

Public Private Partnership Contracts: Indian Infrastructure Perspective

Vineet Sarawagi and Dr. Tapan K. Nayak

Abstract

Indian Infrastructure Sector have evolved a lot and is growing with a fast pace. Government today and tomorrow have to diligently take care for growth towards Infrastructure Sectors. Considering these projects to be high capital intensive and having long gestation period, both financial institutions and the equity investors take very deep dive in these contracts analysis. Lots of these sectors are highly regulated and concepts like Return on Equity (RoE) plays very important role, wherein, RoE of approximately 15% (post-Tax) is allowed in all sectors.

Unlike Debt agencies, Private Equity firms also put its money in these types of projects. These, PE players found comfort with yield generating operating assets after already burnt their figures with greenfield/under-construction projects. Equity-Locking conditions in these types of PPP contracts are very important for them, so that they can have an easy exit options. These are being taken care upto certain extent considering international contracts like FIDIC, but, government entities are required to be more liberal towards these giving an easy exist option at any point of time.

There are lot of bitter experiences of funding agencies and Equity investors for these types of projects because of various reasons, predominantly being Red-Tapis and Land Acquisition. So, all these look after an appropriate remuneration in case of Termination Payment because of Event of Default (may be because of Government Entity or because of the Concessionaries) and also in the case of Termination Payment because of Force Majeure events.

There are various types of Corporate Bonds available in the market for these sectors, like Masala bond, Green bond, Municipal Bond, etc. which are not hit show till now in country, but are expected to be very good source of funding for theses long gestation PPP contracts. Thus, PPP in Infrastructure Sector is evolving a lot in terms of Contracts which is expecting to invite interest globally and domestically leading to growth of the country.

Keywords: Return on Equity (RoE), Termination Payment, Equity Lock-in, Force Majeure.

Vineet Sarawagi

Senior Contracts and Financial Modelling Manager,
Essel Infraprojects Limited, Noida, U.P.
vksarawagi@hotmail.com

Dr. Tapan K. Nayak

Professor & Dean-Academics, IMS Ghaziabad, U.P.
tapankumar.nayak@imsgzb.com

Introduction

India need to invest more than Rs. 45 trillion in next 5 years to achieve GDP growth rate @ 8 percentage across key sectors like Road, Airport, Railways, Urban Development (MSW, etc.), water & Waste Water, Ports, etc. However, the investment in these areas have decreased in last couple of years and NPAs have increased leading to cases like that of

IL&FS. Neither Government nor Private players can achieve it on standalone basis, which have lead to very high emphasis on **Public Private Partnership (PPP)** by everybody in the country.

Debt Market and Equity have started playing its complementary role in better fashion and they are being given due consideration leading to increased role towards policy measures and documentation drafting. Various new initiatives have started in financing for these projects along with other existing initiatives, like **Corporate Bonds, Alternate Investment Funds (AIFs)**, etc.

In all these, private players most crucial role, without which everything is a failure. Accordingly, emphasis have been given over well written Contracts, clearly defined responsibilities & risks leading to clarity over a long-run. For enabling Indian Contracts in PPP, international contracts like **FIDIC³** is also referred and all these evolutions have lead to different types of business models, like, **Hybrid Annuity Model, Annuity Model, Revenue Sharing, Reverse Auction**, etc.

Private Equity Investors plays a very important role towards success of these initiatives. **Renewable sector** is preferred a lot by PE players, because of ease of project implementation (other than land acquisition). The sector having fewer companies listed, this makes exit option to be easier through public offerings. Further, **Road sector** have seen lots of stalled projects with irregularity in toll collection and arbitration issues. This have lead to evolution of sector through different business models like **Toll-Operate-Transfer (ToT)** and highly acceptable **Hybrid Annuity Model (HAM)**.

Background & Analysis

Infrastructure Bonds

These Infrastructure projects have very long life and in order to mitigate duration risk, Infrastructure Bonds like Masala Bonds, green Bonds, Municipal Bonds, etc., seems to be solution for reducing dependency on formal banks for finance of these types of projects. Few Bonds are tabulated in table No. 1as under:

Table 1: Different types of Infrastructure Bond

S. No.	Type of Bonds	1st time in India	Other Examples
1	Masala Bond	Issued by HDFC on London Stock Exchange in 2018	1) Rs. 19.5 Billion by REDA in Sept.'18 2) Rs. 30 billion by NHAI in May.'17
2	Green Bond	Issued by Yes Bank in 2015 for Renewable Projects	1) CLP in Sept.'15 2) Axis Bank in Jun.'16 3) SBI in Sept.'18
3	Municipal Bonds	Issued by Bangalore Municipal Corporation in 1997	1) Pune Municipal Corporation, Indore and Hyderabad Municipalities

Source: Indian Infrastructure (December 2018 issue)

Return on Equity ("RoE")

Over a period of time, allowing RoE have evolved as an acceptable approach to the Financial Institutions as well to the Equity Investors and the same has been followed by concerned regulatory authorities in various Regulated sectors (Airport, Renewable Energy, Municipal Solid Waste, Ports, Thermal Power Plants, Transmission Projects, etc.). The large scale investment in these sectors is attributable

to the approach of fixed rate of return. These Sectors allows RoE in the range of 14.0% to 17.0% on Post-Tax basis, i.e. after grossing up with MAT (@21.55%) or IT Act (@33.78%), reaches from 16.0% to 20.39% and 24.16% respectively on Pre-Tax basis.

Tariff Authority for Major Ports ("**TAMP**") allows Return on Capital Employed ("**RoCE**") as 16.00% and in the same time, Airports Economic Regulatory Authority ("**AERA**"),

allows 14% RoE for Airports owned by AAI and 16% for Airports having Private Players. Central Electricity Regulatory Commission (“CERC”) allows RoE (post Tax) upto 16.50%

in certain conditions for Thermal Projects and other Infrastructure Projects. A table of RoE allowed for few of the verticals are as under in Table 2.

Table 2: Return on Equity (RoE) in Case of Various Verticals

S. No.	Return Allowed	Applicable for	Notifying Authority
1	Return on Equity: 14.00% (Post-Tax)	Renewable Energy Sector	Central Electricity Regulatory Commission (CERC)
2	RoE: 15.50% + 0.50% (Post-Tax), to be grossed-up with Effective Tax Rate	Thermal generating stations, transmission system including communication system and run of the river hydro generating station	Central Electricity Regulatory Commission (CERC)
3	Return on Capital Employed (RoCE): 16.00% Capital Employed: Net Fixed assets plus CWIP	Ports	Tariff Authority for Major Ports
4	RoE: 16.00%, post tax	Airport	Airports Economic Regulatory Authority

Source: Author’s Compilation

It is very much clear from the table above that, the Government entities understand and accept the requirement of approximately 16.00% RoE towards private players investment across these high capital intensive infrastructure projects. There are few more reports from very renowned government entities supporting RoE to be from 16.00% to 18.00% on post-tax basis. These returns seems to be very high considering international market and that’s why attracts foreign players to invest in India. But, at the same time, various factors like, Red-Tapism, Land Acquisitions, Political unrest, etc. makes these projects to be very risky projects and nullify the potentiality of high returns.

In the same time, these sectors have evolved a lot into various business models like Reverse Bidding, Revenue Sharing, Annuity and Hybrid Annuity leading to decrease in returns and increase in support by the government entities. Even after all these, lots of NPAs are happening and the sectors are unable to perform the way these are expected to be performing.

Equity Locking

Equity locking of the Bidder (single bidder or Consortium) plays a very important role in deciding the investment possibilities for the

project. Financial Institutions consider this to be a very important aspect before funding of any project. This talks about flexibility of change in ownership in a simple fashion, i.e. without substitution. A table of equity locking conditions for few of the verticals are as under in Table 3.

Government entities does not want to allow easy exit of the initial bidder in these projects. But, considering option of Private Equity investment in these projects, later dilution of equity (upto a certain extent), after approval from government entity is allowed.

Termination Payment: Event of Default

These contracts being PPP in nature, events and effect of termination plays a very important role for the investors. Contracts being with the State itself, enforcement of vulnerability on private players becomes very important and fall-back arrangements are very important for the financing institutions along with the Equity investors plays very important role from risk analysis perspective of these projects. Comparison of termination payment in case of event of default by the Concessionaire (Private player / Bidder) is detailed as in Table 4, as under:

Table 3: Equity Locking Conditions in various verticals

S. No.	Sector	Business Model	Single Bidder		Consortium Bidding	
			Till CoD	Post CoD	Till CoD	Post CoD
1	STP	HAM	Total Capital & Voting Rights: 51% (till 3 years from CoD)	Till 3 Years Total Capital & Voting Rights: 51% (till 3 years from CoD)	Lead Member: Total Capital & Voting Rights: 51% (till 3 years from CoD) Other Members: Total Capital & Voting Rights: 26% (each) (till 3 years from CoD)	Till 2 year (each Member): Lead Member: Total Capital & Voting Rights: 51% (till 3 years from CoD) Other Members: Total Capital & Voting Rights: 26% (each) (till 3 years from CoD)
2	Road	HAM	Total paid up and subscribed equity of the SPV: 51%	Till 2 Years Total paid up and subscribed equity of the SPV: 51%	Each Member: 26% or more of the paid up and subscribed equity of the SPV	Till 2 year (each Member): 26% or more of the paid up and subscribed equity of the SPV AND 5% of the Total Project Cost
3	Railway	Annuity	min. 51% of the Equity Share Capital		each Member to own min. 26% of the Equity Share Capital	
4	Airport	Revenue Sharing	subscribed and paid up equity share capital: 51% Golden Share of the Authority (with Veto Powers): 1 share	Till 6 Years from CoD: subscribed and paid up equity share capital: 51% Golden Share of the Authority (with Veto Powers): 1 share	Each Member: subscribed and paid up equity share capital: 26% O&M Partner: subscribed and paid up equity share capital: 10% Golden Share of the Authority (with Veto Powers): 1 share	Till 6 Years from CoD: Each Member: subscribed and paid up equity share capital: 26% O&M Partner: subscribed and paid up equity share capital: 26% Golden Share of the Authority (with Veto Powers): 1 share
5	MSW	Revenue Sharing	paid up and subscribed equity: 51%	paid up and subscribed equity: 51%	Lead Member: paid up and subscribed equity: 51% Other Member : paid up and	Lead Member: paid up and subscribed equity: 51% Other Member: paid up and subscribed equity: 15%

Source: Author's Compilation

Government Authorities understand the fact that these projects are capital intensive and have huge involvement of Debt (upto 70% of the Project Cost), which is public money. So, even in the case of Concessionaire/Bidder/Private Player event of default, allows payment of Debt due to a certain extent in approximately all verticals. Few Sectors like Airport and Railways are more stringent and does not

allow even debt payment till investment of 40% of the Project Cost. In the cases of termination payment post-CoD, 90% of Debt Due is allowed to be paid in most of the verticals.

Comparison of termination payment in case of event of default by the Authority (i.e. government counterpart) is detailed as in Table 5, as under:

Table 4: Termination Payment in Concessionaire Event of Default

	Prior to CoD	Post CoD
Road-NHAI-HAM	Debt Due (50%-80%)	65% of Annuity payment unpaid for the balance concession period including the interest upto transfer date
Annuity-PPP (East-Coast)-Indian Railways	Investment upto 40%: No Payment Investment above 40%: Debt Due	90% of Debt Due
Vizag Metro	No Payment	90% of Debt Due + 70% of additional termination payment
Nagpur/Bhogapuram Airport	Investment upto 40%: No Payment Investment above 40%: Debt Due	+ 90% of Debt Due + Additional Termination Payment
MSW: NDMC	No Payment	90% of Debt Due
NMCG- STP- Varanasi (HAM)	85% Debt Due - unadjusted mobilization advance (and interest) - amount due and payable by concessionaire	O&M Payments Due + 85% of Capex Annuity for unexpired portion of O&M Period - amount due and payable by concessionaire
NMCG- STP- Farrukhabad-Fatehgarh (HAM)	Rehabilitation Payment Due + 85% of Debt Due - unadjusted advance - any amount due and payable	CAPEX Annuity Due for unexpired portion (65%-85%) + O&M Payment Due
Port	90% of Debt Due	90% of Debt Due
Transmission (REC)	Regulatory Commission to be referred	
Solar: SECI	Regulatory Commission to be referred	

Source: Author's Compilation

Table 5: Termination Payment in Authority (Government Counterpart) Event of Default

	Prior to CoD	Post CoD
Road-NHAI-HAM	Debt Due + 150% of adjusted equity	100% of Annuity payment unpaid for the balance concession period including the interest upto transfer date
Annuity-PPP (East-Coast)-Indian Railways	Debt Due + 150% of Adjusted Equity	
Vizag Metro	Debt Due + 150% of Adjusted Equity + 115% of additional termination payment	
Nagpur/Bhogapuram Airport	+ 90% of Debt Due + 150% of adjusted Equity + 115% of Additional Termination Payment	
MSW: NDMC	Debt Due + 150% of Adjusted Equity	Debt Due + 150% of Adjusted Equity
NMCG- STP- Varanasi (HAM)	Construction Payment Due + Debt Due + Equity Infused (with interest on equity @ SBI MCLR +3%) - unadjusted mobilization advance (and interest) due and payable by concessionaire	O&M Payments Due + Capex Annuity for unexpired portion of O&M Period + Equity (along with interest @ SBI MCLR + 3%) - amount Due and payable by concessionaire
NMCG- STP- Farrukhabad-Fatehgarh (HAM)	Construction Payment Due + Debt Due + Equity Infused (with interest on equity @ SBI MCLR +3%) - unadjusted mobilization advance (and interest) due	O&M Payments Due + Capex Annuity for unexpired portion of O&M Period - amount Due
Port	Debt Due + 150% of Adjusted Equity	
Transmission (REC)	Regulatory Commission to be referred	
Solar: SECI	Regulatory Commission to be referred	

Source: Author's Compilation

Investors (financing Debt and/or Equity) are very skeptical about termination payment in case of default by the Government Authority itself. The advisors to the concerned Government Agencies have made them realize this fact and accordingly government authorities have worked towards betterment of the project, allowing higher termination payment in case of event of default by the government authorities. Higher termination payment is payable not only for the Financing Institutions, but also for the Equity Investors.

Termination Payment: Force Majeure

Force Majeure are events which are basically not in control of Concessionaire and maximum of times not even in control of Authority. Although there are rare examples of termination of infrastructure projects because of Force Majeure, but, it is very important from risk analysis perspective for Debt as well as Equity infusion parties.

Termination payment in case of Force Majeure because of Political Events (pre & Post CoD) for few of the sectors in PPP contracts are tabulated in Table 6, as under:

Table 6: Termination Payment-Force Majeure: Political Event

Termination Payment (Force Majeure)	Political Event	
	Pre-COD	Post-CoD
Road-NHAI-HAM	Debt Due + 150% of adjusted equity	100% of Annuity payment unpaid for the balance concession period including the interest upto transfer date
Annuity-PPP (East-Coast)- Indian Railways	Termination Payment equal to Authority Event of Default	
Vizag Metro	Termination Payment equal to Authority Event of Default	
Nagpur/Bhogapuram Airport	90% of Debt Due	
MSW: NDMC	Debt Due + 150% of Adjusted Equity	
NMCG- STP- Varanasi (HAM)	Construction Payment Due + Debt Due + Equity Infused (with interest on equity @ SBI MCLR +3%) - unadjusted mobilization advance (and interest) due and payable by concessionaire	Construction Payment due for payment milestone + O&M Due + Capex Annuity for unexpired portion of O&M Period + Equity (along with interest @ SBI MCLR + 3%) -amount due and payable by concessionaire
Port	Termination Payment equal to Authority Event of Default	
Transmission (REC)	Regulatory Commission to be referred	
Solar: SECI	Regulatory Commission to be referred	

Source: Author's Compilation

Since, Political Event cannot be controlled by Concessionaire in any way and are related to counterpart of the government authorities, termination payment are most lucrative for these types of events.

Termination payment in case of Force Majeure because of Non-Political Events for few of the sectors in PPP contracts (pre & Post CoD) are tabulated in Table 7, as under:

Non-Political Event are basically those wherein neither the concerned Government Authorities nor its counterpart can do anything, like, Act of God, etc. So, termination payment in these case are less lucrative than in the case of Termination payment for Force Majeure because of Political Event.

Termination payment in case of Force Majeure because of Indirect-Political Events for few of the sectors in PPP contracts (pre & Post CoD) are tabulated in Table 8, as under:

Table 7: Termination Payment-Force Majeure: Non-Political Event

Termination Payment (Force Majeure)	Non-Political Event	
	Pre-COD	Post-CoD
Road-NHAI-HAM	90% of Debt Due	75% of Annuity payment unpaid for the balance concession period including the interest upto transfer date
Annuity-PPP (East-Coast)- Indian Railways	90% of Debt Due	
Vizag Metro	90% of Debt Due	
Nagpur/Bhogapuram Airport	+ 90% of Debt Due + 110% of adjusted Equity + Additional Termination Payment	
MSW: NDMC	90% of Debt Due	
NMCG- STP- Varanasi (HAM)	Due Outstanding Construction Payment and/or O&M payment	
Port	Debt Due (less any amount payable)	
Transmission (REC)	Regulatory Commission to be referred	
Solar: SECI	Regulatory Commission to be referred	

Source: Author's Compilation

Table 8: Termination Payment-Force Majeure: Indirect-Political Event

Termination Payment (Force Majeure)	Indirect Political Event	
	Pre-COD	Post-CoD
Road-NHAI-HAM	Debt Due + 110% of adjusted equity	90% of Annuity payment unpaid for the balance concession period including the interest upto transfer date
Annuity-PPP (East-Coast)- Indian Railways	Debt Due + 110% of Adjusted Equity	
Vizag Metro	Debt Due + 110% of Adjusted Equity	
Nagpur/Bhogapuram Airport	Amount equal to Authority Event of Default	
MSW: NDMC	Debt Due + 110% of Adjusted Equity	
NMCG- STP- Varanasi (HAM)	Construction Payment due for payment milestone + Debt Due	Construction Payment due + O&M Payment Due + Debt Due
Port	Debt Due (less any amount payable)	
Transmission (REC)	Regulatory Commission to be referred	
Solar: SECI	Regulatory Commission to be referred	

Source: Author's Compilation

Indirect-Political Event are mixture kind of events of Political and Non-Political events, like, Act of War, etc. So, termination payment in these case are somehow similar to Termination payment for Force Majeure because of Political Event.

Conclusion

Contracts in India have achieved good maturity leading to more clear& better defined contracts. Considering the risk and current scenario, even PE investors are happy with RoE of 16.00% (post-tax), but, they always look at an easy

exit option. There are few avenues like ease of equity dilution are required to be eased out enabling Foreign players and private Equity to come-up considering easy exit route options. Termination payment in case of Event of Default and Force Majeure cases had always been very important in case of PPP contracts in Infrastructure. Cost allocation during various types of Force Majeure Event should be allowed 100%, whereas, currently, different verticals does not allow the same, the same s tabulated in table no. 9 below:

Table 9: Force Majeure: Cost-Allocation

Sector	Cost Allocation- Force Majeure (after Appointed Date)		
	Non-Political Event	Indirect Political Event	Political Event
Road-NHAI-HAM	No Compensation	50% compensation	100% Compensation
Annuity-PPP (East-Coast)- Indian Railways	No Compensation	50% compensation	100% Compensation
Vizag Metro	No Compensation	50% compensation	100% Compensation
Nagpur/Bhogapuram Airport	No Compensation	50% compensation	100% Compensation
MSW: NDMC	No Compensation	50% compensation	100% Compensation
NMCG- STP- Varanasi (HAM)	Capex Annuity (along with interest) and the O&M Charges during the subsistence of the Force Majeure Event		
Port	No Compensation		
Transmission (REC)	Regulatory Commission to be referred		
Solar: SECI	Regulatory Commission to be referred		

Source: Author's Compilation

There are various containing factors for these infrastructure projects, like proper track record of payment and capabilities to pay, which leads to requirement of sponsor ratings and third-party valuations. The Concession period for these projects are normally 25 years and our debt markets are not deep enough, maximum

loan tenure allowed is 18 years. Financial Closure of these projects are sometimes either not happening or are delayed and the actual reason seems not the lack of fund, but it is proper Concession Agreement and focus of governance along with proper respect of the sanctity of the contract.

REFERENCES

1. Gangwar R. (2013), "Tariff Regulation In Port Sector: Experiences From India", 13th World Conference on Transport Research, Brazil
2. Report: "Review of regulation in the Ports Sector" (2014), Trade and Industrial Policy Strategies (TIPS)
3. Indian Infrastructure (December 2018), Vol. 21, No.5
4. Tender Documents issued by National Highway Authority for Road Projects on Hybrid Annuity Model for Road Projects on Hybrid Annuity Model
5. Tender Documents issued by REC Transmission Projects Company Ltd. for privatization of transmission Project on Reverse Bidding Model
6. Tender Documents issued by MIHAN India Limited (MIL) for privatization of Nagpur Airport on Revenue Sharing Model
7. Tender Documents issued by National Mission for Clean Ganga (NMCG) for Sewage Treatment Plant (STP).