

Financing Sustainable and Climate Smart Infrastructure Through Issuance of Green Municipal Bonds

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Ghaziabad Nagar Nigam (GNN) - First Green Bonds Issued in India

Green Bonds in India

Green bonds are the bonds issued by any sovereign entity, inter-governmental groups or alliances and corporates with the aim that the proceeds of the bonds are utilized for projects classified as environmentally sustainable.

GNN is the first ULB to launch Green Municipal Bonds in India

India started issuing green bonds since 2015. As of February 12, 2020, the outstanding amount of green bonds in India was US\$16.3 billion India issued green bonds of about US\$8 billion since January 1, 2018, which constituted about 0.7 per cent of all the bonds issued in the Indian financial market.

Investors should consider **green bonds** as part of their portfolio because this type of **bonds** carries lower risk than other **bonds**. The salient feature of **green bonds** is that though proceeds are raised for a declared **green** project, repayment is tied to the issuing company and not the success or failure of the projects

Case Study of Ghaziabad Nagar Nigam Green Bonds

Transformation of GNN

Since the work began for the bond issue of GNN, during the past more than 2 years, there has been a complete transformation in the functioning and financial discipline of GNN

Credit enhancement from A- to AA

The credit rating assigned to GNN around three year ago under AMRUT mission of Government of India was 'A-'. However, there has been a major turnaround and rating is upgraded by five notches to 'AA' due to transformation in functioning, financial discipline, innovative structuring and Government keenness to develop the municipal bond market

Improvement in financial discipline

There has been vast improvement in the financial discipline of GNN in the past 2 years. Financial systems and accounting practices have improved a lot and time lag for completion of audit has also reduced to a great extent

Innovative structuring

The structure of GNN bonds is very innovative with high cash liquidity and support of the State Government

Initiative of the State Government

State Government took the initiative to develop municipal bond market and formed a policy to promote municipal bonds in the State of UP

Various Green Initiatives Taken by GNN

Revival of 46 water bodies in the city.An amount of Rs. 1 crore is already granted for the project **GNN** has undertaken this task to revamp all those water bodies of which 5 have been restored in its natural state.

City forest development – GNN is establishing 2 city forest with own resources. **GNN** has allotted funds to make a botanical park

Dust free Ghaziabad –To make road sides dust free by use of cut stones.**Additionally,** for open patches of dust, steps like grassing and new green belt restorations being undertaken.**An amount of Rs.20 crore** has been allocated as per the approved budget for this purpose.

Development of 1300 parks-GNN has undertaken the task of development and maintenance of 1300 parks in the city, of which 900 parks are developed and tendering has started for development of additional 200 parks started.**An amount of INR 20 Cr.** has been allocated as per the approved budget for this purpose.

GNN has undertaken the initiative of conversion of all diesel based vehicles to **CNG**. Further **GNN** has decided to buy in future any new procurement in **CNG** taking into consideration the pollution and falling air quality index.

Air filters- Plan to install 30 air filters at various places of severe air quality conditions.**Work sanctions** have been given by the committee.

GNN has also taken the initiative of **Plastic waste recycling** and making different usable products from the same. **MoU** has been signed with local artists for this purpose

Underlying Green Project

Ghaziabad Nagar Nigam proposes to undertake the project for setting up a Tertiary Sewage Treatment Plant ("TSTP") to further treat secondary-treated sewage water.

The Issuer has entered into a Memorandum of Understanding ("**MoU**") dated February 17, 2021 with Sahibabad Industries Association ("**SIA**") for the purpose of achieving various goals and objectives relating to the water supply to all the industrial units of the Second Party for their industrial use

Uttar Pradesh Pollution Control Board vide letter dated February 17, 2021 has certified the Project as appropriately covered under sub-clause (f) of Clause 2.1 of SEBI Circular on Disclosure Requirements for Issuance and Listing of Green Debt Securities issued via CIR/IMD/DF/51/2017 dated May 30, 2017

The Eligible Green Project is of a revenue generating nature and is expected to yield revenues after 30 months from the project work start date.

This project would enable GNN to reduce pressure on ground water resources in the city and free up the supply of potable water to Sahibabad industrial area.

Financial Snapshot of Ghaziabad Nagar Nigam

Particulars	FY 2017-18 (Audited) (INR in Crores)	FY 2018-19 (Audited) (INR in Crores)	FY 2019-20 (Audited) (INR in Crores)
Total income	398.51	425.26	474.62
Total expenditure (excluding depreciation)	276.35	294.57	341.29
Surplus (before depreciation)	122.16	130.69	133.33
Depreciation	30.74	32.56	34.53
Surplus (after depreciation)	91.42	98.13	98.80

Detailed Due Diligence Process Undertaken

In line with the regulatory framework of private placement of Muni bonds in India, detailed due diligence was carried out by the Merchant Bankers and preliminary placement memorandum was filed with SEBI for their observations before launching the bond issue.

It was herculean task to carry out the due diligence exercise of a Municipal Corporation. In view of better investor interest protection, detailed vetting of PPM has been done

Due Diligence was inserted by SEBI for the first time for private placement of Muni Bonds. Basic aim at streamlining governance and to promote financial discipline

The due diligence of the entire placement memorandum was done by the Merchant Banker before filing it with the SEBI.

Debt Servicing Mechanism

Main Collection Accounts - TAX REVENUES
(HOUSE TAX, WATER TAX AND SEWERAGE TAX)

Main Collection Accounts - REVENUE GRANTS (WHICH ARE
FREE FROM ALL CHARGES)

Escrow Account for Debt Servicing

The amounts lying to the credit of Designated Escrow Account shall be utilised on and from the 1st day of the each monthly period as per following waterfall/order of priority:

Firstly, to meet Minimum Balance in Escrow Account. The Minimum Balance to be maintained in any monthly period expiring on the transfer date shall be the amount to be transferred to Interest Payment Account and

Annual debt obligation for Rs.150 Cr issue is Rs.27.15 Cr (Rs.12.15 Cr interest + Rs.15 Cr Sinking fund)

Total collections from tax revenues and revenue grants (which are free from all charges) during FY20 was around Rs. 251 Cr

There is a cover of more than 8 times of annual debt obligation

The surplus funds after meeting the Minimum Balance can thereafter be transferred to the General Fund Account of the issuer

Debenture Trustee and Escrow Bank shall ensure that funds are transferred as per above mentioned priority.

Interest Payment Mechanism

Half yearly interest servicing

Transfer from Escrow Account

From 1st year Monthly

1/5th of half yearly interest amount in each month from 1st to 5th month for 1st half yearly interest payment and 6th to 10th month for 2nd half yearly interest payment during each 12 month block

$[\bullet] * 1/5^{\text{th}}$

Credited to Interest Payment Account

In case of shortfall on T-25th day

GNN to make good the shortfall by T-10th day

DSRA Amount

In case of Shortfall on T-9th day

By T day

GNN to replenish the Required DSRA

In case of Shortfall in Required DSRA Amount on T+1st day

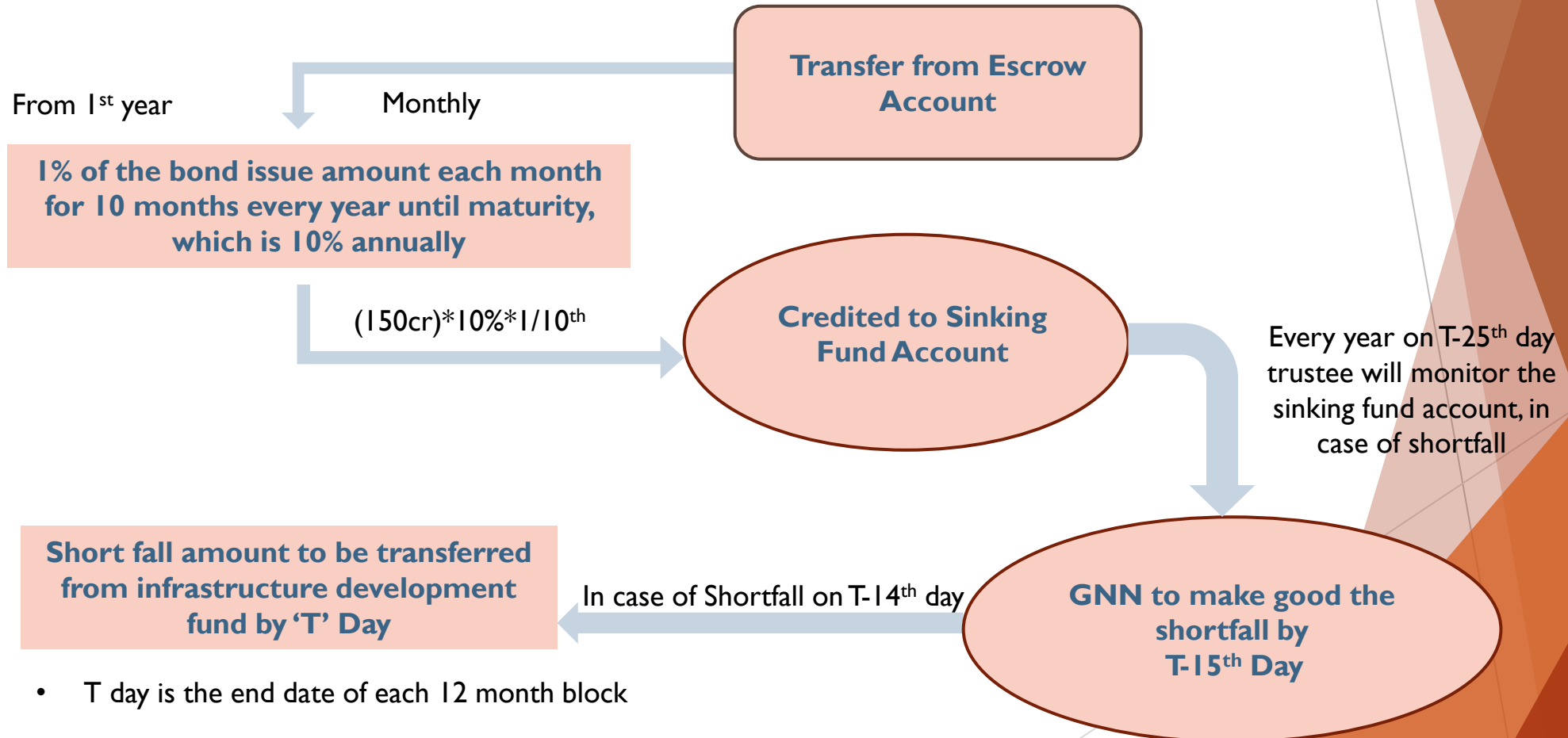
Shortfall amount to be transferred from infrastructure development fund within T +

• T day is due date for debt servicing

$[\bullet]$ is Half yearly coupon/interest amount

Principal Repayment Mechanism

**14.29% of issue size – Script A/B/C/D/E/F and 14.26% of issue size – Script G
Maturing at the end of 4th, 5th, 6th, 7th, 8th, 9th and 10th year respectively**



Secured Investment Through High Liquidity

Secured investment for investors

For investors, the investment in the GNN bonds is highly secured with escrow of main revenue streams (tax revenues & revenue grants (net of salary & pensions)) of GNN, high liquidity support in the form of DSRA and Government of India incentive and support from Infrastructure Development Fund of Government of Uttar Pradesh

Escrow of main revenue streams

The main revenue streams of GNN i.e. tax revenues & revenue grants (net of salary & pensions) with annual cash flows of more than Rs. 200 Crores is escrowed with first priority towards debt servicing for timely meeting the interest and principle repayment obligation of bonds

High liquidity support

The bonds have a high liquidity support in the form of DSRA of Rs 24.30 Crores and incentive of Rs 19.5 Crores from Government of India which shall also be lien marked in favour of trustee as an additional security for the entire tenure of the bonds. The total liquidity support comes out to Rs 43.80 Crores (24.30+19.5)

Support from Infrastructure Development Fund of the State Govt.

GNN bonds also have a support from Infrastructure Development Fund of Government of Uttar Pradesh which may be utilized in case of any shortfall in meeting the debt obligations

Government of Uttar Pradesh Policies to Promote Municipal Bonds

- ▶ Government of Uttar Pradesh, in July 2019, came out with a policy to promote Municipal bonds in the State of UP wherein the amount of Infrastructure Development Fund (IDF) maintained at State Govt. Level for Urban Local Bodies may be utilized for credit enhancement/structuring of bonds. The State Govt. has issued a G.O. in this regard on 30th July 2019.
- ▶ Out of the 2% additional stamp duty collected by the State Govt. on transfer records of immovable properties located under Urban Local Bodies, 0.5% is made available in IDF for Urban Local Bodies. The said amount of 0.5% comes out to approx. Rs. 600 Crores annually.
- ▶ The benefit of this policy can be availed by first 5 ULBs of UP State which comes out with its bond issue. LMC became the first ULB in UP to avail benefit under this policy for its bond issue .
- ▶ In order to achieve the desired credit rating/enhancement, this policy provides for utilization of funds available in Infrastructure Development Fund at State Govt. level in specific pre-defined circumstances for repayment obligations of bonds raised by ULBs on priority basis.
- ▶ The benefit of this policy can be availed by those ULBs which issues Municipal Bonds in accordance with SEBI guidelines.

Indore Municipal Corporation - Retail Issuance of Green Municipal Bonds

Reforms Undertaken by Indore Municipal Corporation

E-Governance

- Online Platform for self-assessment of Property Tax.
- Online applications for new water connections, trade license, etc.
- Indore 311 App - Endeavour resolution of applications in 24 Hrs
- Integrated Call Centres addressing citizen grievances

Cost Recovery on Water Supply

- Annual expenditure on water supply services to be included within the user charges leading to proposed increase in rate of user charges
- Online portal for collection of water tax
- Working towards reduction in supply of non-revenue water and expenditure for water services

Property Tax Collection

- GIS based mapping of properties
- E-nagar palika software for online house tax collection facility
- Digitization of the entire bill payment process
- Lok Adalat for collection of user charges and property tax
- Entitled to rebate of up to 6.25% on advance payment of property tax

Accrual Based Double Entry Accounting System (ABDEAS)

- Adopted under Madhya Pradesh Municipal Accounting Manual (MPMAM) since 2007
- Professional consulting firm to assist in sustaining ABDEAS including asset accounting and inventory management system
- Zone-wise bank collection accounts of taxes and charges to reduce leakages

Solid Waste Management

- Fleet of mechanized road sweeping machines deployed every night
- Over 7500 trained Safai Mitras to segregate road sweeping waste into wet, dry and inert waste
- Swachh Nadiyan Sooke Naale - Project SANKALP for cleaning rivers Kanh and Saraswati

Going Green - Solar PV Project

PROJECT : Installation of 60 MW Ground Mounted Captive Solar PV Power Plant at village Samraj & Ashukhedi, District Khargone in Madhya Pradesh

Land Availability

Identified land has been allotted on a lease basis for the duration of project operations

Project Cost

Total Project Cost of INR 305 Crores of which at least 20% shall be contributed by IMC through internal accruals/grants in cash or kind

AMRUT 2.0

Eligible to receive incentive of INR 10 Cr per INR 100 Cr of bonds raised under AMRUT 2.0 of MoHUA subject to a maximum of INR 20 Cr

Project Objective

Generate renewable energy to reduce dependency on grid energy and thereby reducing carbon footprints

Viability Gap Funding

Viability Gap Funding of INR 41.28 crore from Solar Energy Corporation of India Limited for the Project subject to compliance with various terms and conditions under the letter from SECI

Carbon Credits

Registered under VERRA in order to avail the carbon credit benefits

Issue Strengths

Adequacy of Escrowed Revenue Stream

- Sufficient Revenue generation/collection from own revenue streams i.e., tax revenues, fees and user charges, rental income, sale and hire charges excluding betterment tax and building permission fee
- The total cash flows from own revenue streams was INR 503 Crores in FY 2019-20, INR 447 Crores in FY 2020-21, and INR 648 Crore in FY2021-22

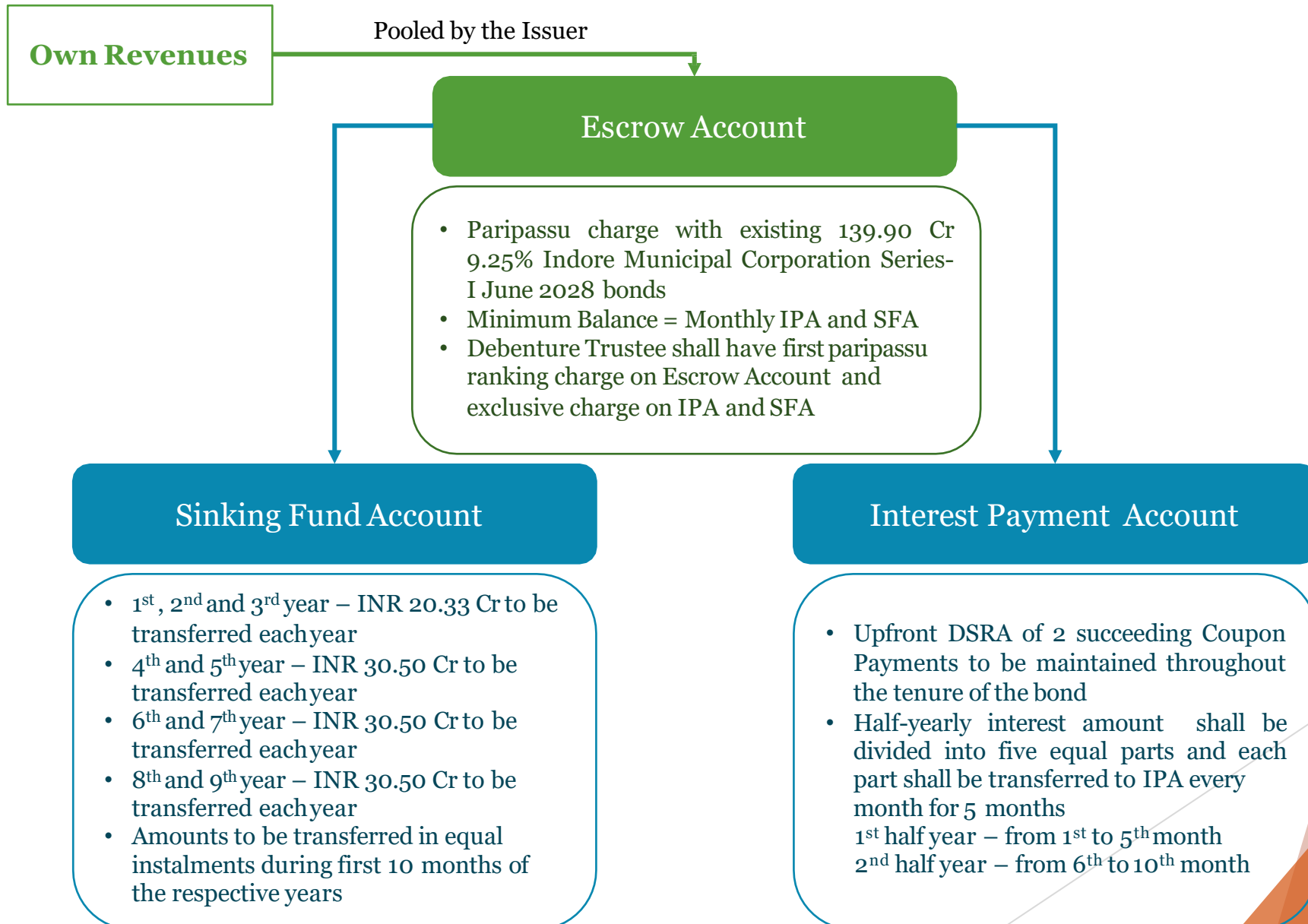
Structured Debt Servicing Mechanism

- First paripassu charge and escrow mechanism on own revenue streams of IMC along with existing bond holders
- DSRA equal to two halfyearly interest payments to be maintained throughout the tenor of bond
- AMRUT incentive to be in fixed deposit to be utilized proportionately for coupon payments over the entire tenor of bonds

Trustee Monitoring

- The Interest Payment Account (IPA) and Sinking Fund Account (SFA) will be monitored by the Debenture Trustee
- Amounts deposited in IPA and SFA shall be used solely for meeting the dues to the bondholders

Debt Servicing Mechanism



Thank You

