

Solar Rooftop Financing Challenges and Way Forward

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Infrastructure Banking Group Corporate Finance YES BANK Ltd.

YES BANK - Remarkable Growth Story



11 +Years of high growth Institutional Excellence

Currently the 5th largest private sector bank in India

Pan-India Penetration (Sep 30,2016)

(Branch / ATM Network - 950/1,756)

Balance Sheet size of INR 2799.4 billion (Sep 30, 2016)

(grown faster than any other Indian bank during the corresponding period in their lifecycle)

Market Capitalization of INR 556.5 billion (Sep 30, 2016)

(return of more than 1300% since its public listing in July 2005, creating value for investors)

Existing relationships with all major corporates in India

(Relationship based, rather than transaction based approach to banking)

Knowledge Banking

(Focus on key growth sectors of Indian economy Dedicated knowledge teams for each respective knowledge sector)

Complete suite of Financial Products

("One bank" approach providing all banking solutions under one roof)

Excellent Human Capital

("Professionals Bank of India" led by arguably the best management team in the country)

Backed by Pedigree Investors

(Key institutional investors include LIC, Franklin Templeton, Fidelity, Bajaj Allianz, Coronation, Birla Sunlife, Vanguard, Fullerton, among others)

☐ Knowledge Partner for **RE-INVEST 2015 and RE-INVEST** 2017 ☐ First private sector bank to provide Green Energy Commitment (GEC) for financing 5,000 MW of renewable energy projects in next 5 years. ☐ First commercial Indian Bank to issue Green Infrastructure **Bonds** (Issuances ~USD 250 MM till date) □ INR 2,135 Crs. raised recently through long term infrastructure bonds (largest issuance by YES BANK till date) □Knowledge Partner to International Solar Alliance (ISA) launched jointly by India and France during COP21 in Paris in December 2015

- 1. 2016-Landmark year for Solar Rooftop
- 2. Financial challenges
- 3. Other Relevant Issues
 - ☐ Net metering
 - ☐ OPEX Model
- 4. Way forward

- ☐ 1 GW cumulative capacity crossed
- \square ~ 700 MW new capacity addition (15% of total solar capacity addition ~4.9 GW in 2016).
- □ New tenders for 900 MW of solar rooftop systems floated (10% of total solar projects tendered ~9 GW)
- □ SECI's 1000 MW tender (*Largest tender in India's rooftop history*)
- ☐ System cost (*Modules, inverter, BOS etc.*) falling to all time lows

Key Drivers- Financial subsidies, improving economics, net-metering implementation and AD/80IA benefits.

☐ Low Credit profile

- Individual/Commercial & Industrial (C&I) borrowers having limited long term bank financing experience majority of them having working capital relationship
- Line of credit for project implementation drawn randomly leading to repayment structuring issues.
- Inadequate <u>free</u> business cash flows for rooftop loan servicing.
- Uncertainty over credit quality and cash-flows under RESCO model for developers

☐ Security Coverage

- Uncertainty over continued availability of rooftop space with no security interest especially under OPEX model
- Inadequate business assets for collaterals.
- Low and untested resale value of solar rooftop modules primary asset under charge.

Net metering states accounted for ~580 MW vs. ~180 MW for gross metering states -Overall Progress however continues to be slow.

Prevailing Issues-

□ Current	policy	based	on	CERC	2013	regulations-	too	rigid	on	system	size,
connection	type and	l consun	ner c	categorie	s/mod	els.					

□ No	satisfactory	financial	compensation	for	utilities	_	financial	incentives
annour	iced recently.							

☐ Lack of appropriate training/process	protocols at the loca	ıl utility level- <i>l</i>	eading
to high connection lead time of 90-100 days			

☐ Residential	and agricultural	consumers	having low	economic	incentive	(tariffs
already low on	account of high cro	ss subsidy)				

Financial implications-

☐ Abandonment of	C&I segment connections by DISCOMS's casts shadows over
future funding for	most prevalent segment in rooftop space.

□Restrictions (*size*, *load constraints etc*) on residential segment make project economics unviable.

Other Relevant Issues - (2) OPEX Model

OPEX model gaining popularity amongst Indian consumers (no upfront capital costs, developer bearing development, financial risk etc.)

Prevailing Issues-

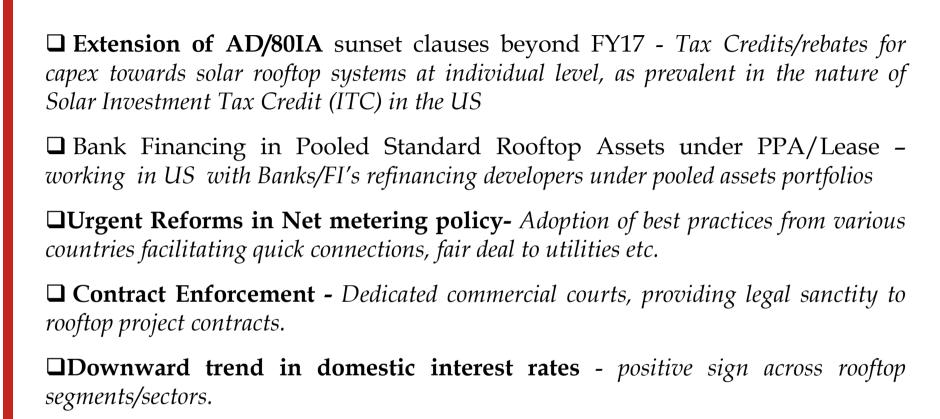
- □ Perceived issues in ensuring continued availability of rooftop space for project tenor of 15-25 years Lack of Contract enforceability and legal sanctity for rooftop lease contracts.
- □ OPEX model relying on consumers ability to honor commitment throughout project tenor (both under PPA/lease model) to make minimum returns.
- ☐ Lack of adequate collaterals

Financial implications-

- □Limited private sector players granting acceptable credit risk over extended project period (*High perception of customer default risk and contract enforcement issues*)
- □Consequently, most OPEX players remain nearly wholly equity financed.

"Way forward"





Thank You!