprehensive framework is a pre-requisite for PPP

The PCMA addresses issues such as mitigation and unbundling of risks; allocation of risks and rewards; symmetry of obligations between the principal parties; precision and predictability of supply price and other obligations; reduction of transaction costs; force majeure; and termination. It also addresses other important concerns such as inflation, independent monitoring and dispute resolution. It defines the scope of the project with clarity and precision in order to enable the Supplier to determine its costs and obligations with a view to making a competitive bid. The objective is to secure value for public money and procure efficient and cost-effective assets for the Purchaser.

While building a model for procurement of state-of-the-art electric locomotives, the PCMA contained in this volume provides for the setting up of a factory by the selected bidder for production and supply of locomotives at a price to be determined through competitive bidding. It also provides for maintenance of the locomotives for a period of 15 years on payment of an annual fee which represents a pre-determined proportion of the supply price.

Technical parameters

Technical parameters will focus on the level of service

Unlike the normal practice of focussing on input specifications, the technical parameters proposed in the contract are based on output specifications, as these have a direct bearing on the level of service. Only the core requirements of design, construction, and maintenance of the locomotives are to be specified and enough room would be left for the Supplier to innovate and add value.

In sum, the framework focuses on the 'what' rather than the 'how' in relation to the delivery of locomotives by the Supplier. This would provide the requisite flexibility to the Supplier in evolving and adopting cost-effective designs without compromising on the quality of locomotives and their performance. Cost efficiencies would occur because the shift to output-based specifications would provide the private sector with a greater opportunity to innovate and optimise on designs in a way normally denied to it under conventional input-based procurement specifications.

Performance standards

Enforcement of performance standards is critical

The Supplier would not only produce and supply the locomotives, it would also maintain them for a period of 15 years. The efficiency of its services would normally be reflected in the reliability, availability and energy efficiency of the locomotives. The framework, therefore, identifies the key performance indicators and specifies incentives for outperforming on these indicators while stipulating penalties for failure to achieve the requisite levels of performance.

Contract period

Contract period should be sufficiently long

The contract period should ideally be aligned with the life of the locomotives. However, if the Purchaser has the wherewithal for undertaking the routine maintenance of locomotives, the period of contract could be comparatively shorter; but it should be sufficiently long for ensuring that the durability and life-cycle costs are fully established and optimised, besides transferring the day-to-day maintenance functions for a reasonably long period. The PCMA, therefore, stipulates a period of 15 years for maintenance of locomotives by the Supplier.

Selection of Supplier

Competitive bidding on single parameter will be the norm

Selection of the Supplier will be based on open competitive bidding. All significant parameters such as the contract period, key performance indicators, price indexation, annual maintenance fee, incentives, penalties and technical parameters are to be clearly stated upfront, and short-listed bidders will be required to specify the price that they require for supply of locomotives produced indigenously. The bidder who quotes the lowest price should win the contract.

Supply of locomotives

A pre-determined supply programme is essential

The locomotives are to be supplied on the basis of a pre-determined annual supply program with provision for variation within a specified band. In the event that the Purchaser curtails the off-take, it will pay a specified compensation that will help meet the fixed costs of the Supplier. In case the off-take exceeds the committed quantity, the Supplier shall provide a discount on the supply price. Further, in the event of a shortfall in supplies for reasons attributable to the Supplier, it would be liable to payment of specified penalties. The PCMA also contains provisions for extension of the supply programme on specified terms.

Price of Locomotives

Bid price should capture efficiencies and life-cycle costs

The contract structure requires the bidders to specify the price of the first indigenous unit to be supplied under the contract. The price payable for the locomotives supplied subsequently will be adjusted in accordance with the principles specified in the PCMA. Since the bid price would also determine the level of maintenance fee as well as the incentive payments for operational efficiencies, bidders are expected to quote their price considering the life-cycle costs of their product. As a result, the Purchaser can expect to get the best value for its money.

Efficiency gains need to be captured

The energy efficiency as well as the reliability of locomotives are significant factors in determining their real cost to the Purchaser. The PCMA, therefore, specifies these parameters and provides for an incentive and penalty structure with reference to agreed benchmarks. The PCMA also provides for a reduction in price by 3 per cent per annum to capture the efficiency and productivity gains over time. Further, the annual maintenance fee has been specified as a proportion of the supply price. As a result, bidders are expected to quote the unit price considering the present value of future cash flows in respect of each of these parameters.

Prices of spares should be capped

The cost of spares to be used for scheduled maintenance is included in the maintenance fee and would, therefore, be borne by the Supplier. The cost of spares required for unscheduled maintenance would also be borne by the Supplier upto a pre-determined limit. In case the cost of spares exceeds the specified limit, the excess would be reimbursed by the Purchaser. The price of each spare will be derived from the supply price of locomotives and will be specified as a proportion thereof. In effect, this would imply a cap on the prices of spares, which would ensure that the Purchaser is not exploited by virtue of the monopolistic position of the Supplier.

Deferred payments

Deferred payments would disperse the cash outflow

The PCMA provides two alternatives with respect to payment of the purchase price. Both are intended to defer a part of the payment liability of the Purchaser and also to ensure that the Supplier has a significant stake even after the supply has been concluded. The first option relies on leasing of the locomotives rather than taking ownership immediately upon supply. In this scenario, the Supplier would receive lease rentals, which in turn would help lower the supply price.

The second alternative is to defer the payment of a pre-determined proportion of the supply price. In this case, the Supplier would receive a major proportion of the price immediately upon supply of the locomotives while the balance will be disbursed as deferred payment over a specified period. In both the cases, the Supplier should be able to finance the deferred payments by raising the requisite funds from the export-import bank of its country or from commercial banks.

Risk allocation

Risk allocation and mitigation is critical to private investment

As an underlying principle, risks have been allocated to the parties that are best suited to manage them. Project risks have, therefore, been assigned to the private sector to the extent it is capable of managing them. The transfer of such risks and responsibilities to the private sector would increase the scope of innovation leading to efficiencies in costs and services. The commercial and technical risks relating to production and maintenance are being allocated to the Supplier, as it is best suited to manage them. On the other hand, all direct and indirect political risks are being assigned to the Purchaser. The demand risk of the Supplier is also being borne by the Purchaser as the PCMA provides for an assured supply programme. However, in case the product of the Supplier can be sold in the open market, some demand risk can also be allocated to the Supplier.

Production of Locomotives

Service quality and safety must be ensured

Detailed design of the factory, manufacturing processes and procurement of components is left to the Supplier. Before the locomotives are put to use, the Supplier will be required to subject them to specified tests for ensuring compliance with the specifications relating to safety and quality of service.

Operation and maintenance

Maintenance standards will be enforced strictly

The PCMA specifies the parameters for maintenance of locomotives with a clear set of obligations to be performed by the Supplier who is required to maintain each locomotive for a period of 15 years commencing from the year of supply. The maintenance obligations will be governed by strict standards with a view to ensuring a high level of service, and any violations thereof would attract stiff penalties. The PCMA also provides for an elaborate and dynamic mechanism to evaluate and upgrade safety requirements on a continuing basis. It also provides for rescue and repair operations where necessary. In sum, availability and reliability of the locomotives would be the most important tests of service delivery.

Setting up and operation of the maintenance depots, deployment of trained manpower, maintenance equipment, spares and consumables would form part of the obligations of the Supplier.

Force Majeure

Concessionaire will be protected against political actions

The PCMA contains the requisite provisions for dealing with force majeure events. In particular, it affords protection to the Supplier against political actions that may have a material adverse effect on the ability of the Supplier to perform its obligations.

Termination

In the event of termination, the PCMA provides for a compulsory buy-out by the Purchaser, as neither the Supplier nor the lenders can use the assets in any other manner for recovering their investments.

Pre-determined termination payments should provide predictability

Termination payments have been quantified precisely as compared to the complex formulations in other similar contracts. Political force majeure and defaults by the Purchaser would qualify for adequate compensatory payments to the Supplier, including repayment of the debt due, and this is expected to guard against discriminatory or arbitrary actions by the Purchaser. Further, if termination occurs as a result of default by the Supplier, 50 per cent of the debt will be protected by the Purchaser. This is aimed at providing the requisite comfort to lenders, as a locomotive factory which loses all its supply orders from a monopoly purchaser may be left with little residual value in the market.

Monitoring and supervision

Independent supervision is essential

Day-to-day interaction between the Purchaser and the Supplier has been kept to the bare minimum by following a 'hands-off' approach, and the Purchaser shall be entitled to intervene only in the event of a material default. Checks and balances have, however, been provided for ensuring full accountability of the Supplier.

Monitoring and supervision of maintenance is proposed to be undertaken through a system of reporting and inspection to be carried out by the purchaser's employees.

Guarantees by the Purchaser

Guarantees by the Purchaser are essential

The Supplier has been guaranteed a minimum off-take of locomotives during the supply period. Guarantee has also been provided that the Purchaser's procurement programme, subsequent to the supply period under the present contract, will offer sufficient opportunities for the Supplier to participate on a competitive basis.

Miscellaneous

The PCMA also addresses other important issues such as dispute resolution, suspension of rights, change in law, insurance, defects liability and indemnity. It also provides for training of

Purchaser's staff for operation and maintenance of the locomotives. It also lays down the procedure for transfer of maintenance depots after the maintenance obligations of the Supplier have been discharged.

Other machinery and equipment

This PCMA contains several principles and concepts that may have a generic application and can, therefore, be used for other transactions that involve long-term purchases, setting up of production units, output based maintenance and provision of other services. Ministries and autonomous organisations wishing to engage in such transactions may find several parts of this volume to be of relevance in structuring their respective contracts.

Conclusion

Private participation should improve efficiencies and reduce costs

Together with the Schedules, the proposed contractual framework addresses the issues that are likely to arise in the long-term supply and maintenance of locomotives and in setting up a dedicated factory for this purpose. The proposed regulatory and policy framework contained in the PCMA is critical for attracting private investment with the concomitant efficiencies and lower costs, necessary for accelerating growth.