

Overview of the framework

To meet the infrastructure deficit, the Twelfth Five Year Plan envisages a renewed thrust on investment in infrastructure, with greater participation from the private sector. Of the projected investment in infrastructure, about 29 per cent is envisaged in the power sector, of which about 47 per cent is expected from the private sector. Bulk of the private investment in power sector will be in the generation segment.

Power projects have been witnessing a significant interest from both domestic as well as foreign investors following the policy initiatives taken by the Government of India. However, the actual inflow of investment has been slower than expected, and future prospects would depend significantly on adoption of a comprehensive policy and regulatory framework necessary for addressing the complexities of Public Private Partnerships (PPP) while balancing the interests of Utilities and investors. To this end, a precise policy and regulatory framework is being spelt out in this Model Agreement for Procurement of Power (MAPP).

A comprehensive framework is a pre-requisite for PPP in electricity generation

The framework contained in the MAPP addresses the issues which are important for producers who supply electricity to the utilities through medium-term contracts. These issues include mitigation and unbundling of risks; allocation of risks and rewards; symmetry of obligations between the principal parties; precision and predictability of costs and obligations; reduction of transaction costs; force majeure; and termination. It also addresses other important concerns such as consumer protection, monitoring and dispute resolution.

The MAPP provides the basis for optimal utilisation of resources on the one hand and adoption of international best practices on the other. The objective is to secure value for public money while providing reliable and cost-effective electricity to the consumers.

This MAPP is a base document to be used by procuring utilities for inviting bids from producers for supply of electricity over the medium term. The MAPP can be customised for base-load as well as peak hour procurement of electricity. It is based on Finance, Own, and Operate (FOO) model. Variations required for procurement of coal-based, gas-based and hydro-electric power stations have been provided within the MAPP.

Elements of financial viability

The three critical elements that determine the financial viability of generation projects are the contract period, fuel costs and capital costs. The contract period for medium term supply of power should be fixed keeping in view the requirement of power by the Utility. It could be fixed between one and five years, with provision for extension of this period for the lower of 25 per cent of the initial contract period and one year, with mutual consent. So far as the Variable Charge is concerned, the MAPP makes it a pass through, subject to appropriate safeguards, which would

Need to reduce capital costs

address a major risk faced by power producers due to uncertainty relating to fuel prices over the medium term.

Fixed Charge

The Utility shall pay to the Supplier a Fixed Charge determined through competitive bidding for availability of the Power Station. The Fixed Charge determined for each accounting year shall be revised annually to reflect 20 per cent of the variation in wholesale price index (WPI). Since repayment of debt would be substantially neutral to inflation, the said indexation of 20 per cent is considered adequate. A higher level of indexation is not favoured, as that would impose an unjustified burden on the consumers.

Fixed Charge to be competitive

Variable Charge

Variable Charge is the amount payable by the Utility to the Supplier for the fuel utilised in generation of electricity. Since the risk of variation in fuel price cannot normally be managed by the Supplier, it must be passed on to the Utility, which, in turn, will have to reflect it in the distribution tariff. Since pass through of Variable Charge affords full protection to the Supplier against potential losses on account of a rise in fuel prices, it follows that the benefit of reduced fuel prices cannot be retained by the Supplier. As a result, Variable Charge cannot be a profit centre for the Supplier and the principles for determination of Variable Charge must ensure that costs are recovered on the basis of actuals, assuming that the Supplier would function with the efficiency expected of a prudent and diligent operator.

Variable Charge to be a pass through

The framework contained in the MAPP provides alternative formulations for determination of fuel costs depending on the source and pricing of fuel supplies. Each category of supply is, therefore, covered through its respective formulation. In case where fuel is to be procured from domestic market the cost of fuel shall be linked to the monthly average of a Fuel Price Index as may be mutually agreed upon.

When imported fuel is to be used, reliance should be placed on pre-selected coal /gas indices used widely in international supplies of coal/gas, but always subject to the actual cost incurred by the Supplier. For supply of electricity procured from a hydro-electric power station, the lump sum tariff option has been provided. Options for fuel imported under a fixed-price gas contract and for gas procured from ONGC/GAIL have also been stipulated with provisions for 'take or pay' supply of fuel. However, if bids are invited from producers having captive mines abroad, the prevailing price could be prescribed with appropriate indexation over the supply period. In all cases of imported fuel, the foreign exchange risk would have to be borne by the Utility as the Supplier would have no means to hedge such risk on a long-term basis.

Concessional Fuel

Fuel which is procured by the Supplier through any form of concessional, preferential or captive allocation or sale by a Governmental Instrumentality shall be deemed as Concessional Fuel and shall not be used for production of electricity for supply under a medium term contract. However, in case gas is supplied by ONGC/GAIL on concessional terms, it may be used for supply under a medium-term contract with prior approval of the Government.

**No use of
Concessional Fuel**

Availability and Despatch of Power Station

The Supplier shall operate the Power Station such that it is available for generation to the extent of 85 per cent of the Contracted Capacity which shall be deemed to be the Normative Availability for each accounting year. Any shortfall in the Normative Availability will attract damages. The Supplier shall declare the availability of the Power Station at frequent intervals and the Utility shall be free to direct the Supplier to produce and despatch electricity in accordance with the despatch instructions given by it from time to time. Payment of Fixed Charge shall be computed on the basis of availability of the Power Station while the Variable Charge shall be payable only for the electricity actually produced and despatched.

**Fixed Charge to be
paid for Availability
of Power Station**

Normally, the Power Station shall be deemed as available to the full extent. In the event of any defect or deficiency, the Supplier must declare the actual availability so that its Fixed Charge is computed accordingly. The MAPP stipulates stiff damages in case of mis-declaration by the Supplier.

**Penalties for mis-
declaration**

Technical parameters

Unlike the normal practice of focusing on construction specifications, the technical parameters proposed in the MAPP are based mainly on output specifications, as these have a direct bearing on the level of power generation. Only the core requirements of operation have been specified, leaving enough room for the Supplier to innovate and add value. In sum, the framework focuses on the 'what' rather than the 'how' in relation to the production and supply of power by the Supplier. This would also provide the requisite flexibility to the Supplier to innovate and optimise in a way normally denied under conventional input-based procurement specifications.

**Technical
parameters for
level of service**

Outcome orientation

The efficiency of the Supplier would normally be reflected in the quality and reliability of power supply. In particular, the Supplier shall be required to ensure the availability of Contracted Capacity at pre-determined normative levels.

**Outcome
orientation is
the key**

Selection of Supplier

Selection of the Supplier will be based on a two-stage process of competitive bidding. All project parameters such as the supply period, technical parameters and

**Competitive
bidding on Fixed
Charge will be
the norm**

performance standards are to be clearly stated upfront. Based on these terms, the short-listed bidders will be required to specify their financial offer in terms of a unit Fixed Charge, without any qualifications. In some cases, the financial offer may also have to include the Variable Charge based on the landed cost of fuel. The bidder who seeks the lowest unit charge should win the contract. The financial offer for the unit charge shall be made only for the initial year and the actual tariff payable to the Supplier will be revised annually based on pre-determined indexation.

Risk allocation

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. These risks have also been mitigated to the extent possible. The transfer of these risks and responsibilities to the private sector would increase the scope of innovation leading to efficiencies in costs and services.

Risk allocation and mitigation are critical

The commercial and technical risks relating to operation and maintenance are being allocated to the Supplier, as it would be best suited to manage them. On the other hand, all direct and indirect political risks are being assigned to the Utility.

Commercial risks to be borne by Supplier

Conditions Precedent

Procuring approval of the Appropriate Commission for payment of Tariff by the Utility to the Supplier has been proposed as condition precedent to be satisfied by the Utility. Access to the transmission system for carrying electricity from power station to delivery point and procurement of applicable permits have been proposed as conditions precedent to be satisfied by the Supplier. The Utility would provide reasonable support and assistance to the Supplier in procuring the applicable permits. Damages have been prescribed for delay in fulfilling the conditions precedent by the Utility as well as the Supplier.

Fulfilment of conditions precedent

Operation of the Power Station

The Supplier is expected to demonstrate a high standard of operation and maintenance of the Power Station with a view to ensuring the requisite level of reliability and availability. Any violations would attract damages. In sum, operational performance would be the most important test of service delivery as it would have a direct bearing on the supply of electricity to the Utility.

Force majeure

The MAPP 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 project.

Termination

In the event of termination, the MAPP provides for a calibrated termination payment by the Supplier or the Utility, as the case may be. Termination payments have been quantified precisely as compared to the complex formulations in most such agreements relating to infrastructure projects. Political force majeure and defaults by the Utility would qualify for adequate compensatory payments to the Supplier and will thus guard against any discriminatory or arbitrary action by the Utility.

Pre-determined termination payments should provide predictability

Miscellaneous

The MAPP addresses other important issues such as dispute resolution, change in law, insurance, indemnity, and disclosure of project documents. It incorporates the best practices that would enable a fair and transparent framework for private participation.

An effective dispute resolution mechanism is critical

Conclusion

Together with the Schedules, the proposed contractual framework addresses the issues that are likely to arise in operation of generation projects on FOO basis for supply of electricity over the medium-term. The proposed policy and regulatory framework contained in the MAPP is critical for attracting competitive supply of electricity with the concomitant efficiencies and lower costs, necessary for making electricity affordable.