Engineering & Capital Goods

6 September 2021

National Monetization Pipeline: How realistic is the target and to what extent will it help in mitigating the fiscal stress?

SECTOR REPORT

Industry	Engineering & Capital Goods

Earlier in 2020, the Indian government announced a mega spending plan of Rs 111tn over FY20-25 under its National Infrastructure Pipeline (NIP). However, with the COVID-19 pandemic worsening the Centre and States' already weak fiscal situation, the government is exploring alternative mechanisms to fund its infrastructure capex and announced plans to monetize assets worth Rs 6tn through the National Monetization Pipeline (NMP). Our deep-dive analysis into the NMP suggests that the plans are over-ambitious and would help raise direct proceeds of only ~Rs 3.4tn for the government over FY22-25 even in the best-case scenario, which is <5% of the overall planned infrastructure capex over that period. Additionally, the planned asset monetization targets in key sectors such as roads are 10-20x of the cumulative monetization so far, suggesting that execution challenges may delay the overall monetization plans considerably.

Overview:

- Niti Aayog has listed assets worth Rs 6tn that could be monetized over FY22-25 to raise resources for funding the Central government's greenfield infrastructure capex. However, direct monetization of assets worth just ~Rs 3.4tn is planned while the remaining assets are likely to be developed via the public-private partnerships-PPP route (included as monetization even as they would not help raise resources for the government). In comparison, the planned infrastructure capex over FY22-25 is >Rs 80tn and hence, even if the entire portfolio is successfully monetized, it would contribute to <5% of the requirements.

- Procedural delays, bureaucratic red-tape and lack of trust in the political system has often plagued execution of even good plans. Execution challenges that could delay the monetization plans can be gauged from the fact that – 1) in the past 3 years, a total of 1,408 kms of roads have been monetized (additionally 586 kms to be monetized through the National Highways Authority of India's infrastructure investment trust planned for FY22) as against 26,700 kms of roads to be monetized under NMP over FY22-25 – a 10-20x jump; 2) in August 2021, Indian Railways witnessed a complete failure of its plans to award 109 routes for private passenger train operations despite many bidders expressing interest earlier on – the key reason cited was lack of an independent regulator; and 3) the Government had announced its plans to sell majority stake in BPCL, Concor and SCI in 2019 and till date any of these sale is yet to take off despite buyer interest.

- The monetization pipeline comprises almost all of the existing and under-construction assets over FY22-25. We believe this target is aggressive and if enacted, would lend a significant blow to the government's future revenue receipts. In railways, the 400-stations redevelopment program entails most Indian cities with a population >100,000, despite a weak off-take in the past five years. Targets in power generation include most of the operational renewable portfolios with the Central PSUs, while almost all Centre-owned warehouses have been considered for monetization. In telecom, all tower assets with co-location revenue streams have been considered.

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The government's mega Rs 111tn infrastructure capex plan under the National Infrastructure Pipeline

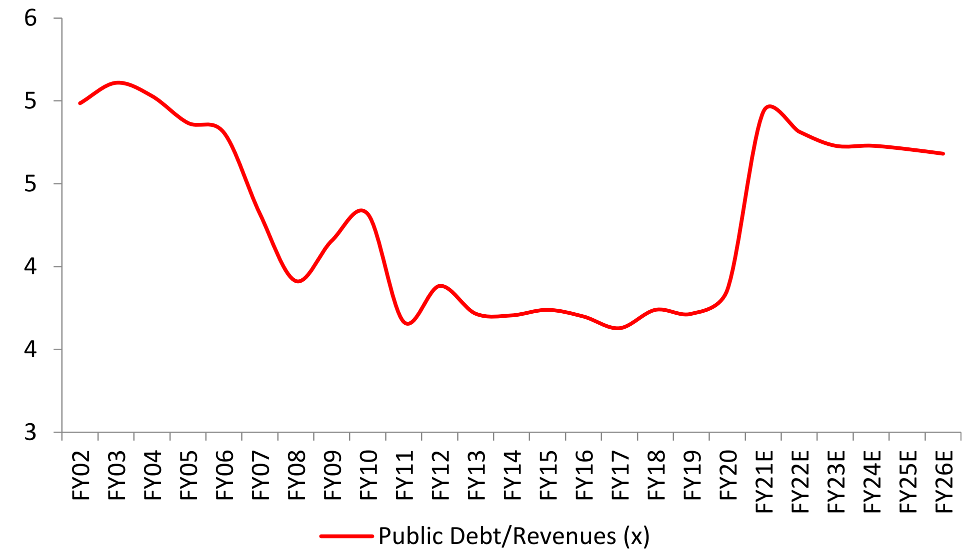
Exhibit 1: Projects adding up to Rs 128tn have been proposed under the NIP for execution over FY20-25 - a steep jump in run-rate from ~Rs 10tn currently to ~Rs 23tn p.a.

Rs bn	Value of projects	Historical trend							Future run-rate
	NIP	FY16	FY17	FY18	FY19	FY20P	FY21E	FY22E	NIP
Transport	**54,677**								**10,415**
Roads	28,300	1,552	1,920	2,115	2,585	2,769	2,607	2,912	5,695
Railways, of which	15,001	935	1,099	1,020	1,334	1,480	1,608	2,099	2,824
Railway Tracks	11,900								
Railway Rolling Stock	3,010								
Rail Terminal Infra	91								
Urban public Transport	8,890	217	300	312	358	396	215	303	1,482
Ports	635								106
Airports Infrastructure	1,600								267
Inland Waterways	232								39
Shipyards	19								3
Logistics	**2,741**								**457**
Energy	**28,558**								**4,760**
Electricity Distribution	3,780								630
Generation (Non Renewable)	9,300								1,550
Electricity Transmission	3,960								660
Generation (Renewable)	11,030								1,838
Oil/ Gas/ LNG storage	488								81
Water & Sanitation	**21,514**								**4,803**
Irrigation	12,890	686	834	826	929	929	697	767	2,857
WTP	7,740	188	228	287	320	336	252	290	1,800
Sewage collection	645								108
Solid Waste Management	129								21
Storm Water Drainage	110								18
Communications	**980**								**163**
Social Infrastructure	**13,956**								**2,326**
Commercial Infrastructure	**5,768**								**961**
Grand Total	**128,194**								**23,885**

Source: Systematix Research, India Investment Grid

Besides execution challenges, the rising fiscal deficit poses a threat to meet the funding needs for such capex targets

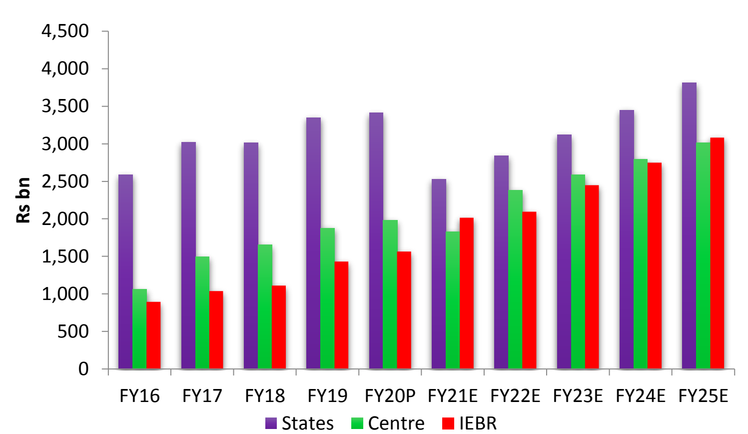
Exhibit 2: India's capacity to support high levels of debt is constrained by its ability to raise revenues; Public debt/revenue is reaching back to FY02 levels when India was rated junk



Source: CMIE, Systematix Institutional Research

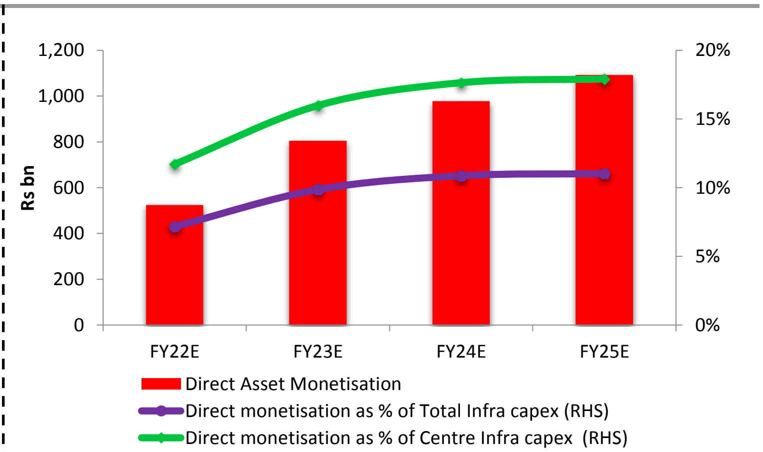
Over the years, states have been the key drivers of infrastructure capex; Centre to take the lead in incremental capex driven by a sharp rise in IEBR (internal and extra budgetary resources) funding

Exhibit 3: The share of IEBR funding rising to 50% of overall Centre capex



Source: Niti Aayog, Systematix Institutional Research

Exhibit 4: Direct asset monetization proceeds to fund almost 20% of the Centre's infrastructure capex by FY25E



Source: Niti Aayog, Systematix Institutional Research

Direct monetization of only 57% of the NMP; balance proposed through the PPP route

Accordingly, the cash proceeds to the government will be only Rs 3.4tn vs. the Rs 6tn headline proposed.

The key monetization routes outlined by the government for the identified assets are 1) The direct lease of assets for a finite timeline through InvIT, TOT, operate-maintain-develop (OMD) agreements and 2) the PPP approach wherein the private sector will deploy capex to develop the asset and run it for a finite life before transferring it back to the government.

Under the PPP approach, there are no real/major monetary proceeds to the government and yet it has been categorized under the NMP.

We segregate the assets identified for direct monetization and PPP and find that only ~57% of the total pipeline is proposed under the real monetization route. Importantly, apart from roads and railways, most of the other identified assets are a part of the central public sector enterprises (CPSEs) wherein the cash proceeds may go to the respective PSUs rather than to the government, limiting the actual cash proceeds to the government.

Exhibit 5: Sector-wise monetization pipeline over FY2022-25 – only ~57% of it is direct monetization

Sector/ asset	Approach to monetization value	Monetization plan (Rs bn)
Roads	Market approach	1,602
Ports	Capex approach	128
Airports	Capex approach	208
Railways	Railway stations – Capex approach	763
	Passenger trains – Capex approach	295
	Private freight terminals – Capex approach	56
	Railway colonies redevelopment – Capex approach	23
	Track infrastructure under DFCCIL – Book value approach	202
	Track, OHE – EV approach	187
Power generation	Book value approach	398
Power transmission	Market approach	452
Natural gas pipeline	EV approach	245
Product pipeline	EV approach	225
Sports stadium	Capex approach	115
Warehousing	Capex approach	289
Telecom	Capex approach for Bharatnet fibre assets	263
	Market approach for tower assets	88
Mining	Capex approach	287
Urban Housing redevelopment	Capex approach	150
Total		**5,976**
Total of non-capex approach plans		**3,399**
Non-capex route monetization as proportion of total		57%

Source: Niti Aayog, Systematix Institutional Research; Note: Blue shaded area reflects proposed direct monetization route

Government's method of arriving an indicative value for the monetizable assets:

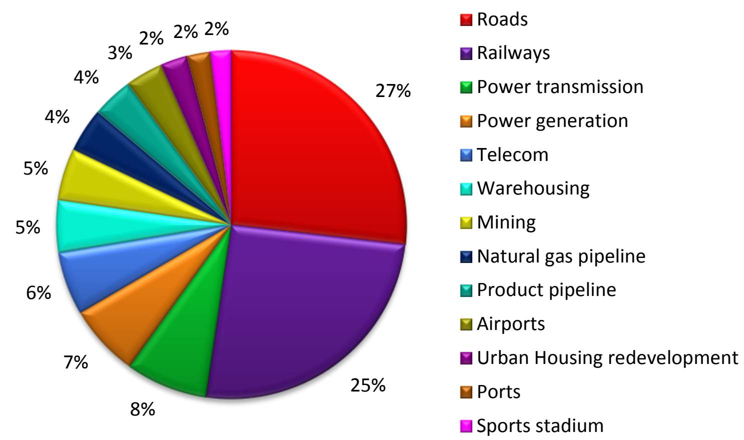
a) Market approach – based on comparable market transactions, such as per kilometer of roads, per ckt km of transmission asset, per MW of generation capacity.

b) Capex approach – PPP based models envisaging the capex investment by the private sector.

c) Book value approach – considered in cases where information on comparable market transactions or estimated capex investment is not available.

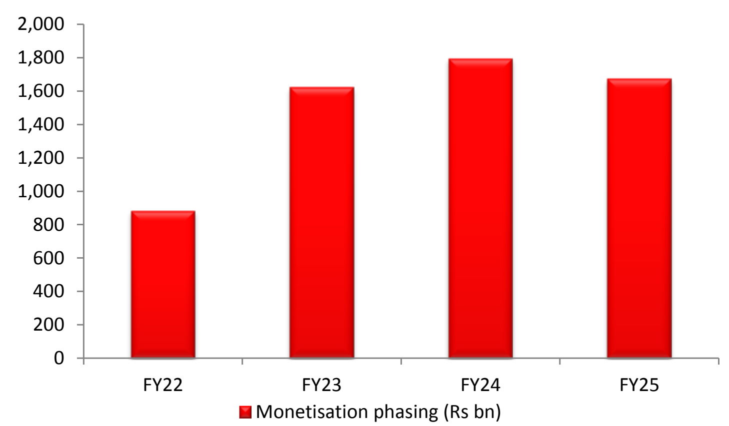
d) Enterprise value approach – considered for assets where information on the existing revenue stream is available or can be reasonably projected based on assumptions.

Exhibit 6: Roads, railways and Power account for 67% of proposed monetization



Source: Niti Aayog, Systematix Institutional Research

Exhibit 7: Annual phasing – FY23/24 loaded with the bulk of monetization pipeline



Source: Niti Aayog, Systematix Institutional Research

Roads: Rs 1.6tn of proposed monetization covers practically all potential assets and is 10x of past 3 years' cumulative monetization

While roads is the largest sector in the NMP (27% of overall plans and 47% of direct monetization plans), the monetization target of Rs 1.6tn from this sector seems aggressive.

The aggregate length of assets considered for monetization over FY22-25E aggregate to ~26,700kms. This is based on the length of all operational or to-be operational four-lane highways and above in the country. Highways that will become operational over the NMP period have also been considered as part of the monetizable asset base. To illustrate, as of Mar-20, the length of toll roads under the public-funded/annuity mode was ~16,387kms.

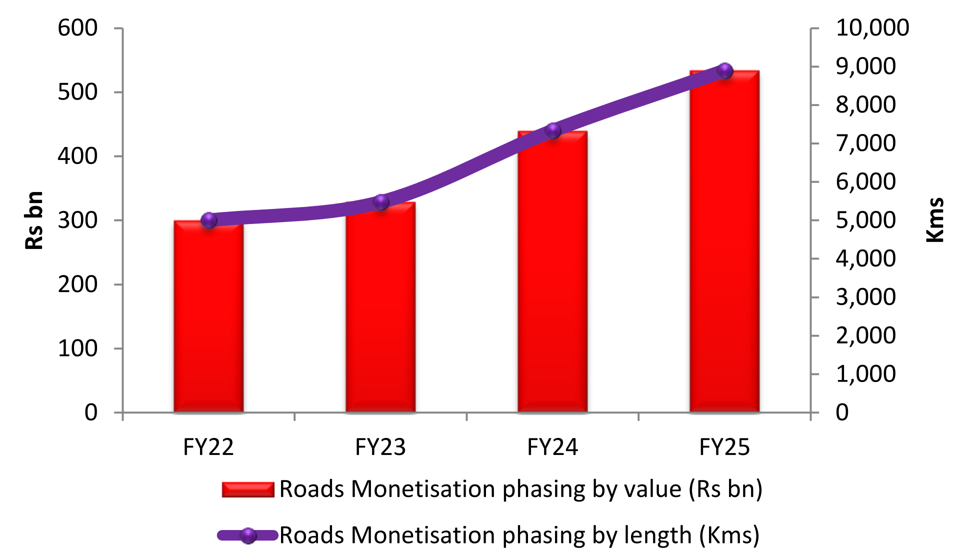
Exhibit 8: NMP effectively proposes to monetize all potential four-lane roads, thereby leaving no scope for future monetization (except for new additions post FY25E)

Potential Asset base (Kms)	136,155
of which, 2 lane Kms	66,716
of which, 4 lane Kms	31,067
<2 lanes	38,372
Asset length to be monetized	26,700
Monetizable length as % of total base excluding private BOT Toll	22%
Monetizable length as % of 4 lane base	**86%**
Potential Asset base excluding private BOT Toll (Kms)	121,155
Length under public-funded/ annuity mode	16,387
Monetizable length as % of existing 4 lane roads excluding private BOT	163%
Anticipated addition of monetizable roads over FY20-25	10,313
Anticipated addition of monetizable roads p.a. over FY20-25	2,063

Source: Niti Aayog, Systematix Institutional Research

The multiple (in Rs mn per km) used to estimate the indicative value is based on the average blended factor at Rs 60mn/km. The estimate has been arrived at based on 1) the recent TOT transactions, 2) asset mix to be monetized and 3) the scale of monetization.

Exhibit 9: Indicative value of Roads Monetization pipeline



Source: Niti Aayog, Systematix Institutional Research

As against Rs 675bn of road assets monetized till date by private companies as well as NHAI (**of which, NHAI is just Rs 170bn**), the proposal to monetize Rs 1.6tn of road assets is ~3x the total monetization so far and ~10x the NHAI monetization till date.

Exhibit 10: Roads monetized so far by NHAI (until FY21) is just 5.3% by length and 10.6% by value of the proposed monetization over FY22-25E

Bundle	Date	Length (Kms)	Value (Rs bn)	Rs mn/Km
TOT Bundle 1	Aug-18	682	97	142
TOT Bundle 2	Feb-19	586	Bid cancelled	
TOT Bundle 3	Nov-19	566	50	89
TOT Bundle 4	Sep-20	401	Bid cancelled	
TOT Bundle 5A-1	Jan-21	54	10	187
TOT Bundle 5A-2	Jan-21	106	13	118
Total so far		**1,408**	**170**	**120**
Proposed NHAI InviT	**Sep-21**	**586**	**50**	**85**

Source: Niti Aayog, Systematix Institutional Research

Exhibit 11: Total assets monetized via the InvIT route (in the past 4 years) so far adds up to Rs 1.3tn, of which road assets are Rs 505bn; against this, the proposed monetization by NMP is Rs 1.6tn over FY22-25E

InvIT	Sector	Public/ Private	Listing month	Assets under Management (Rs bn)
IRB InvIT Fund – IRB	Toll roads	Public	May-17	65
India Grid Trust – Sterlite Power	Transmission	Public	Jun-17	150
IndInfravit Trust – L&T IDPL	Roads	Private	Jun-18	105
India Infrastructure Trust – Brookfield	Gas pipeline	Private	Mar-19	145
Oriental Infra Trust – Oriental Structural Engineering	Toll roads	Private	Jun-19	110
IRB Infrastructure Trust	Toll roads	Private	Feb-20	225
Tower infrastructure Trust – Reliance & Brookfield	Telecom towers	Private	Sep-20	420
Digital Fibre Infrastructure Trust	Fibre Optic	Private	Oct-20	15
Powergrid InvIT	Power Transmission	Public	May-21	78
Total InvIT AUM in India				**1,313**
of which, Road based				505

Source: Niti Aayog, Systematix Institutional Research

Railways: Of the ~Rs 1.53tn of proposed assets for monetization, only ~Rs 0.4tn is direct monetization

Almost 50% of the railways monetization hinges upon station redevelopment through PPP, which hasn't taken off for almost half a decade now

The bulk of the monetization plans in Railways (including station redevelopment) is planned under the PPP route, even as the redevelopment of 400 stations proposed 5-6 years ago is yet to take off in a meaningful way (due to execution and clearance-related challenges).

Further, for assets such as Konkan Railway, there are multiple stakeholders already, including state governments. Hence, the existing shareholder interests need to be managed effectively before shaping the monetization transaction structure.

Tracks and overhead Electric wires (OHE) is expected to contribute ~Rs 187bn in monetization proceeds even though the existing track infrastructure is largely for exclusive and captive use of Indian Railway operations and at present, there is no concept of apportionment of a track access charge towards a specific use of tracks. A monetization mechanism will thus need to be structured, covering infrastructure access and usage agreement along with ring-fencing a track access charge based revenue regime.

For Private Passenger Trains, bidding for 150 trains is presently underway and the project is expected to be awarded in FY22 – any scale-up will be contingent upon successful award and experience from the current batch of PPP clusters.

Exhibit 12: Segment-wise annual phasing of the proposed railways assets monetization; railway station development plans are optimistic

Railway assets to be monetized (Rs bn)	FY22	FY23	FY24	FY25	Total
Railway station development (Nos)	170	293	176	124	**763**
Passenger train operations (PTO) (Nos)	-	70	72	74	**216**
Track – OHE InvIT (Kms)	-	187	-	-	**187**
Good Sheds (Nos)	-	16	21	19	**56**
Konkan Railway (Kms)	-	-	73	-	**73**
Hill Railways (Nos)	5	2	-	-	**6**
Dedicated Freight Corridor (Kms)	-	-	101	101	**202**
Railway Colonies (Nos)	4	5	7	8	**23**
Total	**178**	**572**	**449**	**326**	**1,525**

Source: Niti Aayog, Systematix Institutional Research, Note: Blue shaded row highlights assets earmarked for direct monetization, while the remaining are via PPP

As the following table depicts, monetization plans for the Railways segment consist of several small assets to be bunched together (or even individually) but hitherto lack a proper revenue-generating model. The IR has just begun with the concept of private passenger trains but without a proper regulatory mechanism as it currently operates as an operator, competitor as well as owner and regulator of the assets, thereby posing significant scale-up risks for the PPP model.

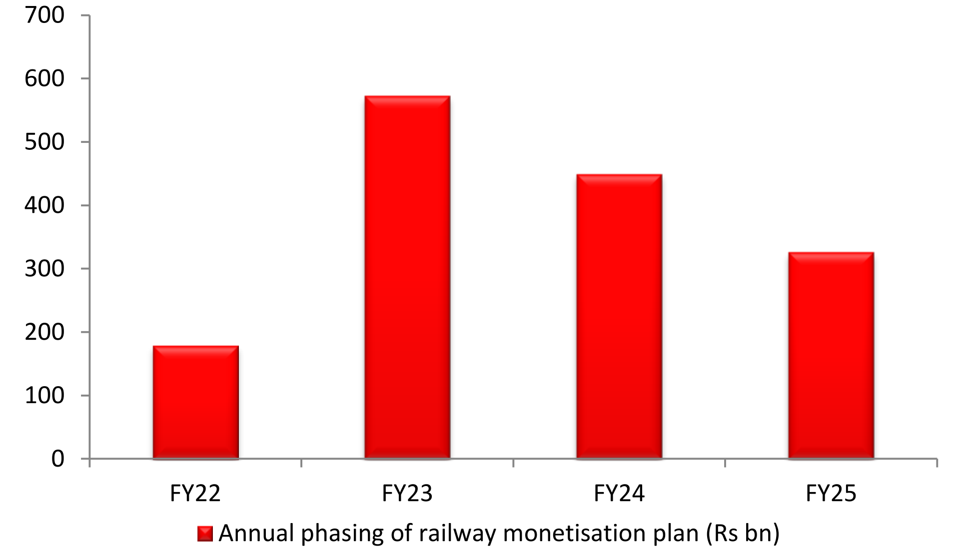
Goods sheds may be in for a strong demand given their strategic locations, however, successful execution of PPP in that segment will be strewn with challenges at a local level.

Exhibit 13: Railways assets planned to be monetized (in numbers)

Railway assets to be monetized	FY22	FY23	FY24	FY25	Total	Overall Existing assets	Proportion of overall existing assets
Railway station development (Nos)	40	120	120	120	400	7,325	5.5% of all stations
Passenger train operations (PTO) (Nos)	-	30	30	30	90	13,169	5% of total trains
Track – OHE InvIT (Kms)	-	1,400	-	-	1,400	67,956	2% of network
Good Sheds (Nos)	-	75	100	90	265	1,246	21% of total good sheds
Konkan Railway (Kms)	-	-	741	-	741		
Hill Railways (Nos)	2	2	-	-	4	5	
Dedicated Freight Corridor (Kms)	-	-	337	337	674	2,843	20% of total DFC network
Railway Stadiums (Nos)	3	5	5	2	15		
Railway Colonies (Nos)	-	-	-	-	-		

Source: Niti Aayog, Systematix Institutional Research

Exhibit 14: Annual phasing of proposed Railways assets monetization (Rs bn)



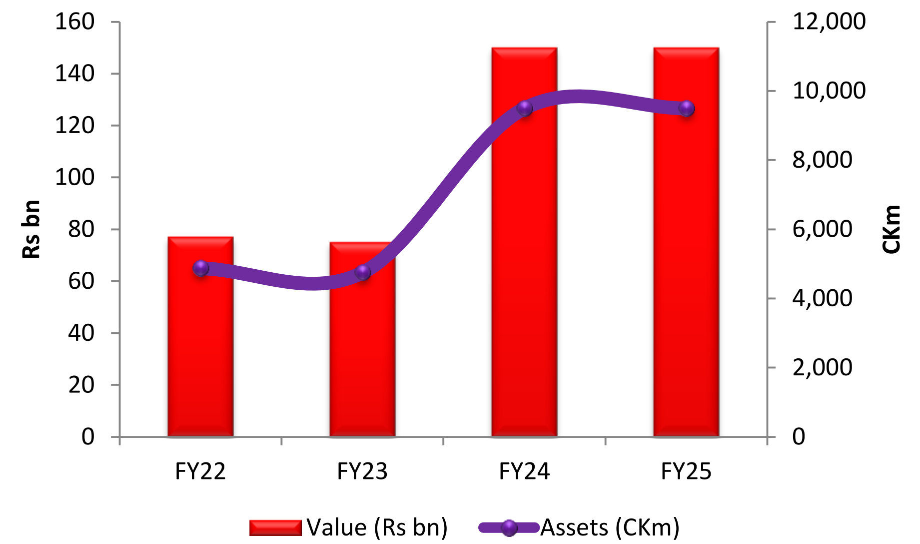
Source: Niti Aayog, Systematix Institutional Research

Power Transmission: Almost all of PGCIL's TBCB assets considered; successful recent InvIT paves way for future monetization

Almost all tariff-based competitive bidding (TBCB) assets of PGCIL are considered for monetization. Cost-plus or regulated tariff mechanism (RTM) projects that involve regulated returns on invested equity are housed in the parent entity's balance sheet and not under separate SPVs. The monetization for such assets may thus require a scheme of arrangement/demerger process which may pose associated transaction overheads such as the continuation of the tax holiday on assets, capital gains tax and stamp duty due to asset transfer.

Currently, almost 95% of PGCIL's assets are under the RTM model and therefore, the bulk of the assets considered for monetization are from the TBCB route.

Exhibit 15: Annual phasing of power transmission assets monetization plan (Rs bn) – includes recent InvIT transaction of Rs 77bn in FY22



Source: Niti Aayog, Systematix Institutional Research

Exhibit 16: Power Transmission assets planned to be monetized

Total transmission asset base (cKm)	413,407
Assets owned by PGCIL (cKm)	168,140
of which, 400kv and above (cKm)	156,370
of which, regulated assets (cKm)	159,733
Asset base proposed for monetization (cKm)	28,608
Indicative value (Rs bn)	**452**

Source: Niti Aayog, Systematix Institutional Research

Power Generation: Largely consists of the renewable portfolio with PSUs

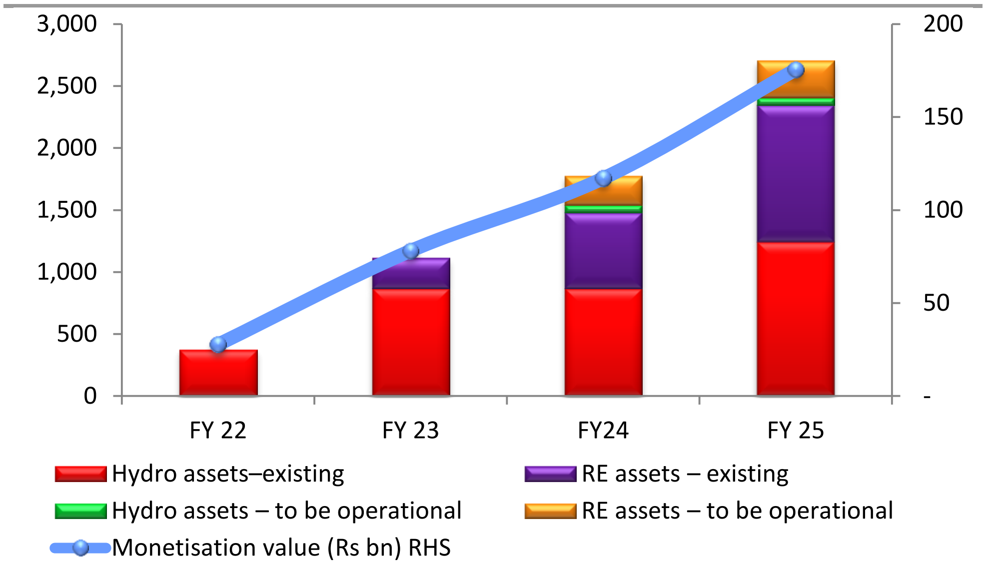
In the case of power generation assets, the monetization of coal and gas assets has not been considered keeping in mind strict ESG guidelines under which global investors operate and the uncertain long-term potential of the assets. Further, asset-level risks such as the dependence on high-cost LNG imports also limit private-sector participation in gas-based power plants.

Around 3.5 GW of hydro assets (which is 27% of the existing hydro generation asset capacity of central PSUs of about 12,864 MW) have been considered for monetization over FY22-25.

The existing solar capacity of the central sector agencies is ~2.5 GW, with an additional 1 GW capacity likely to be added over the next two years. Around 2.5 GW of solar capacity (i.e. ~100% of the existing solar capacity of NTPC and NLC) has been considered for monetization.

The challenge, in our view, will be to monetize these assets at book value given that some of these may be at a higher cost as newer assets can be built at cheaper rates. Additionally, there are also several competing assets available in the market.

Exhibit 17: Annual phasing of power transmission assets monetization plan (Rs bn) – includes recent InvIT transaction of Rs 77bn in FY22



Source: Niti Aayog, Systematix Institutional Research

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