
Asia Wind Energy Association
IN PARTNERSHIP WITH
FitchRatings
AWEA WEBINAR SERIES 2020 - MARKET SESSION
How Regulations Shape Credit Risks of Wind Developers in China and India
SPEAKERS:
RACHNA JAIN
Director, South & SE Asia, Energy & Utilities
Fitch Ratings
DIANA XIA
Associate Director, North Asia, Energy & Utilities
Fitch Ratings
MURALIDHARAN RAMAKRISHNAN
Senior Director, Head of South & South-East Asia Energy and Utilities
Fitch Ratings
PENNY CHEN
Senior Director, Corporates Ratings
Fitch Ratings
TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Asia Wind Energy Association

IN PARTNERSHIP WITH

FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Introduction

Asia Wind Energy Association

The Asia Wind Energy Association was established in December 2016 to become the leading trade association for the wind energy sector in Asia Pacific.

The association acts as the regional platform for all wind power industry stakeholders to collectively promote the best interests of the wind power sector.

The Asia Wind Energy Association is supported by a wide variety of stakeholders from the offshore and onshore wind industry.

Information

www.asiawind.org

@asiawindenergy

Asia Wind Energy Association

(65) 6679 6071

membership@asiawind.org

Asia Wind Energy Association

CapitaGreen - Level 24
138 Market Street, Singapore
048946

Asia Wind Energy Association Corporate Partners

Asia Wind Energy Association

Asia Wind Energy Association Corporate Members

Asia Wind Energy Association

Asia Wind Energy Association Partner Organizations

Today Speakers

Asia Wind Energy Association

Rachna Jain

Director, South & SE Asia, Energy & Utilities Fitch Ratings

Rachna joined Fitch Ratings, Singapore, in 2015. She covers Energy and Utilities credits across ASEAN and India. Rachna is primary analyst for credits like Greenko Energy Holdings, NTPC Limited, Vietnam Electricity, Pt Perusahaan Listrik Negara, et al. Prior to joining Fitch Ratings, she worked as an equity research analyst with Nomura, where she focused on the power and utilities stocks across ASEAN. She has over eleven years of experience across financial analysis and research, corporate finance, and private equity. Rachna is a CFA Charter holder. She has done the MBA from Indian Institute of Technology, Delhi, with major in Finance.

Asia Wind Energy Association

Diana Xia

Associate Director, North Asia, Energy & Utilities Fitch Ratings

Diana Xia is a Hong Kong based Associate Director in Fitch Ratings' APAC corporate ratings group. Her primary coverage is energy and utilities sector in Greater China, including power generation, power grid, gas utilities etc. Before joining Fitch, Diana worked at China Development Bank and China Huarong Asset Management as a project manager, for more than six years. Her expertise covered project financing, export credit and equity investment in utilities and infrastructure sectors across “Belt & Road” countries. She also had one-year secondment experience in China’s NDRC. Diana earned her MPhil in Development Studies from University of Oxford in 2011. She graduated from Utrecht University in 2009.

Asia Wind Energy Association

Muralidharan Ramakrishnan

Senior Director, Head of South & South-East Asia Energy and Utilities
Fitch Ratings

Muralidharan Ramakrishnan is Head of South & South-East Asia Energy and Utilities (E&U) team at Fitch Ratings based in Singapore. The E&U team is responsible for credit ratings for oil and gas, power and water utilities, major integrated energy companies as well as thermal coal producers/contractors in the region. Murali joined Fitch's Asia-Pacific corporates group in June 2010 and was based in Mumbai until 2015 covering diversified industrials including metals & mining, natural resources, capital goods, automobile and chemicals. Prior to joining Fitch, Murali was a senior consultant in a risk consulting firm. He was also with Crisil Ltd for three years, where he was part of the company's Rating Centre of Excellence (Criteria and Product Development) initially and Corporate Ratings subsequently . Murali graduated with Bachelors degree in Mathematics from Loyola College, University of Madras and is a Chartered Accountant.

Asia Wind Energy Association

Penny Chen

Senior Director, Corporates Ratings Fitch Ratings

Penny Chen is a Senior Director in Fitch Ratings' APAC corporate ratings group and is based in Shanghai, China. Her current primary coverage is energy and utilities sector in Greater China, including oil & gas, power, gas, coal. Before joining Fitch in 2015, Penny worked at BNP Paribas Equities Asia China Research Team for nearly 10 years. Her coverage included Greater China companies in the alternative energy, environmental services, power generation, and gas distribution sectors. Penny earned her Bachelor of Arts degree from Fudan University, and she is also a CFA charter holder.

FitchRatings

Regulations & Industry Shaping Credit Risks of Asian Wind Developers

Rachna Jain, Diana Xia

24 November 2020

Introduction to Fitch Ratings and Credit Ratings	
Which Factors Affect Credit Ratings?	
Factors Affecting Credit Profiles of Wind Power Developers	
China	
	Snapshot on China’s Wind Power Generation
	Key Regulations
	How power generators’ credit profile is affected?
India	
	Key Regulations
	Industry-wide Credit Trends
	How power generators’ credit profile is affected?
Questions & Answers	

Introduction to Fitch Ratings and Credit Ratings

Fitch Ratings – The Global Rating Agency with Local Market Experience

Credit Ratings Reflect Relative Vulnerability to Default on Financial Obligations

- **Based on In-depth Assessment of**
  - Covers Intention and Capability of Debt Servicing
  - Macro Environment, Group Structure, and Business and Financial Profiles
  - Evolve as New Information Emerges
- **Affects Availability, Cost, other Terms and Secondary Sale of Debt Securities**

Fitch's Rating Scale

Rating	Definition
AAA	Highest Credit Quality
AA	Very High Credit Quality
A	High Credit Quality
BBB	Good Credit Quality
BB	Speculative
B	Highly Speculative
CCC	Substantial Credit Risk
CC	Very High Levels of Credit Risk
C	Near Default
RD	Restricted Default
D	Default

Which Factors Affect Credit Ratings?

Key Rating Factors

Sector Risk Profile	Financial Profile
Country Risk	Cash Flow and Profitability
Management Strategy/Governance	Financial Structure
Group Structure	Financial Flexibility
Business Profile	

Factors Affecting Credit Profiles of Wind Power Developers

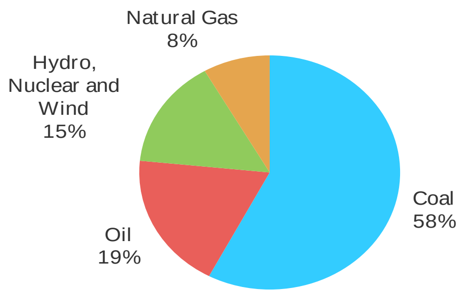
Business Profile

Revenue Predictability	Market and Competitive Position	Asset Base and Operations	Counterparty Exposure
Contracted Position	Supply/Demand Dynamics	Asset Quality & Diversity	Counterparty Risk
Contract Renewal Risk	Competitive Position	Environmental Regulations	Variable Cost
System/Capacity Payments	Relative Size & Scale	Capital & Technological Intensity of Capex	
Supply Integration			
Resource Predictability			

China

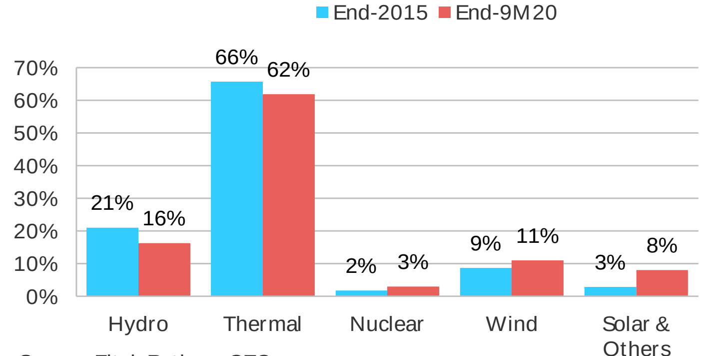
Snapshot of China's Wind Power Generation

China's Energy Mix By Consumption (2019)



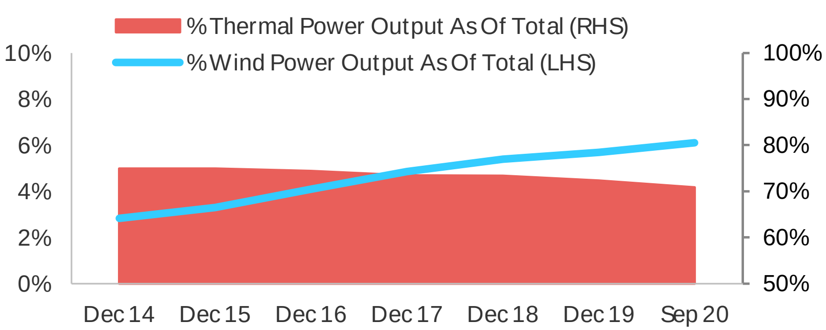
Source: Fitch Ratings, NDRC

China's Fuel Mix Breakdown By Power Capacity



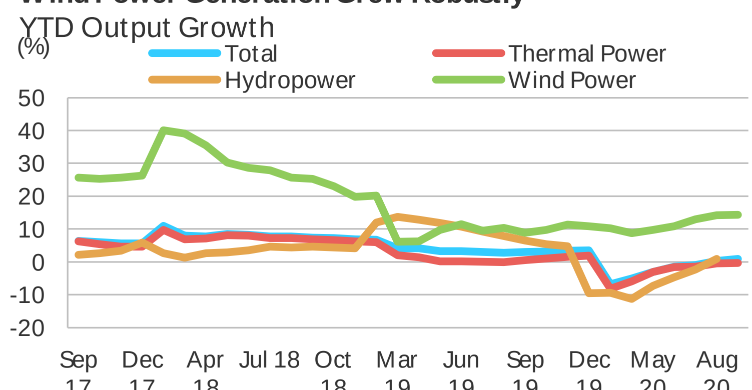
Source: Fitch Ratings; CEC

Wind Power's Contribution to Total Outpuut Rises



Source: Fitch Ratings; Wind; CEC

Wind Power Generation Grew Robustly



Source: Fitch Ratings; Wind, CEC

Grid-Connection Deadlines Drive Installations

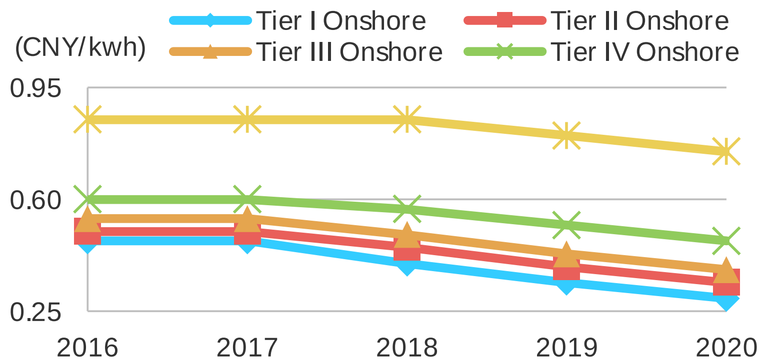
Subsidized Wind Development

- Feed-in-tariff tied to the year of approval, with grid-connection deadlines
- Feed-in-tariff=coal-fired benchmark tariff +subsidies

Grid-Connection Deadlines

- Onshore Wind:
  - Approved before 2019: by end-2020
  - Approved in 2019-2020: by end-2021
  - Projects approved post-2020 will not longer be subsidized
- Offshore Wind
  - Before end-2021
  - Relocating subsidy disbursement from central to provincial

Subsidized Wind Power Tariff Range



Source: Fitch Ratings; NDRC

Notes: 1. The year refers to the year of appoval; 2. Prices before 2019 refer to feed-in-tariffs and those post-2019 are references prices; 3. government will no longer approve subsidies for onshore wind from 2021

New Subsidy Regulations To Benefit Developers

❑From catalogue-basis to pro-rata basis

- Pre-2020, only projects registered in 1st-7th catalogue received regular subsidy payments
  - Large recurring working capital outflow
- Coverage is now expanded to all qualified subsidized projects under operations
  - Should improve cashflow and debt servicing
  - However, China's Renewable Surcharge Fund remains in deficit

❑ Active acquisitions

- Major sellers: private developers
  - To meet debt servicing needs, or to rebalance portfolio with less-subsidy-heavy projects
- Major buyers: state-owned generation companies, with large coal-fired power capacity
  - To improve fuel mix and maintain organic growth; supported by strong funding access

Regulations Favor Subsidy-Free Projects

❑Revenue Visibility

- The price and volume risks are reduced for subsidy-free projects

❑ Cost Cuts

- Should mitigate the lower tariff of subsidy-free projects than the subsidized ones

	Subsidized Projects	Unsubsidized Projects
Tariff	Tariff is fixed for 20 years, but a portion of output will be sold via market trading, usually with discounts.	Lower tariff, but more stable. As government guarantees a full-output purchase, there is no price exposure to trading.
Volume	Curtailment remains an issue	The dispatch is the most prioritized
Non-equipment costs	High	Waived
Subsidy payment	Material collection delays	No cashflow pressure in this regard

Source: Fitch Ratings

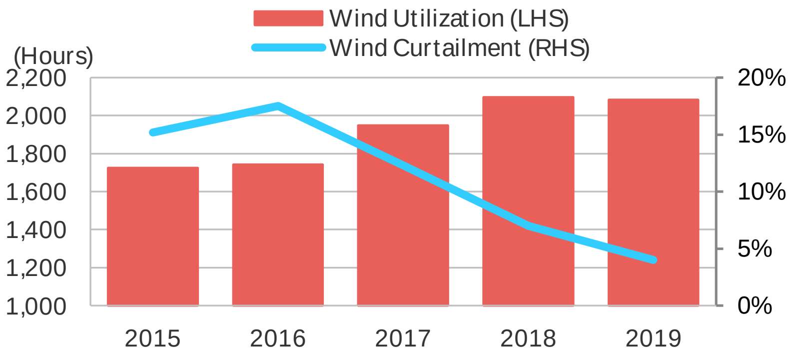
Regulations Improve Volume Visibility

❑ Curtailment Alert Mechanism

- ➢ Installations will be suspended if curtailment rates are very high
- ➢ Wind projects in Xinjiang and Gansu are now permitted to commence construction

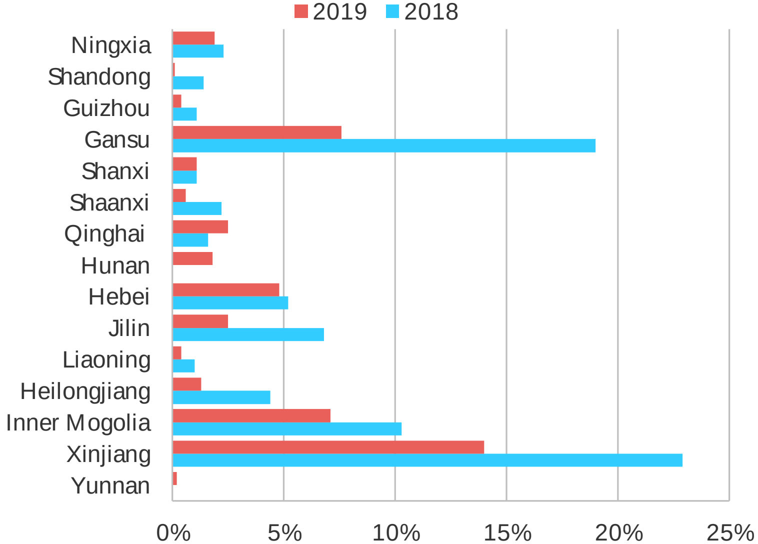
❑Renewable Consumption Target Policy

China's Wind Curtailment Declines



Source: CEC; Fitch Ratings;

Wind Curtailment Ratio By Provinces



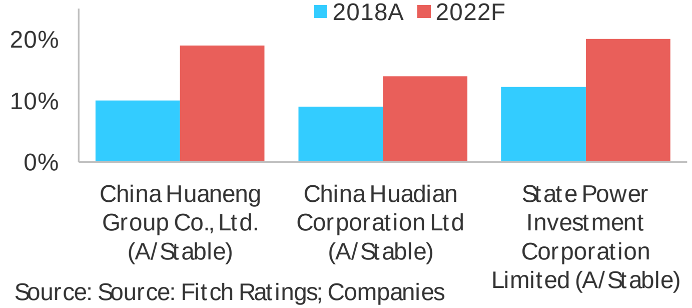
Source: CEC; Fitch Ratings;
Notes: Not all Chinese provinces have curtailment issues

How state-owned gencos' credit profile will be affected by wind power development?

❑ Industry-Wide Credit Trends

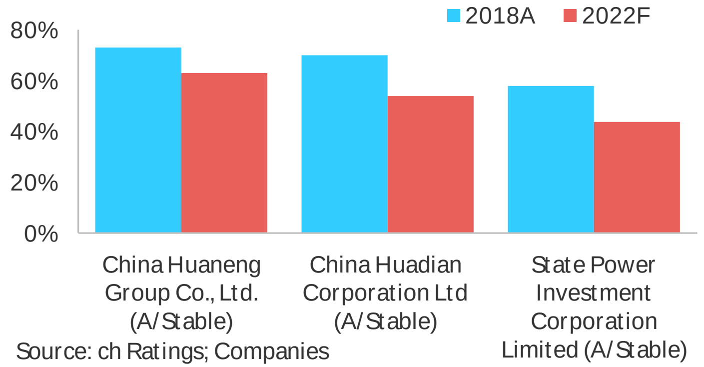
- Higher volume visibility
- Higher price stability
- Declining reliance on subsidy collection
- Leverage profile framed by investment plans

Share of Wind Capacity in Fuel Mix of China's Major IPPs Will Grow



Source: Source: Fitch Ratings; Companies
Note: Forecast based on Fitch assumptions

Fuel Mix of China's Major IPPs will remain dominated by thermal power



Source: ch Ratings; Companies
Note: forecast based on Fitch assumptions

Positives

- ❑ Improved revenue predictability
- ❑ Lower exposure to fuel cost fluctuations
- ❑ Asset diversification
- ❑ Lower carbon exposure

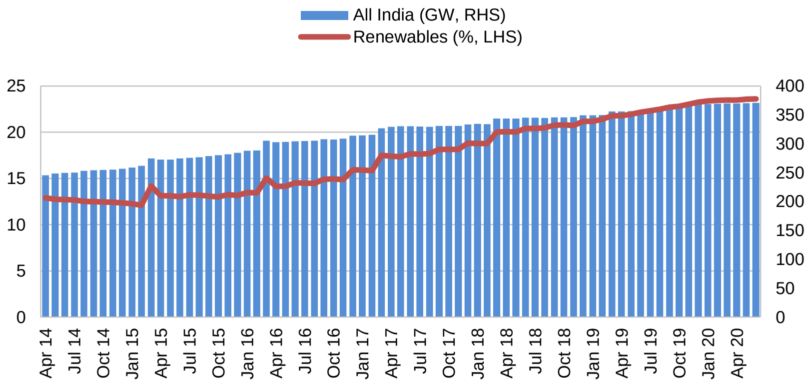
Negatives

- ❑ Near-term leverage tightened
- ❑ Some cashflow pressure from working capital outflow

India

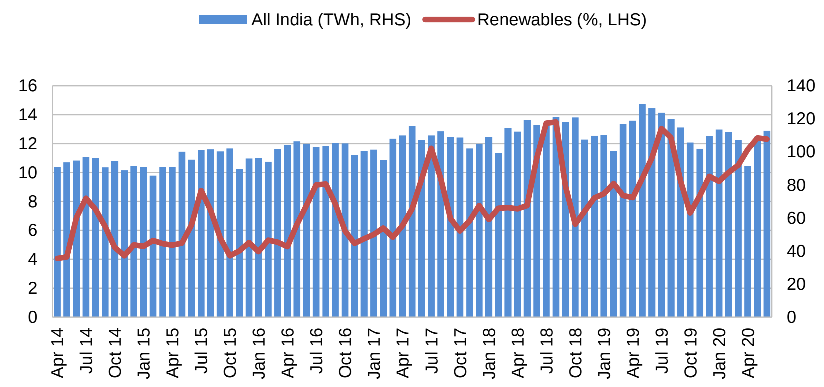
Snapshot of Indian Renewable Capacity

All India Power Generation Capacity



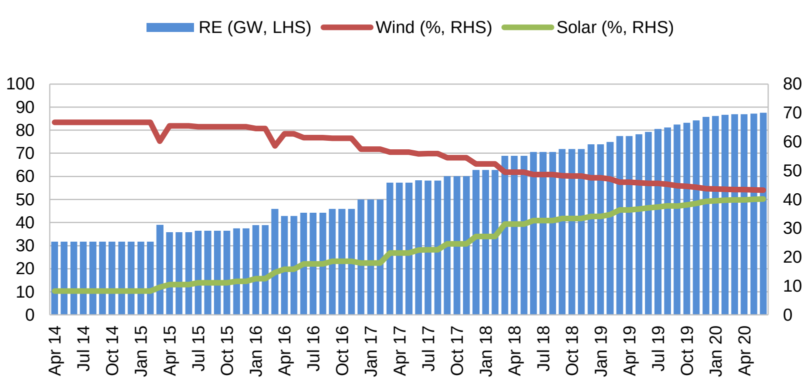
Source: Central Electricity Authority

All India Electricity Generation Mix



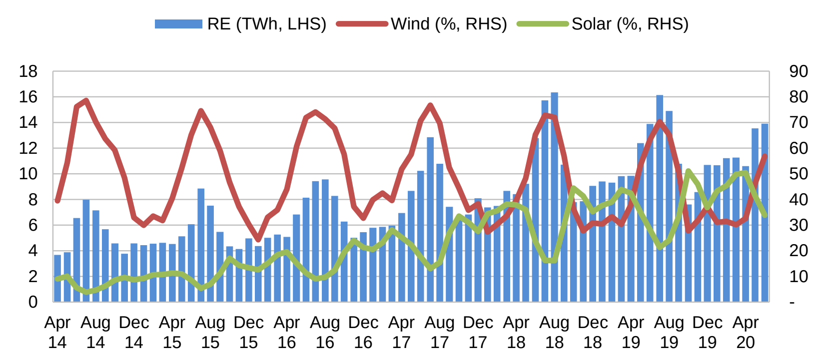
Source: Central Electricity Authority

Renewable Capacity Mix



Source: Central Electricity Authorrity

Renewable Generation Mix



Source: Central Electricity Authorrity

India’s Capacity Addition Plan

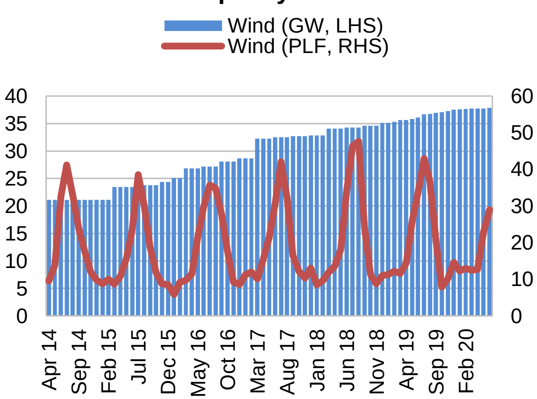
❑ Total Capacity to Increase to 817GW by 2030

- ➢ Electricity demand expected to increase by 6% per annum
- ➢ Addition of 446GW (June-2020: 371GW)
- ➢ Non-Fossil Fuel to Account for 40 % of India’s 2030’s Installed Capacity
- ▪ Cost-Effectiveness, Environmental Consciousness, Intermittent Generation

❑ Wind Capacity to Increase to 140GW by 2030 (June-2020: 38GW)

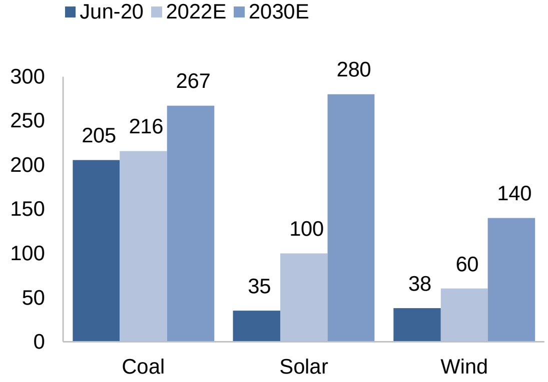
- ➢ Potential of more than 300 GW at 100m hub height (695 GW at 120m)

Installed Wind Capacity



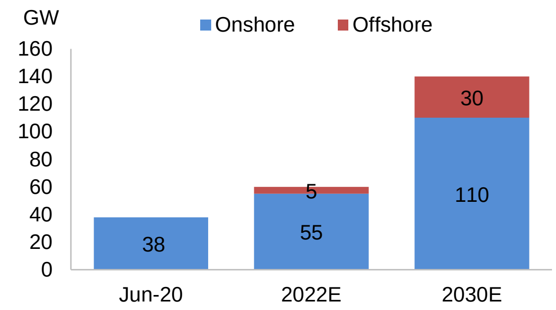
Source: Central Electricity Authorrity

Capacity Addition Plan (GW)



Source: Central Electricity Authorrity

Wind Capacity Addition Plan



Source: Fitch Ratings, Press Releases

Regulatory/Policy Backdrop

❑ Key Current Tailwinds…

…for Volumes

- Must-run Status
- Banking & Wheeling Facilities
- Renewable Purchase Obligations
- Sale to Third Parties

…for Tariffs

- No Inter-State Transmission Charges
- Duty Concessions, Tax Holidays
- Lower Land Leases
- Renewable Energy Certificates
- Feed-in-Tariff up to 25 MW.

…for Investments

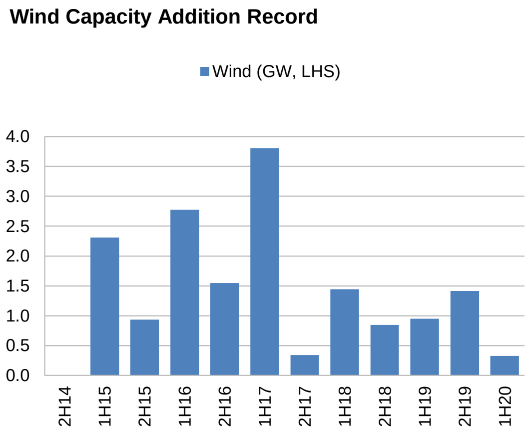
- Green Energy Corridor
- 100% Foreign Direct Investment
- Concessional Financing from Government's Institutions

❑Federal Structure results in Framework Varying across States

Industry-wide Credit Trends

❑ Good Capacity Addition till 1H17

- Feed-in Tariffs – Competitive Bidding Introduced in Feb 2017
- Accelerated Depreciation – Ended in 2017
- Generation Based Incentives – For Commissioning before Mar 2017



Source: Central Electricity Authorrity

❑ Lukewarm Recent Performance

- Unsubscribed/Undersubscribed Auctions Lately
- Mismatch in Tariff Expectations – Tariff Caps Lifted Now
- Lack of Suitable Land/Transmission Network – Large RE Parks
- COVID 19-Induced Logistic Challenges

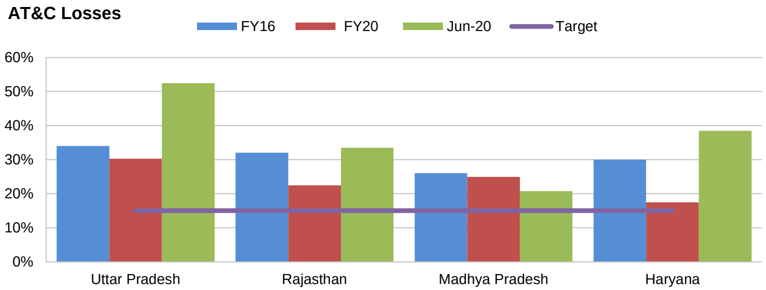
❑ High Counterparty Risk

- Weak State-owned Distribution Companies are Key Counterparties
- Developers Face High Receivables, Curtailments
- Tariff renegotiations – Event Risk
- Counterparty Risk Mitigants
  - Exposure to Sovereign-owned entities, commercial & industrial customers
  - Diversification across state-owned distribution companies

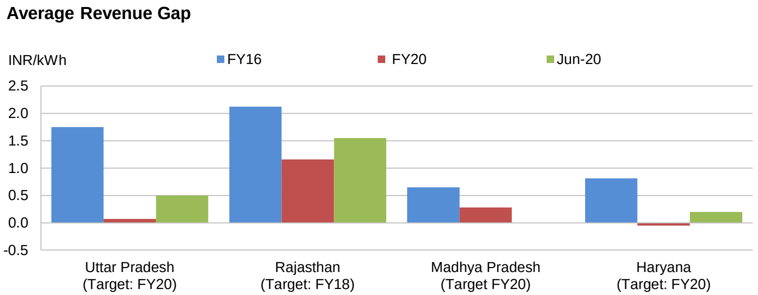
Structural Reforms in the Making

❑ Financial Reforms are Ineffective in the Absence of Operational Overhaul

- ➢ Ujwal DISCOM Assurance Yojana introduced in 2015 after 'Reforms' in 2001 and 2012



Source: Ministy of Power, Goverrnment of India



Source: Ministy of Power, Goverrnment of India

❑ Meaningful Measures Expected in the Medium Term

- ➢ To Improve Distribution Segment, the Weakest Link in Supply Chain
  - Monitored Appointment of Regulators
  - Private Player Participation
  - Direct Benefit Transfer
- ➢ Establishment of Electricity Contract Enforcement Authority

Andhra Pradesh (INR bn)	
Total Receivables	**138.9**
Subsidies	59.5
Government Offices	79.4
Total Payables	**67.0**
Central Gencos	50.4
Central Transcos	2.2
RE Players	5.7
IPPs	8.6

How power generators' credit profile is affected?

Positives

- Medium term policy certainty
- Must-run status
- Fixed Tariffs, Long Term Contracts
- Counterparty Diversification
- Discoms Structural Reforms
- Financing Access, Strong Parents

Negatives

- Resource Risk
- Counterparty risks
- Declining Tariffs and Profits
- Stretched Financial Profile
  - Tight Interest Coverage
  - Fx Exposure

Issuer	Greenko Energy	ReNew RG II	ReNew Power	Azure Power Energy	Neerg Energy
Credit Ratings	**BB/Stable**	**BB**	**BB-/Stable**	**BB-**	**BB-(b+)**
Fitch Corporates Rated USD bonds	**USD2,450 million**	**USD435 million**	**USD300 million**	**USD500 million**	**USD475 million**

Q&A

FitchRatings


Asia Wind Energy Association
IN PARTNERSHIP WITH
FitchRatings
AWEA WEBINAR SERIES 2020 - MARKET SESSION
How Regulations Shape Credit Risks of Wind Developers in China and India
TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Q&A Session

Asia Wind Energy Association

IN PARTNERSHIP WITH

FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Question 1

Why Indian developers have raised US dollar bonds? Is it mainly for cheaper loans?

Question 2

What is your view on the proposal recently made by industry participants in Beijing that pledged to have China’s wind power capacity exceed 800GW by 2030?

Question 3

Do you think wind power tariffs in India have bottomed out?

Question 4

Are China’s wind and solar power developers equally impacted by subsidy policies?

Asia Wind Energy Association

IN PARTNERSHIP WITH FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Question 5

What is your view on wind capacity addition in India given land issues and availability of cheaper solar power?

Asia Wind Energy Association

IN PARTNERSHIP WITH FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Question 6

Is operational expenditure (OPEX) considered as a critical factor while developing credit ratings? If not, will it become a critical factor in the near future?

Asia Wind Energy Association

IN PARTNERSHIP WITH FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Question 7

Is there a fitch rating chart for Indian IPPs too?

Question 8

What factors will shape China’s future wind power capacity additions, other than regulations?

Asia Wind Energy Association

IN PARTNERSHIP WITH

FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Question 9

You mentioned about weak distribution companies in India. What is your take on situation in Andhra Pradesh?

Asia Wind Energy Association

IN PARTNERSHIP WITH FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Question 10

Have COVID-19 materially impaired China's wind power development in 2020?


Asia Wind Energy Association
IN PARTNERSHIP WITH
FitchRatings
AWEA WEBINAR SERIES 2020 - MARKET SESSION
How Regulations Shape Credit Risks of Wind Developers in China and India
TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Closing

Asia Wind Energy Association

Information

www.asiawind.org

@asiawindenergy

Asia Wind Energy Association

(65) 6679 6071

membership@asiawind.org

CapitaGreen - Level 24
138 Market Street, Singapore
048946

Upcoming Webinar

Asia Wind Energy Association

Asia Wind Energy Association

IN PARTNERSHIP WITH

FitchRatings

AWEA WEBINAR SERIES 2020 - MARKET SESSION

How Regulations Shape Credit Risks of Wind Developers in China and India

TUESDAY, 24 NOVEMBER 2020 - 3 PM SGT

Thank You