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Meeting the Financing Challenge in the Energy Sector in India

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- Integrated Energy Policy , Government of India

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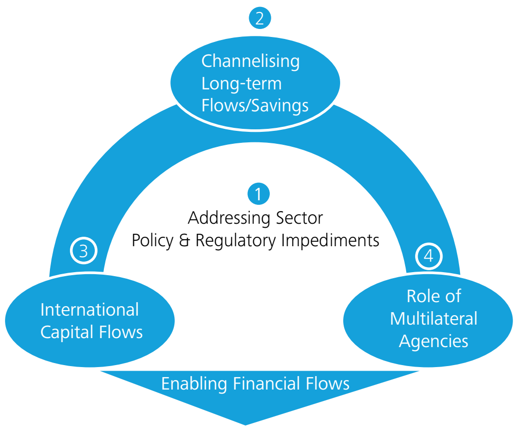
Figure 1: Enabling Financing Flows to Energy



India's infrastructure spending for the 12th five year plan period is estimated by the Planning Commission[1] to be of the order of Rs.56.3 trillion (roughly USD 1.05 trillion). This is effectively double the investments achieved over the eleventh five year plan period (2007-12) in Infrastructure sector. The investment by private sector in infrastructure needs to rise from 38% in the eleventh five year plan period to about 50% for the overall target of investments to be realized over the twelfth five year plan period. This gradual shift away from public financing of infrastructure[2] is in line with the Government's strategy to focus scarce public resources on social sectors of the economy.

The large investment requirements and the increasing role of the private sector both translate to several challenges in financing. A sub-group on Infrastructure funding requirements for the 12th Five Year Plan period warned that such investments cannot be taken for granted and financing could fall short by more than Rs.10 trillion under the current environment unless several policy and regulatory changes are implemented expeditiously to ensure that additional financial resources can be mobilized to bridge this gap on the one hand and to facilitate easier investment flows by from the private sector on the other hand into the various sectors of infrastructure, including investment in energy related sub-sectors.

Power, by far, accounts for the largest share of projected investments amongst all the infrastructure sectors, accounting for almost a quarter of the total infrastructure funding requirements over the 12th five year plan period. Oil and gas and coal sector investments, which along with electricity are part of the core sectors of Indian economy, account for a further approximately Rs.6 trillion in investments over the 12th plan period.

The following sections outline the challenges of mobilizing finances and channelizing investments of this magnitude along the four dimensions outlined in the diagram above and summarized as follows.

- At the core is the requirement to address sector-specific policy and regulatory impediments. These are the first set of issues outlined in the paper
- It is well-established that India's domestic savings rate is high and can finance much of the infrastructure financing needs but intermediation of these savings on a large enough scale needs a well-diversified and efficient financial system with diverse financial institutions, diversity in financial instruments and depth in the capital markets to support long-term funding requirements of infrastructure and core sectors of the economy. This forms the second set of issues discussed in the paper.
- The third section focuses on means of tapping international capital flows, including foreign direct investments in energy and tapping of external commercial borrowings.
- The fourth section outlines the crucial role of multilateral development banks such as the World Bank and Asian Development Bank in enhancing the investment climate in certain segments of energy through risk-intermediation, tapping into concessional sources of finance and building capacity of financial institutions and utilities.

1 Draft Twelfth Five Year Plan document, Planning Commission, Government of India
2 Private investment in Infrastructure formed 22% of all investments over the 10th Five Year Plan period and was 38% over the 11th Five Year Plan period.

Addressing Sector-specific Barriers

To mobilize the high levels of private capital for Power and other Energy sectors, it is essential to pursue reforms in several directions. While certain cross-cutting enabling frameworks need to be addressed comprehensively, such as with regards to land acquisition and environmental clearance, there are other sector-specific issue, which require a quick resolution for large-scale investments flows to be catalysed and the twelfth five year plan targets to be realised.

Some of these concerns commonly voiced by key stakeholders are outlined in this section for Power, Coal and Oil & Gas sectors.

Cross-cutting Concerns

Delays in Land Acquisition, Rehabilitation and Resettlement and obtaining Environment and Forest Clearances have proved to be the bugbear of several energy sector projects and are likely to be even more vexed in the coming days, unless well-coordinated actions are taken by the Central and State Governments to ensure genuine projects are moved forward.

Land Acquisition and Rehabilitation and Resettlement

Land acquisition (and R&R) is at present the single-largest roadblock for development of infrastructure, with several power and coal mining projects held up or delayed due to land related issues. The lack of a transparent framework for valuation of private land and administrative inefficiencies in planning and implementing rehabilitation packages in most parts of the country, leads to mistrust, which quickly gets exploited by vested interest groups leading to a cycle of disputes and litigations.

The Government of India has finalised the Land Acquisition and Rehabilitation and Resettlement (LARR) Bill to introduce a framework for land acquisitions and to provide for a transparent compensation and rehabilitation mechanism. It has also implemented the Scheduled Tribes and Other Traditional forest Dwellers (Recognition of Forest Rights) Act, 2006. The industry has pointed out that overall this may lead to a rise in the cost of projects but is seen as the right way forward, if it simplifies the acquisition process. A comparison of some of the LARR Bill 2011 with the Land Acquisition Act, 1894 is summarised in the table below.

Provision	Land Acquisition Act, 1894	LARR Bill, 2011
R&R	Land Acquisition Act, 1894 does not cover R&R. This is governed separately by the provisions of the National R&R policy, 2007.	Integrates Land Acquisition with R&R. R&R provisions apply to a private company that purchases more than 50 acres of land in urban areas or 100 acres in rural areas.
Definition of "Public Purpose"	Includes several uses such as infrastructure, development and housing projects.	Similar
Consent of project affected people	No requirement.	Consent of X % of displaced people required in case of acquisition for private companies and public-private partnerships. Is not applicable for projects of Public Sector Undertakings.
Social Impact Assessment	No such provision.	SIA to be undertaken in case of every acquisition
Compensation	Based on the market value, determined on the basis of current usage with an additional solatium of 30%.	Based on twice the Market Value in urban areas and four times the Market Value in rural areas.
Subsequent Transfer or Sale of Land	No provision.	Only with prior permission of the government; 20% of profits to be shared with original land owners.

Environment & Forest related clearances

A total of 245 developmental projects[3] received under the Environmental Impact Assessment (EIA) Notification, 2006 were pending as on 30 June 2011. They cover hydropower sector including irrigation, thermal power, mining, and building and construction projects and are pending for varying durations with the Ministry of Environment & Forests for environmental clearance.

Environmental clearance often takes the longest time and causes maximum delays to projects. Cumbersome procedures for environmental clearance and public hearing, submission of incomplete information, poor quality of EIA/EMP, disproportionate details required with applications, delays in the meetings of the Expert Committees and site visit, etc., are the major reasons behind delays.

MOEF has taken several measures to reduce delays in the grant of environmental, forest and coastal zone regulation clearances. The investment limit as well as the list of projects requiring environmental clearances has been simplified over the years. Besides taking up various activities in parallel, MOEF should also set up reengineered systems to examine the document requirement at the stage of receipt of application.

Although statutory clearances are to be granted by relevant agencies, coordination committees, with representation of all concerned including States, should be set up for expediting decisions and complying with information related to environment and forest clearances. Diversion of forestland for pre-construction activities may be permitted after the non-forest land identified for compensatory afforestation has been transferred to the forest department and funds for raising compensatory afforestation deposited.

Bidding authorities also have a tendency for bidding out projects under administrative pressures without requisite environmental and forest related clearances. This is a practice best avoided through strict guidelines, which should mandate obtaining all such clearances before projects are bid out.

Re-engineering of regulatory processes prescribed under various legislations, regulations, etc., is necessary to simplify the procedures for grant of approvals, reduce delays & ground level hassles and simplify the regulation of projects during their operational phase. As many approvals as are possible should be placed on self-regulation, i.e., under automatic approval upon filing of necessary documents.

3 http://pib.nic.in/newsite/erelease.aspx?relid=753322

A Group of Ministers was constituted by the Government of India on 3rd February 2011 to consider all issues relating to reconciliation of environmental concerns emanating from various developmental activities including those relating to infrastructure and mining. To have a focussed discussion on issues, the GoM in turn constituted a committee chaired by Mr.B.K.Chaturvedi, Member (Energy), Planning Commission to consider the above issues and come up with recommendations.

The Committee pointed out inter alia the following critical issues and recommended solutions, which are pending consideration of the Central Government.

- Forest Clearance norms are in accordance with legal provisions but procedures followed have often led to delays of 3 to 6 years, which is unsustainable. Major reasons for delay have been identification of compensatory afforestation, land acquisition, R&R and delays at processing proposals at the State level. The Committee recommended the creation of Nodal Agency at the State level for quick processing of forest clearance cases, land acquisition and R&R issues.
- The policy of Go/No Go areas for coal block clearances has no legal basis. The Committee felt there is merit in classifying areas based on their floral and faunal parameters and only those blocks with dense forests and other ecological and environmental considerations of serious nature should be kept out of mining considerations.
- The Committee recommended relaxing Forest Rights Act provisions for transmission lines, which require only right of way. Provisions for acquisition of land for substations should however continue.
- The Committee recommended that up to 25% expansion in existing coal mines be permitted without any public hearing.
- The Committee also made several recommendations to ensure better quality forests are regenerated in a time-bound manner after mining operations get over.

Power Sector

The 12th five year plan targets for generation capacity addition have been set at approximately 88.5 GW for conventional power and 30 GW from renewables, totalling 118 GW.

After growing at a staggering annual growth rate of approximately 50% over the last 3-4 years, financing to the power sector registered a sharp decline in the financial year ending 31 March 2012 to 9%. In particular, three specific concerns were the cause of significant concerns on the part of investors and financiers. These are as follows.

- **Fuel side concerns**: It became increasingly apparent in 2011 and 2012 that Coal India Limited had issued Letter of Allocation (LoAs) for capacities translating to over 700 million tonnes (MT) of annual output, while its current production is around 450 MT. The Working Group of Coal for the 12th Five Year Plan estimates a best case production scenario of 615 MT of coal in the optimistic scenario by the terminal year (FY2016-17). With about 75 GW of plants dependent on linkage coal under various stages of development, and only about 35 GW of this capacity possible to be supported by this level of production, large proportion of power plants could be stranded for want of fuel.

  With 50 per cent of the new capacity being created in the private sector fuel supply agreements have to be legally binding with credible penalties to reassure bankers and other financiers financing the establishment of capacity. CIL has only recently started signing acceptable FSAs with developers whose plants are likely to be commissioned over the 12th five year plan period.
- **Health of distribution utilities**: The combined financial losses of the distribution utilities are expected to be of the order of Rs.75,000 Crores in FY11-12. However a more alarming dimension of the accumulated losses on this occasion is the fact that bulk of it is financed through short-term liabilities from the financial institutions, including Public Sector Banks. This led to the Central Government devising a debt restructuring scheme in October 2012, which is summarised in the box overleaf. This debt restructuring proposal would only be meaningful if it is not treated as yet another bail-out and adhered to by both the State Government and the Discoms

- **Concerns with the Competitive Bidding Framework:** Emergent fuel supply conditions have necessitated a relook at the fuel supply related obligations and risks under the existing Standard Bidding Documents for Case 1 and Case 2 projects. In particular, the following changes have created uncovered risks for the bidders in post-bid environment with little flexibility to re-negotiate contracts.
  - ***Domestic Captive Coal Mine Based Projects*** – coal reserve estimations were inadequate in most cases bid out with the result that reserves of coal mines allocated are substantially at variance with the requirements of the power project leading to allegations of misuse and profiteering.
  - ***Linkage based projects*** – actual coal supply has varied significantly from assumptions at the bidding stage with assured coal quantity at only 50%-60% of installed capacity, balance being procured from other sources. Wide post-bid variations in fuel supply conditions for a Power Project makes a firm energy price bid impractical in current times
  - ***Imported coal based projects*** – legal/regulatory changes in the countries from where coal is imported not recognised

The Ministry of Power is currently reviewing the Standard Bidding Documents and is likely to propose substantive changes to improve the risk-sharing arrangements in the power purchase agreements.

Scheme for Financial Restructuring of Distribution Companies

1. (a) 50 per cent of the outstanding short term liabilities (STL) as of 31 March 2012 to be taken over by State Governments by way of bonds to participating lenders shall be first converted into bonds to be issued by Discoms duly backed by the State Government guarantee. The State Government will take over the liability during the next two to five years by issuance of special securities in favor of participating lenders in a phased manner keeping in view the fiscal space available till the entire loan (50 per cent of STL) is taken over by the State Government.

   (b) The State Government would provide full support to the Discoms for repayment of interest and principal.

2. Balance 50 per cent of the STL will be rescheduled by lenders and serviced by the Discoms with a moratorium of three years on principal and would be backed by a State Government guarantee. The best possible terms are to be extended for the rescheduled loans to improve viability of Discoms' operations.

3. The restructuring/reschedulement of loan is to be accompanied by concrete and measurable action by the Discoms/States to improve the operational performance of the distribution utilities. In order to make the effort meaningful, the State Government/ Discoms have to commit themselves and carry out certain mandatory and recommendatory conditions contained in part (c) of the Scheme including mandatory tariff filings, private participation in distribution, etc.

4. To set up a Transitional Finance Mechanism in support of the restructuring effort of the State Government for their distribution utilities having the following features:

   (a) For providing liquidity support by way of a grant equal to the value of the additional energy saved by way of accelerated AT&C loss reduction beyond the loss trajectory specified under Restructured Accelerated Power Development and Reform Programme

   (b) The eligibility of grant would arise only if the gap between ARR and ACS for the year has been reduced by at least 25 % during the year judged against the benchmark for the year 2010–11.

   (c) This scheme would be available only for three years beginning 2012–13.

Incentive by way of capital reimbursement support for 25 per cent of principal repayment by the State Government on the liability taken over by the State Government under the scheme. The amount to be reimbursed only in case the State Government takes over the entire 50 per cent of the short-term liabilities corresponding to the accumulated losses outstanding as on 31 March 2012. Detailed guidelines for the Transitional Finance Mechanism as outlined above would be worked out by the Ministry of Power in consultation with Ministry of Finance.

Renewable Energy Sector

The 12th Five Year Plan has proposed a capacity addition of 30,000 MW from renewable energy in the 12th Five year Plan. It can be expected that the investment requirement for the renewable energy (RE) sector in the 12th Five Year Plan can be well above the Rs 1.37 trillion.

Given the huge financing requirement for achieving the targets for the 12th Five year plan, the challenge for the policy makers and key stakeholders shall be to overcome the financing issues faced by the renewable energy sector and implement measures for tapping funding for the sector. Following are some of the key issues that require to be addressed for financing to improve for the renewable segment.

- RE projects have to compete with conventional power projects when it comes to securing finance from Scheduled Commercial Banks. With smaller investment sizes, SCBs have an obvious propensity to go for larger ticket sizes to optimize on transaction costs and efforts. Renewable Energy should be treated as a sector distinct from conventional power in the determination of sectoral limits of exposure for Scheduled Commercial Banks.
- Renewable projects are capital-intensive in nature with relatively lower O&M Costs (except for Biomass based projects). The risks inherent in renewable projects are also high as the sector is in its infancy and technology and resource availability pose additional risks compared with conventional power. Certain segments of RE (e.g., solar thermal, offshore wind, etc.) would benefit from higher provision of public financing and require government to play an active role in risk mitigation to ensure flow of financing and to keep costs of financing within reach for renewable investors.
- Awareness amongst financial institutions is also insufficient about the sector-specific risks & opportunities. It is preventing them from adapting their standard corporate or project finance products to renewable requirements and conditions. For example, insurance products for mitigation of loss on generation are not available for renewable projects.
- Most renewable technologies yield tariffs higher than conventional power projects and hence find less favour with already cash-strapped distribution utilities. In the absence of stringent enforcement of renewable portfolio obligations, renewable projects in several states continue to face significant payment risks.
- Bankability of solar power projects is emerging to be a major concern with the aggressive bidding witnessed in solar projects under JNNSM. Most projects so far have been financed on a non-recourse basis with concessional EXIM or donor finance. Almost none of these projects have hedging cover although several have accessed foreign capital. For India to realize its dream of 20 GW of solar capacity by 2022, it will have to broaden the participation of Commercial Banks in RE financing on a non-recourse basis. This calls for a more structured role for the Central Government to create appropriate risk-intermediation measures for commercial capital to flow through to the sector.
- Renewable Energy Certificates (REC) provides a market-linked alternative source of revenue for projects in RE segment. Uncertainty in long term REC pricing enhances future cash flow risk for the projects. For example, under current REC framework, solar REC prices can be expected to reduce drastically as REC prices reflect the gap between the average power purchase cost and Feed in tariff.
- Availability of funding is a major constrain for state utilities to enhance the evacuation infrastructure specifically for renewable energy projects. Most of the states do not have a dedicated renewable transmission plan. The Green Energy Corridor scheme covering intra/inter-state transmission system strengthening, facilities like flexible generation, establishment of Renewable Energy Management Centres, etc. to address intermittency and variability aspects as well as grid integration issues of large scale RE generation, was launched by the Government of India in September 2012. It needs to be implemented on a priority to build a reliable transmission infrastructure for RE.

Oil and Gas Sector

The New Exploration Licensing Policy (NELP) of the Central government provides freedom to the operator to price gas produced from the NELP blocks at a market-determined price, subject to Government approving such pricing formula. Several questions have however been raised with respect to interpretation of various clauses of the existing contracts The entire structure of New Exploration Licensing Policy (NELP) also came up for review after the Comptroller and Auditor General's observation on existing Production Sharing Contracts (PSCs) entered into by the Central Government. A panel headed by C.Rangarajan, Chairman of the Prime Minister's Economic Advisory Council was constituted to examine the existing PSCs, including in respect of the current profit-sharing mechanism and recommend necessary modifications for the future PSCs. The panel is reported to have submitted its report on 20 December 2012, contents of which are not yet public.

A stable and attractive policy regime is required to attract investments into the technology-intensive and high-risk segments of exploration, which depends on large global players, who expect terms of business comparable with those offered elsewhere in the world. Primary amongst these is clarity on the price producers will receive, investment multiples, stability in the tax regime and clarity on marketing rights. A quick decision on the terms of the PSC and clarity on honouring the existing PSCs would help revive the next round of NELP, which have been kept on hold.

Investors in both exploration and refining are looking forward to a more stable pricing regime in oil and gas. With the continuation of high oil and gas prices in the world market and our rising dependence on imports, there is an urgent need to align domestic oil and gas prices to market prices for sound development of the sector and to send the right signals to consumers and producers.

Besides the NELP related contractual clarity ahead of the Xth round of NELP bidding, there are several other policy and regulatory issues which need to be urgently addressed over the 12th five year plan period. These include the following.

- The Integrated Energy Policy laid out the need for independent regulation in the upstream segment of the industry. At the moment, the Government is involved in contract administration, monitoring and review of investments and pricing decisions. An independent regulator must take up these roles, as recommended under the IEP.
- There is a need to rationalise tax structures in sales of petroleum products considering its thermal value for its use in transport, industry, power, households and other sectors.
- Devise a policy for exploration and use of non-conventional fuels such as shale gas, coal bed methane, etc.
- Devise a policy for development and production of biofuels by the oil sector exploration, production and marketing companies at commercial level. An integrated policy facilitating development of bio-fuels has to be evolved by both the States and the Central Government.
- In order to attract global E&P players, it is necessary to provide seismic and other technical data of the acreages on offer. The entire unlicensed sedimentary area should be surveyed and a National Data Repository be readied to facilitate all-year round acreage award. The Government should move towards introducing Open Acreage Licensing Policy so that the target of full exploration coverage by the end of the Plan period can be achieved.
- Accelerate deployment of city gas distribution in the 300 identified cities in the country.
- The 12th Five Year Plan document outlines the need for operationalizing a roadmap to move petroleum prices received by marketing companies aligned to global prices. It acknowledges that it may not be possible immediately but needs to be achieved by the end of the 12th five year plan period for diesel and petrol. Subsidies are also envisaged to be phased out on domestic gas and kerosene, with due consideration of converting subsidies to equivalent cash transfers. Kerosene supplies should also be reduced considering improved electricity access under RGGVY and provision of LPG in rural areas.

Coal Sector

Substantial investments are required across the board in coal mining in India in order to address the substantial constraints the country faces with regards to availability of domestic coal. The 12th Five Year Plan document envisages Coal India Limited (CIL) to step up production by 8% per annum[4] to reach a terminal year production of 650 million tonnes. This requires substantial investments by CIL and an expeditious resolution of environment and forest clearances, land acquisition and R&R issues, which plague CIL at various sites.
The Central Government is taking a series of initiatives to address coal production issues. An important part of this is expediting the allocation of captive coal blocks to the private sector under a competitive bidding framework, which has been finalised and should be made operational during 2012-13.

The Working Group on Coal formed by the Planning Commission identified several critical policy areas, which need to be addressed on a priority, given the importance of coal to India's energy security. These are as follows.

- Address the institutionalization of the Coal Regulator on a priority.
- CMPDIL to be made an independent organisation to develop and maintain the repository of all geological information in the country on the lines of CEA for power sector or the DGH for petroleum and natural gas sector.
- Expedite clearances through a mechanism of a Coordination Committee at the Central and State level involving senior representation from the concerned departments. Uniform R&R and land acquisition policies through central legislation.
- Allocation of coal blocks to private sector through a transparent competitive bidding mechanism in the first year of the 12th Five Year Plan period. Devise and implement an institutional framework for pricing of excess coal from such blocks. Create an institutional mechanism for planning and development of common infrastructural facilities with participation of coal mining companies and the respective State Governments.
- Develop a comprehensive plan for increasing the share of production from underground mines and suitable policy initiatives such as cost plus pricing, fiscal incentives and so on need to be introduced to improve potential returns currently available from underground mines.
- Take steps to improve productivity of CIL including the need for hiving off its subsidiaries into separate companies.

4 Actual annual growth rate achieved over the Eleventh Five Year Plan period was 4.6%.

Channelizing Long-term Flows

In India, nearly 85% of total banking sector's exposure to infrastructure is limited to Public Sector Banks (PSBs). This is a matter of concern as Scheduled Commercial Banks are likely to face asset-liability management issues with most of their assets raised through short-tenor current and savings accounts, while infrastructure sectors require long-tenor financing.

This underlines the need to mobilize funds from sources such as pension and insurance funds, channelizing household savings and developing a vibrant bonds market with sufficient depth. It will require diversity in financial intermediation, some of which have been implemented in recent times such as the provision of Infrastructure Finance Companies (IFCs) and Infrastructure Debt Funds (IDFs) with specific regulatory dispensations for raising and disbursing funds.

Role of Infrastructure Debt Funds (IDF)

The Union Finance Minister in his Budget Speech of 2011-12 announced the setting up of Infrastructure Debt Funds for flow of long-term debt fund to infrastructure. IDFs would raise low-cost, long-term resources for re-financing infrastructure projects that are past the construction stage, which its associated risks. Through a package of credit enhancement measures, it is proposed to channelize these debt funds to infrastructure projects that are backed by a 'buy-out' guarantee from the government. This would enable the project sponsors to refinance their debt while sharing the gains with the government/ users. It would also release a significant proportion of the scarce lending space of the banks, thus enabling them to lend to the robust pipeline of forthcoming projects

IDFs could either be in the form of Mutual Funds or Non-Banking Financial Companies (NBFCs) and thus would be regulated by SEBI and RBI respectively. A comparison of both modes of IDF is provided in the table below.

Investors in the IDFs are envisaged to primarily be domestic and off-shore institutional investors (insurance and pension funds). Banks and Financial Institutions would only be allowed to invest as sponsors of an IDF. Credit enhancement in Public Private Partnership (PPP) projects would be available for IDFs issuing bonds. IDFs would refinance PPP projects, involving lower risk level and a higher credit rating, enabling the flow of funds at a competitive cost.

IDFs offer several advantages for investors including the following.

- Withholding tax on interest payments on the borrowings by the IDFs would be reduced from 20% to 5 %, thus benefitting foreign investors.
- Income of the IDFs shall be exempt from income tax.

So far, the following IDFs have been announced although there has been limited demand for IDF paper and it has been a challenge to raise resources.

Criteria	IDF as a Trust/ MF	IDF as a Company/ NBFC
Regulatory body	• Would be regulated by SEBI and all Mutual Fund/AMC regulations will be applicable	• Would be regulated by RBI
Sponsorship	• Any domestic entity with sufficient experience in infrastructure financing could be the sponsor • Firm commitment from the strategic investors for contribution of an amount of at least Rs. 25 crores before the allotment of units of the scheme are marketed to other potential investors	• Could be set up by one or more sponsors, including NBFCs, IFCs or banks • Sponsor IFCs would be allowed to contribute a maximum of 49% to the equity with a minimum equity holding of 30% • Minimum NOF of Rs. 300 crores and CRAR of 15%, with net NPAs less than 3% of net advances
Credit Risk	• Credit risks will be borne by the investors and not by the IDF	• Credit risks associated will be borne by the IDF
Investments	• Units would be listed in a recognized stock exchange and trade-able among equivalent (domestic vs. foreign) investors • Would have to invest minimum 90% of its assets in the debt securities of infrastructure companies or SPVs • Returns on assets will pass to the investors directly, less the management fee • Can be launched either as close-ended scheme maturing more than five years or an Interval scheme with lock-in period of five years	• Would invest in debt securities of only PPP projects which have a buy-out guarantee and have completed at least one year of commercial operation • Refinance by IDF would be up to 85% of the total debt covered by the concession agreement • Would be allowed liberal prescription of risk-weightage (50% instead of 100%)
Investors	• Would have minimum 5 investors, each holding not more than 50% of net assets of the scheme • Minimum investment would be Rupees One Crore with Rs. 10 lakh as minimum size of the unit	• Potential investors would include off-shore institutional investors, off-shore High Net-worth Individuals (HNIs), NRIs and domestic institutional investors

Lead Sponsor	Partners	Announced	Fund size to be raised	Status of approval	Type of Alliance
LIC & SREI	LIC & SREI	Dec 2011	NA	SREI received in-principal approval from SEBI LIC is awaiting SEBI's approval for debt fund	Mutual fund
ICICI	ICICI Bank (31%), Bank of Baroda (30%), Citi Financial (29%) LIC (10%)	March 2012	Rs 10,000 Crore	Approval received from RBI in March 2012	NBFC
IDFC	NA	March 2012	Rs. 5,000 Crore	Applied to SEBI in March 2012	Mutual fund
IIFCL	IIFCL (26%), LIC (10%), IDBI (14%) Asian Development Bank, HSBC and Barclays (will contribute the remaining 50% in the fund)	April 2012	Rs. 5,000 Crore	Received provisional approval from SEBI in March, final approval expected shortly	Mutual fund

Pension and Insurance Funds

Globally, Pension and Insurance funds are the leading source of long-term finance for infrastructure. In India however, owing to the under-developed secondary debt market, pension and insurance funds have had relatively fewer avenues to invest in infrastructure. These funds usually stay away from Greenfield projects, which are considered risky. If risk and liquidity related factors are suitably addressed, avenues for Pension and Insurance funds to finance infrastructure increases. Although investment regulations for such funds in India have been liberalized over time and credit enhancement schemes are being launched to suitably address risk issues in lending to infrastructure, their contribution to infrastructure financing needs to go up substantially for India to realise its twelfth five infrastructure investment targets.

Need to relook Investment Guidelines for Pension Funds in India

Under the investment guidelines finalized for the New Pension Scheme[5] (NPS), pension fund managers will need to manage three separate schemes, each investing in a different asset classes. The three asset classes are as outlined below. The subscriber will have the option to actively decide as to how the NPS pension wealth is to be invested in three asset classes.

- Asset class E (equity market instruments): The investment by an NPS participant in this asset class would be subject to a cap of 50%. This asset class will be invested in index funds that replicate the portfolio of either BSE Sensitive index or NSE Nifty 50 index. Index Fund Schemes invest in securities in the same weightage comprising of an index
- Asset class G (Government Securities) – This asset class will be invested in central government and state government bonds
- Asset class C (credit risk bearing fixed income instruments) – This asset class contains bonds issued by any entity other than Central and State Government. This asset class will be invested in liquid funds of mutual funds, fixed deposits of SCBs, debt securities with maturity of not less than 3 years tenure issued by corporate bodies including SCBs and public financial institutions (provided that at least 75% of the investment in this category is made in instruments having an investment grade rating from at least one credit rating agency), credit rated public financial institutions/ PSU bonds, and credit rated municipal bonds/ infrastructure bonds
- Cash held in the schemes will be for trading and cash flow management purposes only. Cash will not exceed 10% of the assets of the scheme portfolios, except when 'cash' or specific cash instruments are included in the investment universe

The sectoral cap of 75% of the investment having an investment grade rating under Asset class C scheme, has led to Pension Funds missing out on the opportunity to invest in infrastructure projects, as not many projects / companies in infrastructure enjoy such status in India. It calls for credit enhancement to ensure projects which have moved beyond the construction phase and hence of improved risk profile are able to tap into pension and insurance funds.

Need to relook Investment Guidelines for Insurance Funds in India

As on 31st March, 2011, accumulated total investments of the insurance sector stood at Rs.15.12 trillion, registering an Asset Under Management (AUM) increase by 18.28% over financial year ending 31 March 2010. Life insurers continue to contribute a major share of total investments held by the industry with a share of 95% (Rs.14.30 trillion). Although Life Insurance companies are required to invest 15% of their Life Fund in infrastructure and housing, the share of infrastructure in the Life Funds have come down to 10% in FY11 vis-à-vis 15% in FY07. This point to lack of investment opportunities and a need for relook at the regulations to enable financing flows to infrastructure.

As per current IRDA investment guidelines, every insurer shall limit his investments based on the following exposure norms.

- Investments permitted in an infrastructure SPV floated by a Public Sector Enterprise (PSE) subject to the condition that the parent company (PSE) meets the rating criteria.
- Stipulation that 75% of investments in debt, (excluding investments in Government Securities/ Other Approved Securities) should be in AAA rated instruments. This may need to be relooked as private companies even with credit enhancement may not attain such ratings.
- The current IRDA (Investment) Regulations and clarifications issued thereunder , provide for debt/loan investment in Infrastructure companies to the extent of 25 per cent of the project equity/capital employed which in real terms works out to only 5 to 8.75

5 NPS is a defined contribution based pension scheme launched by the Government of India in 2004. Pension schemes in India have traditionally been structured as defined benefits schemes and the launch to NPS was part of pension reforms initiated by the Central Government to transit from defined benefits to defined contribution based pension schemes.

per cent of the total project cost depending on the equity brought in by the promoters. In order to have a higher investment by the Life Insurance companies the exposure can be considered for revision to "20 per cent of the total project" cost as being done by India Infrastructure Finance Company Limited (IIFCL).

Recent announcement of proposal to increase the FDI cap in Pension Funds as well as Insurance companies to 49% (from 26%) is expected to attract foreign entities into this untapped segment in India.

Re-inventing India Infrastructure Finance Company Limited (IIFCL) for a Larger Role

The Interim Report of the High Level Committee on Financing Infrastructure outlined the need to transform the role currently played by IIFCL to address specific challenges faced by financial institutions and investors in mobilizing funds for infrastructure. Backed with sovereign guarantees and specific regulatory exemptions, IIFCL, it observed, should not duplicate Commercial Banks in lending directly to projects but should instead leverage its capital to provide guarantees and credit enhancement mechanisms for infrastructure borrowers and to extend subordinated debt, such as to catalyse larger inflows of additional funding for infrastructure projects.

Credit Enhancement Scheme for Infrastructure Companies & Deepening the Bond Market

Bond finance is regarded as an important source of financing for infrastructure globally, as it offers long-tenor, fixed rate sources of financing, not available with Commercial Banks. However, the bond market in India has remained underdeveloped even though equity markets are well-developed in India. As a result, neither household savings nor long-term insurance and pension funds are being channelized effectively into infrastructure financing. To promote off-shore inflows of long-term debt, Foreign Institutional Investors (FIIs) are currently permitted to invest in bonds of infrastructure companies. However, FII investments in infrastructure too are quite low for want of good investment grade opportunities in the bond market.

Most Infrastructure Companies and Special Purpose Vehicles get no better than a BB rating for debt instruments. This prevents them from tapping the bond markets as it results in higher cost and lower receptivity for such bond issues.

IIFCL has recently launched a scheme in association with the Asian Development Bank to provide partial guarantee on bond issues of infrastructure project developers so that their bonds reach a minimum credit rating of AA, enabling long-term investors including insurance and pension funds to participate in such issues. IIFCL will undertake credit enhancement up to 40% of the total project cost and provide unconditional and irrevocable guarantee for up to 50% of the bond issuance. This scheme recommended by the High Level Committee on Infrastructure, was rolled out in the last quarter of 2012.

Credit enhancement should lead to deepening of the bond market over time, with the availability of investment grade paper to satisfy the demands of pension and insurance funds, household investors and FIIs.

Tapping Household Savings for Infrastructure

Indian household savings account for around Rs. 20 trillion annually. This savings is largely deployed in financial & physical assets like bank deposits (1-3 year maturity), land and gold.

Chapter IV A of the Income Tax Act, 1961, provides a unique way of mobilizing savings from retail investors but caps overall limit for tax savings at Rs. 1 lakh. This category of investment linked savings includes insurance, pension, housing and specified cumulative term deposits. A limit of Rs 1 Lakh is out-dated and not in step with rise in household incomes.

An enhancement in this limit should be considered or a percentage linked limit to basic wages / salary income could be considered for permissible investments under this category. Further, a sub-categorization of investments into long-term and other instruments would further enhance flows into infrastructure.

From FY2012-13 onwards, benefits under Section 80CCF for retail investors in infrastructure bonds has been done away with and interest income on Infrastructure Bonds have instead been made tax free. Tax incentives on investments in infrastructure bonds should be reconsidered as it was effective in channelizing retail investments into infrastructure financing.

International Capital Flows

Tapping overseas markets for infrastructure projects has often been utilised in India, especially when the project involves imports of some kind. External Commercial Borrowings could be from international banks, multilateral / bilateral financial institutions, international capital markets, export credit agencies or suppliers of equipment and foreign collaborators.

The Government of India and the Reserve Bank of India have focussed on reforms aimed at increasing foreign capital inflows into infrastructure.

Current ECB provisions and concerns can be summarised as in the table.

Particulars	Details
Eligibility	Corporates and Infrastructure Finance Companies are eligible to raise ECBs
Recognized lenders	International Banks, Multilateral Financial Institutions, International capital markets, export credit agencies, suppliers of equipment, foreign collaborators, foreign equity holders
All in cost ceiling	Three years and up to 5 years: 3.5% over 6 months LIBOR More than 5 years: 5% over 6 months LIBOR
End use: permitted	Import of capital goods, new projects, infrastructure sector
End use: not permitted	On-lending, acquiring a company, repayment of existing rupee loan (rupee debt swap now permitted in specific cases)
Key Concerns	1. Foreign Equity holders are not considered as recognized lender under the automatic route unless they hold 25% directly in the borrower company 2. Rupee Debt swap is not permitted unless the borrower is foreign exchange earner in the last three years. (this is as per the June 2012 circular) 3. On-lending is not permitted and acquisition of companies is not permitted. 4. Security (specifically charge on immovable assets and financial securities)) is a cumbersome process even where the sector may fall in sector which is open to FDI. 5. There is a need to relax the all-in-price ceiling for ECBs for infrastructure projects with average maturity exceeding 7 years. The interest rate ceilings set by RBI on ECBs put constraints in availing foreign currency loans for domestic infrastructure projects. Presently the all-in ceiling cap is 500 basis points. At least this cap may be removed for companies with good track record. 6. Relaxation of the ECB ceiling of USD 500 Million per annum per company for automatic route will help make ECB stable source of financing and ensure increased ECB funding. This may be increased to $1 billion for Infrastructure financing

Multilateral financial institutions (MFIs) are much more than mere sources of finance and bring substantial market, knowledge and strategic intermediation to address specific needs of the economy. The role of MFIs is particularly important in segments with high economic and social returns and environmental sustainability. These are investments that, by supporting equitable growth in open market systems, crowd in productive private investments. In addition, MFIs have a critical role to play in addressing structural risks in both the financial and energy markets. Besides providing support during times of market and economic crisis, they also have a critical role in utilising lending as a vehicle for policy change and promoting shared international goals. Technical Assistance programmes bundled with lending also help to support objectives of poverty reduction, human development, environment protection, financial accountability and standards of public procurement that curtail corruption and promote competition.

In the Indian context and with regards to the energy sector, while the MFIs have played an effective role in direct lending to investment projects greater emphasis is deemed necessary in supporting policy and structural reforms to crowd in private sector investments over the long run. Certain areas where MFI funds could be leveraged better in the Energy sector are as follows.

- Mobilize concessional resources, e.g., from Climate Technology Fund sources for transformational financing in Renewable Energy and Energy Efficiency.
- Utilize Guarantees for enhancing credit e.g. participation in credit enhancement scheme of IIFCL, PCG for Solar Lending, etc.
- Maximising market mechanisms, e.g., disintermediation and creation of products for the secondary market.
- Capacity Building of institutions and utilities across the energy ecosystem including providing policy advice, research and analysis, and technical assistance on a case to case basis.

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