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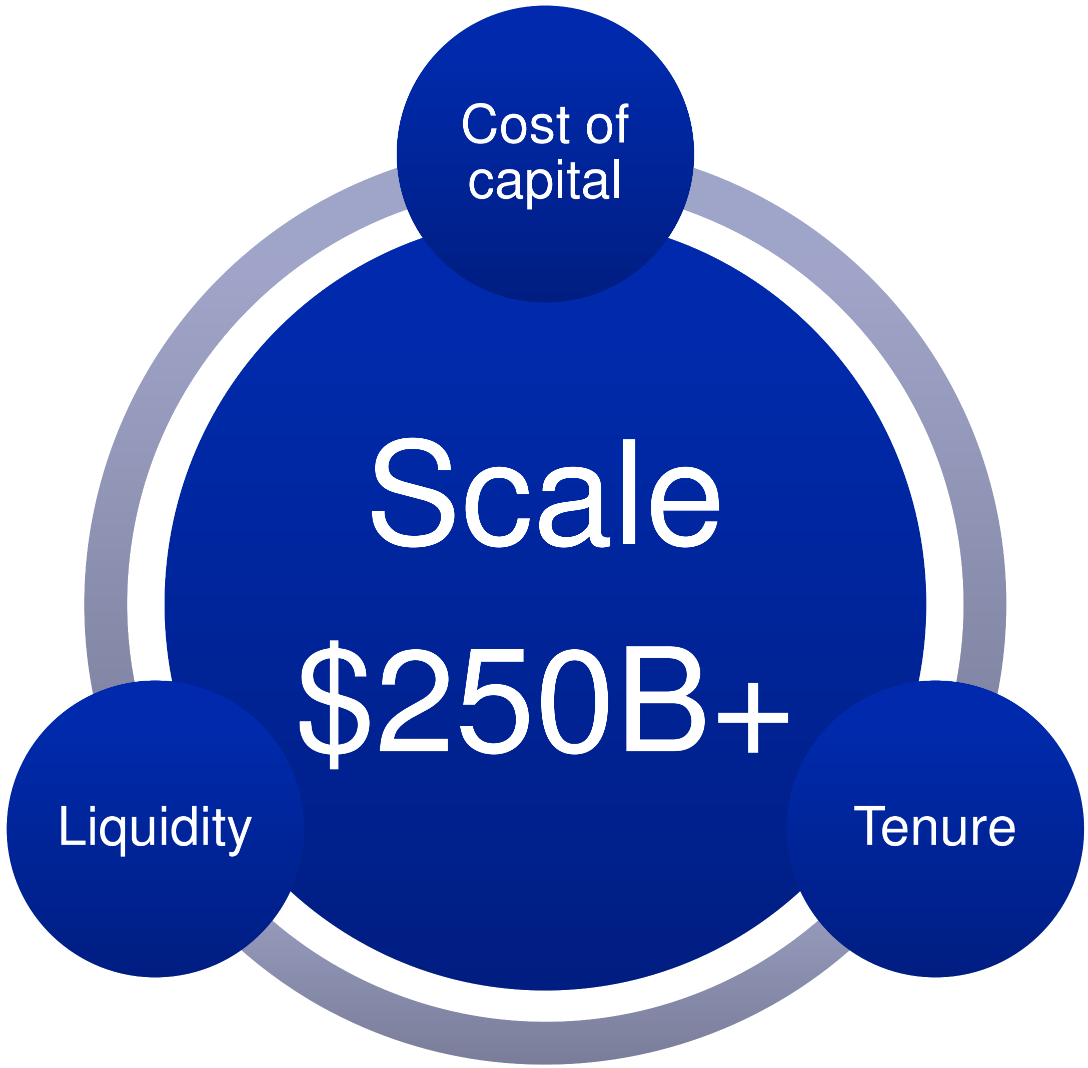
February 17th

Renewable Energy Finance in India

RE-INVEST

Key issues



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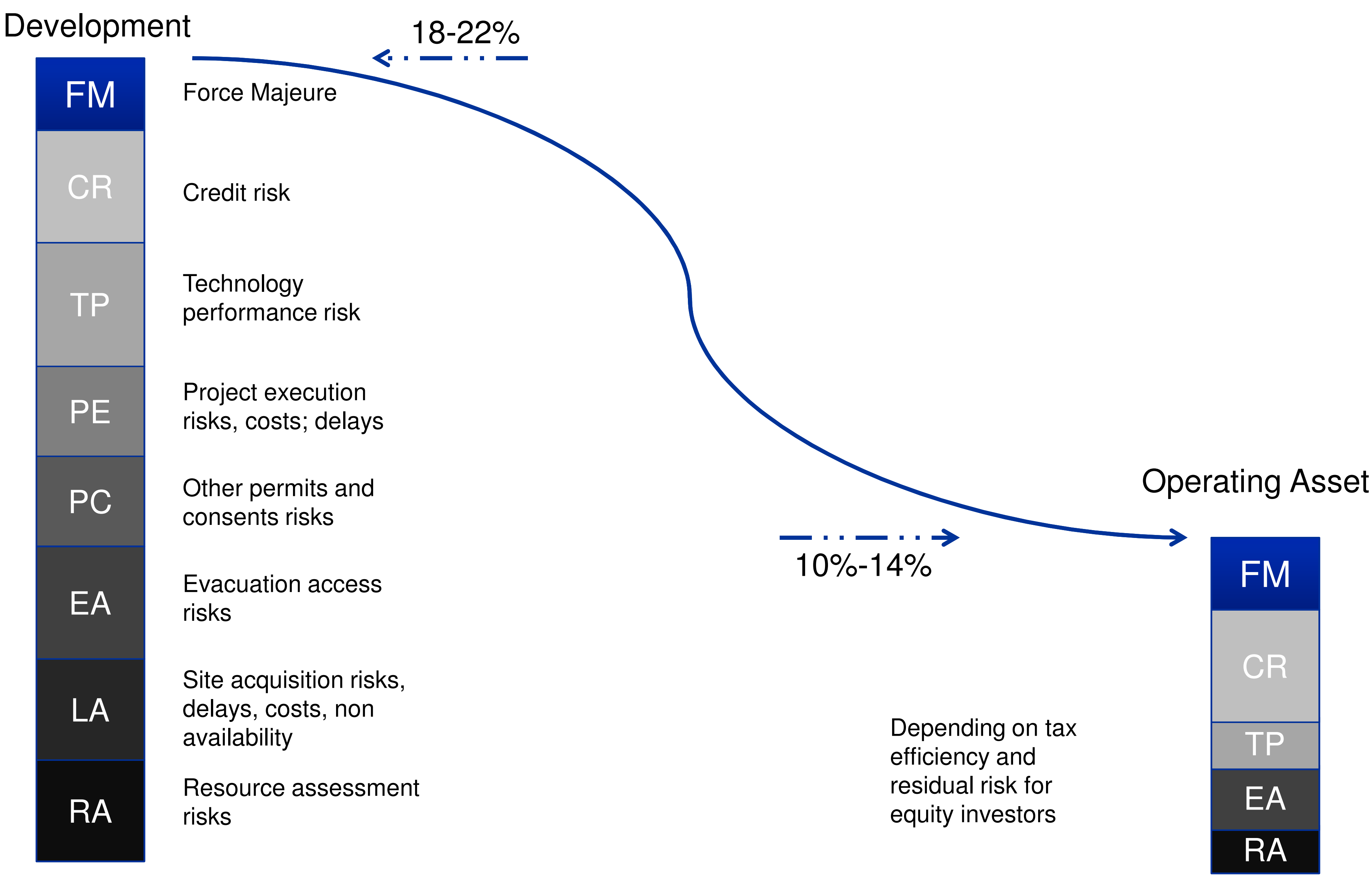
Changing risk profile



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Potential solutions

Key principles

- Attract a new class of investors
  - pension funds
  - sovereign wealth funds
- Take advantage of risk-re-rating of operating projects
- Liquidity through listed instruments
- Facilitate aggregation / bundling
- Use community centric programs to facilitate scale up and use of CSR funds
- Provide confidence to investors
  - Risk mitigation
  - Ratings
  - Information

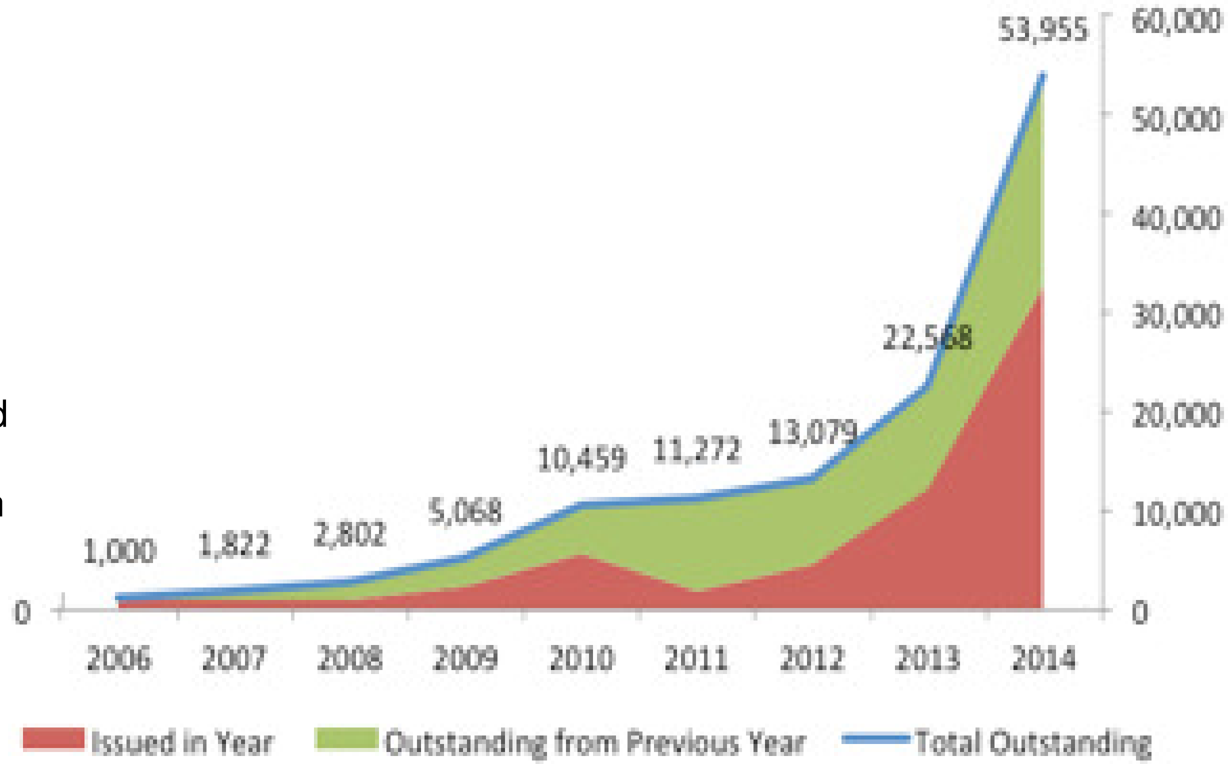
Financing Mechanisms

- Tax efficient trusts (e.g. MLPs, REITs, Business Trusts)
- REC Market Maker
- **Green Bonds**
- HNI/CSR Off Grid Fund
- **Infrastructure Debt Funds**
- Risk Insurance
- Currency Swaps
- **Tradable Accelerated Depreciation Tax Credits**

Green Bonds

Green Bonds -- issued for financing projects that directly contribute towards climate change mitigation

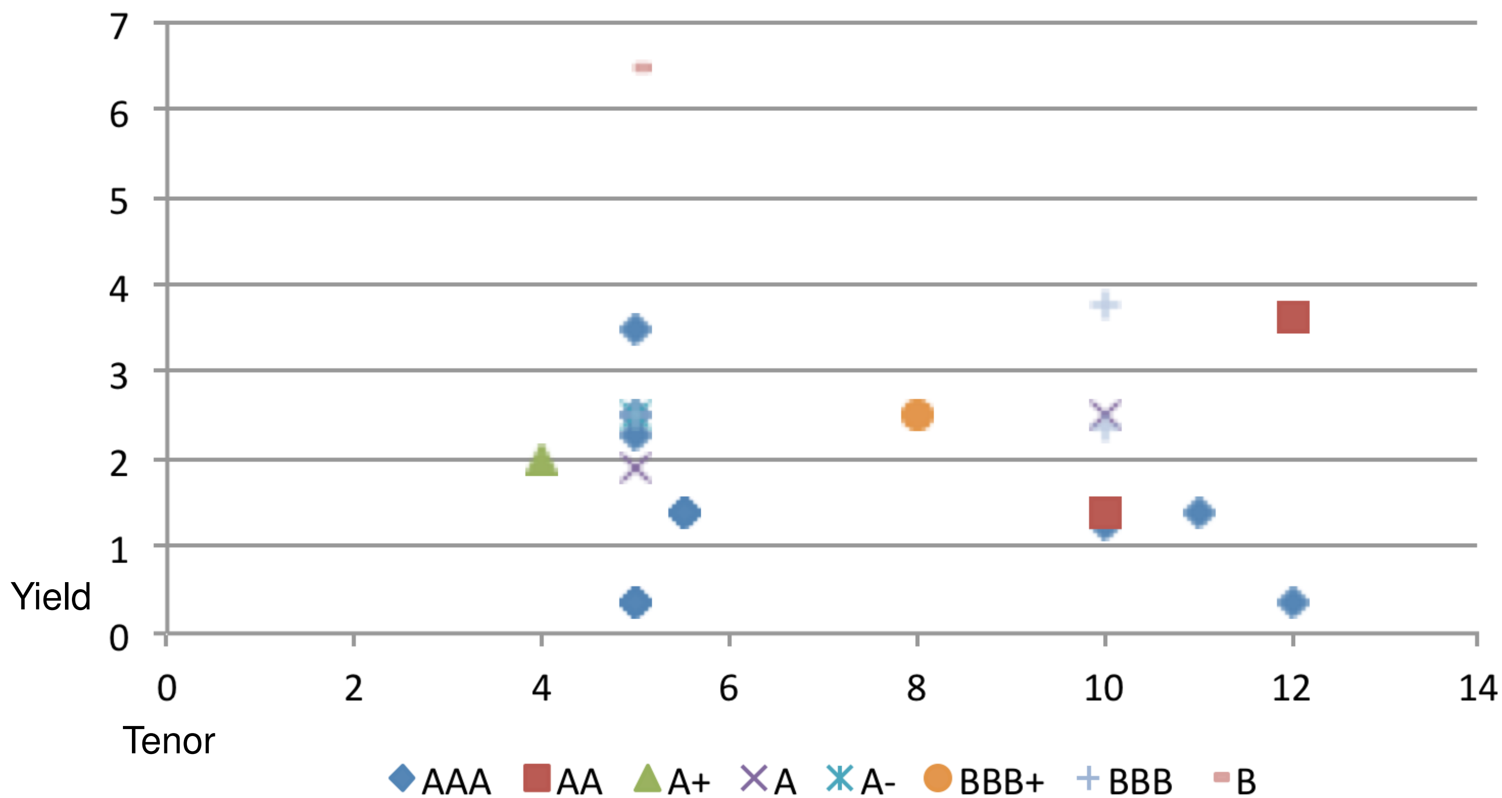
- Can be issued in the form of *corporate bonds* or *portfolio bonds.*
- > USD 6 trillion of debt needed to finance low carbon infrastructure globally between 2010 and 2020



Advantages

- Tap domestic and foreign capital to finance renewable energy assets.
- Underlying projects will be operational with stable cash flows, and therefore offer relatively low risk for investors.
- Exit for equity and debt investors which will free up their capital allowing the funding of new assets.
- Proven history of international issuances and existing markets for such bonds
- Rapid acceleration in issuances in international markets- to touch $100 bn in 2015.

Green Bonds

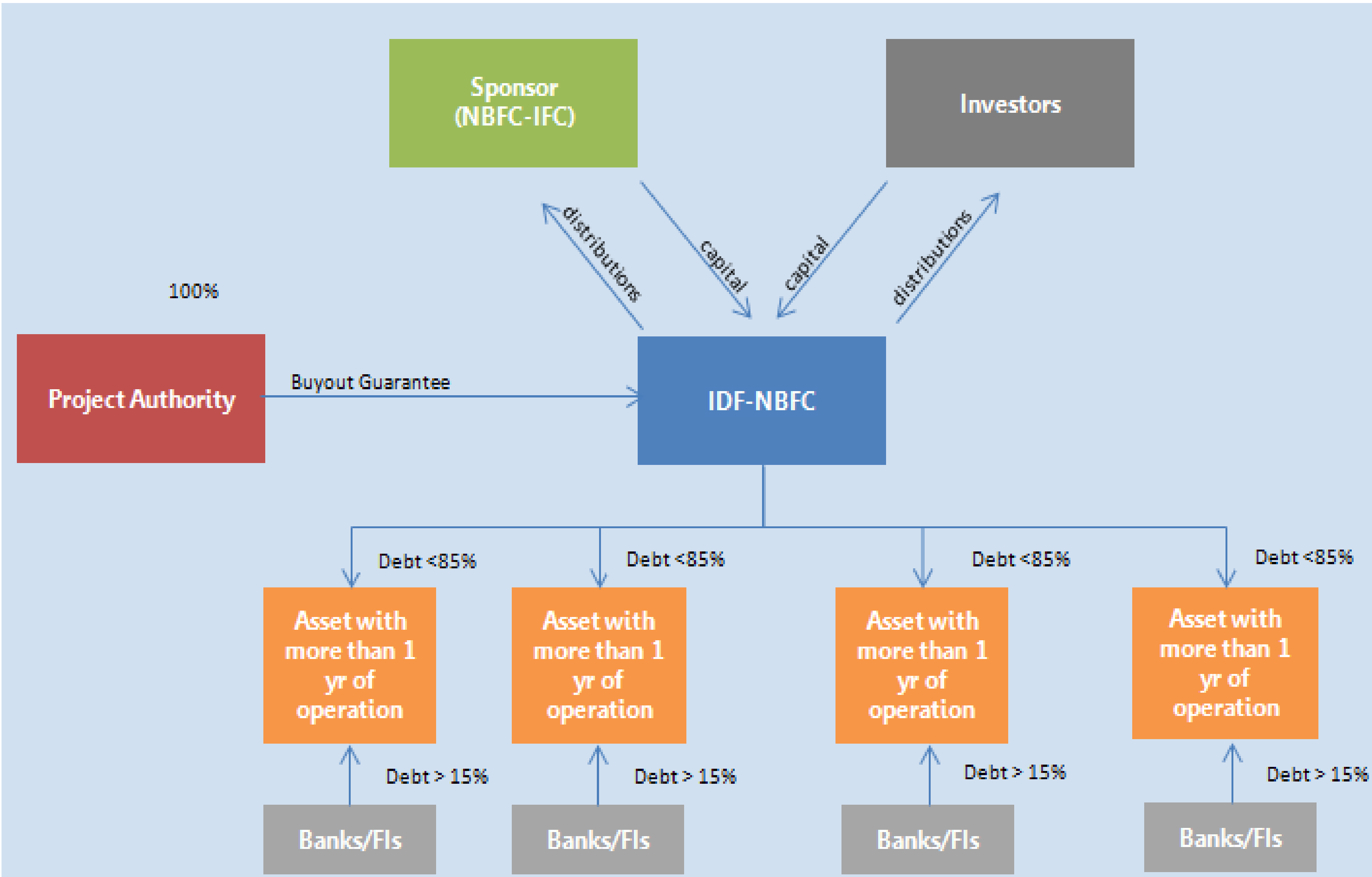


Indian issuers can expect a 1%-3% reduction in costs with appropriate policy back-up

- **Wide variation in the yields for similar rated green bonds**
  - Bonds presentation
  - Choice of investors
  - Structures
  - Specific use of the bond etc.

- Rates and tenors improve as the market matures

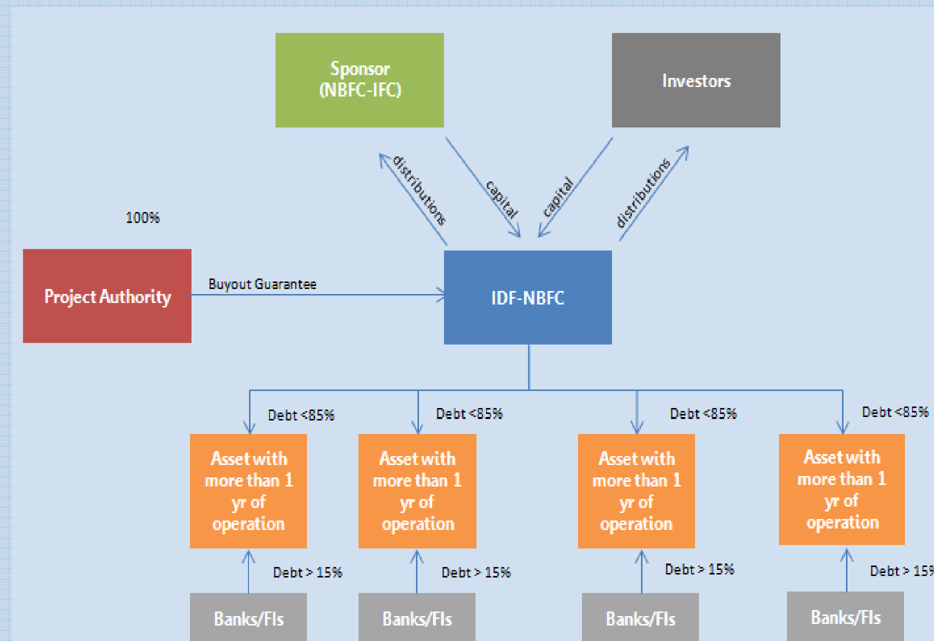
IDF-NBFC


Sponsor (NBFC-IFC)
Investors
distributions
capital
capital
distributions
100%
Project Authority
Buyout Guarantee
IDF-NBFC
Debt <85%
Debt <85%
Debt <85%
Debt <85%
Asset with more than 1 yr of operation
Asset with more than 1 yr of operation
Asset with more than 1 yr of operation
Asset with more than 1 yr of operation
Debt > 15%
Debt > 15%
Debt > 15%
Debt > 15%
Banks/FIs
Banks/FIs
Banks/FIs
Banks/FIs

IDF-NBFC

Infrastructure Debt Funds are allowed under current Indian law

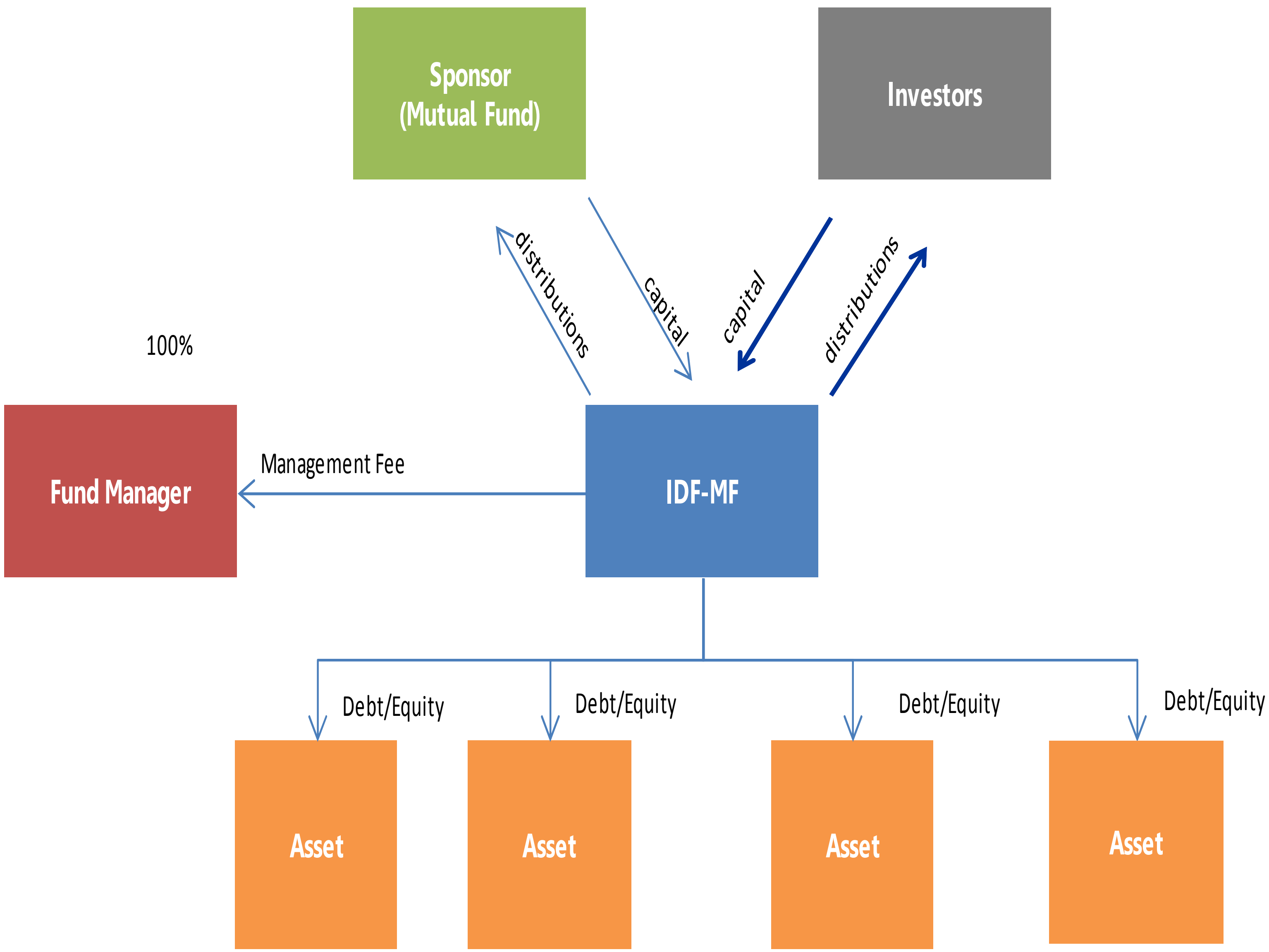
- The IDF-NBFC can absorb up to 85% of the existing debt of projects With more than a year in commercial operations



- **Challenges**:
  - It has not been used for RE in India
  - Requires a buyout guarantee from project authority
  - RE projects based on FIT have project authorities with weak financials (SEBs)

- **Advantages**
- IDFs allow tapping of debt from long term and low cost sources such as Insurance and Pension Funds (domestic and foreign)
- Tax Pass-through. No tax on IDF income. Lower withholding tax for international investors (5 percent)
- Aggregated hedging for international investors

IDF-MF


Sponsor
(Mutual Fund)
Investors
distributions
capital
capital
distributions
100%
Fund Manager
Management Fee
IDF-MF
Debt/Equity
Debt/Equity
Debt/Equity
Debt/Equity
Asset
Asset
Asset
Asset

IDF-MF

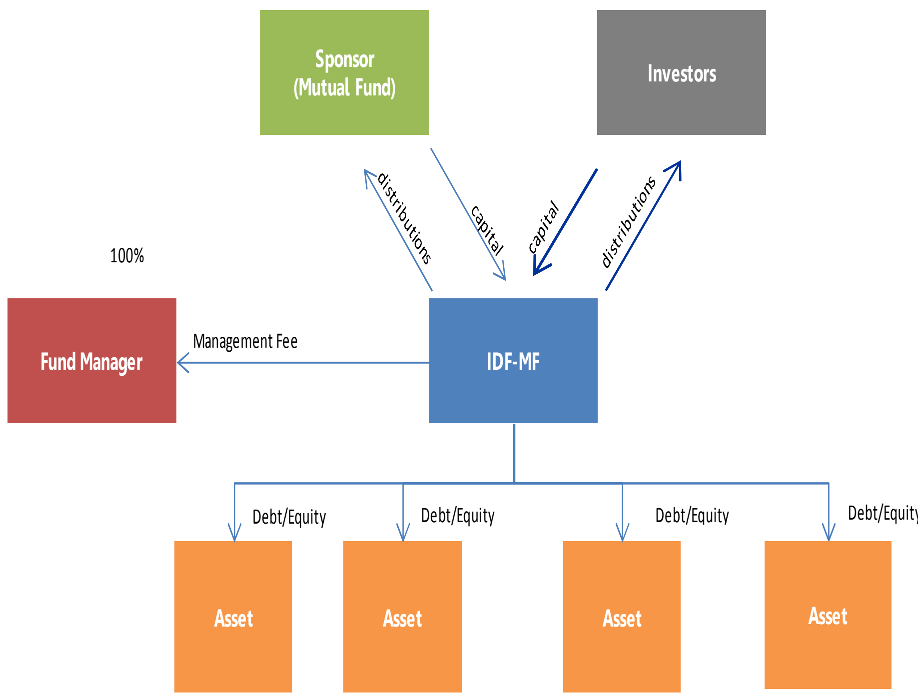
IDF-MF – All SEBI compliant organizations, including Mutual Funds, can invest

Requirements

- Min 90 percent investment in debt and max 10 percent in equity
- Tax pass through; returns directly to the investors
- Minimum investors 5; max investment < 50 percent; minimum investment > INR 10 million
- Minimum size INR 250 million

Advantages

- Can be listed and traded on stock exchange
- Can invest at any stage of project
- Re-denominated; can be issued to any international or domestic investors
- Investments can be in any stage of the Projects
- No buyout guarantee needed.
-



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Tradable AD Credits

- **Tradable Accelerated Depreciation (AD) Credits**

- AD benefits are not available to most independent power producers (IPPs):
  - RE projects are normally capital intensive, with low taxable profits
  - AD benefit can be utilized only by a company owning RE asset that has sufficient profits from other businesses

- Tradable tax credits will be certificates available to generators in lieu of the AD benefit
  - The certificates will be freely tradable and usable by entities needing tax shelter
  - Price of these certificates will be market determined, normally at a 5-10 percent discount to the tax benefit equivalent value
  - Tradable export credits (also known as duty drawback), through which custom duty exemption is provided on certain categories of exported goods, have been used in India
  - Similar tradable benefit have been used for ‘preservation of heritage buildings’, promoting ‘film making’, ‘R&D’, ‘Land Conservation’ etc in the U.S. Oregon has transferable tax credits for investments in RE or EE

- **Advantages**
  - This mechanism is an extension of the already existing AD benefit
  - Ensures parity amongst all classes of renewable energy investors

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Progress in India

Position papers → Preparing Policy Environment → Finding Anchors → First Implementations

- Green Bonds
- CSR – Distributed Renewable Energy Community Fund
- Distributed Renewable Energy- Debt Fund
- Infrastructure Debt Funds
- Re-Investment Trusts