

Power Financiers

Decoding the surge in power financiers' valuations

INDIA | BFSI | SECTOR UPDATE

02 January 2024

Why should power financiers trade above book value?

Memories of the previous thermal-power cycle, which plagued the power financiers' private-sector exposure, is still fresh in the minds of investors. The market still finds it hard to ascribe a valuation premium unless there are convincing argument that things are different this time around. At present, the market seems convinced about the strength of the next power-capex cycle based on rising power demand and increasing thermal PLFs. New growth avenues opened up by infrastructure and logistics segments provides growth visibility, which can be seen in the re-rating of power financiers to at-par valuations from sub-par earlier. In this report, we have tried to evaluate changes that warrant above-par valuations for power financiers.

Loan opportunity driven by capex worth Rs 18 trillion over the next four years in power

Changing dynamics have now shifted the focus of power finance to segments such as renewable energy and strengthening transmission and distribution infrastructure along with the traditional disbursement for under-construction thermal projects, even as modernization of existing thermal plants also provides some opportunity. We peg the total capex opportunity in power at c.Rs 18 trillion, majorly contributed by renewable energy and transmission & distribution (T&D), with a small contribution from under-construction thermal projects. Apart from funding conventional power projects, power financiers are exploring opportunities in infrastructure segments including electric-vehicle charging stations, funding manufacturers of wafers, ingots, cells, modules, and lift-irrigation projects.

Renewable capex is less vulnerable to credit risks

The renewable space has undergone many project-level mergers and acquisitions in the last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates with stronger balance sheet, or were acquired by sovereign-funded investors. The expected credit loss provision in renewable segment has been satisfactory, unlike in the thermal segment. Low gestation period, lower power offtake risk, regulatory purchase obligations and central intermediary for PPA, incentives like accelerated depreciation and waiver of ISTS charges are some of the factors that make their cash-flow attractive. Based on our project-level analysis of private exposure, the vulnerable ones are immaterial in size.

Strong return ratios to prevail

Multiple funding option and recent rate hikes will keep spreads stable in the near term. However, lower re-pricing of the renewable portfolio after projects are commissioned may pull down spreads marginally. Even after factoring for a compression in spreads in the medium to long term, ROEs of 16-17% seem sustainable for POWF and RECL.

Recommendation

POWF and RECL is emerging as a focal agency for funding infrastructure projects and for India's energy transition journey to green energy from fossil-based fuel. Policy initiatives and visible cash flow makes renewable capex less prone to credit risks. Non-power infrastructure and logistics widens the scope for POWF and RECL, thus making the loan book less vulnerable to cyclicity. Visible loan growth with superior return ratios warrants a superior valuation.

We remain BUY on POWF and RECL.

IREDA to see strong loan growth over FY23-26 on rising demand for renewable energy in the country. But the earnings growth is not expected to match the loan growth due to pressure on margins and normalisation of credit costs (which was negative in H1FY24). While loan growth is high, return ratios are weak and there is higher exposure to the private segment – which undermines conviction. We believe the best is already priced in to the stock. **We initiate coverage with a SELL rating.**

Companies

Company	Rating	CMP (Rs)	TP (Rs)
POWF	BUY	390	500
RECL	BUY	423	520
IREDA	SELL	104	80

Source: Company, PhillipCapital India Research

Manish Agarwalla, Research Analyst
magarwalla@phillipcapital.in

Sujal Kumar, Research Analyst
sukumar@phillipcapital.in

Table of Contents

Why should power financiers trade above book value?	4
FACTOR 1: Strong players in the renewable capex cycle	4
FACTOR 2: Renewable capex is less vulnerable to credit risk	5
Analysis of private sector exposure of various power financiers	8
FACTOR 3: Non-power infra and logistics widens POWF/RECL’s scope ..	11
FACTOR 4: Loan growth, superior returns, warrant premium valuation	11
Spreads to remain stable in the near term.....	14
Opportunities galore.....	16
Renewable power – a focus area for India’s energy security	16
Transmission: Integrating planned renewable energy	20
India’s power sector: An overview	22
Power demand and supply status	24

Companies Section

POWL	31
RECL	36
IREDA	41

Valuation summary

Co.	Bloom code	Mcap, Rs bn	CMP, Rs	TP, Rs	Upside	Reco	PE _x		
							FY24	FY25e	FY26e
PFC	POWF	1,287	390	500	28	BUY	6.3	5.7	5.2
REC	RECL	1,114	423	520	23	BUY	7.9	7.4	6.4
IREDA	IREDA	280	104	80	-23	SELL	25.3	20.2	17.3

Company	P/BVPS (x)			EPS, Rs			BVPS, Rs		
	FY24	FY25e	FY26e	FY24	FY25e	FY26e	FY24	FY25e	FY26e
PFC	1.4	1.2	1.0	42	46	50	193	227	264
REC	1.7	1.4	1.2	54	57	66	254	295	342
IREDA	3.4	2.9	2.5	4	5	6	31	36	42

Company	NII, Rs bn			PPOP, Rs bn			PAT, Rs bn		
	FY24	FY25e	FY26e	FY24	FY25e	FY26e	FY24	FY25e	FY26e
PFC	155	175	198	169	193	216	138	153	165
REC	167	195	224	166	193	222	141	151	173
IREDA	14	19	25	13	18	23	11	14	16

Company	Net Stage-3 %			RoA%			RoE %		
	FY24	FY25e	FY26e	FY24	FY25e	FY26e	FY24	FY25e	FY26e
PFC	0.9	0.8	0.9	2.9	2.9	2.7	18.9	18.2	17.3
REC	0.7	0.5	0.4	2.8	2.5	2.5	22.7	20.8	20.7
IREDA	1.2	1.1	1.0	2.0	1.9	1.6	15.5	15.3	15.4

Source: PhillipCapital India estimates

Why should power financiers trade above book value?

Memories of the previous thermal-power cycle, which plagued the power financiers' private-sector exposure, is still fresh in the minds of investors. The market still finds it hard to ascribe a valuation premium unless there are credible arguments showing things are different this time around. At present, the market seems convinced about the strength of the next power-capex cycle based on rising power demand and increasing thermal PLFs. New growth avenues opened up by infrastructure and logistics segments provides growth visibility, which can be seen in the re-rating of power financiers to at-par valuations from sub-par earlier.

In this report, we have tried to evaluate changes that warrant above-par valuations for power financiers

Factors that can be instrumental in the multiples of power financiers

1. Strong players in the renewable capex cycle.
2. Policy initiatives and visible cash flow makes renewable capex less prone to credit risks.
3. Non-power infrastructure and logistics widens the scope for POWF and RECL, thus making the loan book less vulnerable to cyclicalities.
4. Visible loan growth with superior return ratios warrants a superior valuation.

FACTOR 1: Strong players in the renewable capex cycle

Renewable companies now dominate the next wave of power sector capex, unlike in the past, when independent thermal power producers were prominent. Investors view the former as having a more stable and promising future than the latter due to the growing importance of renewable energy in the power sector.

For power financiers, there are two categories of borrowers in renewables – (1) domestic conglomerates, and investors (2) MNCs, and sovereign investors.

Unlike the previous power capex cycle, which was dominated by thermal companies, the current one is dominated by renewable companies spearheaded by domestic conglomerates; MNC and sovereign investors

Government's steps to encourage investments in the renewable energy sector

- Permitting Foreign Direct Investment (FDI) up to 100% under the automatic route.
- Waiver of Inter State Transmission System (ISTS) charges for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025.
- Plan to add 50 GW of renewable energy capacity annually for next 5 years.
- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30.
- Standardization of bidding guidelines for the tariff-based competitive bidding process.
- Implementation of Production Linked Incentive (PLI) scheme for solar PV manufacturers.
- Reducing PPA counterparty risk by sourcing energy purchases through highly rated central public sector enterprises.
- Increasing overall health of the sector through various schemes such as the Liquidity Infusion Scheme to help distribution companies settle their debt and the Electricity (Late Payment Surcharge & related matters) Rules, 2022, to encourage timely payment of dues, apart from the Revamped Distribution Sector Scheme.
- Facilitating support through dedicated agencies such as National Institute of Wind Energy (NIWE) and National Institute of Solar Energy.
- Accelerated depreciation on written down value (WDV) basis.

Key players in renewable power

Domestic Conglomerate	Sovereign Investor /MNC
Acme Group	SunEdison
Adani Group	Apraava Energy (CLP India)
Avaada Group	Arcelor Mittal & Nippon Steel
Essar Power	Greencell
Hero Group	Greenko Group
INOX Group	Renew Group
Jindal Group	solarpack
JSW Energy	
Mytrah Energy	
Refex Group	
Reliance Infra	
Reliance Power	
Sarda Group	
Shapoorji pallonji Group	
Vedanta Group	

Source: PhillipCapital India Research

FACTOR 2: Renewable capex is less vulnerable to credit risk

We tried to analyse the credit worthiness and interest coverage ratio of the private sector exposure of power financiers POWF/RECL/IREDA to understand the quality. Our observations are:

Renewables see mergers, acquisitions, ownership shifts; points to consolidation

The renewables space has undergone many project-level mergers and acquisitions in the last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates with stronger balance sheets or were acquired by sovereign-funded investors. For example:

- Adani Green Energy Limited's acquisition of SB Energy in October 2021 was the largest deal of the year, with the sale of US\$ 3.5bn worth of assets comprising 1,700 MW of operational renewable assets, 2,554 MW of assets under construction, and 700 MW of assets nearing construction.
- The US\$ 771mn acquisition of RECL Solar Holdings by Reliance New Energy Solar.
- Shell's acquisition of Sprng Energy.
- JSW's purchase of Mytrah
- Waaree's approved buyout of Indosolar.

Private sector exposure is concentrated towards larger groups

Based on our analysis from data available in public domain, the private sector exposure of power financiers is concentrated towards large groups.

- POWF's exposure to top-10 private groups is 75% of its total private sector exposure.
- Similarly, RECL's exposure to top-5 private groups is 68% of its total private exposure.
- IREDA's exposure to top-10 private groups is 50% of its total private exposure.

High leverage, but comfortable interest coverage; solar projects look attractive

At present, the leverage ratio of renewable projects looks high, as many of the projects being financed are in the execution stage, but their interest coverage ratios look comfortable. The project-level analysis of utility-scale solar power (> 5MW), suggests comfortable equity IRR (internal rate of return) between 13-15% for new project. The solar segment is attractive for private investments based on falling costs of solar-power

capital investments, government providing incentives, and reduced counter-party risks for solar PPAs (power purchase agreements). Some of the large power-sector companies intend to capture the entire value chain in the solar space by venturing into manufacturing of solar modules to in-house operations and maintenance services.

Major issues faced during the thermal capex cycle have been addressed

- ‘Must run’ reduce off-take risk: It means utilities, state load dispatch centres, and distribution companies have to prioritize evacuating power from renewable sources.
- Central public sector undertakings such as SECI and NTPC act as power procurement intermediaries between project developers and distribution companies (Discoms), which eliminates the need for separate PPAs with each Discom.
- The renewable purchase obligation (RPO) mechanism by which the obligated entities are obliged to purchase a certain percentage of electricity from renewable energy sources
- Development of solar parks in order provide physical infrastructure for renewal power.
- Dedicated green corridor for power evacuation.

We do not see near-term credit risk in the renewable segment for power financiers unless there are any major policy changes

Reasons for stress in the power sector: NPAs due to project delays, offtake risk

The Indian power sector has long contributed to the country’s NPA problem. Problems include delays in project implementation, inadequate fuel supply tie-ups, difficulty/delay in acquiring land and other permits, off-taker risk (lack of power purchase agreements (PPA)) and cost overruns/non-viability. As a result, banks and financial institutions have accumulated bad debt, impacting their performance. The vast majority of NPAs come from thermal power projects (TPPs), mostly privately owned. According to the 37th Parliamentary Standing Committee on energy, the Ministry of Power (MoP) had deemed 34 coal-based TPPs with a total capacity of 40.1 gigawatts (GW) “stressed” in March 2018. Combined, these plants had an outstanding debt of Rs 1.7 trillion.

Changes brought about in power lending

Reason for thermal power stress	What has changed for renewable power
Delays in project implementation. Difficulty/delay in acquiring land and other permits	<ul style="list-style-type: none"> • Short construction cycle (< 1 year) post land acquisition. Loans are sanctioned only once adequate land is acquired and taken possession. • India’s land acquisition process is one of the most critical roadblocks to infrastructure projects. But state government renewable development energy agencies have helped in acquiring large-scale government and privately-owned land for the solar parks. The solar parks have also saved developers the bother of arranging the connection of generation units to the nearest sub-station.
Inadequate fuel supply tie-ups	<ul style="list-style-type: none"> • This risk is not applicable for renewable power projects.
Off-taker risk (lack of power purchase agreements (PPA))	<ul style="list-style-type: none"> • Reducing PPA counterparty risk by sourcing energy purchases through highly rated Central Public Sector Enterprises (SECI/NTPC). • Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30. • Increasing overall health of the sector through various schemes as Liquidity Infusion Scheme to help Distribution Companies settle their debt and Electricity (Late Payment Surcharge & related matters) Rules, 2022 to encourage timely payment of dues, apart from the Revamped Distribution Sector Scheme.
Cost overruns/non-viability	<ul style="list-style-type: none"> • Due to low gestation period in implementation of renewable project, the possibility of cost overrun is limited. • Approved list of suppliers in order to avoid inferior quality of the equipment. • Financier engage agencies of global repute to monitor the implementation of the project.

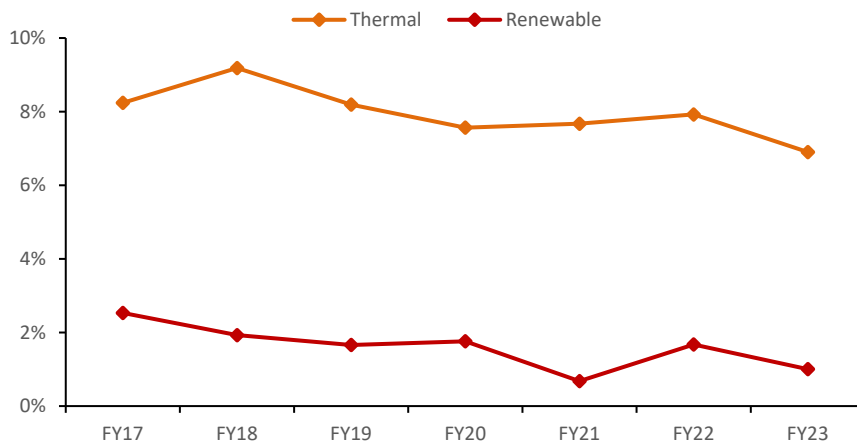
Source: Company Data, PhillipCapital India Research

Credit-loss provision in renewables decent with attractive cash flow, incentives, IRR

The expected credit-loss provision in renewable segment has been satisfactory unlike in the thermal segment. This is because cash flows from the renewable segment are attractive due to factors such as low gestation period, lower power off take risk, regulatory purchase obligation and central intermediary for PPAs, and incentives such

as accelerated depreciation and waiver of ISTS charges. Based on our interaction with developers, the equity IRR in a utility-scale solar project is 13-15%.

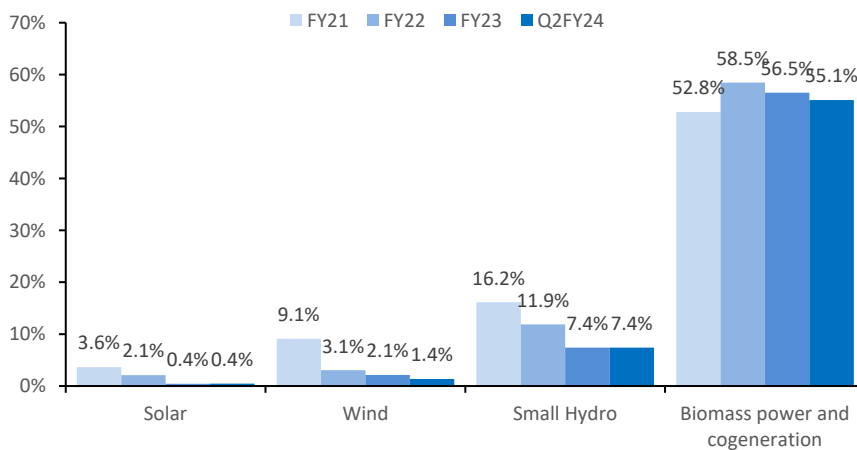
Renewable energy ECL provision



Source: Company Data, PhillipCapital India Research

Except for hydro-power, credit costs in renewable energy have not been major in the past seven years. RECL’s expected credit loss (ECL) for its renewables segment has been declining while POWF’s saw an increase due to stress in the hydro-power segment. Gross stage-3 (overdue) assets for IREDA have been low for solar and wind compared to other renewable segments such as small hydro or biomass.

IREDA renewable GNPA – Segmental stage-3



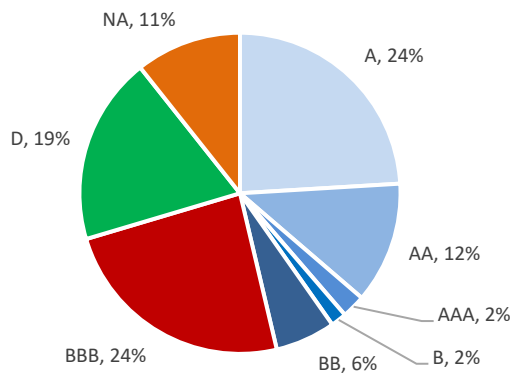
Source: Company Data, PhillipCapital India Research

Analysis of private sector exposure of various power financiers

POWF: Credit rating-wise profiling of private-sector borrowers

- 38% of POWF's borrowers have credit ratings of A and above
- 32% have credit ratings between BBB and B
- 19% have rating of D (i.e., non-performing assets)
- 11% rating are either not available or not recent.

Credit rating of private sector exposure (POWF)



Source: Company Data, Rating agency, MCA, PhillipCapital India Research

POWF: Profiling based on ICR

- The profiling of POWF customers based on interest coverage ratio (ICR) and leverage level indicated that 6.5% of its private-sector exposure (0.9% of its overall book) has ICR below 1x, out of which 1.3% (0.2% of overall book) has strong parentage.
- The renewables space has undergone lot of project-level mergers and acquisitions in last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates, which had stronger balance sheets, or were acquired by sovereign-funded investors.
- Top-10 groups constituted 75% of POWF's total private-sector exposure. While some of the leverage in top 10 groups seems high, it is due to projects being under the implementation phase.

Categorisation of private sector exposure based on borrowers' financial strength

POWF	% of standard private loan	% of overall loan	Leverage
ICR >2x	40.8%	5.4%	1.6
ICR 1x-2x	52.7%	7.0%	2.0
ICR <1x	6.5%	0.9%	2.4
w/w			
Strong promoter group	1.3%	0.2%	

Source: Company Data, MCA, PhillipCapital India Research

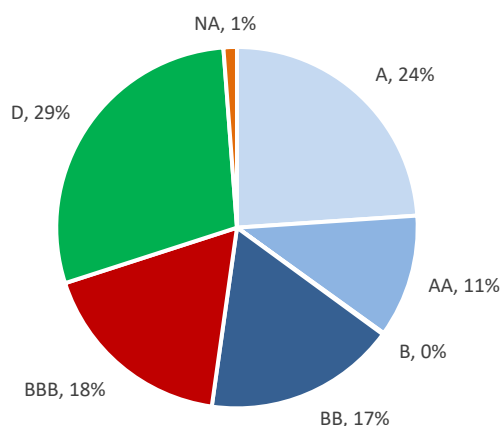
Group-level exposure

POWF Private Group exposure	% of standard private loan	% of overall loan	Leverage
Group 1	21.8%	2.9%	3.0
Group 2	11.9%	1.6%	1.2
Group 3	6.1%	0.8%	4.0
Group 4	4.9%	0.7%	3.8
Group 5	5.4%	0.7%	2.9
Top 10 group	75.0%	10.0%	1.8

Source: Company Data, MCA, PhillipCapital India Research

RECL: Credit-rating-wise profiling of private-sector borrowers

- 35% of borrowers had a credit rating of A and above.
- 35% between BBB and B.
- 29% had D (i.e., non-performing asset).
- 1% ratings were either not available or not recent.

Credit rating of private sector exposure (RECL)


Source: Company Data, Rating agency, MCA, PhillipCapital India Research

RECL: Profiling based on ICR

- The profiling based on interest coverage ratio (ICR) and leverage level indicates that 4.9% of private sector exposures (0.5% of overall exposure) have ICR below 1x.
- The renewable space has undergone lot of project-level mergers and acquisitions in the last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates with stronger balance sheets, or were acquired by sovereign funded investors.
- Top 5 groups constituted 68% of total private sector exposure.

Categorisation of private sector exposure based on borrower's financial strength

RECL	% of standard private loan	% of overall loan	Leverage
ICR >2x	46.2%	4.6%	1.1
ICR 1x-2x	25.0%	2.5%	2.7
ICR <1x	4.9%	0.5%	2.8

Source: Company Data, MCA, PhillipCapital India Research

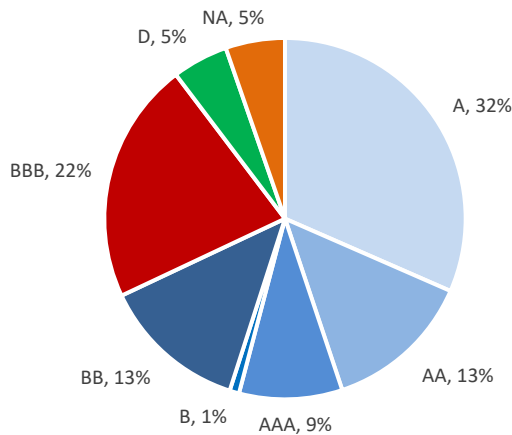
Group level exposure

RECL Private Group exposure	% of standard private loan	% of overall loan	Leverage
Group 1	20.4%	2.0%	1.2
Group 2	17.7%	1.8%	1.1
Group 3	11.2%	1.1%	3.8
Group 4	9.9%	1.0%	1.6
Group 5	9.1%	0.9%	1.9
Top 5	68.2%	6.8%	1.5

Source: Company Data, MCA, PhillipCapital India Research

IREDA: Credit rating-wise profiling of private-sector borrowers

- 54% had credit rating of A and above.
- 36% had credit rating between BBB and B.
- 5% has rating of D (i.e., non-performing asset).
- 5% ratings were either not available or not recent.

Credit rating of private sector exposure (IREDA)


Source: Company Data, MCA, PhillipCapital India Research

IREDA: Profiling based on ICR

- The profiling based on interest coverage ratio (ICR) and leverage level indicated that 10% of its private-sector exposure had ICR of below 1x, within which, 4% was towards entities with strong parentage.
- The renewable space has undergone lot of project-level mergers and acquisitions in the last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates with stronger balance sheets, or were acquired by sovereign funded investors.
- Top 10 groups constituted 50% of its total private sector exposure.

Categorisation of private sector exposure based on borrower's financial strength

IREDA	% of standard private loan	% of overall loan	Leverage
ICR >2x	44.7%	28.1%	1.0
ICR 1x-2x	47.3%	29.8%	2.5
ICR <1x	10.0%	6.3%	2.7
w/w			
strong promoter group	4.0%	2.5%	

Source: Company Data, PhillipCapital India Research

Group-level exposure

Private Group exposure	% of standard private loan	% of overall loan	Leverage
Group 1	14%	9%	1.1
Group 2	10%	6%	4.7
Group 3	9%	5%	1.8
Group 4	7%	5%	4.7
Group 5	3%	2%	NA
Top 10 group	50%	31%	2.0

Source: Company Data, PhillipCapital India Research

FACTOR 3: Non-power infra and logistics widens POWF/RECL's scope

There is a huge potential in the development of the infrastructure and logistics sector through Gol's flagship programmes such as Bharatmala Yojana, Sagarmala Yojana, etc. Under the National Infrastructure Pipeline (NIP), sectors such as energy, roads, airports, ports and railways will contribute to c.70% of the total projected capital expenditure of around Rs 111tn in the sector in India.

Considering the need for investment in infrastructure, POWF and RECL ventured into the infrastructure & logistics sectors, focusing on e-vehicle fleets, charging infrastructure, roads, ports, metro rail, smart cities, and other large infrastructure projects. Their exposure initially restricted to the government and government entities only. Within the non-power infrastructure space, RECL / POWF's major sanctions were towards metro projects. Their chief clients are the central and state sector, private-sector power utilities, power equipment manufacturers, state government departments, and developers of large infrastructure projects.

Loans in infrastructure sectors have long repayment schedules of more than 20 years, with an initial moratorium period (5 years) during the construction phase. Infrastructure funding in India has been subject to credit risk due risks associated with achievability of projected ridership, and delays in execution leading to cost overruns, which in turn hamper the viability of projects. However, the infrastructure projects that POWF and RECL sanctioned are owned (mostly) by sovereign entities and are of national importance. Therefore, we do not see credit risk emanating from these in the near to medium term, even though their spreads can be at risk from the financing of these kinds of projects.

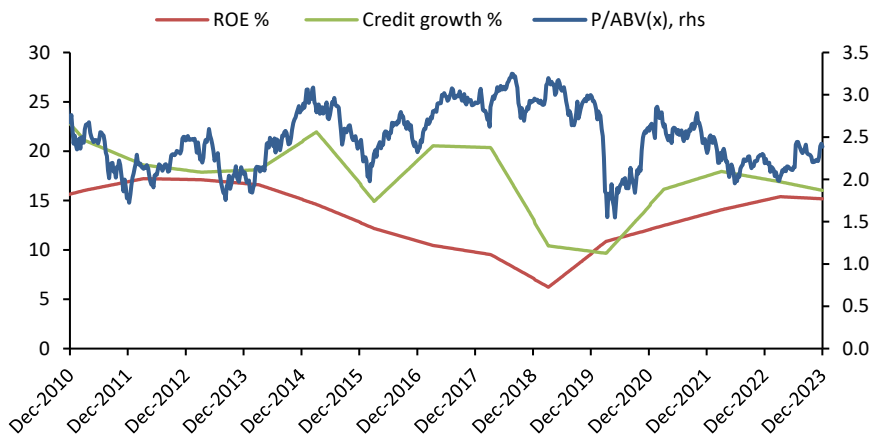
For POWF and RECL, despite long-term funding, there is minimal credit risk due to sovereign ownership of projects

FACTOR 4: Loan growth, superior returns, warrant premium valuation

POWF and RECL's superior return on equity, accelerated growth visibility, and wider scope in infrastructure and logistics sector should enable them to command a valuation premium valuation over the valuations of public-sector banks.

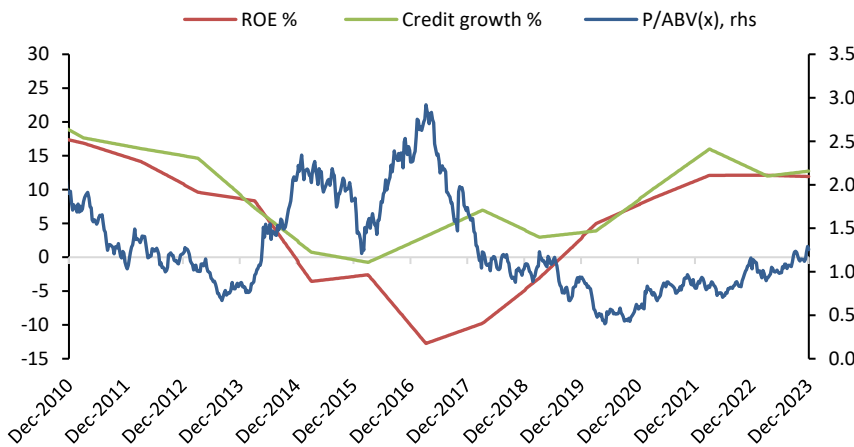
- **Strong loan-book CAGR:** We see POWF's loan book CAGR at 14-15% and RECL's at 17-18% over the next 3-4 years, which we believe would be above the banking system's credit growth.
- **RoE stronger than private and public sector banks:** Their return on equity (ROE) at 18-20% is healthier than public banks' at 12% and private banks' 15%. The healthy ROE seems sustainable given growth visibility and comfort on credit cost.
- **ROE to sustain despite possible compression in spreads:** Multiple funding options and the recent rate hike will keep spreads stable in the near term. However, lower re-pricing of their renewable portfolio after projects commission may pull down spreads marginally. Even factoring for the compression in spreads, in the medium to long term, ROE of 16-17% seems sustainable.
- **Market-cap-to-loan-book matrix:** POWF / RECL trade at 0.17x/0.19x compared to 0.12x for public sector banks (PSB) and 0.40x for private peers. POWF/RECL warrant improvement in their multiple considering growth visibility and healthy return ratios. Comparing POWF / RECL's multiple with PSBs would be unfair, as PSBs have 35-40% loan exposure towards agriculture and SME, which has been under stress across the credit cycle.
- **Price-to-book matrix:** POWF/RECL trade at 1.24x/1.4x one-year forward book value vs. 1.25x for public sector banks and 2.4x for private peers. They warrant a valuation premium over PSBs due to their superior profitability matrix (RoA of 2.7% vs. PSB's 1%) and sustainable credit growth that is above the systemic average.

Private bank – valuation trend compared to growth and profitability



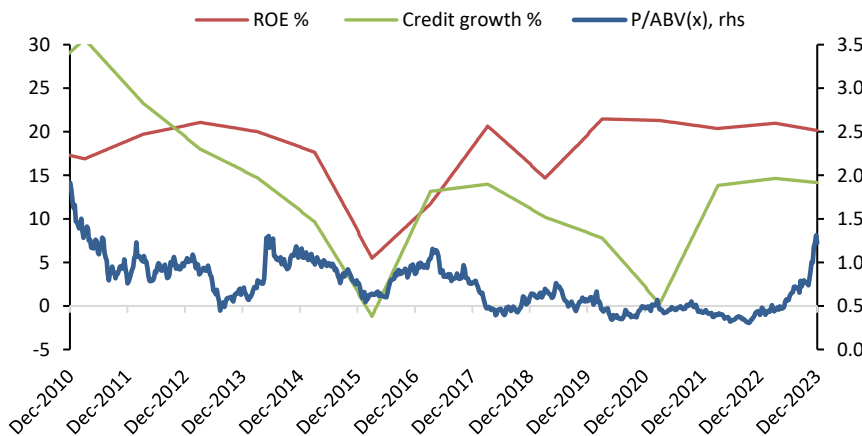
Source: Company Data, PhillipCapital India Research

Public banks – valuation trend compared to growth and profitability



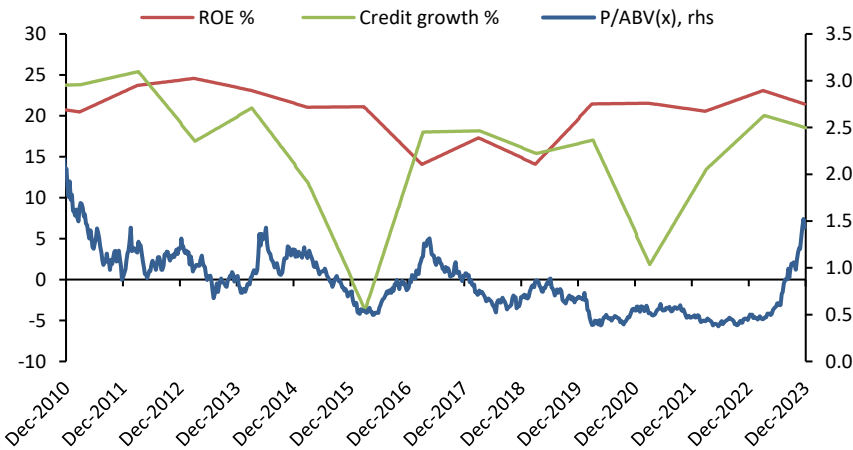
Source: Company Data, PhillipCapital India Research

POWF - valuation trend compared to growth and profitability



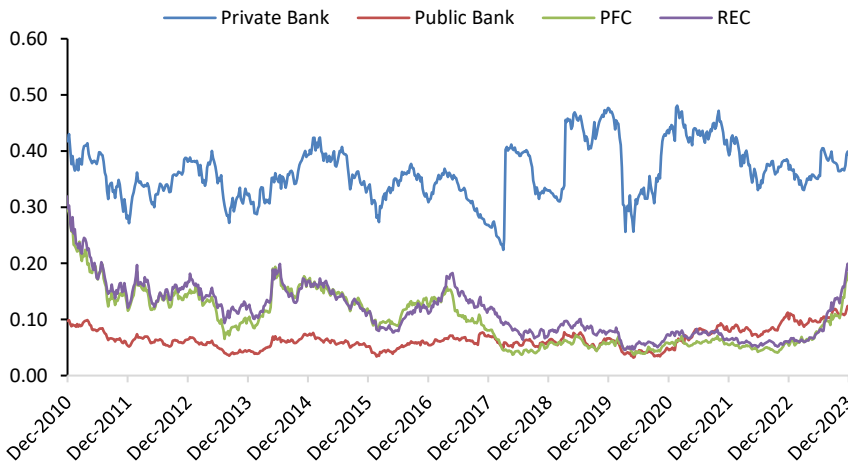
Source: Company Data, PhillipCapital India Research

RECL - valuation trend compared to growth and profitability



Source: Company Data, PhillipCapital India Research

Market cap to loan book: Private and public banks, POWF and RECL

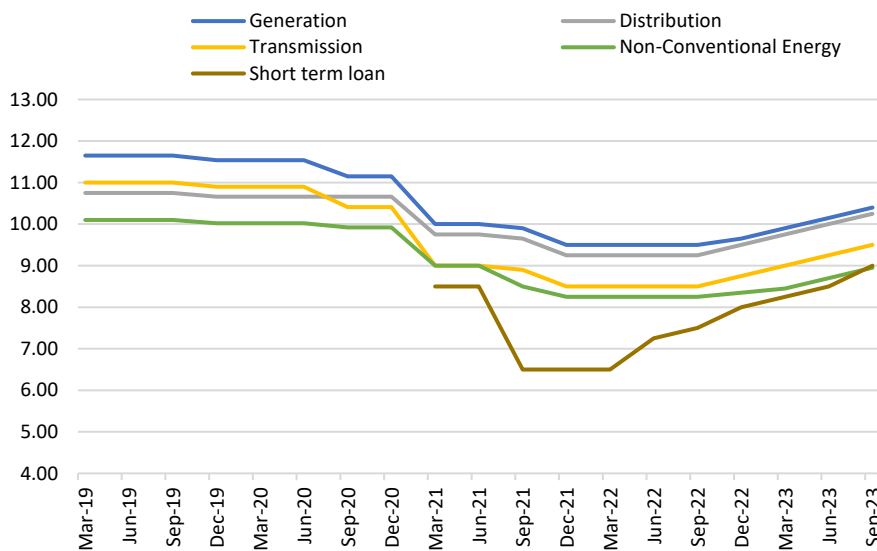


Source: Company Data, PhillipCapital India Research

Spreads to remain stable in the near term

Increase in lending rate: The rise in cost of funds has led to an increase in the lending rates across loan segments. Rate hikes have been c.70-100bps, excluding short-term loans, where hikes have been higher at c.100-150bps. The reset dates vary between 1 and 3 years, except for short-term loans.

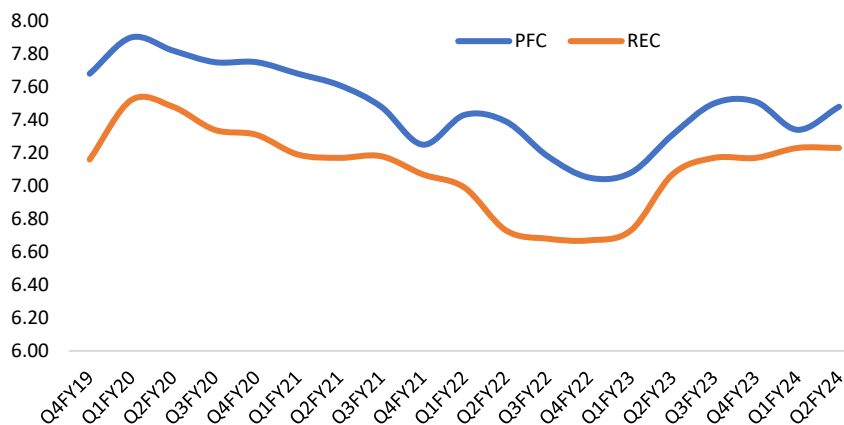
Loan-segment-wise lending rates



Source: Company Data, PhillipCapital India Research

Multiple funding avenues to optimise the cost of funds: Power financiers have multiple borrowing avenues such as taxable bonds, tax-free bonds, 54EC bonds, green bonds, bank loans and overseas borrowings. Against a repo rate increase of 250bps, cost of funds have increased 50-60bps and will continue to see translation of hikes undertaken as and when the back-book of liability re-prices. However, power financiers have multiple option to optimise their funding costs such as higher share of overseas borrowing, green bonds, fresh issuance of tax-free bonds, and 54EC bonds. Due to the rise in cost of funds, the lending rate has increased 70-100bps.

Cost of fund (%)



Source: Company Data, PhillipCapital India Research

Spread to remain range-bound: Due to the rise in funding costs, lending rates have risen to compensate, which we believe will lead to stability in NIMs in the near term. Spreads in high-growth segments such as renewables are lower than ones in traditional segments, which, to some extent, would be compensated by the high-yielding infra segment, thus keeping overall spread range-bound in the medium term.

Loan-segment-wise spread (Yield on fund – Cost of fund) (%)

	Lowest	Highest
Thermal Generation - State	2.9	3.9
Thermal Generation - private	3.4	3.9
Transmission - state	2.0	2.8
Transmission - private	2.5	3.0
Distribution	2.5	3.3
Hydro > 25mw	2.9	3.9
Small hydro	2.0	2.7
Solar / wind	1.5	2.2
Short term loan - Discom	1.5	2.0
Biomass & waste to energy	2.0	2.7

Source: Company Data, PhillipCapital India Research

Opportunities galore

Majority of the opportunity lies in renewable energy projects

We have tried to look at this upcoming opportunity objectively, to arrive at realistic prospects for the power segment in terms of capital expenditure in FY23-30 – and we peg the real total opportunity size at c.Rs 18 trillion, majorly contributed by renewable energy and transmission & distribution projects, with a small contribution from under-construction thermal projects. We see potential brownfield thermal capex demand in the next 1-2 years’ timeframe, given healthy and steady power demand and improving thermal PLF. Apart from the tangible opportunity in conventional and non-conventional power, the scope is open for power financiers in segments such as green hydrogen, infrastructure, and logistics.

Loan opportunities are driven by non-conventional capex in power and infra/logistic segments. We peg the real total opportunity size at c.Rs 18 trillion, majorly contributed by renewable energy and transmission & distribution projects

Capex opportunity in the power sector

	PC estimate	Current capacity (GW)	Conservative case (CEA estimates in GW)	Addition (GW)
Capex required over FY24-30E	Rs bn			
Thermal	1349	212	248	36
Hydro (large + small+PSP)	3003	52	76	25
Gas	0	25	25	0
Nuclear	424	7	12	5
Solar	8559	67	271	204
wind	197	43	75	33
Other (renewable)	185	11	15	4
Total Generation capacity	13716	415	722	307
		471817 Ckm	514648	42831
Transmission	2440	1185058 MVA	1578682	393624
Distribution (RDSS only)	2000			
Total power sector	18156			

Source: CEA, MOP, PhillipCapital India Research

Renewable power – a focus area for India’s energy security

The Government of India (GoI) has been driving a vibrant renewable energy program aimed at achieving energy security and access, and reducing the carbon footprint of the national economy. India has set a goal to reach energy capacity of 500 GW from non-fossil sources by 2030 and net-zero emissions by 2070. With progressively declining costs, improved efficiency, and reliability, renewable energy (RE) is now an attractive option for meeting the energy needs across different sectors of the economy. However, RE is still evolving in terms of technological maturity and cost competitiveness, and faces numerous market-related, economic, and social barriers. We peg the opportunity size at c.Rs 8.9 trillion in non-conventional renewable energy space – covering solar, wind and biomass. Similarly, we see investment opportunity worth Rs 3 trillion in the hydro-power segment.

India’s aim is to have 500 GW non-fossil energy by 2030, net-zero emissions by 2070. Our renewable energy forecast: Rs 8.9tn (solar, wind, biomass), Rs 3tn (hydro)

Potential capex in renewable segment (ex-hydro)

Non-conventional renewable energy	FY23	FY30E	Addition
Expected Capacity addition in Solar (GW)	67	271	204
Cost per MW (Rs mn)			42
Investment required (Rs bn)			8559
Expected Capacity addition in wind (GW)	43	75	33
Cost per MW (Rs mn)			6
Investment required (Rs bn)			197
Expected Capacity addition in others (GW)	11	15	4
Cost per MW (Rs mn)			50
Investment required (Rs bn)			185
Expected Capacity addition in Renewable (GW)	120	360	240
Grand Total, Rs bn			8940

Source: MNRE, MOP, PhillipCapital India Research

Potential capex in hydro power

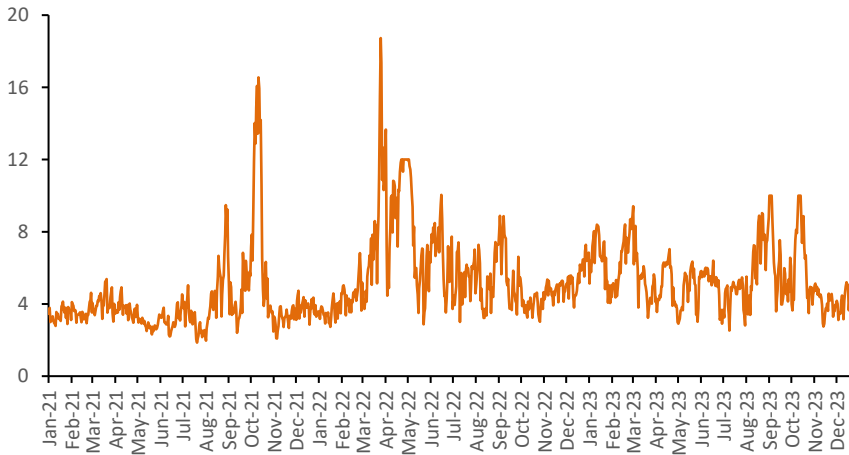
Hydro power	FY23	FY30E	Addition
Large			
Expected Capacity addition in hydro (GW)	42	54	12
Cost per MW (Rs mn)			200
Investment required (Rs bn)			2351
Small			
Expected Capacity addition in hydro (GW)	5	5	1
Cost per MW (Rs mn)			60
Investment required (Rs bn)			36.2
PSP			
Expected Capacity addition in hydro (GW)	5	17	12
Cost per MW (Rs mn)			50
Investment required (Rs bn)			615
Expected Capacity addition in hydro (GW)	52	76	25
Grand Total, Rs bn			3003

Source: MNRE, MOP, PhillipCapital India Research

Thermal: Growing demand, better PLF to drive brownfield expansion

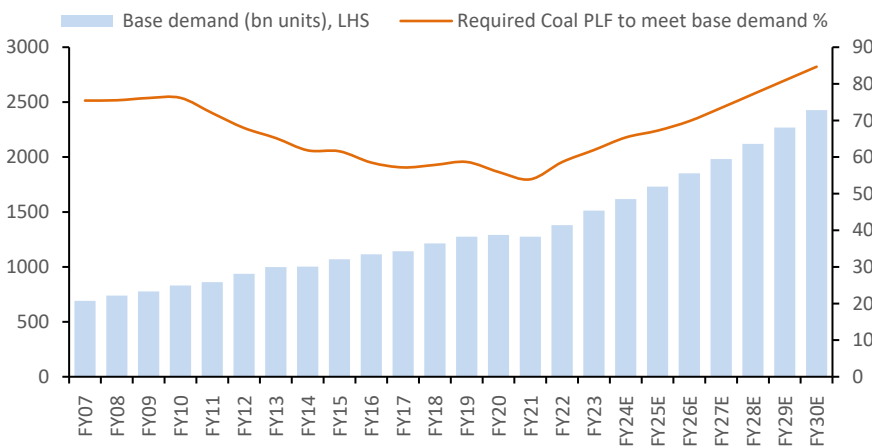
Presently, 36 GW thermal capacity is under-construction (at various stages, or conceptual stage) and being implemented by central and state government entities. The total cost of these projects is likely to be Rs 3 trillion and total investments made so far towards them are Rs 1.7 trillion, leaving the balance Rs 1.34 trillion to be funded over the next few years. We also envisage further capex (not baked in the above numbers) in this space in the next few years, given improving Plant Load Factor (66% currently), and rising power demand.

Power spot rate: Rs per unit (kWh)



Source: IEX, PhillipCapital India Research

Base power demand and required coal PLF



Source: CEA, PhillipCapital India Research

Thermal capacity under construction

Projects	Capacity (MW)	Anticipated trial	Latest cost (Rs bn)	Expenditure made (Rs bn)	Additional expenditure (Rs bn)
Telangana STPP St- I	800	Jul-23	55	54	1
Jawaharpur STPP	660	Sep-23	62	52	9
Obra-C STPP	660	Sep-23	59	46	13
Telangana STPP St- I	800	Sep-23	55	54	1
Dr.Narla Tata Rao TPS St-V	800	Sep-23	90	75	15
Yelahanka CCPP	370	Sep-23	23	23	0
Bhusawal TPS	660	Oct-23	46	35	10
Ghatampur TPP	660	Oct-23	65	51	14
North Chennai TPP St-III	800	Oct-23	87	80	7
North Karanpura STPP	660	Nov-23	81	72	9
Yadadri TPS	800	Dec-23	60	44	16
Yadadri TPS	800	Dec-23	60	44	16
Ghatampur TPP	660	Dec-23	65	51	14
Khurja SCTPP	660	Feb-24	55	39	17
Buxar TPP	660	Mar-24	52	40	13
Panki TPS Extn.	660	Mar-24	58	49	9
Ghatampur TPP	660	Apr-24	65	51	14
Jawaharpur STPP	660	Apr-24	62	52	9
Obra-C STPP	660	Apr-24	59	46	13
North Karanpura STPP	660	Jun-24	81	72	9
Buxar TPP	660	Jul-24	52	40	13
Patratu STPP	800	Jul-24	62	37	25
Barh STPP, St-I	660	Jul-24	213	213	0
Khurja SCTPP	660	Aug-24	55	39	17
Yadadri TPS	800	Aug-24	60	44	16
Yadadri TPS	800	Sep-24	60	44	16
Udangudi v	660	Sep-24	65	42	24
Patratu STPP	800	Dec-24	62	37	25
Sagardighi TPP St-III	660	Jan-25	46	15	31
Udangudi v	660	Jan-25	65	42	24
Yadadri TPS	800	Apr-25	60	44	16
Ennore SCTPP	660	Apr-25	49	30	19
Patratu STPP	800	May-25	62	37	25
Ennore SCTPP	660	Jul-25	49	30	19
Talcher TPP St-III	660	Nov-26	59	3	56
Talcher TPP St-III	660	May-27	59	3	56
Uppur Super Critical TPP	800	On Hold	64	13	51
Uppur Super Critical TPP	800	On Hold	64	13	51
Additional capacity (not yet assigned)	9250		771	0	771
Total	36000		3218	1756	1429

Source: CEA

Transmission: Integrating planned renewable energy

Central Electricity Authority (CEA) has laid out the broad transmission system roadmap for reliable integration of 537 GW renewable energy capacity by the year 2030, a significant step towards successfully achieving India's renewable energy capacity goals. The length of the transmission lines and sub-station capacity planned under (Inter-State Transmission System) ISTS for integration of additional wind and solar capacity by 2030 has been estimated as 50,890 cKM and 433,575 MVA respectively, at an estimated cost of Rs 2.4 trillion. The transmission schemes have been planned considering energy storage to meet the requirement of Round-The-Clock (RTC) power. Several HVDC transmission corridors have also been planned for the evacuation of power from large renewable energy potential zones.

India has ambitious plans to connect 537 GW of renewable energy by 2030, by boosting clean power with new lines, storage, and high-voltage corridors

Transmission expansion with two-tier grids, private-sector participation

Transmission requirements are sensitive to load growth and generation additions and therefore, the overall growth in the power sector in India will lead to capacity addition in the transmission sector, which is a vital link in the power-supply value chain. In India, the transmission system is a two-tier structure – inter-state / intra-state – owned by central / state utilities, with some participation from private sector entities in both segments. Over the last 30 years, the transmission network in India has grown significantly, driven by the need to support a growing load and provide connectivity to generation projects.

Growth of transmission lines at the end of each plan (all figures in cKM, i.e., circuit km)

	6th Plan	7th Plan	8th Plan	9th Plan	10th Plan	11th Plan	12th Plan	13th Plan	Expected cKM by FY30
HDVC Bipole etc	-	-	1,634	3,138	5,872	9,432	15,556	19,375	27,495
765 kV	-	-	-	971	2,184	5,250	31,240	51,938	77,898
400kV	6,029	19,824	36,124	49,378	75,722	1,06,812	1,57,787	1,96,138	2,11,896
220kV	46,005	59,631	79,600	96,993	1,14,629	1,35,980	1,63,268	1,96,307	1,97,359
Total ckm	52,034	79,455	1,15,724	1,47,342	1,92,535	2,48,042	3,52,295	4,44,383	4,95,273

Source: CEA, Ministry of Power, PhillipCapital India Research

Growth of transmission lines at the end of each plan (all figures in MVA, i.e., mn volt-amperes)

	6th Plan	7th Plan	8th Plan	9th Plan	10th Plan	11th Plan	12th Plan	13th Plan	Expected MVA by 2030
HDVC Bipole etc	-	-	-	5,000	8,000	9,750	19,500	33,500	58,500
765 kV	-	-	-	-	-	25,000	1,67,500	2,67,700	5,42,200
400kV	9,330	21,580	40,865	60,380	92,942	1,51,027	2,40,807	4,08,933	5,43,008
220kV	37,291	53,742	84,177	1,16,363	1,56,497	2,23,774	3,12,958	4,34,974	4,34,974
Total ckm	46,621	75,322	1,25,042	1,76,743	2,49,439	3,99,801	7,21,265	11,11,607	15,20,182

Source: CEA, Ministry of Power, PhillipCapital India Research

Distribution: Aim is to improve operational efficiency

Power Finance Corporation and RECL act as nodal agencies for reforms-based and results-linked RDSS (notified by the Government of India by an OM dated 20 July 2021), with an outlay of Rs 3 trillion and estimated Gross Budgetary Support (GBS) from the central government of Rs 0.97 trillion over a period of 5 years (FY21-26). The objectives of the Revamped Distribution Sector Scheme (RDSS) include reducing aggregate technical & commercial (AT&C) losses at pan-India levels of 12-15% and reduction in Average Cost of Supply - Average Revenue Realization (ACS-ARR) gap to zero by the year 2024-25, both extremely important milestones for the holistic growth of the power sector. The scheme also lays special emphasis on leveraging advanced technologies like artificial intelligence and machine learning.

POWF and RECL administer the 5-year, Rs 3tn RDSS that focuses on reducing losses and leveraging technology

Infrastructure funding opportunity

POWF and RECL have ventured into the infrastructure and logistics sectors, focusing on e-vehicle fleets, charging infrastructure, roads, ports, metro rail, smart cities, and other large infrastructure projects. Major clientele include central sector, state sector and private sector power utilities, power equipment manufacturers, state government departments, and developers of large infrastructure projects.

There is a huge potential in development of infrastructure & logistics sectors through Gol's flagship programmes – such as Bharatmala Yojana, Sagarmala Yojana, etc. Under National Infrastructure Pipeline (NIP), sectors such as energy, roads, airports, ports and railways etc., will contribute to c.70% of the total projected capital expenditure of around Rs 111 trillion in these sectors in India.

POWF and RECL have diversified beyond power, entering infrastructure and logistics with promising prospects due to government programs like Bharatmala and NIP

India's initiatives for green hydrogen

India's announcement – that it aims to reach net zero emissions by 2070 and to meet fifty percent of its electricity requirements from renewable energy sources by 2030 – is a hugely significant moment for the global fight against climate change. India is pioneering a new model of economic development that could avoid the carbon-intensive approaches that many countries have pursued in the past – and provide a blueprint for other developing economies.

The National Green Hydrogen Mission has been approved by the Union Cabinet on 4th January 2023 with an outlay of Rs 197bn. The mission aims at making India a global hub of green hydrogen production, utilization, and exports. A key component of the proposed mission is to establish a conducive research and innovation ecosystem for green hydrogen in the country. India plans to produce 5 MT of green hydrogen by 2030. As per government data, the hydrogen mission would entail a total investment of Rs 8 trillion, translating into some loan opportunities for power financiers like POWF and RECL.

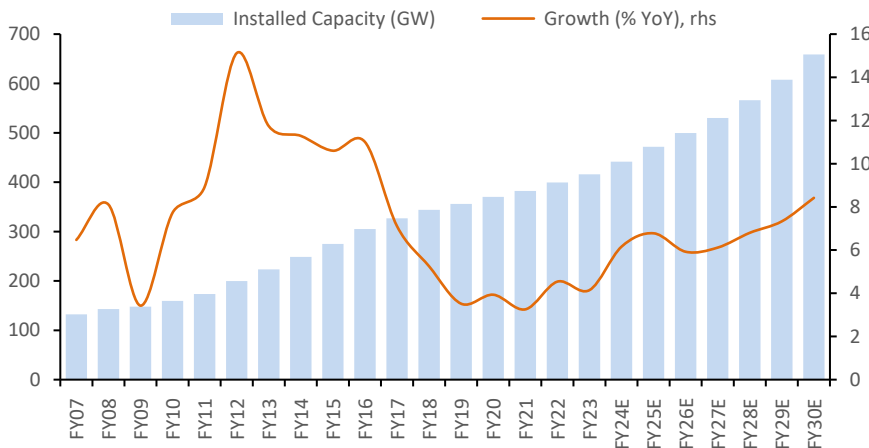
Rs 197bn Green Hydrogen Mission aims 5 MT production by 2030. Would entail Rs 8tn investment, offering RECL, POWF opportunities

India's power sector: An overview

Total installed power capacity in India as of March 2023 is 416 GW comprising conventional sources like coal (212 GW), gas (25 GW), diesel (0.6 GW), nuclear (6.8 GW), hydro (47 GW), and non-conventional sources like wind (43 GW), solar (67 GW) and Res (11 GW). CAGR from 1982 to 2021 has been 7.7% with gears shifting in favour of renewable energy as a viable option for power generation.

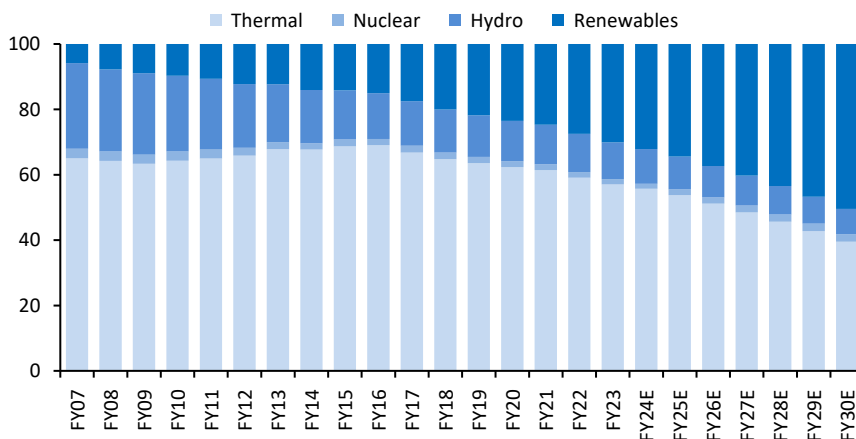
India's power mix: 51% coal, 16% solar, 10% wind, 11% hydro. Shifting to renewables, with 8% CAGR from 1982 to 2021

Power capacity scenario in India



Source: CEA, PhillipCapital India Research

India's source-wise power capacity



Source: CEA, PhillipCapital India Research

Growth in per-capita electricity consumption

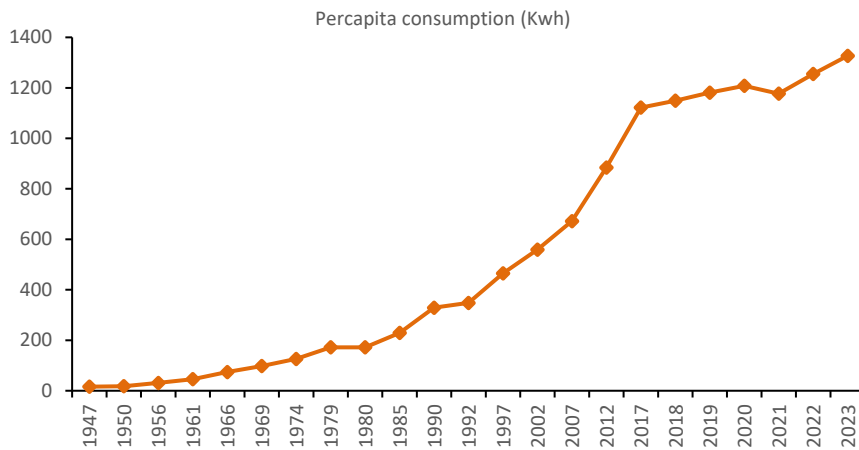
An economy's production and consumption of electricity are basic indicators of its size and level of development. India's per-capita consumption of electricity was 1,327 kWh as of 2021-23. For context, the global per capita consumption was 3,070 kWh in 2022, which puts India's consumption that year at 1,255 kWh per capita. Brazil / South Africa / and China's consumption per capita in 2022 was 3162 / 3566 / 6199 kWh.

Sources of power generation range from conventional such as coal, gas, diesel, nuclear, and hydro, to non-conventional such as wind, solar, agricultural, and domestic waste

However, thermal is the largest source of power in India and is seeing a CAGR of 6.7% between FY10 and FY23

India's per-capita electricity consumption lags behind global and peer averages, indicating scope for increased consumption as development progresses

India’s per-capita power consumption is lower than the developed and developing world (Kwh)

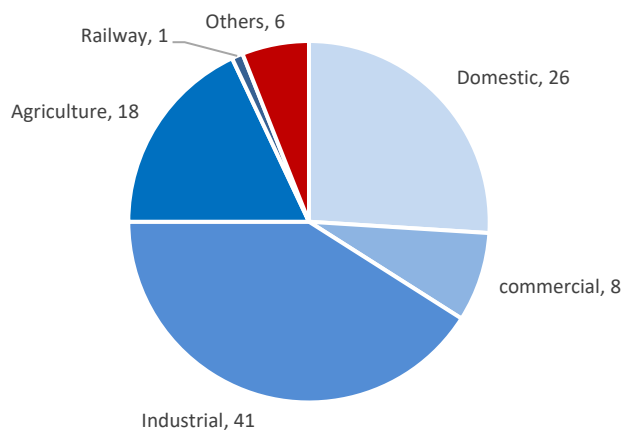


Source: MOP, PhillipCapital India Research

Government is focusing on commercial/industrial usage of electricity

Industrial segment contributes 41% of electricity consumption, domestic 26%, commercial 8%, and agriculture 18%. Domestic and agriculture segments are subsidised, hence for the improvement of financial health of Discoms, the growth in industrial and commercial consumption is imperative. The GOI move to increase domestic manufacturing, focus on infrastructure growth like metros, ports, and airports, and thrust on increasing electrification of mobility segments will drive commercial and industrial usage.

Segment-wise electricity consumption



Source: MOP, PhillipCapital India Research

Power demand and supply status

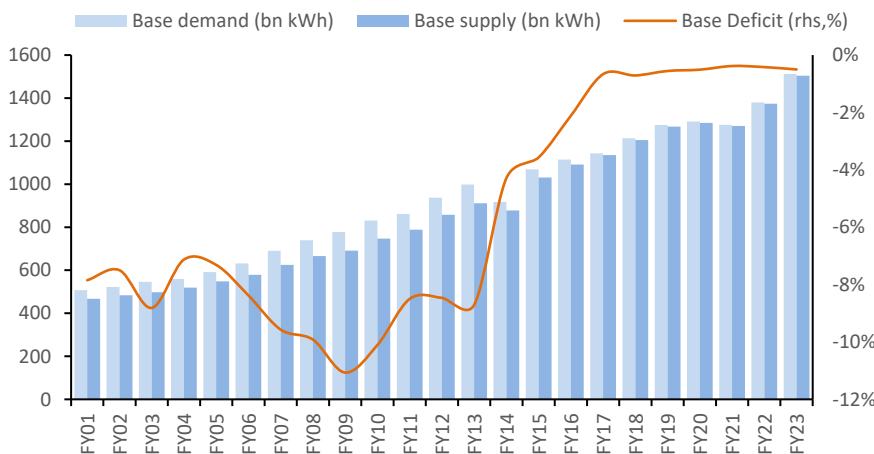
Power demand is surging at a healthy pace in India, surpassing capacity addition

During FY19-23, the CAGR of power generation capacity was 4% while that of power demand was c.4.4%. Within the capacity added, thermal CAGR was 1.4% whereas renewable was 12.7% (note PLF for renewable is sub 20%). As a result, PLF for the thermal segment increased to 64.2% in H1FY24 from 55.9% in FY20. The impetus on manufacturing, electrification of mobility, and the infrastructure push towards rail and road networks will continue to add to power demand in India.

Peak deficit has started rising due to rise in power demand

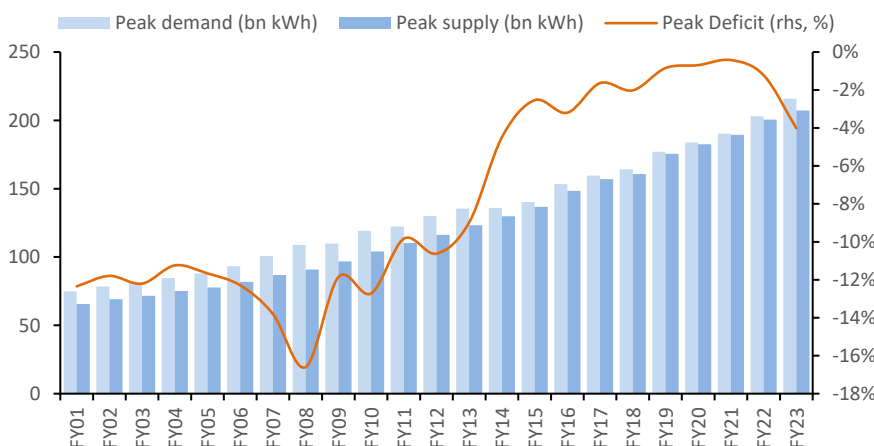
- Peak deficit increased to -4% in FY23 from low of -0.69% in FY20.
- Base demand for FY23 was 1512bn kWh, while supply was c.1,504bn kWh, resulting in a base deficit of 7.6bn kWh, at -0.5%.
- Peak demand in FY21 was 216bn kWh whereas peak supply was 207bn kWh, resulting in peak deficit of 8.6bn kWh, at -4.01%.

Base power demand and supply status



Source: MOP, PhillipCapital India Research

Peak power demand and supply scenario



Source: MOP, PhillipCapital India Research

Future demand and load factor

At this point, the pertinent question is – can the growth in power demand absorb incremental capacity addition?

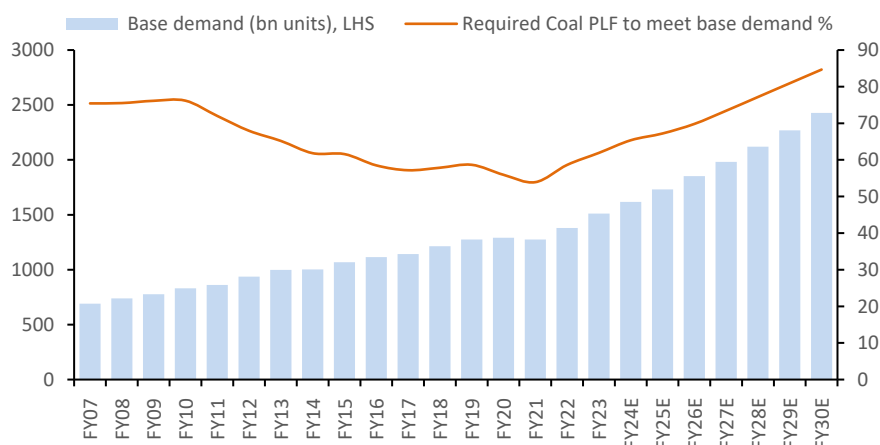
We tried to look at required PLF (Plant Load Factor) for the coal sector, keeping PLF for other sources of power constant. Post covid, between FY21-23, the base power demand has seen a CAGR of 9%, translating into base power demand of 1512 bn kWh in FY23. Factoring a power demand growth of 7% over FY23-30, the base demand should touch 2,423bn kWh by FY30.

We expect India to add 240GW of power capacity (GOI’s ambitious plan is to add 360GW). Out of total 240GW of capacity addition, 200 GW (85%) is expected to be contributed by renewable source. The PLF in renewable power is sub 20%, hence the rising power demand will increase the PLF for thermal capacity.

Based on our calculation, the implied PLF for thermal will reach 85% by FY30, if India’s energy demand sees 7% CAGR. Thermal capacity (brownfield) takes 3-5 years to be commissioned. Given the long gestation period, the capex build up starts much early, so we expect some traction in brownfield expansion in thermal capex to start from FY26.

With India’s base power demand seeing 7-8% CAGR, and plans to add 240GW, thermal PLF may reach 85% by FY30, fuelling brownfield expansions from FY26

Future power demand and implied thermal PLF

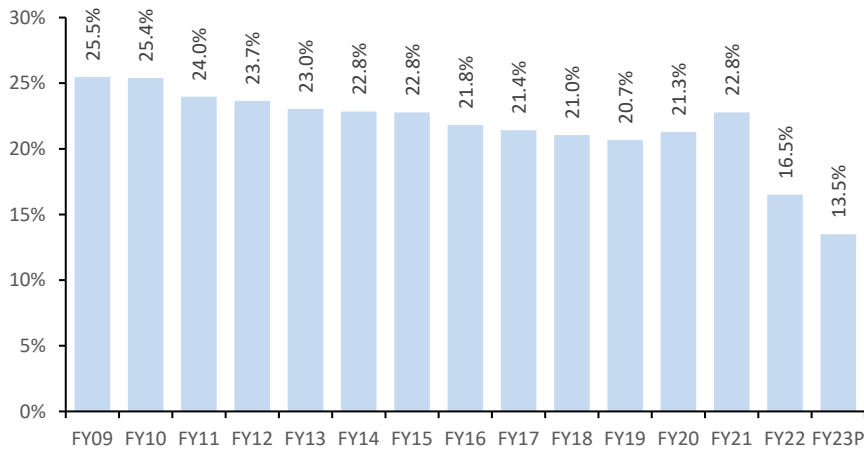


Source: MOP, PhillipCapital India Research

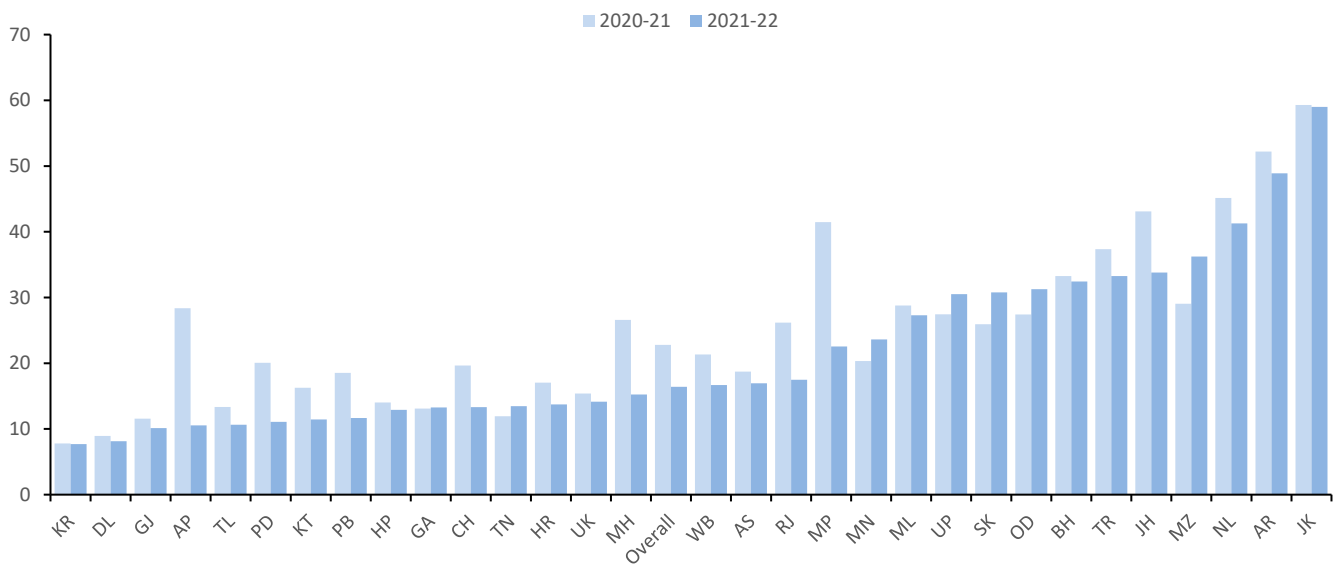
Discoms: Gaining operation efficiency

The weakest link in the power value chain are the Discoms. Their poor financial health has been affecting their ability to buy power for supplying it, and their ability to invest in improving their distribution infrastructure. This impacts the quality of electricity that consumers receive. The key issues that they face for decades now include high AT&C losses, inadequate tariffs, and delays in recovery of subsidy from the state government.

The emphasis on reducing AT&C loss and ACS-ARR gap has seen some results. The government aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR (Average Cost of Supply - Average Realizable Revenue) gap to zero by 2024-25. The AT&C losses for Discoms has come down to 13.5% by FY23. Even the ACS-ARR gap has reduced to 23 paise in FY22 vs. 38 paise in FY19.

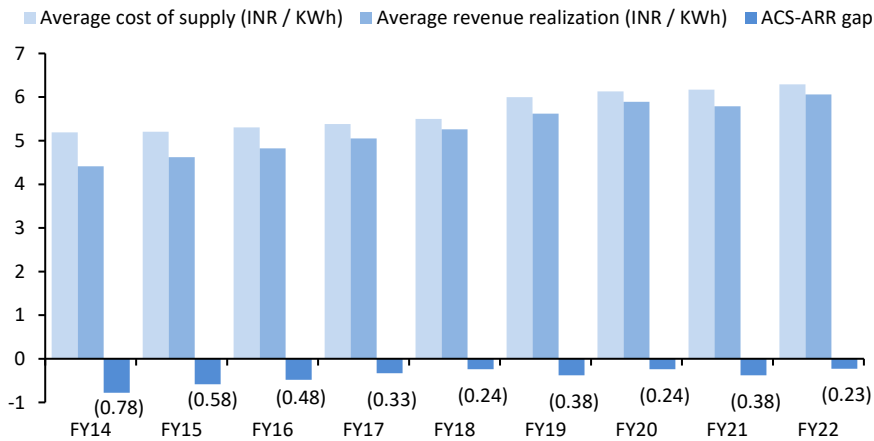
AT&C loss trend


Source: POWF, PhillipCapital India Research

State-wise AT&C losses


Source: POWF, PhillipCapital India Research

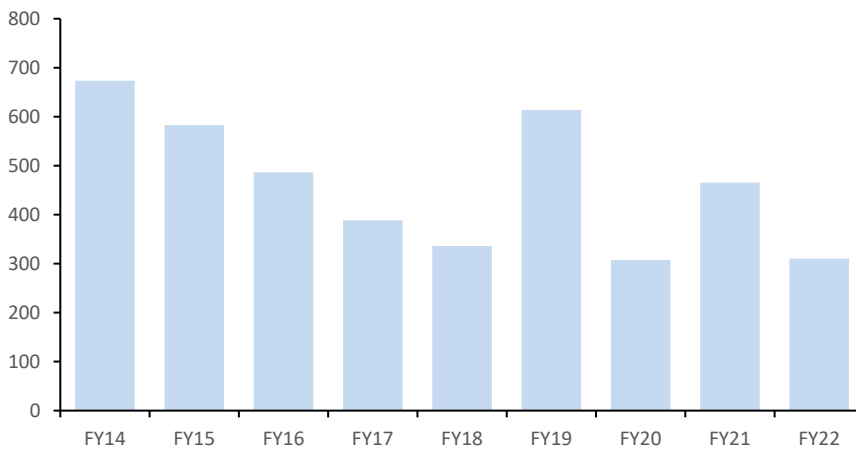
ACS – ARR GAP



Source: POWF, PhillipCapital India Research

Discom losses had mounted during covid but periodic tariff hikes and reducing in AT&C losses brought these down in FY22. Losses in FY23 are likely to decline further as AT&C losses reduce further. G2

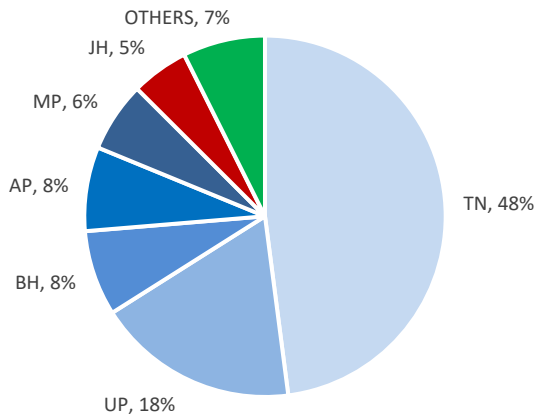
Discom losses (Rs bn)



Source: POWF, PhillipCapital India Research

Two states – Tamil Nadu / Uttar Pradesh – contributed to 66% of Discom losses in FY22, with losses at Rs 165 / 62bn. Discom loans carry unconditional and irrevocable guarantees provided by the state government.

State-wise Discom losses – FY22

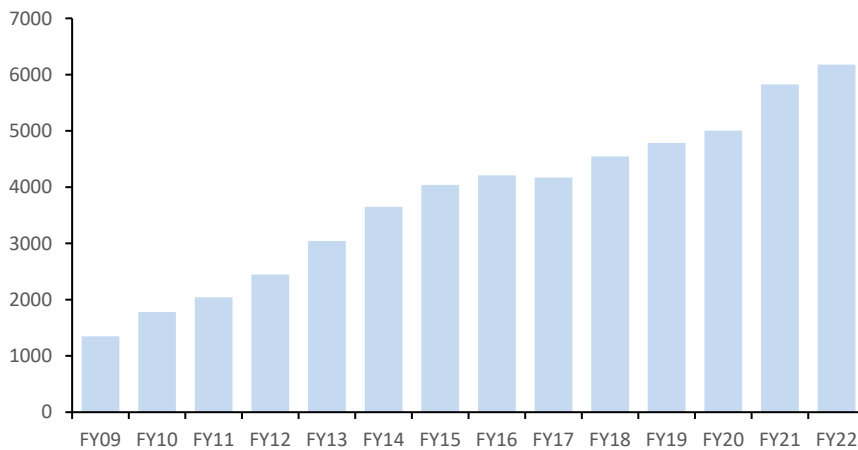


Source: POWF, PhillipCapital India Research

Outstanding borrowings of Discoms continue to increase

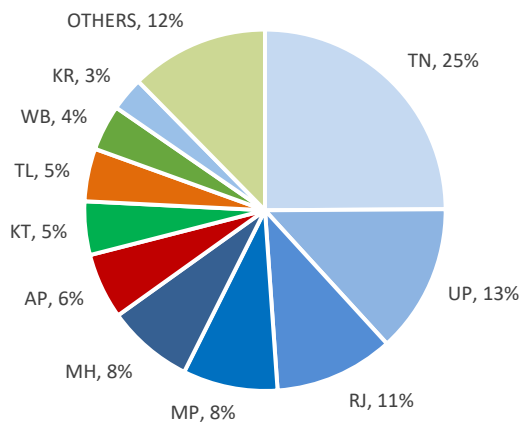
Continued losses in Discoms have increased their overall borrowing to Rs 6.2 trillion at the end of FY22. Outstanding borrowings declined marginally in FY17 after the implementation of the UDAY scheme. However, due to lack of adequate tariff hikes and continued high AT&C losses, outstanding borrowings piled up again.

Discoms’ outstanding borrowings (Rs bn)



Source: POWF, PhillipCapital India Research

Discoms' borrowing distribution



Source: POWF, PhillipCapital India Research

Companies Section

Power Finance Corporation (POWF IN)

Pivotal role in India's green energy transition

INDIA | FINANCIAL | Company Update

02 January 2024

Capex pipeline of Rs 18trillion in the power sector provides sustainable growth opportunity

We see loan-growth CAGR at 14-15% over the next 3-4 years. We looked at this upcoming opportunity objectively to arrive at realistic prospects for the power segment in terms of capital expenditure in FY23-30 – and we believe the real total opportunity size is c.Rs 18trillion, which will majorly come from renewable energy and transmission and distribution projects, with a small contribution from under-construction thermal projects. Additionally, given healthy and steady power demand and improving thermal PLFs (66% now), potential brownfield thermal capex demand in the next 1-2 years is likely.

Margins will remain stable in the medium term

Margins will remain stable in the medium term. The rise in cost of funds will be offset by a 25bps increase in POWF's lending rate, so the company should report stable spreads of c.2.5% and a NIM of c.3.5%. As one third of POWF's loan book gets re-priced per year, the full effects of the rate hike will be visible gradually. Renewable projects are typically low-risk, and so their spread is lower than conventional power projects; as a result, POWF's spreads might see some compression in the long term until they are compensated by high-margin non-power infra finance.

Power-related stress is largely behind us

We expect 0.1%/0.20% credit cost in FY25/26 due to continued recovery in stressed loans and minimal downgrades in stage 3 assets. Improvement in the ratings of Discoms (published by MoP every year) led to reversal of stage 1/2 provisions in FY23, and further improvements in ratings could lead to some more reduction in these provisions.

The profiling based on interest coverage ratio (ICR) and leverage level indicates that 6.5% of the private sector (0.9% of overall book) exposures have ICR below 1x, out of which 1.3% of private exposure (0.2% of overall book) has strong parentage. The renewable space has undergone many project-level mergers and acquisitions in the last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerate with stronger balance sheets or were acquired by sovereign-funded investors. Top 10 groups constitutes 75% of total private sector exposure for POWF.

Key risks

- Asset quality risk due to weak financial health of Discoms.
- Unhedged foreign currency borrowing.
- Rising differential in yield increases the risk of refinance for sound operational projects.

Outlook and valuation

POWF is emerging as a focal agency for funding infrastructure projects and for India's energy transition journey to green energy from fossil-based fuel. The emergence of the new growth opportunities (described above) has increased the visibility. Re-calibration in lending rates has reset spreads to lower levels, which has now bottomed out. The successful resolution of legacy stressed power exposure and more favourable asset quality cycle would keep credit costs low ahead. Resurgence of new growth areas and opportunities has bought investor confidence back to the franchisee, which was considered a dying business until recently. We see merit in ascribing a franchisee value, which is at a premium to its net-worth, which is growing at run-rate of c.18%.

We expect it to deliver earnings growth of 19%/11%/8% in FY24/25/26, translating into return on equity of 17-18%. The stock currently trades at 1.49x/1.25x/1.08x FY24/25/26 BVPS of Rs 193/227/264 (net of investment in REC Ltd). PFC has been consistent in its dividend pay-out (30%). We maintain Buy and revised target price of Rs 500, valuing the company at 1.5x FY26 BVPS of Rs 264 and ascribing value of Rs 123 per share for investment in REC Ltd based on current market capitalisation after 30% holding company discount.

BUY (Maintain)

CMP RS 390

TARGET RS 500 (+28%)

SEBI CATEGORY: MID CAP

COMPANY DATA

O/S SHARES (MN) :	3,300
MARKET CAP (RSBN) :	1,287
MARKET CAP (USDBN) :	15.4
52 - WK HI/LO (RS) :	429 / 106
LIQUIDITY 3M (USDMN) :	70
PAR VALUE (RS) :	10

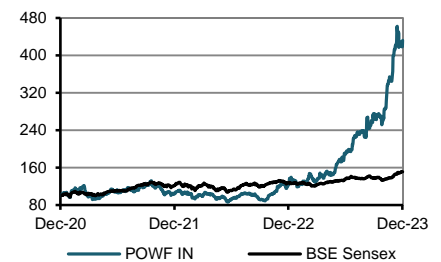
SHARE HOLDING PATTERN, %

	Sep 23	Jun 23	Mar 23
PROMOTERS :	56.0	56.0	56.0
DII :	18.1	18.1	18.6
FII :	17.5	17.5	16.5
OTHERS :	8.4	8.4	8.9

PRICE PERFORMANCE, %

	1MTH	3MTH	1YR
ABS	6.8	54.8	225.7
REL TO BSE	0.3	45.6	208.1

PRICE VS SENSEX



KEY FINANCIALS

Rs bn	FY24E	FY25E	FY26E
Pre-prov. Profit	169	193	216
% growth	22.1	14.1	11.6
Net Profit	138	153	165
% growth	18.9	10.5	8.1
EPS (Rs)	41.8	46.2	50.0
BVPS (Rs)	193	227	264
ROA (%)	2.8	2.7	2.6
ROE (%)	18.9	18.2	17.3

Manish Agarwalla, Research Analyst
magarwalla@phillipcapital.in

Sujal Kumar, Research Analyst
sukumar@phillipcapital.in

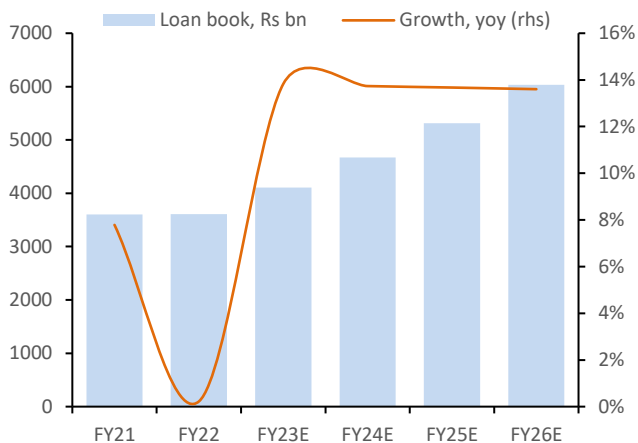
Key charts and tables

SUM OF PARTS VALUATION

Based on FY26E		(Rs bn except per share)
Networth		1024
Less: Net NPA		52
Less: Investment in REC Ltd		145
Adjusted Network		827
Adjusted BVPS		251
Multiple		1.5x
Valuation of standalone business (A)		376
<hr/>		
Market Cap REC Ltd		1100
PFC's share (52.63%)		579
Holding company discount (30%)		174
Value of REC post Holdco. Discount		405
Valuation of REC Ltd per share of PFC (B)		123
<hr/>		
Total value of PFC (A+B)		500

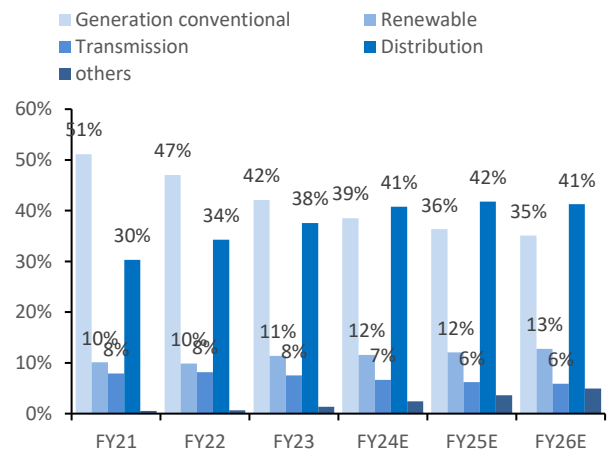
Source: PhillipCapital India Research

Trend in loan growth



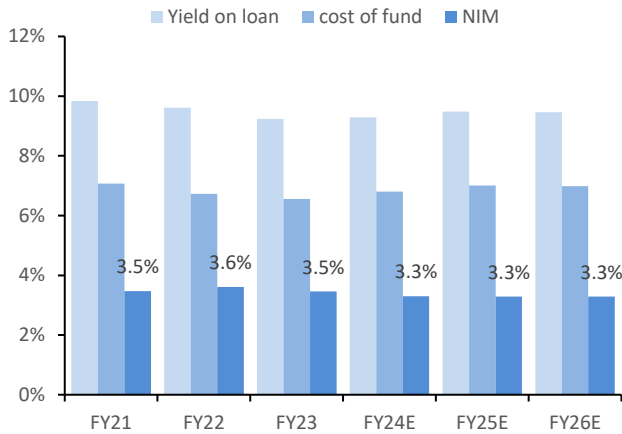
Source: Company, PhillipCapital India Research

Scheme-wise loan book



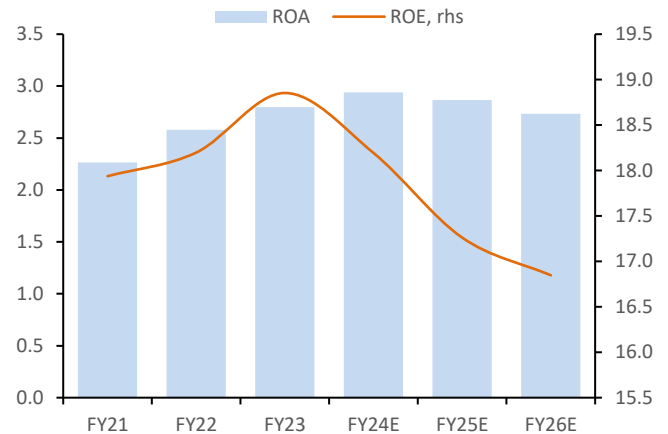
Source: Company, PhillipCapital India Research

Margin trend (%)



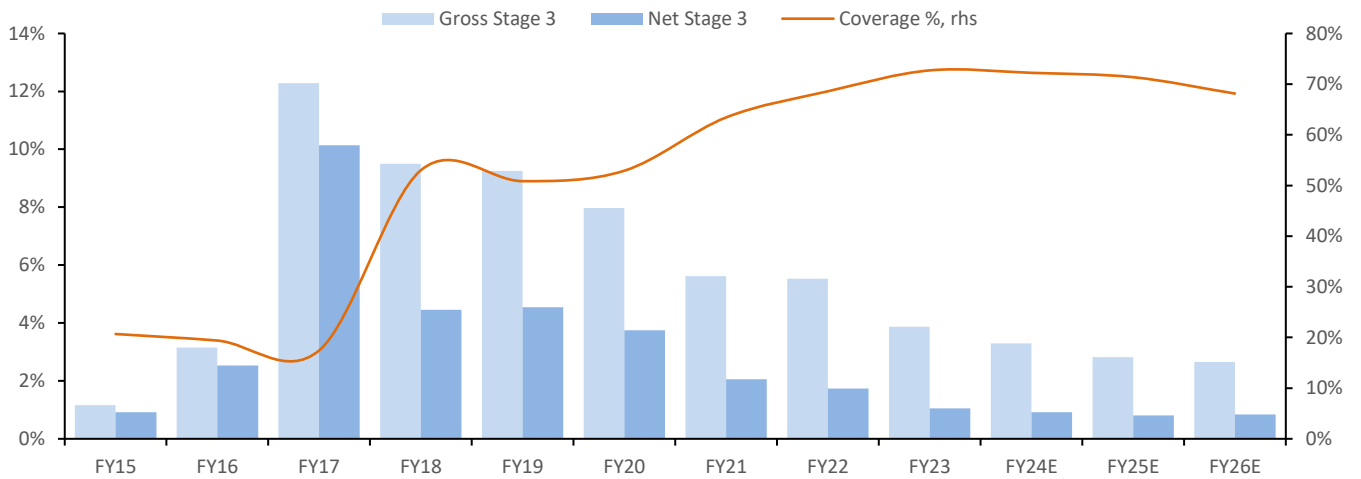
Source: Company, PhillipCapital India Research

Return ratios (%)



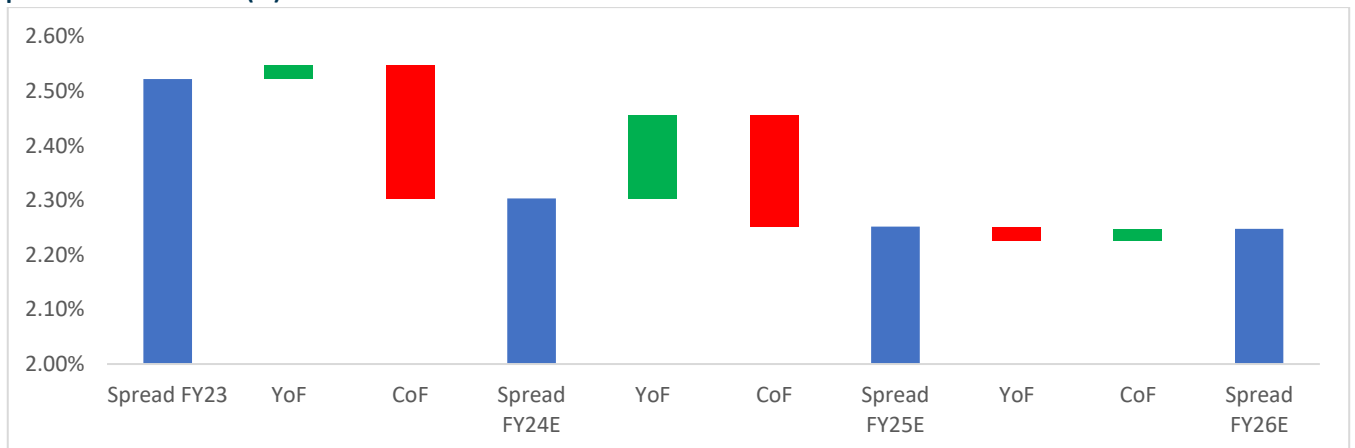
Source: Company, PhillipCapital India Research

Asset quality (%)



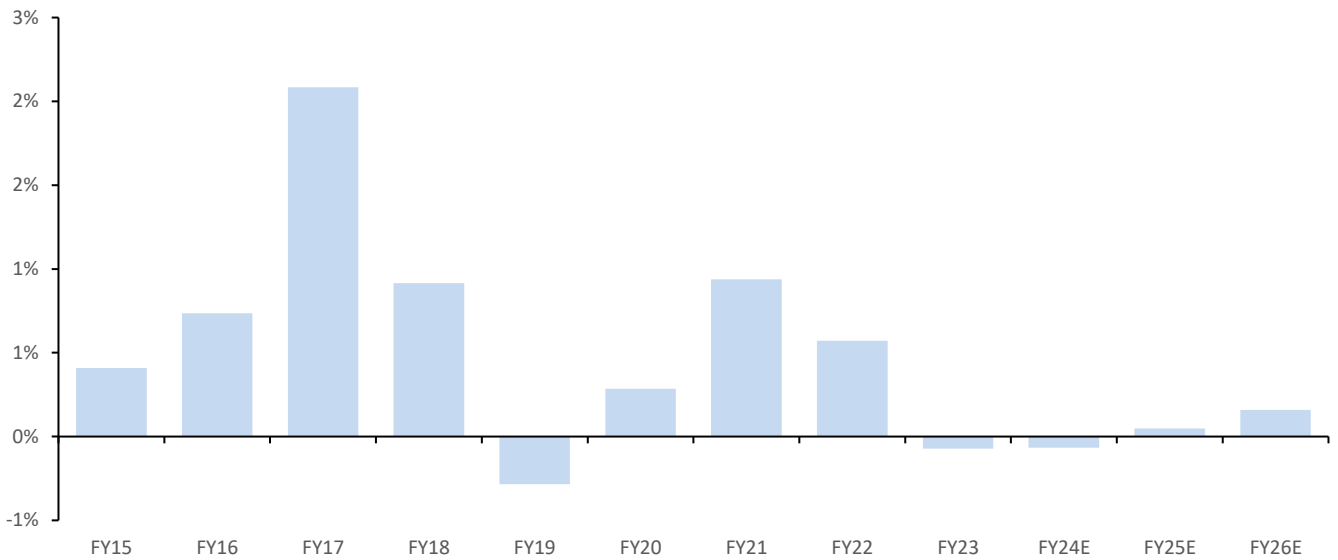
Source: Company, PhillipCapital India Research

Spread waterfall chart (%)



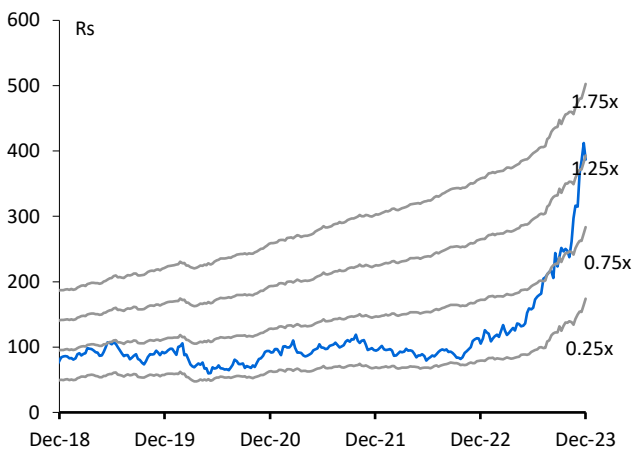
Source: Company, PhillipCapital India Research

Credit cost (%)



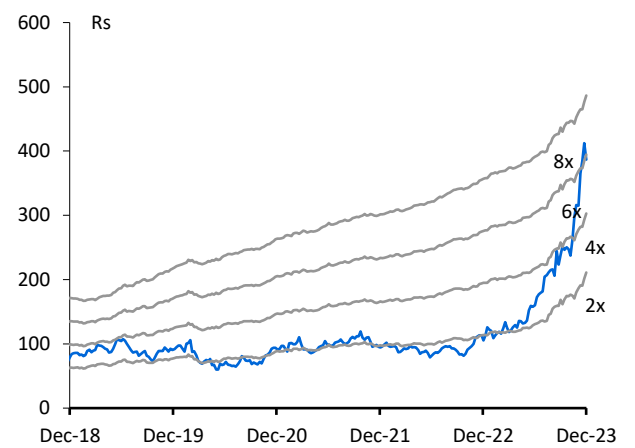
Source: Company, PhillipCapital India Research

Price / book value band chart – one-year forward



Source: PhillipCapital India Research

Price / earnings band chart – one-year forward



Source: PhillipCapital India Research

Financials

Income Statement

Y/E Mar, Rs bn	FY23	FY24E	FY25E	FY26E
Interest on Loans	372	423	488	551
Interest on Investments	4	5	5	5
Others	-	-	-	-
Total Interest Earned	376	427	492	556
Total Interest Expended	233	272	317	358
Net Interest Income	144	155	175	198
Total non-interest income	21	21	23	26
Total Income	165	176	198	224
Personnel Expenses	2	2	3	3
Other Expenses	24	4	2	5
Total Op expenses	26	6	5	8
Net Inc (Loss) before prov	139	169	193	216
Provision for NPAs	(14)	0	0	7
Net Inc (Loss) before tax	142	173	191	206
Provision for Income Tax	26	35	38	41
Net Profit	116	138	153	165

Balance Sheet

Y/E Mar, Rs bn	FY23	FY24E	FY25E	FY26E
Assets				
Cash & Bank	16	17	18	19
Loans, Adv&Int accrued	4,108	4,673	5,312	6,034
Investments	173	190	209	230
Fixed Assets (Net)	1	1	1	1
Other assets	48	53	57	62
Total Assets	4,447	5,040	5,710	6,465
Liabilities				
Share capital	26	33	33	33
Reserves and Surplus	656	749	861	983
Borrowing	3,704	4,184	4,733	5,357
Total Deposits	-	-	-	-
Other liab incld. prov	58	71	79	88
Total Liabilities	4,447	5,040	5,710	6,465

Valuation Ratios

	FY23	FY24E	FY25E	FY26E
Earnings and Valuation Ratios				
Pre-provision Operating RoAE (%)	21.8	23.1	23.1	22.6
RoAE (%)	18.2	18.9	18.2	17.3
Pre-provision Operating ROA (%)	3.2	3.4	3.5	3.4
RoAB (%)	2.7	2.8	2.7	2.6
EPS (Rs.)	44.0	41.8	46.2	50.0
Dividend per share (Rs.)	13.3	13.0	14.0	15.0
BV (Rs.)	162.7	193.1	227.1	263.9
Adj BV (Rs.)	149.1	179.7	213.7	248.0

Revenue Analysis

Interest income on IBA (%)	9.1	9.1	9.3	9.2
Interest cost on IBL (%)	6.6	6.8	7.0	7.0
NIM on IBA / AWF (%)	3.5	3.3	3.3	3.3
Core fee Inc / AWF (%)	0.1	0.1	0.1	0.1
Portfolio gains / Total Inc (%)	11.9	11.4	11.1	10.8
Op.Exp / TI (%)	17.5	4.0	2.7	4.1
Op.Exp / AWF (%)	0.6	0.1	0.1	0.1
Employee exps / Op exps (%)	8.5	38.3	54.5	35.0
Tax / Pre-tax earnings (%)	18.1	20.0	20.0	20.0

Asset Quality

GNPAs / Gr Adv (%)	3.9	3.3	2.8	2.7
NNPAs / Net Adv (%)	1.1	0.9	0.8	0.9

Growth Ratio

Loans (%)	13.8	13.7	13.7	13.6
Investments (%)	7.6	10.0	10.0	10.0
Borrowings (%)	13.1	13.0	13.1	13.2
Networth (%)	14.9	14.7	14.4	13.6
Net Int Income (%)	2.4	7.8	13.1	13.4
Other income (%)	10.1	(0.4)	10.6	11.0
Non-IntExp (%)	74.3	(75.6)	(22.5)	71.2
Profit Before Tax (%)	15.9	21.7	10.5	8.1
Net profit (%)	15.8	18.9	10.5	8.1

Capital Adequacy Ratio

Tier I (%)	21.6	20.7	20.9	20.9
Tier II (%)	2.8	2.7	2.7	2.7
CRAR (%)	24.4	23.4	23.6	23.6

Dupont Analysis (%)

Net Interest Income	3.4	3.3	3.3	3.3
Other Income	0.5	0.4	0.4	0.4
Operating expenses	0.6	0.1	0.1	0.1
PPoP	3.3	3.6	3.6	3.5
Provision	(0.1)	(0.1)	0.0	0.2
PAT	2.8	2.9	2.8	2.7

Source: Company, PhillipCapital India Research

REC Ltd (RECL IN)

Beyond power, non-infra boost drives loan growth

INDIA | FINANCIAL | Company Update

02 January 2024

Strong loan growth aided by non-power infra segment

Apart from normal working capital requirement and maintenance capex, REC can see opportunity from capex in the renewable segment, lending towards the non-power infrastructure space, and disbursement under Revamped Distribution Sector Scheme (RDSS) and Late Payment Surcharge (LPS). We predict a loan book CAGR of 17% over FY23-26 and draw confidence from strong loan sanctions over the last few quarters; Rs 4.6 trillion sanctioned in the last 1.5 years, disbursed worth Rs 1.7 trillion.

Margins to remain stable in the medium term

The rise in cost of funds will be offset by higher lending rates, stabilising spreads at 2.5-2.7% in the medium term. A third of the loan book gets re-priced annually, so the full effect of the rate hike will be visible gradually. Renewable projects are typically low risk, so earn lower spreads than conventional power projects. Hence, spreads might compress in the long term until they are compensated by high-margin non-power infra finance.

Power-related stress is largely behind us

We expect 0.11%/0.10% credit cost in FY25/26 due to continued recovery in stressed loans and minimal downgrades to stage-3. Improvement in Discom ratings (published by MoP every year) led to reversal of stage 1 and 2 provisions in FY23. Further improvement in ratings can lead to some more reduction in these provisions.

The profiling based on interest coverage ratio (ICR) and leverage level indicates that 4.9% of REC's private sector (0.5% of overall book) exposure has ICR below 1x. The renewable space has undergone many project-level mergers and acquisitions in the last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates with stronger balance sheets, or were acquired by sovereign-funded investors. Top-5 groups constituted 68% of total private sector exposure for REC.

Key risk

- Re-pricing pressure in commissioned projects.
- Higher share of low spread renewable business.
- Any regulatory direction on increasing stage 1 and stage 2 provisions.

Outlook and valuation

Power financiers are seeing accelerated disbursement of loans driven by government-sponsored schemes like LPS and RDSS, followed by demand from renewal and infrastructure segment, which should start contributing meaningfully over the next few years. The higher re-pricing of loans led to greater margins. In the long run, we believe spread should settle at 2.5-2.7% vs. 2.74% at present. Healthy recovery in NPAs during the current fiscal and change in Expected Credit Loss (ECL) provisioning norms should keep credit costs lower in the near term. The entity is expected to deliver 28%/7%/15% earnings growth in FY24/25/26 with healthy return ratios of c.20%.

Opportunities in energy transition and infrastructure segments has opened growth avenues for power financiers. A healthy sanction-book provides medium-term loan growth visibility of 17-18% for REC. Stability in NIMs and continuous improvement in asset quality will drive earnings, with healthy return ratios. At CMP, the stock trades at 1.75x/1.50x/1.27x FY24/25/26 BVPS of Rs 254/295/342. Maintain BUY rating with a revised target of Rs 520, valuing REC at 1.5x FY26 book value.

BUY (Maintain)

CMP RS 423

TARGET RS 520 (+23%)

SEBI CATEGORY: MID CAP

COMPANY DATA

O/S SHARES (MN) :	2,633
MARKET CAP (RSBN) :	1,114
MARKET CAP (USDBN) :	13.4
52 - WK HI/LO (RS) :	455 / 110
LIQUIDITY 3M (USDMN) :	65
PAR VALUE (RS) :	10

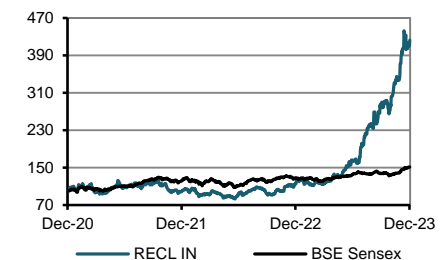
SHARE HOLDING PATTERN, %

	Sep 23	Jun 23	Mar 23
PROMOTERS :	52.6	52.6	52.6
DII :	12.1	12.1	11.9
FII :	21.9	21.9	21.5
OTHERS :	13.4	13.4	13.9

PRICE PERFORMANCE, %

	1MTH	3MTH	1YR
ABS	13.1	47.2	251.3
REL TO BSE	6.6	38.0	233.8

PRICE VS SENSEX



KEY FINANCIALS

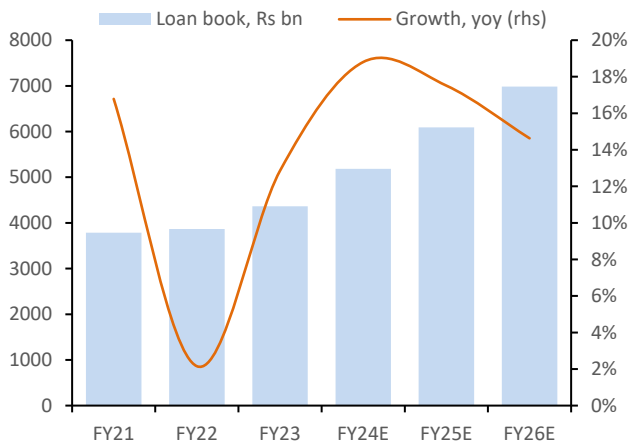
Rs bn	FY24E	FY25E	FY26E
Pre-prov. Profit	166	193	222
% growth	19.7	16.5	14.7
Net Profit	141	151	173
% growth	27.5	6.9	15.0
EPS (Rs)	53.5	57.2	65.8
BVPS (Rs)	254	295	342
ROA (%)	2.5	2.3	2.3
ROE (%)	22.7	20.8	20.7

Manish Agarwalla, Research Analyst
magarwalla@phillipcapital.in

Sujal Kumar, Research Analyst
sukumar@phillipcapital.in

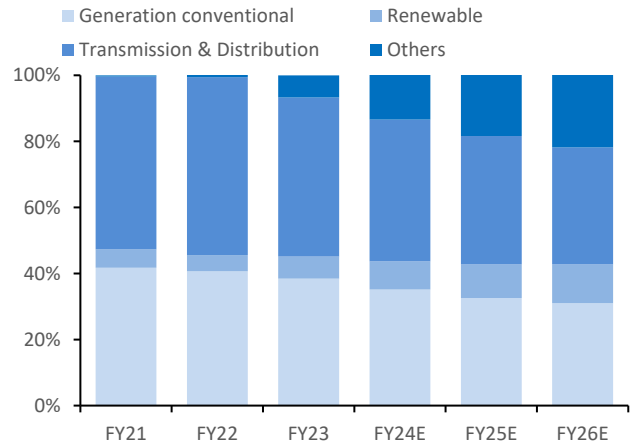
Key charts and tables

Trend in loan growth



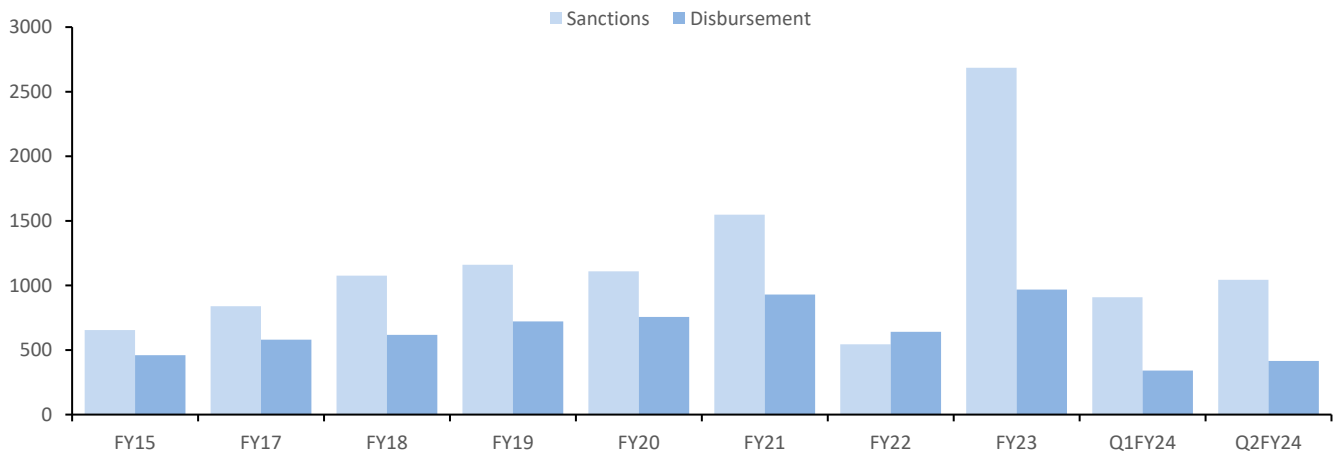
Source: PhillipCapital India Research

Scheme-wise loan book



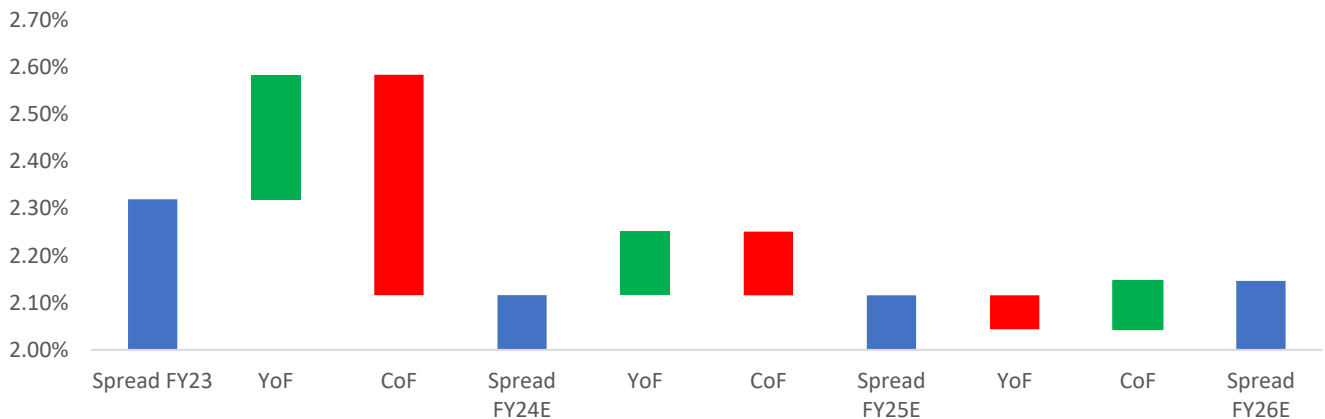
Source: PhillipCapital India Research

Sanction and disbursement (Rs bn)

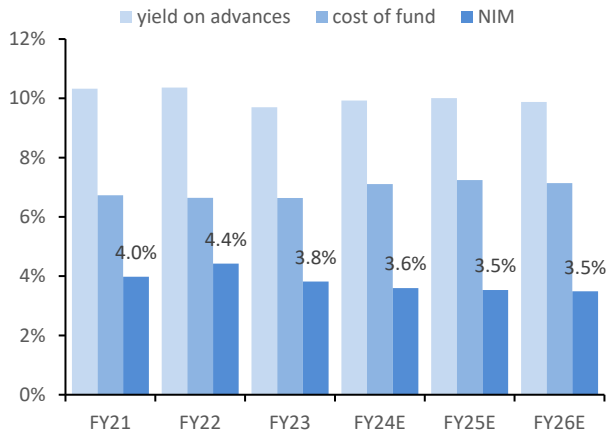


Source: Company Data, PhillipCapital India Research

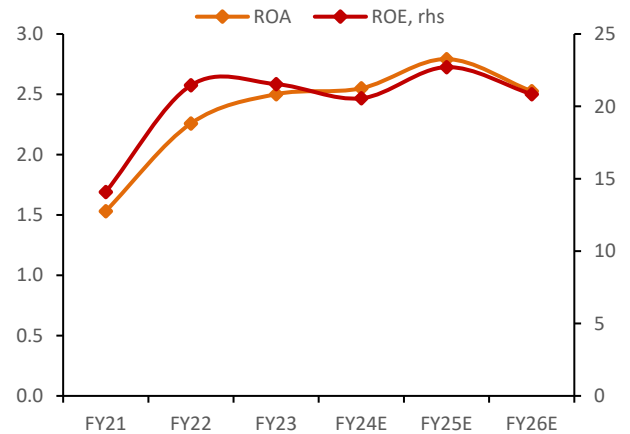
Spread waterfall chart



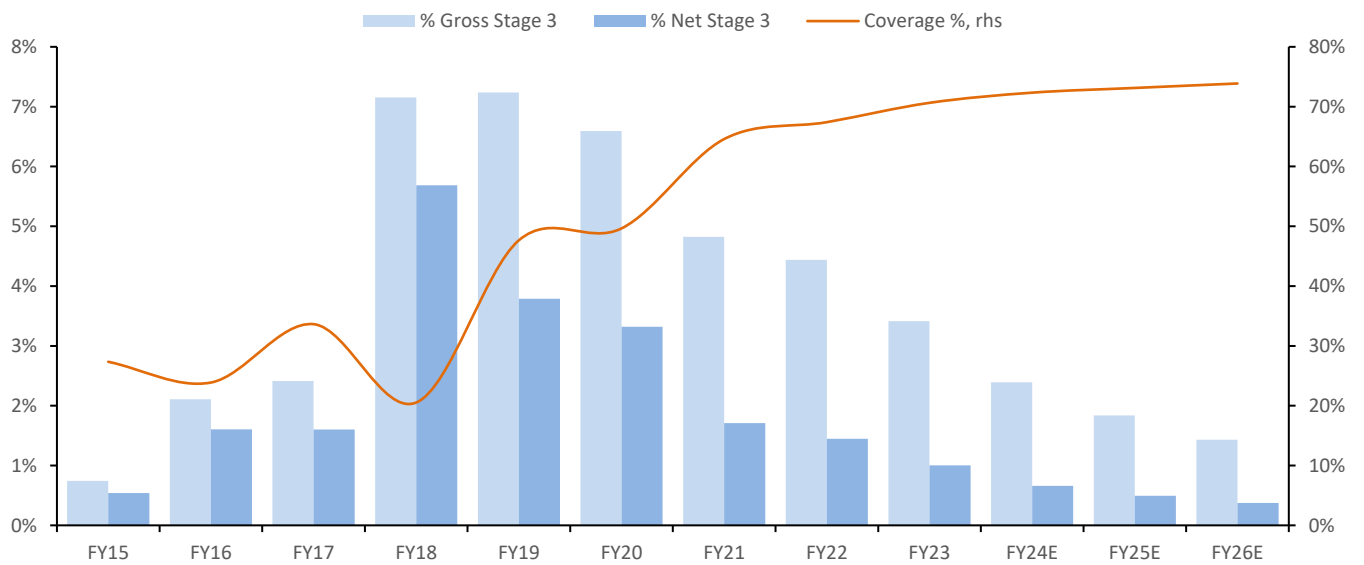
Source: Company Data, PhillipCapital India Research

Margin trend (%)


Source: Company Data, PhillipCapital India Research

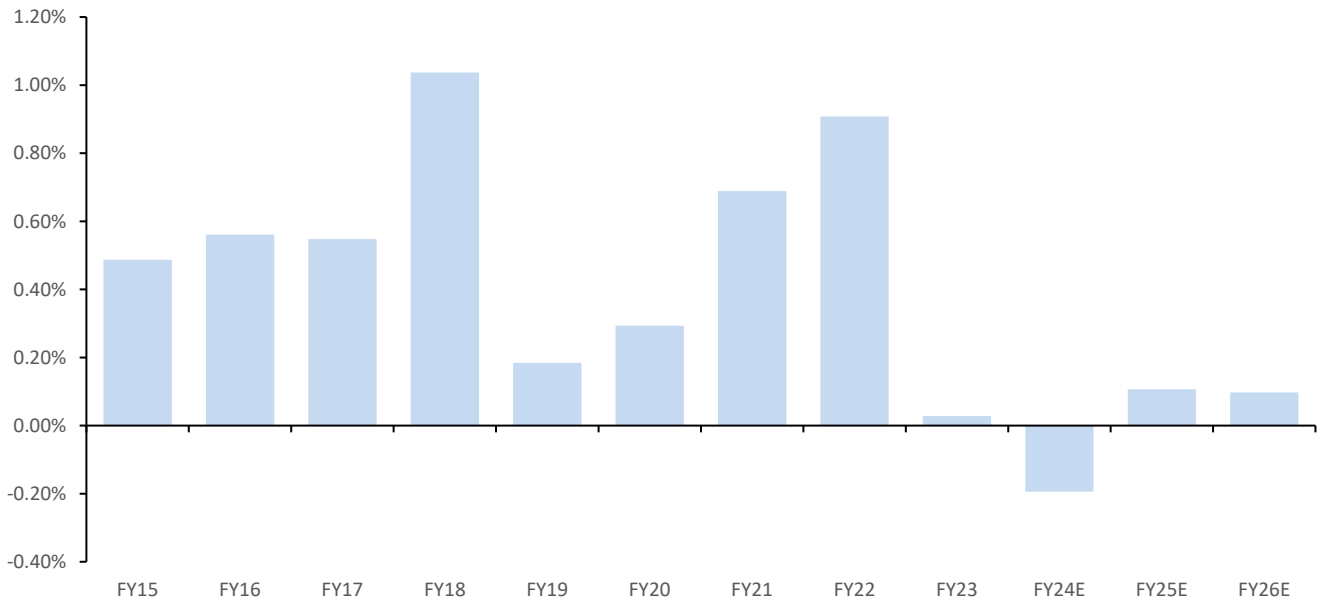
Return ratios (%)


Source: Company Data, PhillipCapital India Research

Asset quality (%)


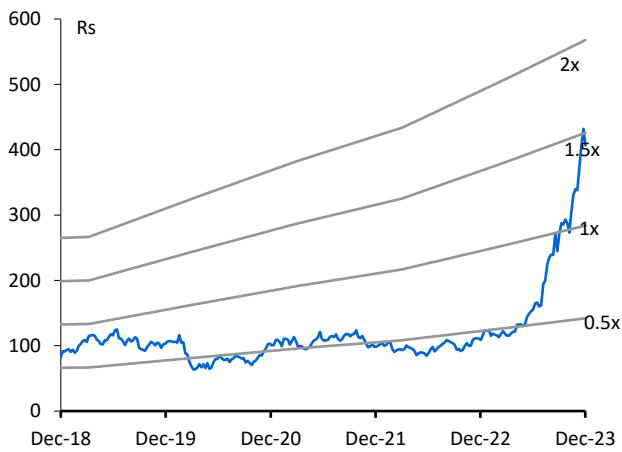
Source: Company Data, PhillipCapital India Research

Credit cost (%)



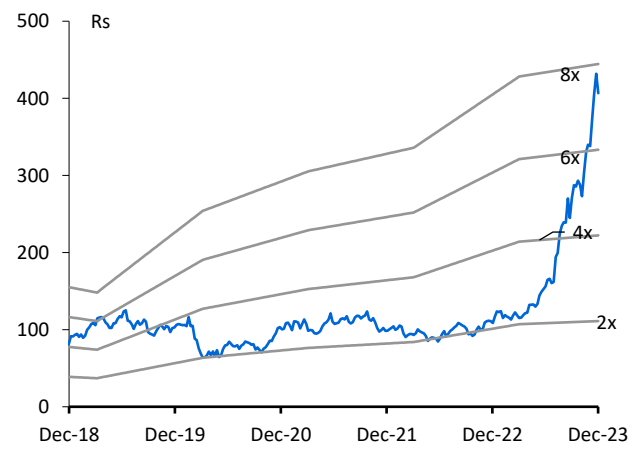
Source: Company Data, PhillipCapital India Research

Price / book value band chart: One-year forward



Source: Company Data, PhillipCapital India Research

Price / earnings band chart: One-year forward



Source: Company Data, PhillipCapital India Research

Financials

Income Statement

Y/E Mar, Rs bn	FY23	FY24E	FY25E	FY26E
Interest on Loans	384	460	552	635
Interest on Investments	5	5	6	6
Others	-	-	-	-
Total Interest Earned	388	466	558	641
Total Interest Expended	237	299	363	417
Net Interest Income	151	167	195	224
Total non-interest income	4	8	5	5
Total Income	155	175	200	229
Personnel Expenses	2	2	2	3
Other Expenses	15	7	4	5
Total Op expenses	17	9	7	7
Net Inc (Loss) before prov	139	166	193	222
Provision for NPAs	1	(9)	6	6
Net Inc (Loss) before tax	137	175	187	215
Provision for Income Tax	27	34	36	42
Net Profit	111	141	151	173

Balance Sheet

Y/E Mar, Rs bn	FY23	FY24E	FY25E	FY26E
Assets				
Cash & Bank	20	23	26	30
Loans, Adv&Int accrued	4,221	5,068	5,980	6,875
Investments	31	35	38	42
Fixed Assets (Net)	6	7	7	7
Other assets	334	365	395	429
Total Assets	4,649	5,534	6,486	7,434
Liabilities				
Share capital	26	26	26	26
Reserves and Surplus	545	644	750	874
Borrowing	3,814	4,594	5,433	6,250
Provision	2	3	3	3
Other liab incld. prov	262	268	274	280
Total Liabilities	4,649	5,534	6,486	7,434

Valuation Ratios

	FY23	FY24E	FY25E	FY26E
Earnings and Valuation Ratios				
Pre-provision Operating RoAE (%)	25.8	26.7	26.7	26.4
RoAE (%)	20.6	22.7	20.8	20.7
Pre-provision Operating ROA (%)	3.0	3.0	3.0	3.0
RoAB (%)	2.4	2.5	2.3	2.3
EPS (Rs.)	42.0	53.5	57.2	65.8
Dividend per share (Rs.)	12.6	16.0	17.0	18.5
BV (Rs.)	216.9	254.4	294.7	342.0
Adj BV (Rs.)	200.3	241.4	283.2	332.1

Revenue Analysis

Interest income on IBA (%)	9.0	9.2	9.4	9.3
Interest cost on IBL (%)	6.6	7.1	7.2	7.1
NIM on IBA / AWF (%)	3.8	3.6	3.5	3.5
Core fee Inc / AWF (%)	0.1	0.2	0.1	0.1
Portfolio gains / Total Inc (%)	10.9	69.2	52.6	52.5
Op.Exp / TI (%)	10.7	5.1	3.4	3.3
Op.Exp / AWF (%)	0.4	0.2	0.1	0.1
Employee exps / Op exps (%)	10.9	22.7	34.0	34.2
Tax / Pre-tax earnings (%)	19.5	19.5	19.5	19.5

Asset Quality

GNPAs / Gr Adv (%)	3.4	2.4	1.8	1.4
NNPAs / Net Adv (%)	1.0	0.7	0.5	0.4

Growth Ratio

Loans (%)	13.5	20.1	18.0	15.0
Investments (%)	45.4	10.0	10.0	10.0
Borrowings (%)	14.3	20.4	18.3	15.0
Networth (%)	13.3	17.3	15.8	16.1
Net Int Income (%)	(6.4)	10.5	17.0	15.0
Other income (%)	(60.1)	90.9	(40.3)	0.2
Non-IntExp (%)	29.9	(46.0)	(25.3)	11.5
Profit Before Tax (%)	10.6	27.4	6.9	15.0
Net profit (%)	10.0	27.5	6.9	15.0

Capital Adequacy Ratio

Tier I (%)	22.8	22.5	22.2	22.5
Tier II (%)	2.9	2.3	2.0	1.7
CRAR (%)	25.8	24.8	24.2	24.2

Dupont Analysis (%)

Net Interest Income	3.4	3.3	3.2	3.2
Other Income	0.1	0.2	0.1	0.1
Operating expenses	0.4	0.2	0.1	0.1
PPoP	3.2	3.3	3.2	3.2
Provision	0.0	(0.2)	0.1	0.1
PAT	2.5	2.8	2.5	2.5

Source: Company, PhillipCapital India Research

IREDA Ltd (IREDA IN)

Rapid loan growth, but spreads under pressure

INDIA | BANKING | Initiating Coverage

02 January 2024

Accelerated loan growth driven by non-conventional segment

With the announcement of 500 GW non-fossil-fuel-based capacity installation by 2030 and net-zero emissions by 2070, India has set itself on one of the most accelerated energy transition trajectories in the world. Indian Renewable Energy Development Agency Limited (IREDA) is the pure-play green financing NBFC in India, well placed to capitalize on the rapid growth in the RE sector. It is the implementation agency for several prominent MNRE schemes and policies. Strong domain knowledge gained over the years and innovative solutions enable it to cater to more than 10 RE sectors such as solar, wind, hydro, biomass, co-generation, EV, waste-to energy, EEC, manufacturing, ethanol. We expect its loan book CAGR at +30% over FY23-26, making it one of the fastest growing NBFCs in the system.

Spreads under constant pressure

Rising cost of funds and increasing growth in low-yielding solar and wind segments will keep its spreads under pressure. These segments have low gestation periods, so projects become operational quite quickly, in just 9-15 months, and after commissioning, risk factors come down, leading to pressure on yields. We have factored NIMs declining 56bps in FY24 on a calculated basis to 2.57%, and remaining range-bound thereafter.

Improving asset quality, but credit costs to start normalising from a low of FY24

Asset quality has seen improvement over the last few years due to better recovery and containment of fresh addition. IREDA saw high stage-3 assets (at 10%) in FY20, marked by high stress in biomass, hydro, and wind segments. With a large part of this stress behind us now, asset quality should improve in the near term.

As a result of high stress in the past, IREDA made accelerated provisions towards stage-3 and stage-2 assets, some of which it reversed in H1FY24. This will translate into negative credit costs in FY24, which will move to normalized levels from there. Higher share of private sector exposure and elevated proportion of vulnerable pool are potential risks in the portfolio.

Key risks

Spread risk: Solar and wind segments will be major drivers for loan growth ahead. Given the portfolio concentration towards renewable projects (which have a short gestation periods), these projects can be subjected to re-pricing risks after commissioning, leading to further pressure on spreads and margins.

Asset-quality risk: Higher share of private sector exposure and higher proportion of vulnerable pool are potential risks in the portfolio.

Outlook and valuation

IREDA to see strong loan growth at a CAGR of 32% over FY23-26 on rising demand for renewable energy in the country. But the earnings growth is not expected to match the loan growth due to pressure on margins and normalisation of credit costs (which was negative in H1FY24). Higher exposure to the private sector and high proportion of the vulnerable portfolio do not provide confidence for low credit costs in the medium term.

We expect IREDA's earnings growth of 28%/25%/17% in FY24/25/26, translating into return on equity of 15.5%/15.3%/15.4%. The stock trades at 3.7x/3.2x/2.7x FY24/25/26 ABVPS of Rs 28/33/38. While loan growth is high, return ratios are weak and there is higher exposure to the private segment – which undermines conviction. We believe the best is already priced in to the stock. We initiate coverage with a SELL rating and a target of Rs 80, valuing the company at 2.1x FY26 BVPS of Rs 38.

SELL

CMP RS 104
TARGET RS 80 (-23%)

SEBI CATEGORY:

COMPANY DATA

O/S SHARES (MN) :	2,688
MARKET CAP (RSBN) :	278
MARKET CAP (USDBN) :	3.3
52 - WK HI/LO (RS) :	123 / 50
LIQUIDITY 3M (USDMN) :	0
PAR VALUE (RS) :	10

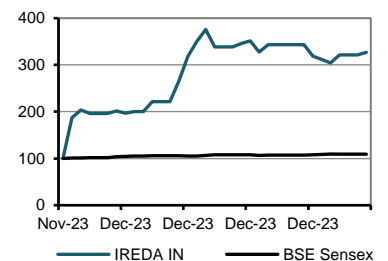
SHARE HOLDING PATTERN, %

	Sep 23
PROMOTERS :	75.00
DII :	8.53
FII :	3.95
OTHERS :	12.52

PRICE PERFORMANCE, %

	1MTH
ABS	65.1
REL TO BSE	58.6

PRICE VS SENSEX



KEY FINANCIALS

Rs bn	FY24E	FY25E	FY26E
Pre-provision Profit	13	18	23
% growth	9.3	36.3	28.9
Net Profit	11	14	16
% growth	28.1	25.1	16.8
EPS (Rs)	4.1	5.2	6.0
BVPS (Rs)	31	36	42
ROA (%)	1.7	1.6	1.4
ROE (%)	15.5	15.3	15.4

Manish Agarwalla, Research Analyst
magarwalla@phillipcapital.in

Sujal Kumar, Research Analyst
sukumar@phillipcapital.in

Valuation methodology
Cost of equity and normalized return on equity assumption

Risk free rate	7.2%
Market risk premium	4.2%
Beta	1.0x
Cost of equity	11.6%
Normalized RoE (Adjusted to market yield on loan)	14.0%

Assumptions for two stage Gordon Growth model (GGM)

High growth period	
Growth during high growth period	5
Dividend payout ratio during high growth period	17%
Steady state growth	30%
Dividend payout ratio during steady state	5%
	64%
Factor 1	1.7x
Factor 2	13.0x
Fair P/B multiple based on two stage GGM	2.1x
Adjusted book value per share (FY21)	37
Fair value per share	80
No of Shares, bn	2.7
Total value of the business, Rs bn	215

Source: PhillipCapital India

Dupont Analysis

	FY22	FY23	FY24E	FY25E	FY26E
Interest income	8.1%	7.7%	7.9%	8.1%	8.1%
Interest expenses	4.7%	4.8%	5.5%	5.6%	5.7%
Spread	3.4%	2.9%	2.4%	2.5%	2.4%
Other income	0.5%	0.3%	0.2%	0.1%	0.1%
Total Income	3.8%	3.2%	2.6%	2.6%	2.5%
Employee cost	0.2%	0.1%	0.1%	0.1%	0.1%
other opex	0.6%	0.3%	0.2%	0.2%	0.1%
Total expenses	0.8%	0.4%	0.4%	0.3%	0.2%
Pre-provision profit	3.0%	2.8%	2.2%	2.3%	2.3%
Provision	0.5%	0.2%	-0.2%	0.0%	0.2%
Profit before tax	2.5%	2.6%	2.5%	2.4%	2.1%
Tax	0.6%	0.6%	0.6%	0.6%	0.5%
Profit after tax	1.9%	2.0%	1.9%	1.8%	1.6%
Return on equity	15.3%	15.4%	15.5%	15.3%	15.4%

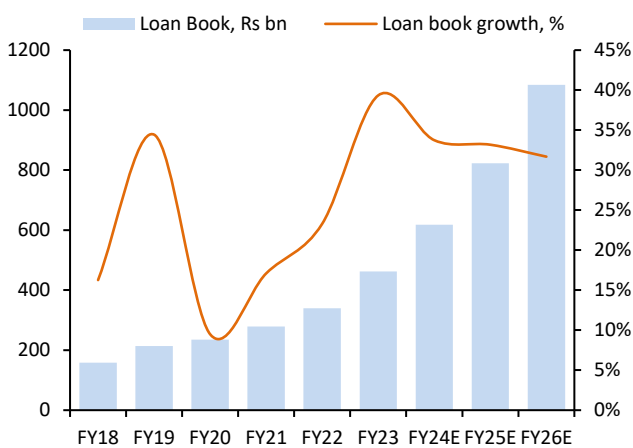
Source: Company, PhillipCapital India Research

Accelerated loan growth driven by non-conventional segment

With India’s announcement of 500 GW non-fossil fuel-based capacity installation by 2030 and net-zero emissions by 2070, the country has set itself on one of the most accelerated energy transition trajectories in the world. IREDA is a pure-play green financing NBFC in India, which is well-placed to capitalize on the rapid growth in the RE sector. It is the implementation agency for several prominent MNRE schemes and policies. Strong domain knowledge gained over the years, and innovative solutions, enables IREDA to cater to more than 10 RE sectors – such as solar, wind, hydro, biomass, co-generation, EV, waste-to energy, EEC, manufacturing, ethanol, among others. We expect loan book CAGR of +30% over FY23-26, making it one of the fastest growing NBFC in the system.

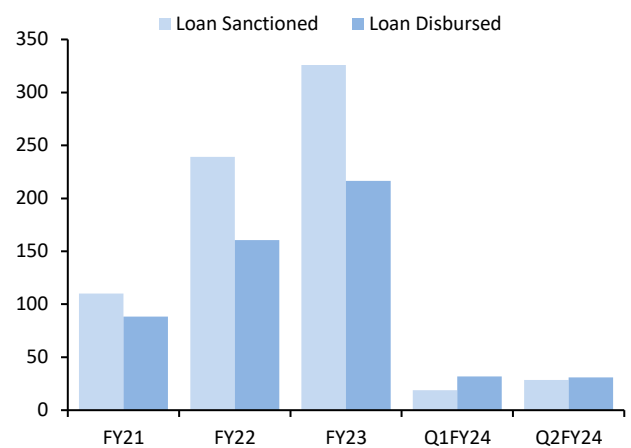
IREDA is a pure-play green financing NBFC. It is poised for rapid growth in the RE sector with strong domain knowledge. We see +30% loan CAGR ahead

Loan book trend



Source: Company, PhillipCapital India Research

Sanction and disbursement trend (Rs bn)



Source: Company, PhillipCapital India Research

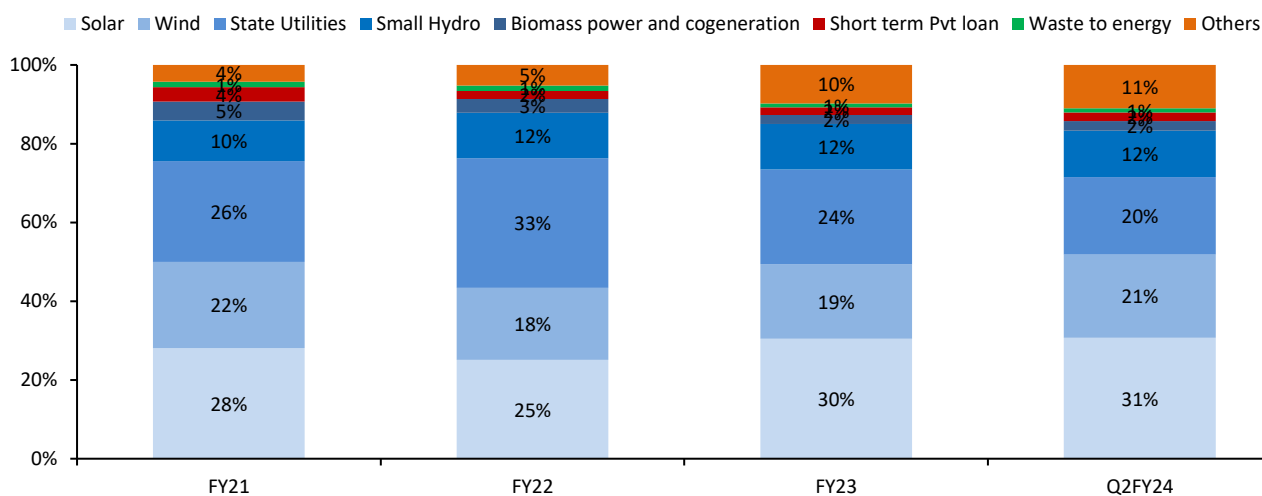
Financial products and solution offered by IREDA

- Loans against securitization of future cashflows of RE projects.
- Guarantee assistance scheme to RE suppliers, developers, manufacturers and engineering, procurement and construction (“EPC”) contractors for bid security.
- Credit enhancement guarantee scheme for raising bonds by our developers against their operating RE assets.
- Special product for funding RE projects through bonds, banks loans and other financial instruments.
- Factoring for purchasing receivables of solar power developers payable by eligible government entities.
- Schemes for biomass-based power co-generation, heat application and ethanol.
- Funding for battery energy storage systems and green hydrogen.
- Financing for e-mobility/ green mobility sector, including fleet financing for EV operators and on-lending for e-mobility/ green mobility financing

IREDA's loan book is concentrated towards solar and wind energy segments

These segments constitute 52% of its loan book. Given strong growth in solar and wind, contribution from this segment should increase to 67% by FY26.

Loan mix (%): Concentrated towards solar and wind energy segments



Source: Company, PhillipCapital India Research

Venturing into the retail segment in renewable funding

IREDA has launched its retail division, geared towards enhancing emphasis on providing loans to borrowers in the PM-KUSUM scheme, Rooftop Solar (RTS), and other Business-to-Consumer (B2C) sectors. It plans to engage with NBFCs for last-mile lending in order to reach out to large number for retail borrowers.

The PM-KUSUM programme is to supply renewable energy to over 3.5 million farmers by solarizing their agriculture pumps. The programme intends to build grid-connected ground mounted solar power plants (up to 2 MW) totalling 10 GW under Component A, 2mn freestanding solar pumps under Component B, and solarizing 1.5mn grid-connected agricultural pumps under Component C. All components combined would support installation of additional solar capacity of 30.80 GW. As on December 2022, 88.45 MW capacity solar power plants were installed under scheme's Component-A, c.181,000 standalone solar pumps were installed under Component-B, and 1,174 pumps were reported solarised under individual pump solarisation variant of Component-C.

Rooftop solar power (RTS) generates electricity for households and public buildings. Rooftop Phase-1 of this initiative began on 30 December 2015, with incentives and subsidies offered for the residential, institutional, and social sectors. Achievement-based incentives were also offered for the government sector. Phase-2 began in February 2019 with the goal of reaching a total capacity of 40,000 MW by 2022. RTS has built approximately 3.7 GW of capacity so far, with another 2.6 GW under construction in the residential market. Central Financial Assistance is given at 40% for RTS systems up to 3 kW capacity and 20% for systems with capacities more than 3 kW. Against the target of 4 GW RTS in residential sector under the programme, around 1.66 GW capacity was reported installed as on 21 December 2022. Overall, nearly 7.6 GW capacity of grid-connected RTS plants were reported installed in the country as on 31 December 2022. Phase 2 of the Rooftop Solar Programme timelines have been extended up to 31 March 2026.

PM-KUSUM targets solarizing agriculture with solar pumps and power plants (30.8 GW) benefiting 3.5mn farmers

Rooftop Solar Phase-1 (began Dec 2015) provides incentives for residential, institutional sectors. Phase-2 (started Feb 2019) aims to touch 40,000 MW by 2022. As of Dec 2022, 7.6 GW installed. Phase 2 extended to March 2026.

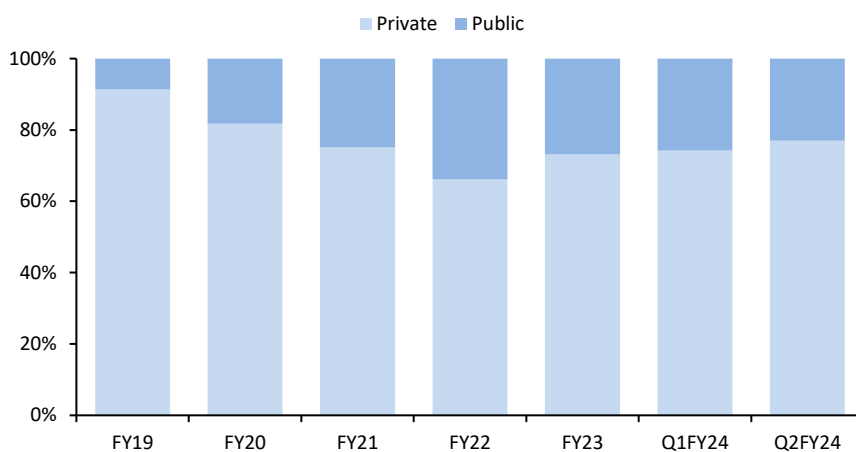
IREDA focuses on renewable energy, even as POWF/RECL widen scope: The lending rate offered by IREDA is similar to what is offered by POWF / RECL. Its focus area remains renewable energy, whereas POWF / RECL carry wider scope of operations covering conventional, non-conventional energy, and non-power infrastructure & logistics.

Lending rate comparison (%)

Segment	POWF / RECL		IREDA	
	Lowest	Highest	Lowest	Highest
Transmission - state	9.5	10.3	9.2	10.5
Transmission - private	10.0	10.5	9.8	10.8
Small hydro	9.5	10.2	9.4	10.4
Solar / wind	9.0	9.7	8.9	9.9
Biomass & waste to energy	9.5	10.2	9.5	10.5

Source: Company, PhillipCapital India Research

IREDA has higher share of loans to the private sector at 77%: This is much higher than 17% for POWF and 10% for RECL. Its share of private book is likely to increase further due to strong demand from solar and wind segments. Due to higher private sector exposure, IREDA's book is more vulnerable than POWF/RECL's.

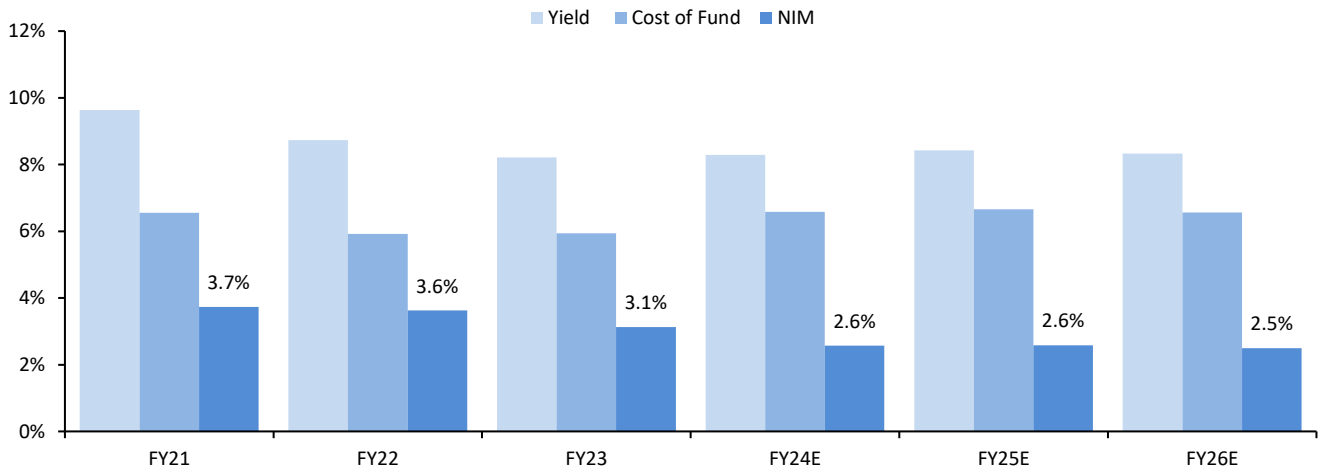
Private and public share in loan book (%)


Source: Company, PhillipCapital India Research

Spreads under constant pressure

Rising cost of funds and increasing growth in low-yielding solar and wind will keep IREDA's spreads under pressure. Solar and wind has low gestation periods, so projects become operational in 9-15 months, and after commissioning, the risk factors fall, leading to pressure on yield. We have factored NIMs declining 56bps in FY24 on a calculated basis to 2.57%, after which they should remain range bound.

Margin trend (%): Pressure on spreads to continue; NIMs to decline in FY24

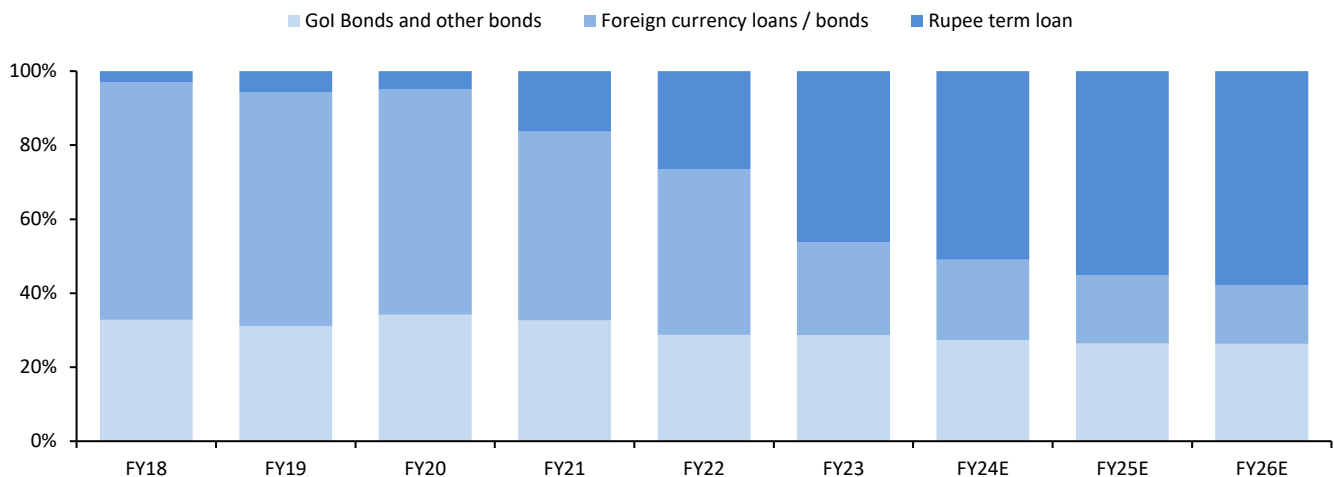


Source: Company, PhillipCapital India Research

Rising cost of fund will cause spread to contract in FY24, remain stable in FY25/26

Domestic banks are a major source of funding for IREDA, contributing 45% of total borrowing. Most public sector banks have banking relationships with IREDA, offering loans at the repo rate. Taxable bonds contributes 22%, tax-free bonds 7%, foreign currency 24%, and the rest 2%.

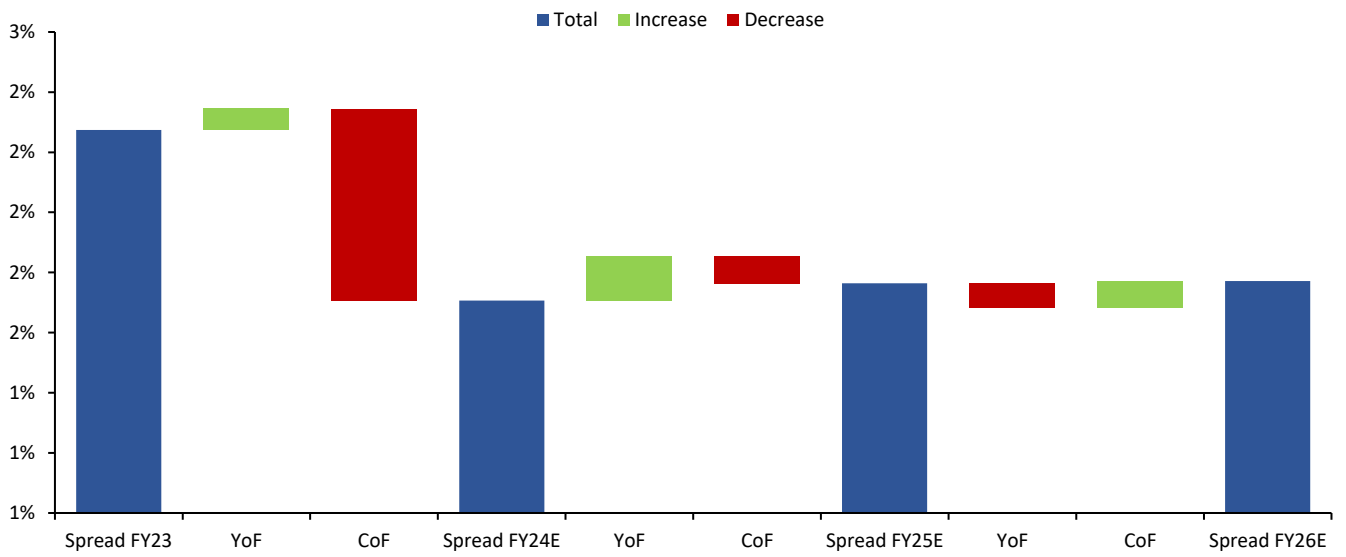
Borrowing mix (%): Share of rupee term loans has increased, foreign currency loans/bonds has shrunk



Source: Company, PhillipCapital India Research

Cost of funds rising for IREDA as foreign currency borrowing fell: The contraction in spread is led by a rise in the cost of funds, which should increase by 64bps in FY24, compared to an increase in yield on funds by 7bps. The rise in cost of funds is due to an increase in the repo rate and fall in share of foreign-currency borrowing.

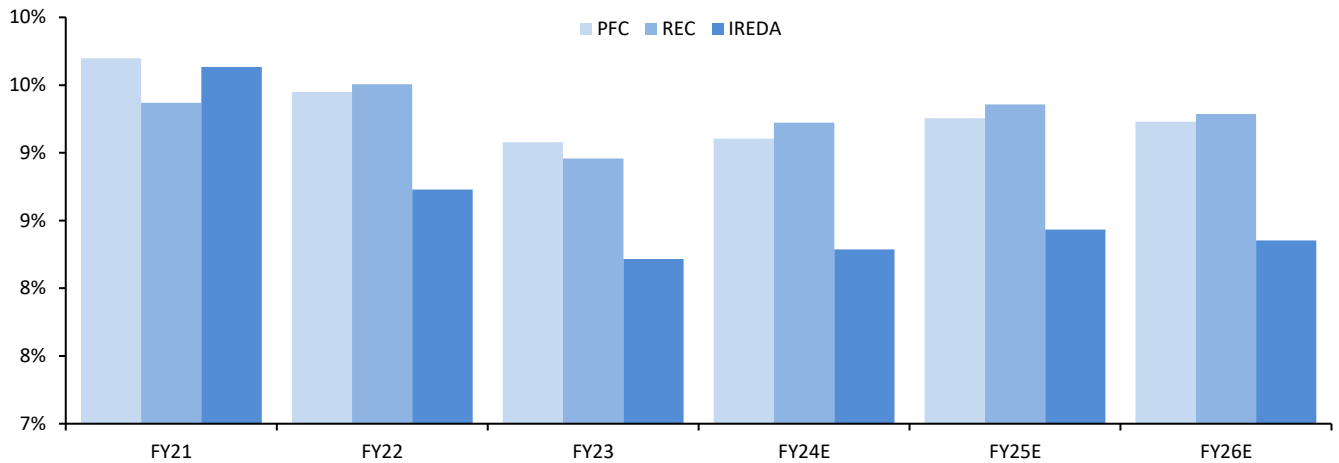
Spread waterfall chart (%)



Source: Company, PhillipCapital India Research

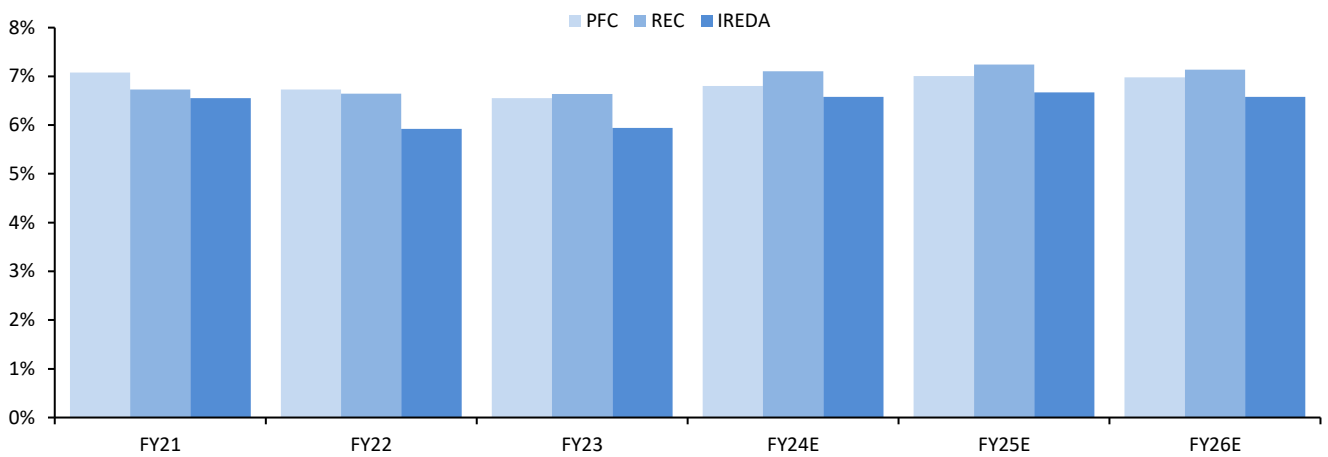
Comparative spread analysis

Yield on funds (%)



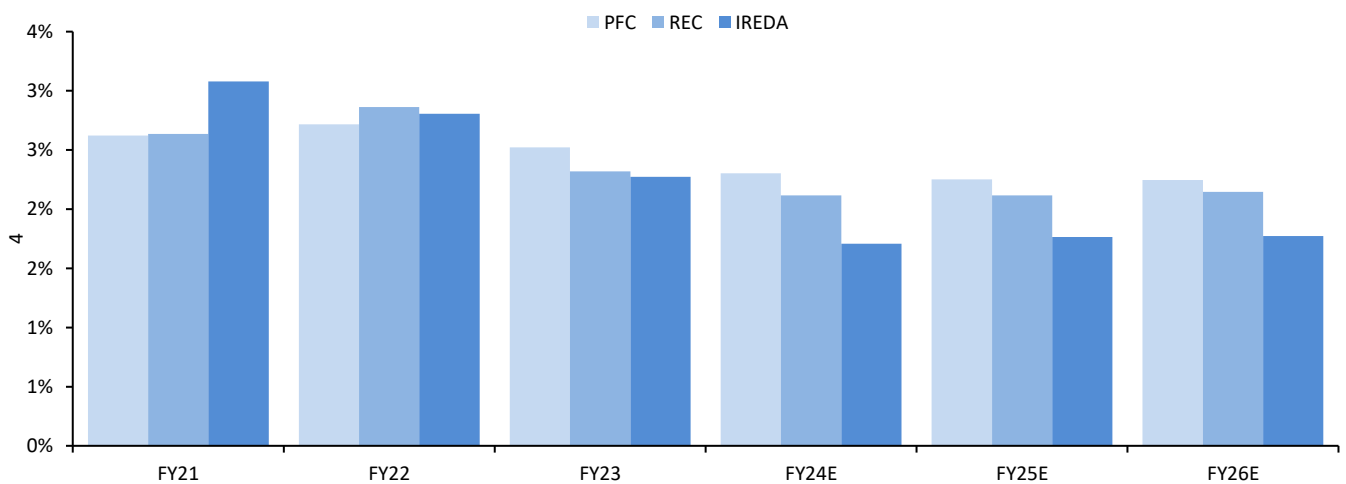
Source: Company, PhillipCapital India Research

Cost of funds (%)



Source: Company, PhillipCapital India Research

Spreads (%)



Source: Company, PhillipCapital India Research

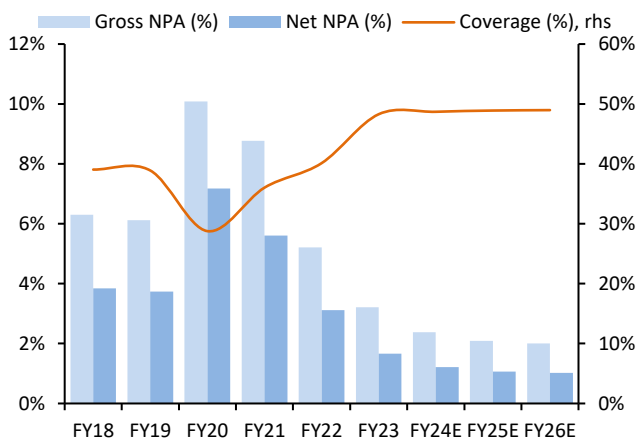
Improving asset quality

Asset quality has seen improvement over the last few years due to better recovery and containment in fresh additions. IREDA saw high stage-3 assets of 10% in FY20, marked by high stress in biomass, hydro, and wind segments. With a large part of this stress now over, asset quality should improve in the near term.

IREDA's asset quality has improved with lower stress. H1FY24 seen reversal in provisions, leading to negative credit costs in FY24

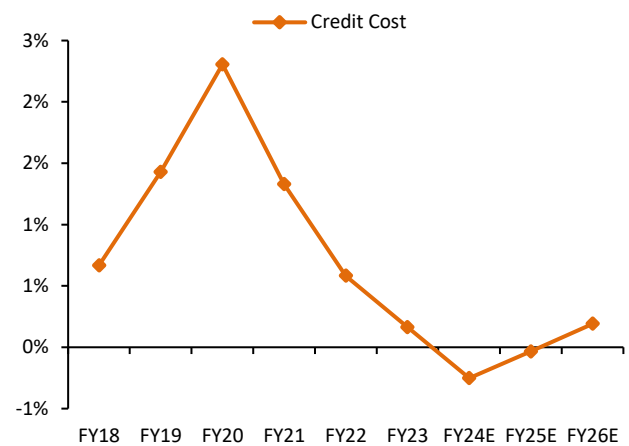
As a consequence of high stress in the past, IREDA made accelerated provision towards stage 3 and stage 2 assets. It has reversed some of the excess provision in H1FY24, translating into an expected negative credit cost in FY24, which should move towards normalized levels ahead. Higher share of private sector exposure and high proportion of vulnerable pool are potential risks to the portfolio.

Asset quality trend



Source: Company, PhillipCapital India Research

Credit cost (%)

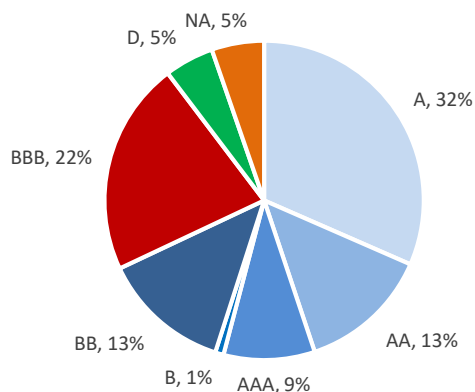


Source: Company, PhillipCapital India Research

IREDA: Credit rating-wise profiling of private sector borrowers

- 54% of its borrowers have credit rating of A and above.
- 36% have credit rating between BBB and B.
- 5% have rating of D (i.e., non-performing asset).
- 5% are either not available or not recent.

Credit rating of private sector exposure (IREDA)



Source: Rating agency, MCA, PhillipCapital India Research

The profiling based on interest coverage ratio (ICR) and leverage level indicates that 10% of private sector exposures have ICR below 1x, within which 4% of exposure is towards entities with strong parentage. The renewable space has undergone lot of project level mergers and acquisitions in last few years. Vulnerable projects changed hands from weak promoters to large domestic conglomerates with stronger balance

sheets, or were acquired by sovereign funded investors. Top 10 groups constituted 50% of IREDA's total private -sector exposure.

Categorisation of private sector exposure based on borrowers' financial strength

IREDA	% of standard private loan	% of overall loan	Leverage
ICR >2x	44.7%	28.1%	1.0
ICR 1x-2x	47.3%	29.8%	2.5
ICR <1x	10.0%	6.3%	2.7
ww			
strong promoter group	4.0%	2.5%	

Source: Company Data, MCA, PhillipCapital India Research

Group-level exposure

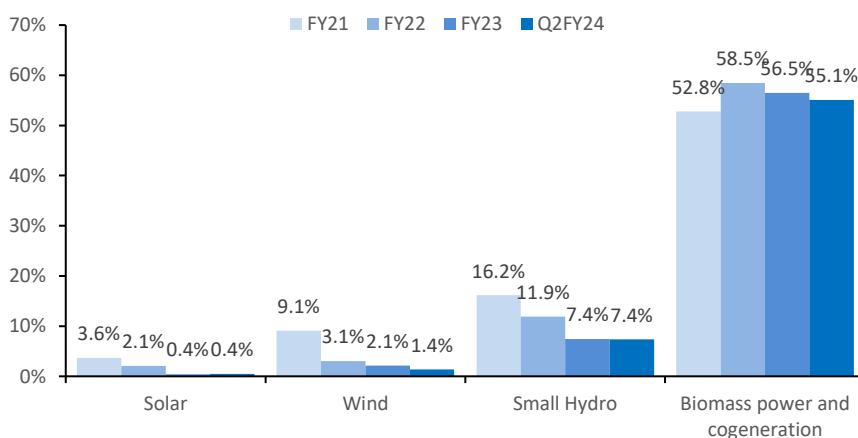
Private Group exposure	% of standard private loan	% of overall loan	Leverage
Group 1	14%	9%	1.1
Group 2	10%	6%	4.7
Group 3	9%	5%	1.8
Group 4	7%	5%	4.7
Group 5	3%	2%	NA
Top 10 group	50%	31%	2.0

Source: Company Data, MCA, PhillipCapital India Research

IREDA's biomass and hydro performance weak; retail division faces credit risk

IREDA's segmental performance suggests vulnerability in key segments such as biomass and small hydro. It has launched its retail division, geared towards enhancing emphasis on providing loans to borrowers in the PM-KUSUM scheme, Rooftop Solar (RTS), and other Business-to-Consumer (B2C) sectors. The scheme's PM KUSUM programme is to supply renewable energy to over 3.5mn farmers by solarizing their agriculture pumps. The credit experience of public banks towards farm segments is not encouraging. PSB banks' GNPA in the farm segment ranges between 8-10%. Hence, we are not upbeat about this segment from IREDA's perspective.

IREDA's retail division focuses on PM-KUSUM, RTS, and B2C sectors. We would be cautious about IREDA's segmental PM-KUSUM scheme given credit experience of PSBs towards farm segment not encouraging.

Segment-wise stage-3 performance


Source: Company Data, MCA, PhillipCapital India Research

Key risks

Spread risk: Solar and wind segment will be major drivers for loan growth ahead. Portfolio concentration is towards renewable projects (which are short gestation), which can re-price risk after projects commission, leading to pressure on spreads and margins.

Asset quality risk: Higher share of private sector exposure and high proportion of vulnerable pool are potential risks in the portfolio. Profiling based on interest coverage ratio (ICR) and leverage levels shows that 10% of private sector exposures have ICR below 1x, within which 4% exposure is towards entities with strong parentage. Any further deterioration in the operational and financial performance of these vulnerable project may lead to asset quality shocks.

About: IREDA

- Indian Renewable Energy Development Agency Limited (IREDA) is a Mini Ratna (Category – I) Government of India Enterprise under the administrative control of Ministry of New and Renewable Energy (MNRE).
- It is a public limited government company established as a non-banking financial institution in 1987 engaged in promoting, developing and extending financial assistance for setting up projects relating to new and renewable sources of energy and energy efficiency/conservation with the motto: “ENERGY FOR EVER”
- IREDA has been notified as a “Public Financial Institution” under section 4 ‘A’ of the Companies Act, 1956 and registered as Non-Banking Financial Company (NBFC) with Reserve Bank of India (RBI).
- Its objective is to give financial support to specific projects and schemes for generating electricity and / or energy through new and renewable sources and conserving energy through energy efficiency.

Product portfolio

- **Fund-based:** All the projects in renewable energy (RE), energy efficiency/conservation (EE) and other environmentally sustainable technologies, including power generation, transmission, renovation & modernization, which are techno-commercially viable, are eligible to obtain finance from IREDA. Sectors eligible are wind energy, hydro power, solar energy, biomass including bagasse & industrial cogeneration, biomass power generation, waste to energy, EE, biofuel / alternate fuel including ethanol & bio -diesel, hybrid projects with RE technologies, new & emerging renewable energy technologies.
- **Non-fund-based products:** Line of credit, short term loan assistance, bridge loan assistance, letter of comfort, guarantee assistance scheme.

Sources of funds

- IREDA is making continuous efforts in raising financing at competitive rates from domestic and international capital market issuances, including green bonds, as well as through partnerships with national and international financial institutions and multilateral development organizations.
- IREDA raises a major portion of its borrowings through Domestic Taxable Green Bonds of Rs 7.0/8.6bn in FY16-17/FY18-19 listed on NSE and BSE.
- Govt infused Rs 15bn in FY22 as an equity.

The IREDA group structure

- The company does not have any subsidiaries, associates, and joint ventures.
- IREDA has three departments – each headed by a Functional Director – namely, Technical Division, and Financial Division, and Operations Division.
 - The Technical Division looks after the credit appraisal and categorization of borrower entities, power sector reforms, review, and analysis.
 - The Operational Division controls the administration work across the country.
 - Finance Division looks after the fund mobilization and disbursement.

Key management personnel

Pradip Kumar Das: Chairman & Managing Director

- Prior to joining IREDA, he was Director (Finance) in India Tourism Development Corporation Ltd. (ITDC).
- He has over 33 years of vast experience in various positions in finance, banking, accounts, audit, resource mobilisation & treasury, loan & recovery, disinvestment/divestment, etc. both in public as well as private sectors
- He is the Vice Chairman of Standing Conference of Public Enterprises (SCOPE).

Dr Ramesh Chandra Sharma: General Manager (Finance and Accounts)

- 32 years of experience in handling finance and accounting functions and has worked in various PSUs
- Worked Neyveli Lignite Corporation Limited, accounts officer at Nathpa Jhakri Power Corporation Limited and assistant manager at National Mineral Development Corporation Limited.
- He acted in the capacity of the chief financial officer of IREDA from 1 February 2020 until 16 October 2023

Pallav Kapoor: Chief Risk Officer

- Bachelor's degree in commerce from the Delhi University and post graduate diploma in business management from Guru Nanak Institute of Management.
- Worked over 16 years of experience in risk management, marketing and finance.
- He worked as the assistant vice president in the risk management portfolio of PTC India Limited, Executive, Business Banking at Axis Bank Limited, and Manager (Finance and Accounts) at Ultima Switchgears Limited.

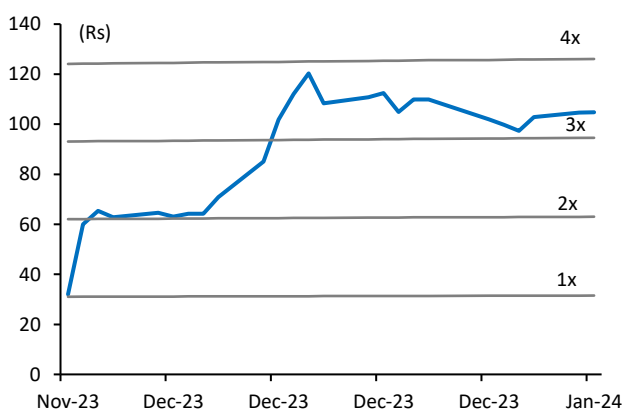
Debjani Bhatia: General Manager (Technical Services – I)

- Bachelors' degree in engineering (electrical) and a masters' degree in engineering (digital systems) from the University of Allahabad.
- Took charge General Manager (Technical Services – I) on 30 May 2022.
- Has more than 30 years of experience in the technical sector.
- She worked as a designer engineer at GEC Alstom India Limited.

Surendra Kumar Sharma: General Manager (Finance & Accounts)

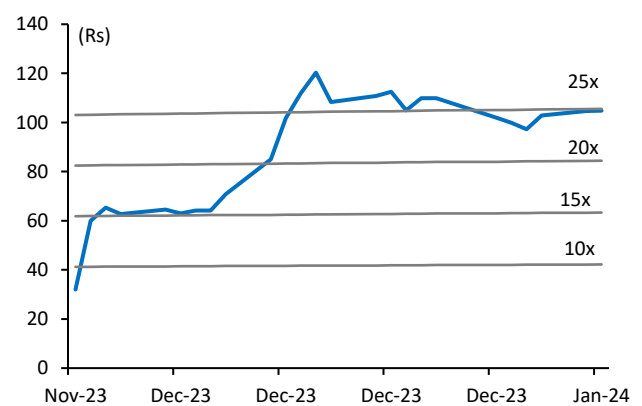
- Bachelors' degree in commerce from the University of Rajasthan and associate member of ICAI.
- Over 27 years of experience in finance and accounts.
- Worked as an additional general manager (finance) at Bharat Heavy Electricals Limited ("BHEL") and undertook various functions in corporate finance and also headed finance functions of two manufacturing units of BHEL.

Price / Book value Band chart – 1 yr forward



Source: PhillipCapital India Research

Price / Earnings Band chart – 1 yr forward



Source: PhillipCapital India Research

Financials

Income Statement

Y/E Mar, Rs bn	FY23	FY24E	FY25E	FY26E
Interest on Loans	33	45	62	81
Interest on Investments	1	1	1	1
Others	-	-	-	-
Total Interest Earned	34	46	63	82
Total Interest Expended	21	32	43	57
Net Interest Income	13	14	19	25
Total non-interest income	1	1	1	1
Total Income	14	15	20	26
Personnel Expenses	1	1	1	1
Other Expenses	1	1	1	1
Total Op expenses	2	2	2	2
Net Inc (Loss) before prov	12	13	18	23
Provision for NPAs	0	0	1	2
Net Inc (Loss) before tax	11	15	18	21
Provision for Income Tax	3	3	4	5
Net Profit	9	11	14	16

Balance Sheet

Y/E Mar, Rs bn	FY23	FY24E	FY25E	FY26E
Assets				
Cash & Bal with RBI	-	-	-	-
Loans, Adv&Int accrued	462	618	826	1,089
Investments	1	1	1	1
Fixed Assets (Net)	4	4	4	4
Other assets	22	26	25	22
Total Assets	504	668	879	1,145
Liabilities				
Share capital	23	27	27	27
Reserves and Surplus	37	56	70	86
Borrowing	402	538	731	976
Total Deposits	-	-	-	-
Other liab incld. prov	32	35	38	41
Total Liabilities	504	668	879	1,145

Valuation Ratios

	FY23	FY24E	FY25E	FY26E
Earnings and Valuation Ratios				
Pre-provision Operating RoAE (%)	21.5	18.5	19.9	22.0
RoAE (%)	15.4	15.5	15.3	15.4
Pre-provision Operating ROA (%)	2.4	2.0	2.1	2.0
RoAB (%)	1.7	1.7	1.6	1.4
EPS (Rs.)	3.8	4.1	5.2	6.0
Dividend per share (Rs.)	-	1.0	1.5	1.8
Book Value (Rs.)	26.0	31.0	36.2	42.2
Adj BV (Rs.)	22.6	28.2	32.9	38.0

Revenue Analysis

Interest income on IBA (%)	8.2	8.3	8.4	8.3
Interest cost on IBL (%)	5.9	6.6	6.7	6.6
NIM on IBA / AWF (%)	3.1	2.6	2.6	2.5
Core fee Inc / AWF (%)	0.1	0.1	0.1	0.1
Portfolio gains / Total Inc (%)	-	-	-	-
Op.Exp / TI (%)	13.5	13.5	11.1	9.5
Op.Exp / AWF (%)	0.5	0.4	0.3	0.2
Employee exps / Op exps (%)	33.4	35.3	37.3	39.3
Tax / Pre-tax earnings (%)	24.1	24.0	24.0	24.0

Asset Quality

GNPAs / Gr Adv (%)	3.2	2.4	2.1	2.0
NNPAs / Net Adv (%)	1.7	1.2	1.1	1.0

Growth Ratio

Loans (%)	39.3	33.7	33.5	31.9
Investments (%)	0.0	0.7	-	1.0
Borrowing (%)	45.5	33.8	35.9	33.7
Networth (%)	12.7	40.4	16.6	16.6
Net Int Income (%)	14.2	11.6	34.1	27.9
Non-fund based income (%)	(31.6)	(18.3)	9.0	2.1
Non-IntExp (%)	(30.9)	8.9	8.7	9.2
Profit Before Tax (%)	36.9	27.9	25.1	16.8
Net profit (%)	36.8	28.1	25.1	16.8

Capital Adequacy Ratio (%)

Tier I (%)	15.7	16.5	14.6	13.1
Tier II (%)	3.1	2.6	2.1	1.8
CRAR (%)	18.8	19.0	16.7	14.9

Dupont Analysis (%)

Net Interest Income	2.9	2.4	2.5	2.4
Other Income	0.3	0.2	0.1	0.1
Operating Expenses	0.4	0.4	0.3	0.2
PPoP	2.8	2.2	2.3	2.3
Provision	0.2	(0.2)	0.0	0.2
PAT	2.0	1.9	1.8	1.6

Source: Company, PhillipCapital India Research

Rating Methodology

We rate stock on absolute return basis. Our target price for the stocks has an investment horizon of one year. We have different threshold for large market capitalisation stock and Mid/small market capitalisation stock. The categorisation of stock based on market capitalisation is as per the SEBI requirement.

Large cap stocks

Rating	Criteria	Definition
BUY	$\geq +10\%$	Target price is equal to or more than 10% of current market price
NEUTRAL	$-10\% > \text{to} < +10\%$	Target price is less than +10% but more than -10%
SELL	$\leq -10\%$	Target price is less than or equal to -10%.

Mid cap and Small cap stocks

Rating	Criteria	Definition
BUY	$\geq +15\%$	Target price is equal to or more than 15% of current market price
NEUTRAL	$-15\% > \text{to} < +15\%$	Target price is less than +15% but more than -15%
SELL	$\leq -15\%$	Target price is less than or equal to -15%.

Disclosures and Disclaimers

PhillipCapital (India) Pvt. Ltd. has three independent equity research groups: Institutional Equities, Institutional Equity Derivatives, and Private Client Group. This report has been prepared by Institutional Equities Group. The views and opinions expressed in this document may, may not match, or may be contrary at times with the views, estimates, rating, and target price of the other equity research groups of PhillipCapital (India) Pvt. Ltd.

This report is issued by PhillipCapital (India) Pvt. Ltd., which is regulated by the SEBI. PhillipCapital (India) Pvt. Ltd. is a subsidiary of Phillip (Mauritius) Pvt. Ltd. References to "PCIPL" in this report shall mean PhillipCapital (India) Pvt. Ltd unless otherwise stated. This report is prepared and distributed by PCIPL for information purposes only, and neither the information contained herein, nor any opinion expressed should be construed or deemed to be construed as solicitation or as offering advice for the purposes of the purchase or sale of any security, investment, or derivatives. The information and opinions contained in the report were considered by PCIPL to be valid when published. The report also contains information provided to PCIPL by third parties. The source of such information will usually be disclosed in the report. Whilst PCIPL has taken all reasonable steps to ensure that this information is correct, PCIPL does not offer any warranty as to the accuracy or completeness of such information. Any person placing reliance on the report to undertake trading does so entirely at his or her own risk and PCIPL does not accept any liability as a result. Securities and Derivatives markets may be subject to rapid and unexpected price movements and past performance is not necessarily an indication of future performance.

This report does not regard the specific investment objectives, financial situation, and the particular needs of any specific person who may receive this report. Investors must undertake independent analysis with their own legal, tax, and financial advisors and reach their own conclusions regarding the appropriateness of investing in any securities or investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realised. Under no circumstances can it be used or considered as an offer to sell or as a solicitation of any offer to buy or sell the securities mentioned within it. The information contained in the research reports may have been taken from trade and statistical services and other sources, which PCIL believe is reliable. PhillipCapital (India) Pvt. Ltd. or any of its group/associate/affiliate companies do not guarantee that such information is accurate or complete and it should not be relied upon as such. Any opinions expressed reflect judgments at this date and are subject to change without notice.

Important: These disclosures and disclaimers must be read in conjunction with the research report of which it forms part. Receipt and use of the research report is subject to all aspects of these disclosures and disclaimers. Additional information about the issuers and securities discussed in this research report is available on request.

Certifications: The research analyst(s) who prepared this research report hereby certifies that the views expressed in this research report accurately reflect the research analyst's personal views about all of the subject issuers and/or securities, that the analyst(s) have no known conflict of interest and no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific views or recommendations contained in this research report.

Additional Disclosures of Interest:

Unless specifically mentioned in Point No. 9 below:

1. The Research Analyst(s), PCIL, or its associates or relatives of the Research Analyst does not have any financial interest in the company(ies) covered in this report.
2. The Research Analyst, PCIL or its associates or relatives of the Research Analyst affiliates collectively do not hold more than 1% of the securities of the company (ies) covered in this report as of the end of the month immediately preceding the distribution of the research report.
3. The Research Analyst, his/her associate, his/her relative, and PCIL, do not have any other material conflict of interest at the time of publication of this research report.
4. The Research Analyst, PCIL, and its associates have not received compensation for investment banking or merchant banking or brokerage services or for any other products or services from the company(ies) covered in this report, in the past twelve months.
5. The Research Analyst, PCIL or its associates have not managed or co(managed in the previous twelve months, a private or public offering of securities for the company (ies) covered in this report.
6. PCIL or its associates have not received compensation or other benefits from the company(ies) covered in this report or from any third party, in connection with the research report.
7. The Research Analyst has not served as an Officer, Director, or employee of the company (ies) covered in the Research report.
8. The Research Analyst and PCIL has not been engaged in market making activity for the company(ies) covered in the Research report.
9. Details of PCIL, Research Analyst and its associates pertaining to the companies covered in the Research report:

Sr. no.	Particulars	Yes/No
1	Whether compensation has been received from the company(ies) covered in the Research report in the past 12 months for investment banking transaction by PCIL	No
2	Whether Research Analyst, PCIL or its associates or relatives of the Research Analyst affiliates collectively hold more than 1% of the company(ies) covered in the Research report	No
3	Whether compensation has been received by PCIL or its associates from the company(ies) covered in the Research report	No
4	PCIL or its affiliates have managed or co(managed) in the previous twelve months a private or public offering of securities for the company(ies) covered in the Research report	No
5	Research Analyst, his associate, PCIL or its associates have received compensation for investment banking or merchant banking or brokerage services or for any other products or services from the company(ies) covered in the Research report, in the last twelve months	No

Independence: PhillipCapital (India) Pvt. Ltd. has not had an investment banking relationship with, and has not received any compensation for investment banking services from, the subject issuers in the past twelve (12) months, and PhillipCapital (India) Pvt. Ltd does not anticipate receiving or intend to seek compensation for investment banking services from the subject issuers in the next three (3) months. PhillipCapital (India) Pvt. Ltd is not a market maker in the securities mentioned in this research report, although it, or its affiliates/employees, may have positions in, purchase or sell, or be materially interested in any of the securities covered in the report.

Suitability and Risks: This research report is for informational purposes only and is not tailored to the specific investment objectives, financial situation or particular requirements of any individual recipient hereof. Certain securities may give rise to substantial risks and may not be suitable for certain investors. Each investor must make its own determination as to the appropriateness of any securities referred to in this research report based upon the legal, tax and accounting considerations applicable to such investor and its own investment objectives or strategy, its financial situation and its investing experience. The value of any security may be positively or adversely affected by changes in foreign exchange or interest rates, as well as by other financial, economic, or political factors. Past performance is not necessarily indicative of future performance or results.

Sources, Completeness and Accuracy: The material herein is based upon information obtained from sources that PCIL and the research analyst believe to be reliable, but neither PCIL nor the research analyst represents or guarantees that the information contained herein is accurate or complete and it should not be relied upon as such. Opinions expressed herein are current opinions as of the date appearing on this material, and are subject to change without notice. Furthermore, PCIL is under no obligation to update or keep the information current. Without limiting any of the foregoing, in no event shall PCIL, any of its affiliates/employees or any third party involved in, or related to computing or compiling the information have any liability for any damages of any kind including but not limited to any direct or consequential loss or damage, however arising, from the use of this document.

Copyright: The copyright in this research report belongs exclusively to PCIL. All rights are reserved. Any unauthorised use or disclosure is prohibited. No reprinting or reproduction, in whole or in part, is permitted without the PCIL's prior consent, except that a recipient may reprint it for internal circulation only and only if it is reprinted in its entirety.

Caution: Risk of loss in trading/investment can be substantial and even more than the amount / margin given by you. Investment in securities market are subject to market risks, you are requested to read all the related documents carefully before investing. You should carefully consider whether trading/investment is appropriate for you in light of your experience, objectives, financial resources and other relevant circumstances. PhillipCapital and any of its employees, directors, associates, group entities, or affiliates shall not be liable for losses, if any, incurred by you. You are further cautioned that trading/investments in financial markets are subject to market risks and are advised to seek independent third party trading/investment advice outside PhillipCapital/group/associates/affiliates/directors/employees before and during your trading/investment. There is no guarantee/assurance as to returns or profits or capital protection or appreciation. PhillipCapital and any of its employees, directors, associates, and/or employees, directors, associates of PhillipCapital's group entities or affiliates is not inducing you for trading/investing in the financial market(s). Trading/Investment decision is your sole responsibility. You must also read the Risk Disclosure Document and Do's and Don'ts before investing.

Kindly note that past performance is not necessarily a guide to future performance.

For Detailed Disclaimer: Please visit our website www.phillipcapital.in

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report is a product of PhillipCapital (India) Pvt. Ltd. which is the employer of the research analyst(s) who has prepared the research report. PhillipCapital (India) Pvt Ltd. is authorized to engage in securities activities in India. PHILLIPCAP is not a registered broker(dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a(6) of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not a Major Institutional Investor.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Rosenblatt Securities Inc, 40 Wall Street 59th Floor, New York NY 10005, a registered broker dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through PHILLIPCAP. Rosenblatt Securities Inc. accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person of Rosenblatt Securities Inc. and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Ownership and Material Conflicts of Interest

Rosenblatt Securities Inc. or its affiliates does not 'beneficially own,' as determined in accordance with Section 13(d) of the Exchange Act, 1% or more of any of the equity securities mentioned in the report. Rosenblatt Securities Inc, its affiliates and/or their respective officers, directors or employees may have interests, or long or short positions, and may at any time make purchases or sales as a principal or agent of the securities referred to herein. Rosenblatt Securities Inc. is not aware of any material conflict of interest as of the date of this publication

Compensation and Investment Banking Activities

Rosenblatt Securities Inc. or any affiliate has not managed or co-managed a public offering of securities for the subject company in the past 12 months, nor received compensation for investment banking services from the subject company in the past 12 months, neither does it or any affiliate expect to receive, or intends to seek compensation for investment banking services from the subject company in the next 3 months.

Additional Disclosures

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither PHILLIPCAP nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report's preparation or publication, or any losses or damages which may arise from the use of this research report.

PHILLIPCAP may rely on information barriers, such as "Chinese Walls" to control the flow of information within the areas, units, divisions, groups, or affiliates of PHILLIPCAP.

Investing in any non(U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non(U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non(U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States.

The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by PHILLIPCAP with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

No part of the content of this research report may be copied, forwarded or duplicated in any form or by any means without the prior written consent of PHILLIPCAP and PHILLIPCAP accepts no liability whatsoever for the actions of third parties in this respect.

PhillipCapital (India) Pvt. Ltd.

Registered office: 18th floor, Urmi Estate, Ganpatrao Kadam Marg, Lower Parel (West), Mumbai – 400013, India.