

# Solving the NPA puzzle in power sector



## Speakers:

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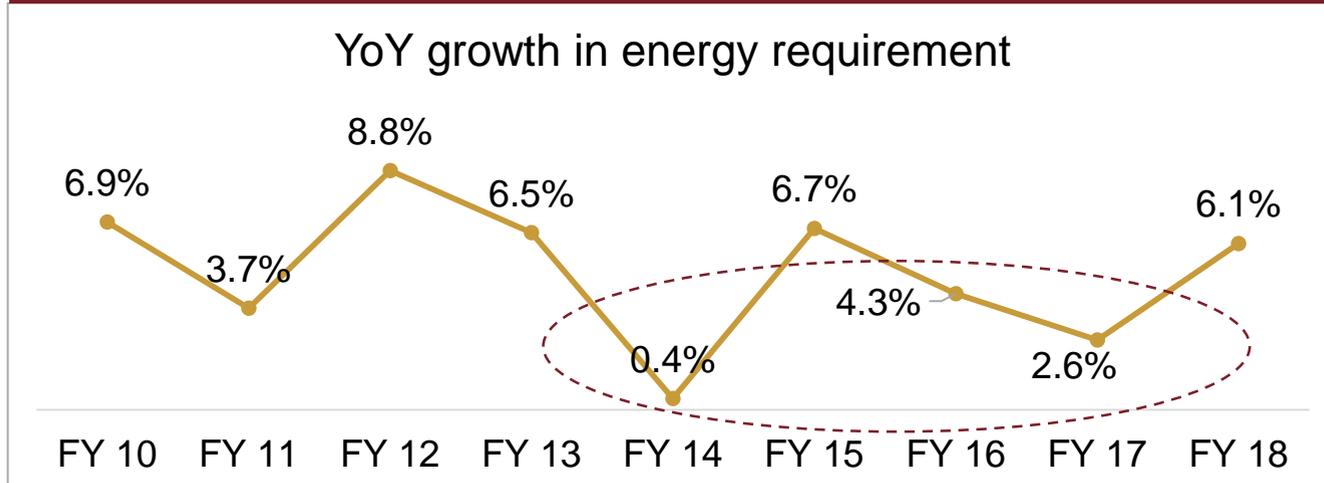
# KEY MESSAGES

- **Miss on integrated capacity planning, poor financial health of discoms, tepid economic growth and muted domestic coal supply led to financial stress in the power sector**
- **On ground implementation measures have fallen short of targets, particularly state discom turnaround & its finances as well as domestic coal availability**
- **Consequently, of the total outstanding advances of Rs 4,73,815 crores to the power generation sector, 5.9% are non-performing assets (NPAs) – Economic Survey 2016-17**
- **Though Government & RBI came with schemes (like SDR, S4A, NCLT), but core issues required to be addressed for limiting value erosion**
- **Demand and supply side measures most critical to alleviate stress**
  - Curb load shedding, enhance household level electrification and ensure 100% metering (with DBT)
  - Ensure Discoms contract power to meet their peak requirement; Centralised procurement to aid; PPA structure could be further modified
  - Domestic coal availability to remain a constraint; Significant ramp up in production as well as clearing logistical bottlenecks critical
  - Regulatory hurdles to be ironed out through stakeholder consultation and water-tight agreements to avoid litigations
- **Going forward, calibrated capacity expansion (among fuel sources), viable economic operations of discoms through reforms and ramp up in domestic coal production – critical monitorables**

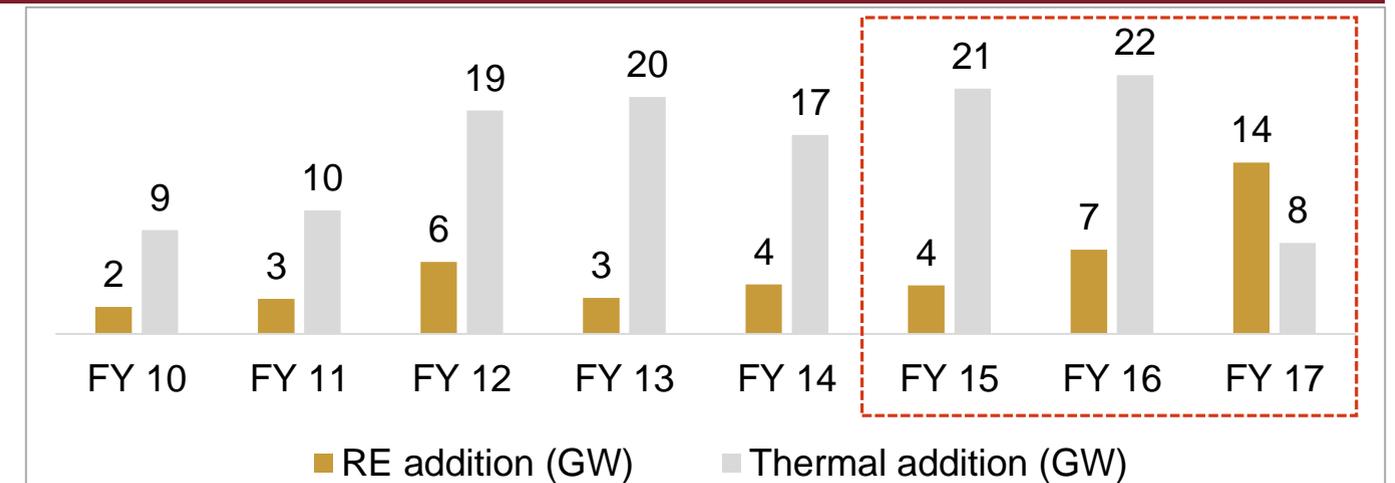
# Current levels of stress in the power sector

# Unfavourable market dynamics have led to rising financial stress

## Demand slowdown and lack of integrated planning on the supply side led to mounting stress

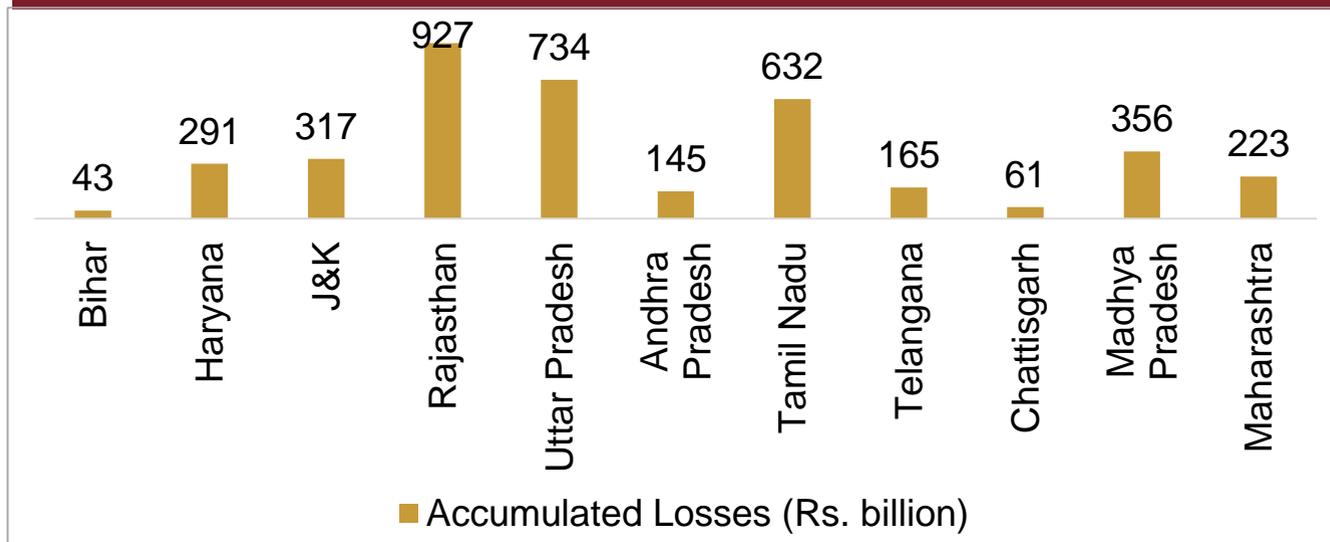


Source: CEA, CRIS Analysis

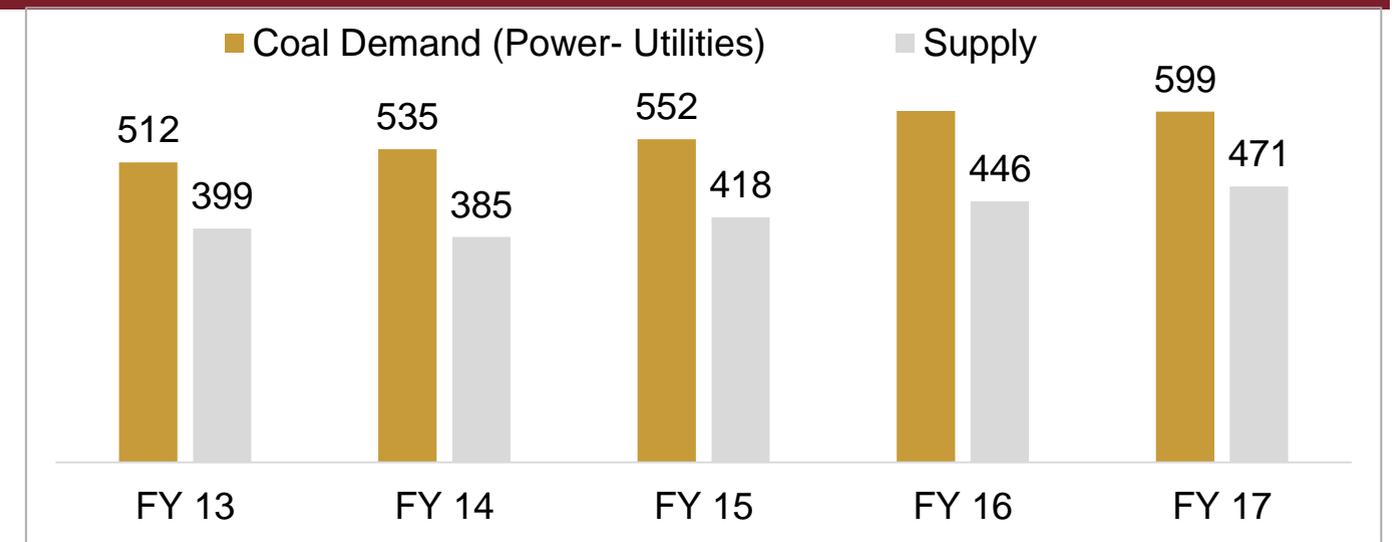


Source: CEA, MNRE, CRIS Analysis

## Weak discom finances and constrained domestic coal availability also played spoilsport



Source: PFC, CRIS Analysis



Source: Coal statistics

# Alarming stress level for thermal assets

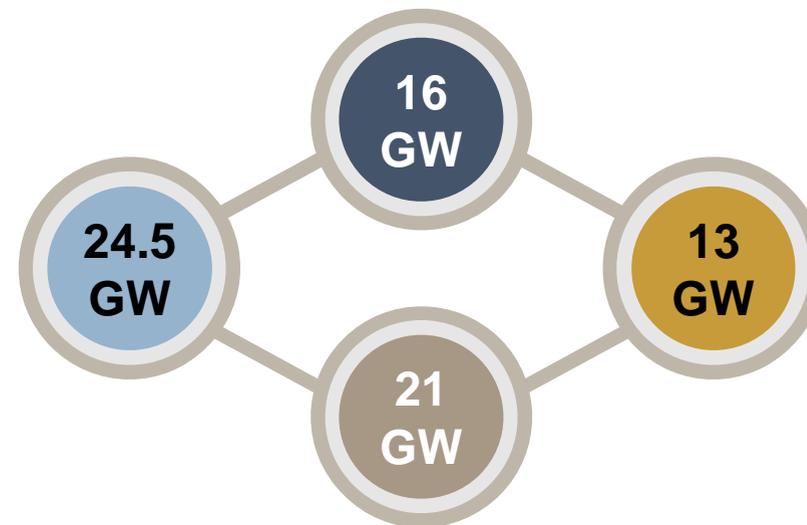
Key stress factors include domestic fuel availability, no PPA, change in law factors

## No coal source & no PPA

- Installed - 6 GW
- Under Construction - 10 GW

## Have coal source but no PPA

- Installed- 13.5 GW
- Under construction- 11 GW



## Non-availability of gas

- Installed- 10.5 GW
- Under Construction- 2.5 GW

## Change in law factors

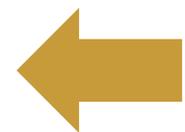
- Installed- 21 GW

### UNDER STRESS

~51 GW of existing thermal Assets  
+  
~23 GW of capacity under construction



Potential NPA



# Schemes for stress resolution

# Financial restructuring schemes provide temporary relief; fails to address core sector issues leading to potential value erosion

## Strategic debt restructuring (SDR)

Offers banks equity in lieu of debt exposure

## Scheme for Sustainable Structuring of Stressed assets (S4A)

Classifying o/s debt to sustainable debt and equity/ quasi-equity instruments

## National Company Law Tribunal (NCLT)

Loan recovery through insolvency proceedings against borrower

## RBI Revised framework for resolution of stressed assets

Early identification of stress & its resolution plan

## SBI – recast of stressed power assets

Debt restructuring and transfer to stressed power assets to a SPV

### Provide limited relief to banks by

- Changing the capital structure
- Limiting NPAs in the interim
- Temporarily improving debt servicing ability



### Can lead to value erosion

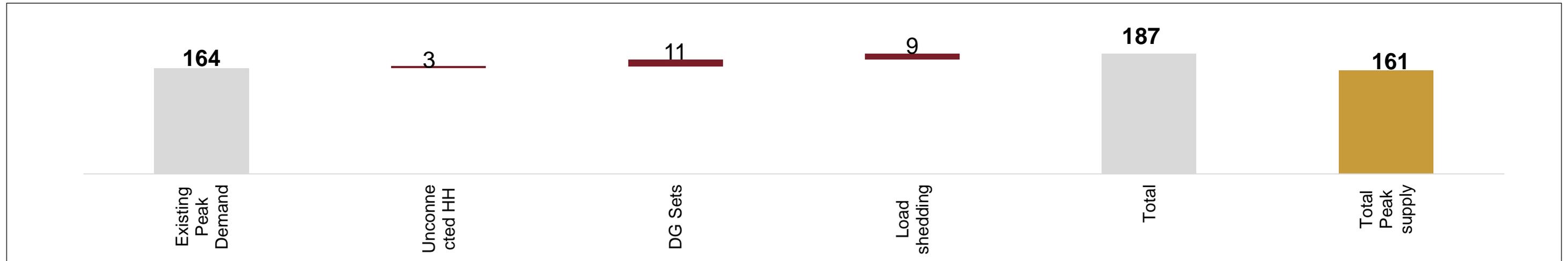
#### Since core issues unaddressed

- Lack of offtake
- Lack of power purchase agreements (PPAs)
- Limited domestic coal availability

# Solving the NPA puzzle!

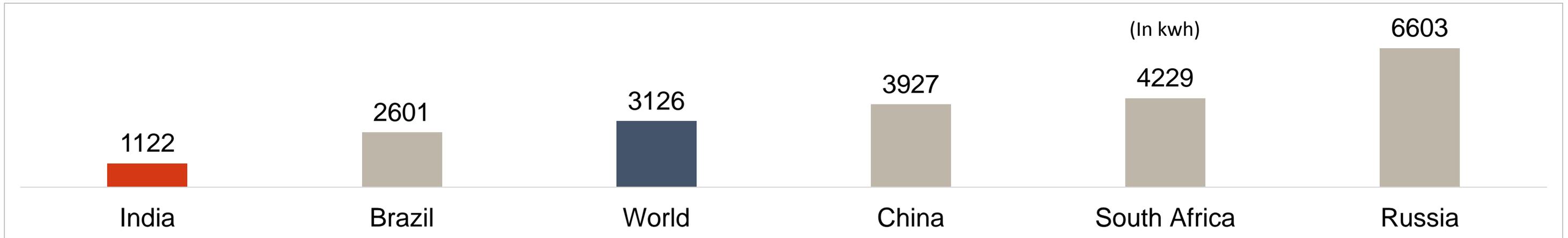
# Are we really power surplus?

## Estimated demand-supply (GW) scenario in 2017-18



Source: CRIS Analysis

## Per capita electricity consumption: Global comparison



Source: CEA; World Bank

Note: Data for India-2017,

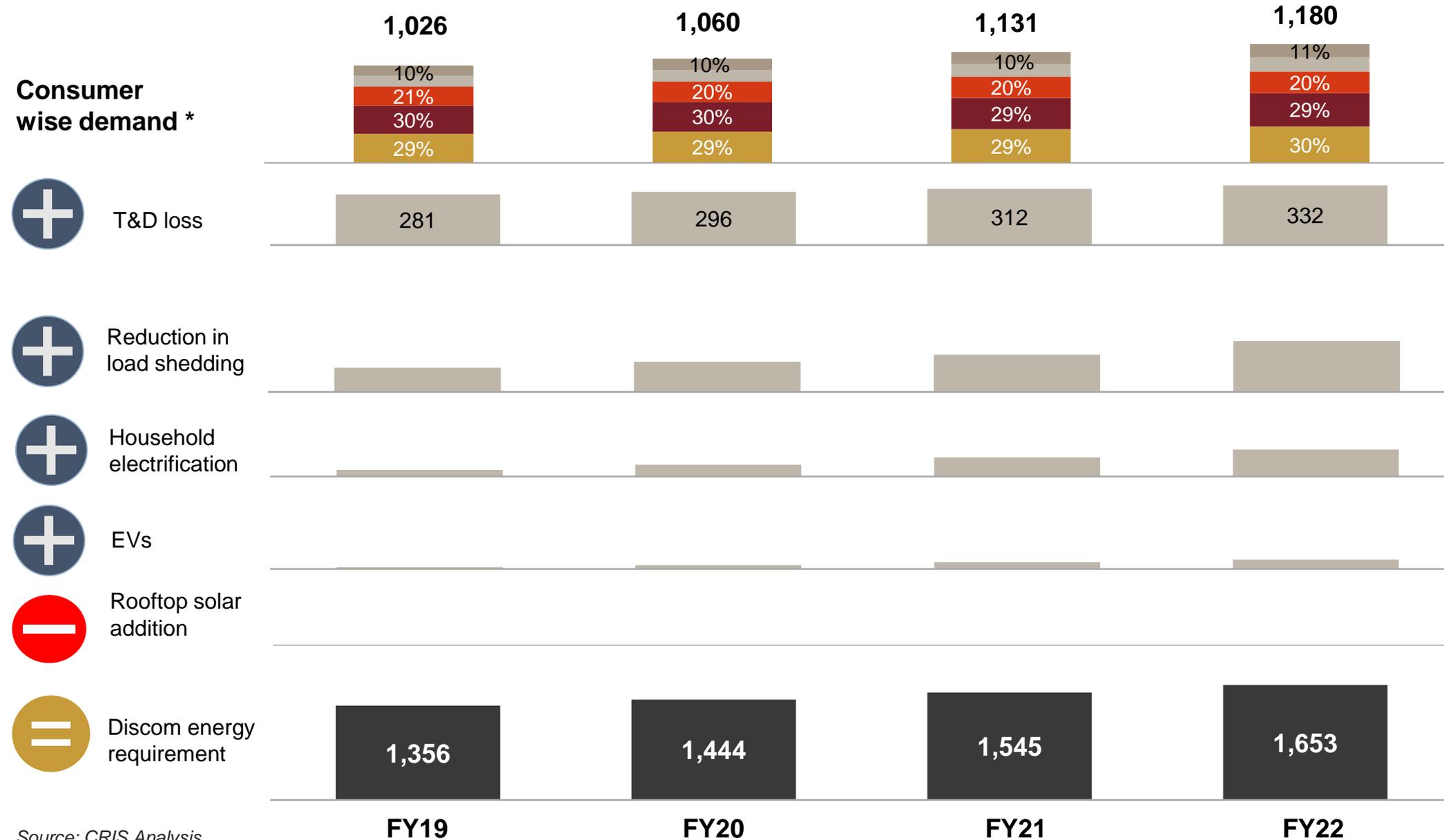
Data for other countries-2014

# Demand growth to be healthy led by high latent demand

*Thus, signing of fresh PPAs and ensuring domestic coal availability will be crucial*

All figures in Billion kWh or BU

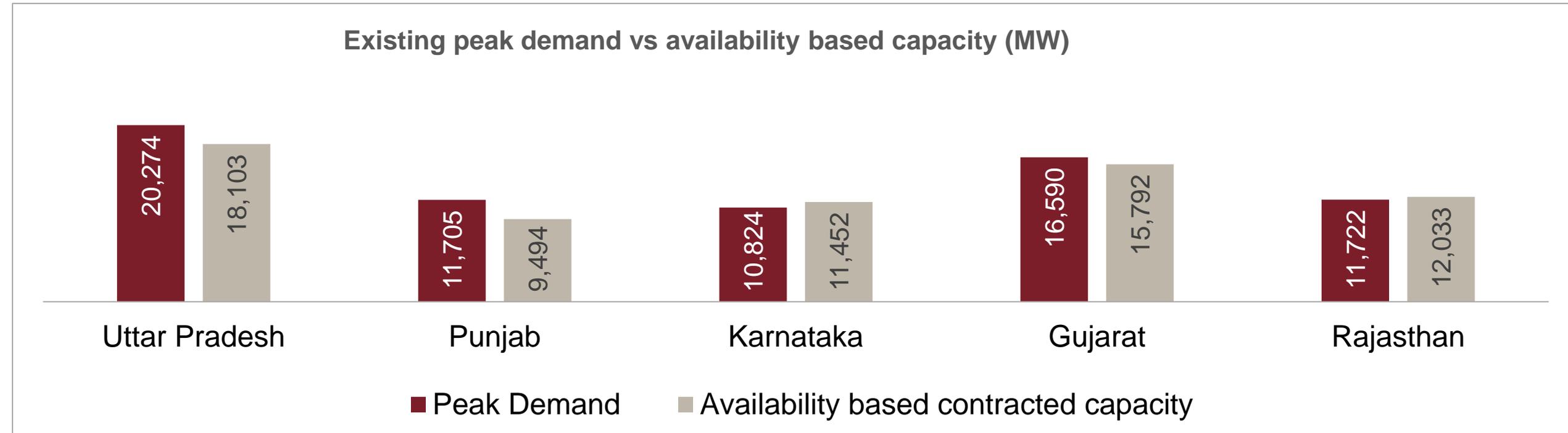
Others Commercial Agricultural Industrial Domestic



Source: CRIS Analysis

# Existing contracts inadequate to meet 24x7 power supply; discoms should enter into contracts to cover peak demand requirement

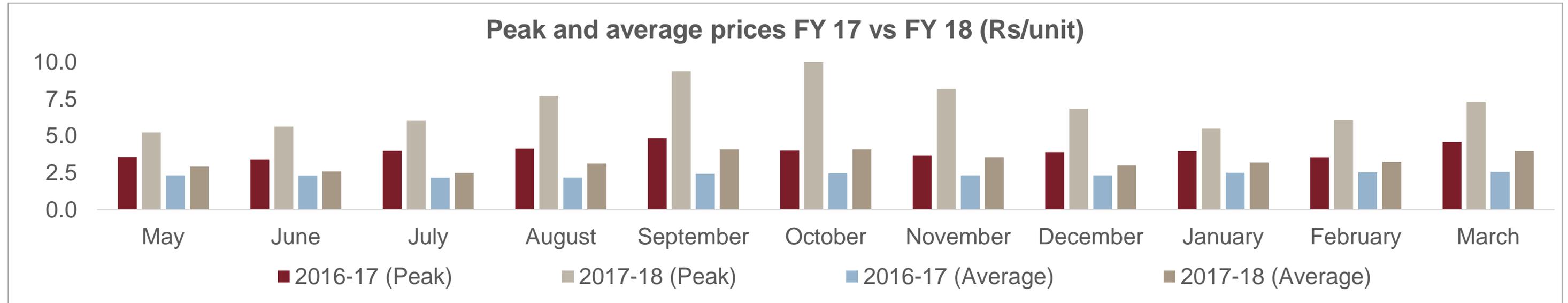
*PPA structuring could be modified to limit fixed cost liability*



Source: CEA, Tariff orders

- Several states have availability based long term PPA less than or just about to meet peak demand
- To ensure 24x7 power supply, discoms need to ramp up their long-term contracts
- Contracts could be structured to limit fixed cost liability

# Prudent for discoms to enter into medium to long-term contracts in light of expected rise in merchant power prices



Source: IEX, CRIS Analysis

- **Prices spiked over 25% from Rs 3.2/ unit in Jan'18 to Rs 3.97/ unit in Mar'18. Thus, the average prices over the quarter have jumped sharply from Rs 2.5/ unit to Rs 3.43/ unit. Peak prices have also doubled to ~Rs 7/ unit in fiscal 2018**
- **Going forward, merchant power prices may rise further-**
  - Demand growth outpacing supply
  - Imminent state and general elections
  - Continued dependence on imported coal, at least over the medium-term
  - Higher costs owing to FGD capex and other additional costs owing to time and cost overrun
  - Rising RE penetration to lead to higher O&M costs
- **In light of structural rise in prices, it is imperative for discoms to realign power procurement strategy and enter into medium and/ or long-term contracts**

# Slew of policy and regulatory measures needed on the supply side to revive thermal generation



Phasing out 35 GW of old capacity and assign PPAs and fuel linkages to new and efficient untied plants



Assign fuel linkage to power plants irrespective of PPA 



Calibrated expansion of renewable energy given grid integration cost



Discourage PPA/ LoA renegotiation



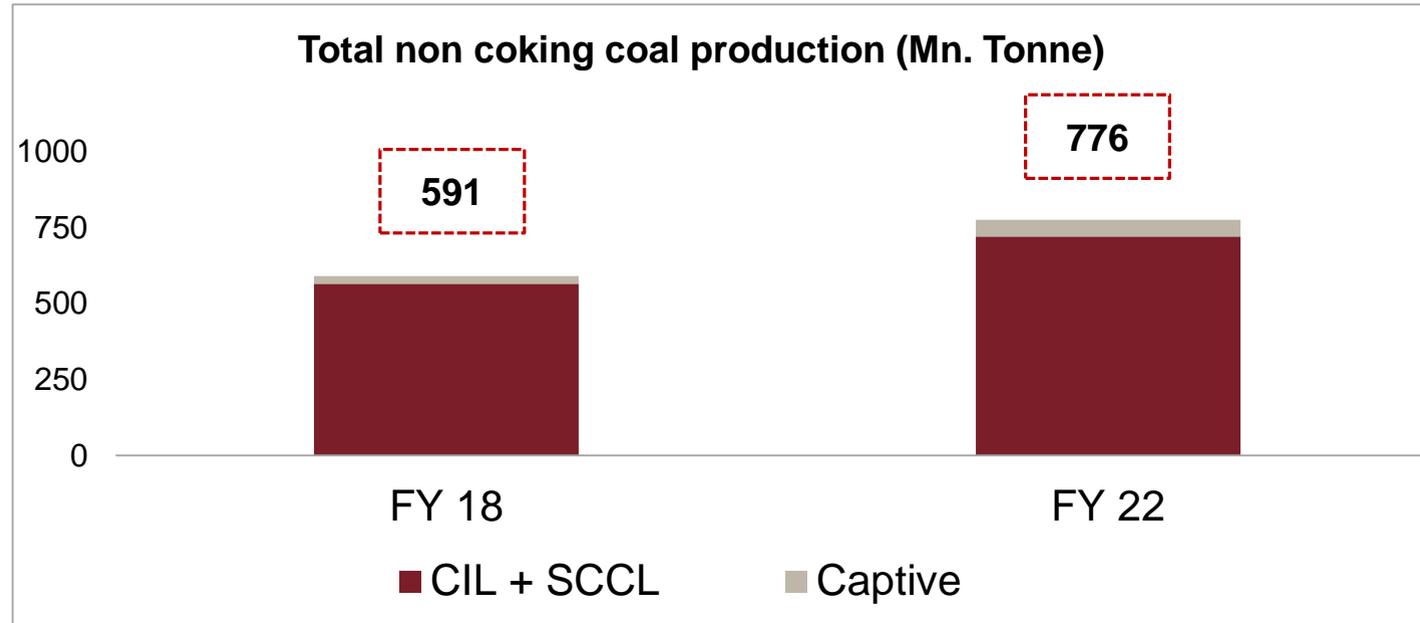
Revive gas based generation to ensure peaking requirements and grid balancing with rising RE capacity 



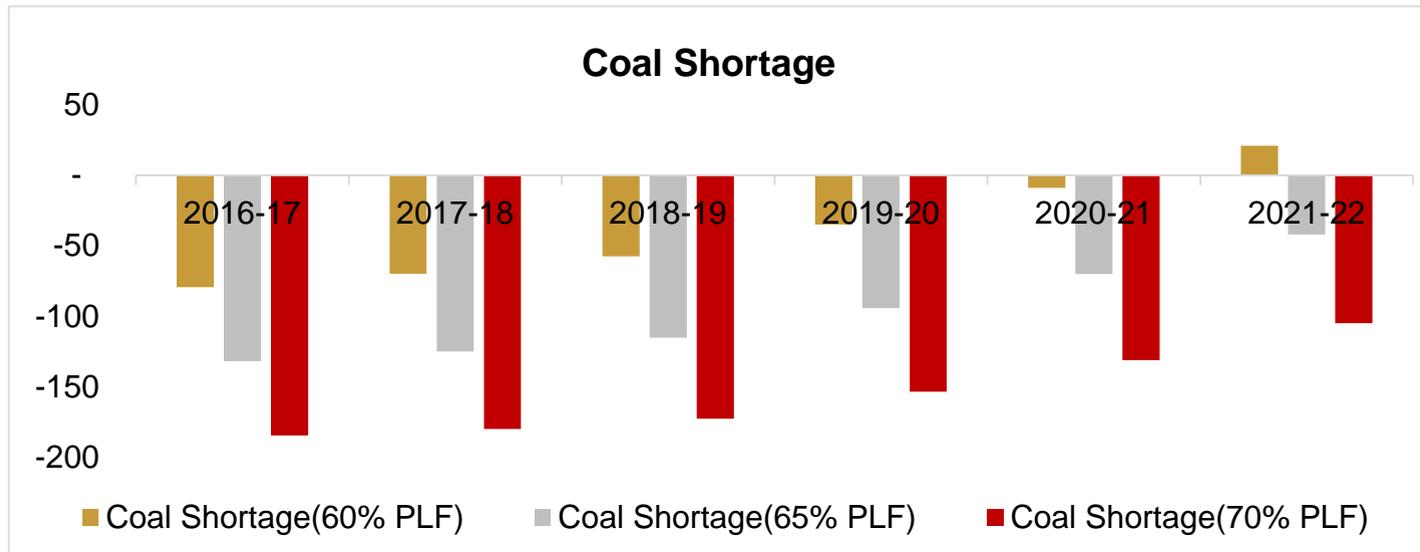
Revive hydro generation – Timely implementation of ‘New Hydro Policy’

These steps can help minimize NPAs and haircut levels for banks, and also provide a signal to new investors who haven't put money into the conventional power sector for over three years.

# Domestic coal reaching power plants to remain a constraint; Significant ramp up as well as logistic bottlenecks needs to be cleared



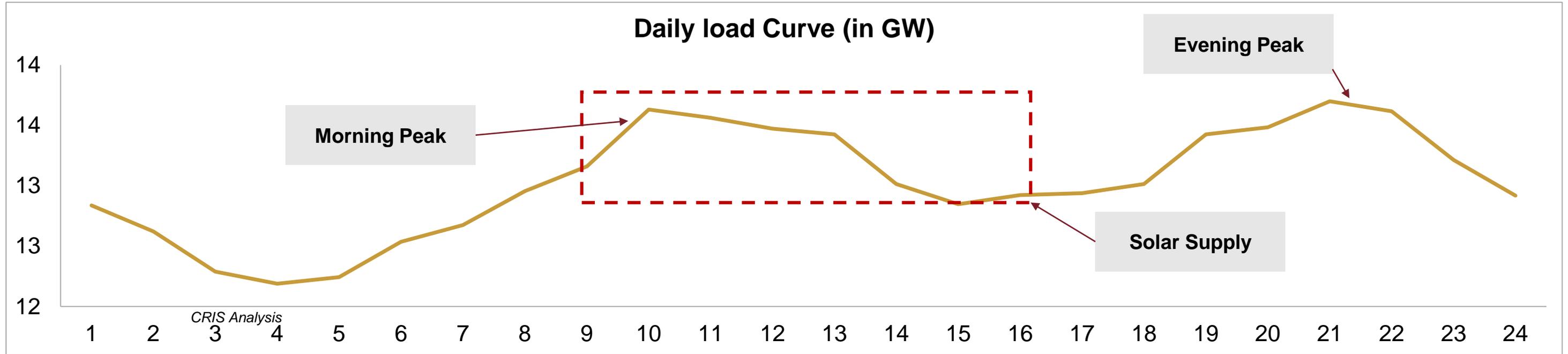
Source: CRIS Analysis



Source: CRIS Analysis

- With fresh PPAs push, requirement of domestic coal linkage to rise further
- However, domestic coal availability to continue to remain a constraint
- Strong push required on
  - Faster environmental clearances
  - Build-out of rail-infrastructure
  - Higher rake availability
- Coal allocation basis plant efficiency and nearness of coal mine should be evaluated
- Domestic coal could also be allocated irrespective of PPA. However, fixed cost recovery will be a function of coal and spot power prices
- Nevertheless, “coal to all” (with various bidding options) can help in limiting the value erosion as well as help in reducing risk and therefore downstream tariffs.

# Gas-solar hybrid to aid in grid balancing



- **Solar supply unlikely to meet the peak demand profile of the country**
- **Necessitates the need for contracting of peaking sources of power**
- **With hydro power plants facing considerable delay – Gas power plants key to meet the peaking power requirement of the country**
- **And with peak power prices in short term markets crossing Rs. 7/ unit in the recent past contracting gas power plants might become a viable option**

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# Thank you