



TATA CLEANTECH CAPITAL LIMITED

--- 6 Year Journey

April, 2019

Agenda

Overview of Tata Group

Tata Cleantech Capital Limited (TCCL) : Introduction

Need for Climate Finance Company

TCCL : Journey till date

India Opportunity

TCCL Advantage

Overview of Tata Group

Leadership with Trust

- A global business group having over 7,00,000 employees and operations in over 100 countries
- Group revenue of \$ 110.7 billion (FY 18) with more than two-third generated in geographies other than India
- Most valuable business group in India with market cap of 28 listed cos: ~USD 145.3* bn

Institutionalized Philanthropy

- Group holding structure ensures two-thirds of profits distributed by Tata Sons (principal holding company of the Group) goes towards philanthropic causes through Tata Trusts

Sustainability in Action

- Group part of Indian Prime Minister's low carbon committee
- Member of the Steering Committee of 'Caring for Climate' initiative of the United Nations Global Compact and United Nations Environment Program
- Several Group companies recognized and listed in the Carbon Disclosure Leadership Index



Leadership with Trust
Since 1868



“ In a free enterprise, the community is not just another stakeholder in the business, but is in fact the very purpose of its existence. ”

— Jamsetji Tata
Founder of the Tata group
Chairman (1868 – 1904)

TATA CAPITAL

* As on March 31, 2018

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TCCL : Introduction

- **First of its kind Private Sector Green Investment Bank in emerging economies with focus on climate finance and advisory services**
- **JV with IFC, Washington which holds 19.5% stake**
- **Contributing to Sustainable Development as per the mandate**
 - Participated in funding of more than ~5.2 GW Renewable Energy Projects saving over 8.4 million tons of CO₂ emission annually
 - First company in private sector to partner GCF to develop solar rooftop market in India through USD 100 million credit line
 - In process of sponsoring infrastructure debt fund to develop green bond market in India
- **“AAA” domestic rating in India by CRISIL (an S&P Global Company)**

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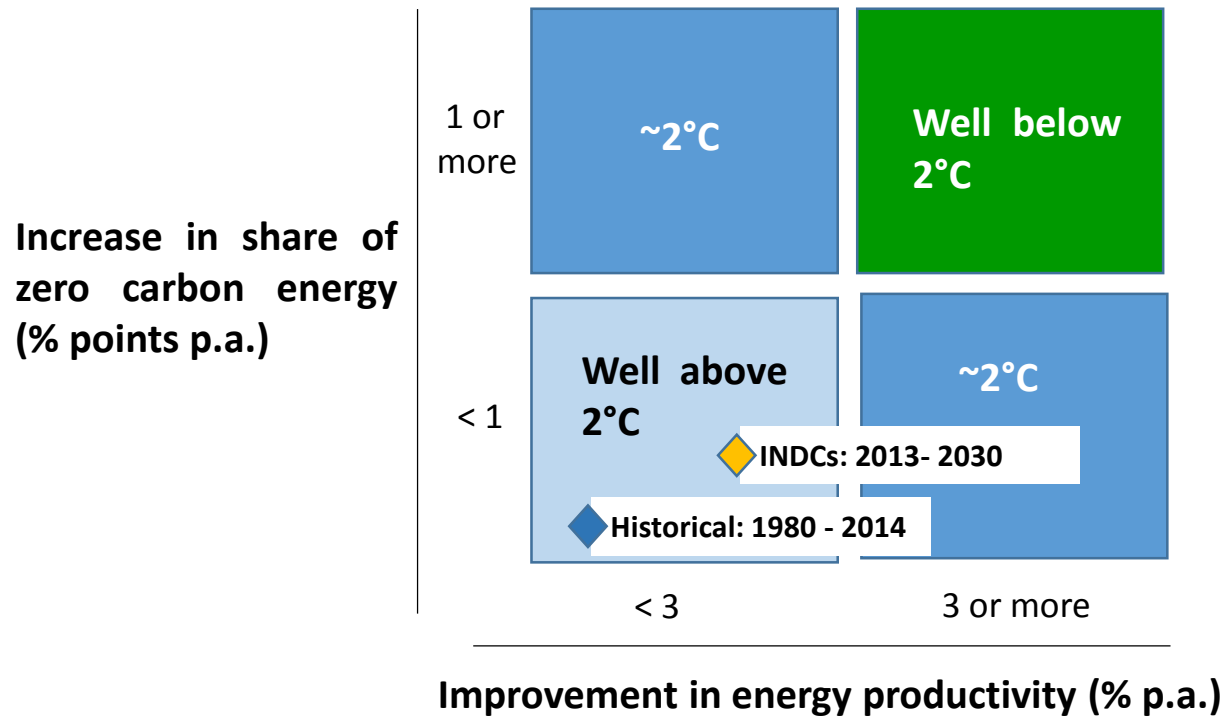
TCCL : Journey till date

India Opportunity

TCCL Advantage

Need for Climate Finance Company

- Limiting climate change to less than 2°C, requires far more efforts than already committed



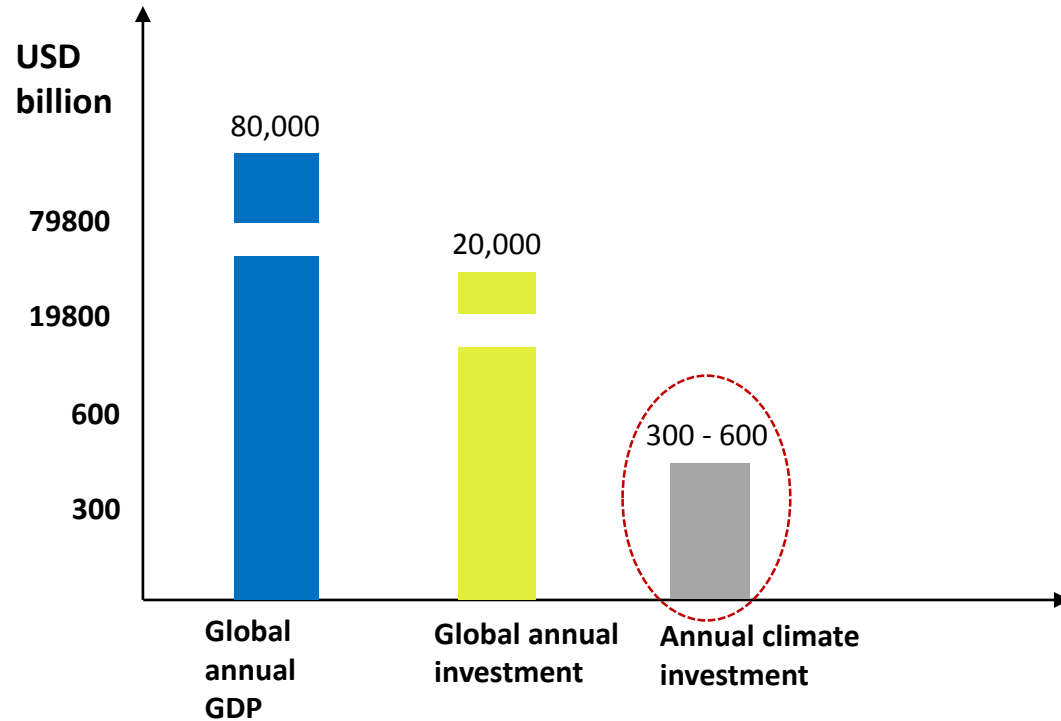
This war cannot be won without active efforts from developing countries like India and China

India has responsibility to do what no other nation has done before -- grow @ 7% plus pa, without dramatically increasing carbon emissions

While technology has kept pace, key challenge so far has been funding the energy transition

Need for Climate Finance Company

However, the fund requirement is small compared to global annual GDP of USD 80 trillion



• The Key issue

- Most of these savings are in developed world as against requirement in developing countries
- While globally diverse class of investors are looking to contribute towards war against global warming *they require credible local platform to effectively channelize funds*

TCCL has been conceptualized primarily as a platform for intermediating fund flows from diverse domestic and international investors to clean-tech sector in India

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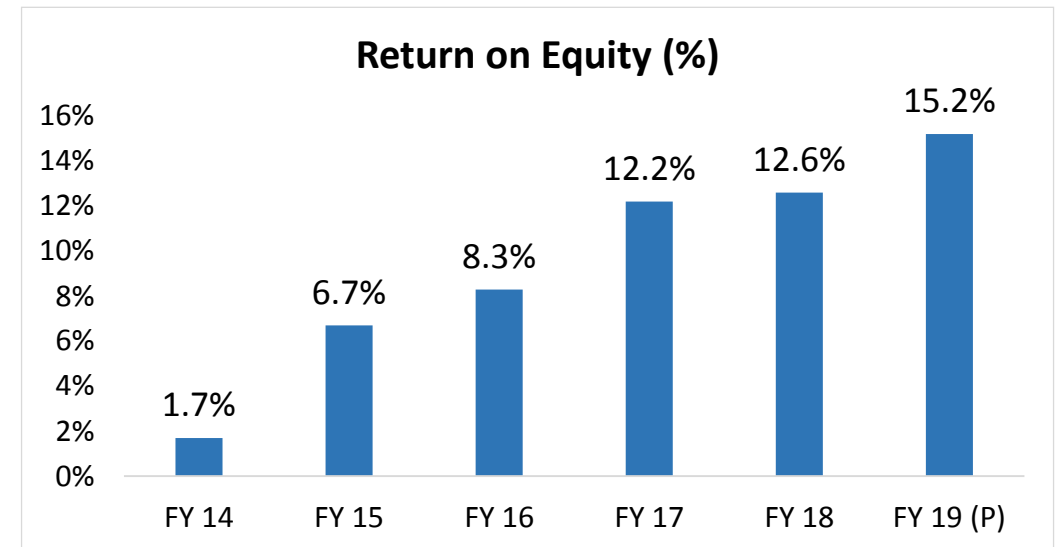
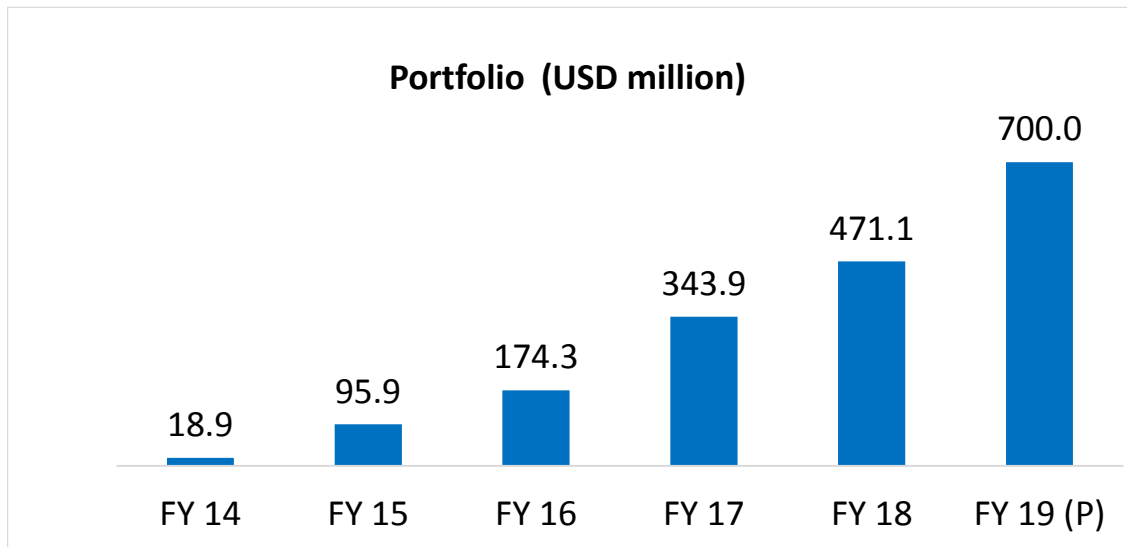
TCCL : Journey till date

India Opportunity

TCCL Advantage

Journey so far

- Over 150 clean-tech projects funded
- Aggregate outstanding loan portfolio of ~USD 700 million with **NIL** non performing assets
- Already proved its credentials in investment banking with execution of number of mandates  Refer slide 18
- Entered into a number of win-win alliances  Refer slide 20
- **Exponential growth since inception**



1 USD = INR 70

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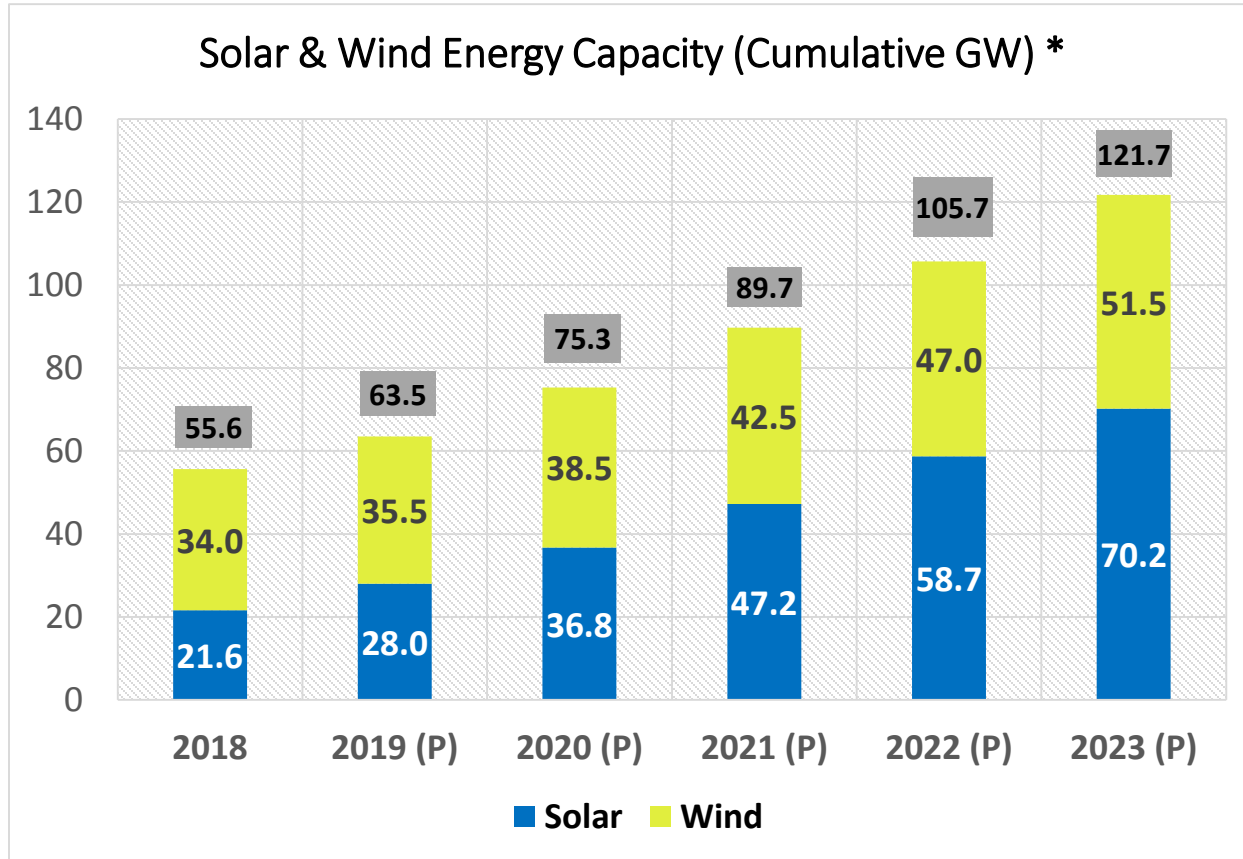
Need for Climate Finance Company

TCCL : Journey till date

India Opportunity

TCCL Advantage

India Opportunity : Likely Capacity Addition



* Source: CRISIL (An S&P Global Company) estimates, March 2019

- As part of Paris accord, India has committed to reduce its carbon intensity of GDP by 30% to 35% from 2005 levels
- The country is running one of the largest renewable program in the world
- The expected capacity addition would require investment of about USD 40 billion in next 5 years → Refer slide 21
- Further, India has committed to have 40% of its installed capacity in Power sector from renewable sources by 2030

India Opportunity : Improved Implementation Framework

- Regulations and technology supporting capacity expansion

Tender size and bidding ability have increased.....

Parameter (MW)	FY 13	FY 15	FY 17	FY 19*
Highest tendered capacity	300	400	1,000 – 2,000	3,000
Max bid capacity permissible	5-10	100	400 – 500	1,800
Actual largest bid capacity	10	100	500	600

* Till July, 2018

.....with improved implementation framework

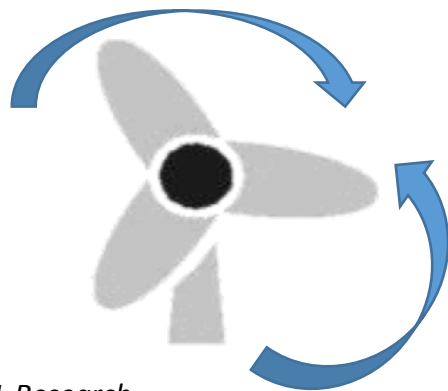
- 1) Feed in Tariff
- 2) Individual Developments
- 3) Lack of Scale

- 1) Auctions/ Bids
- 2) Wind/ Solar Parks
- 3) Strategic Players focused on scale

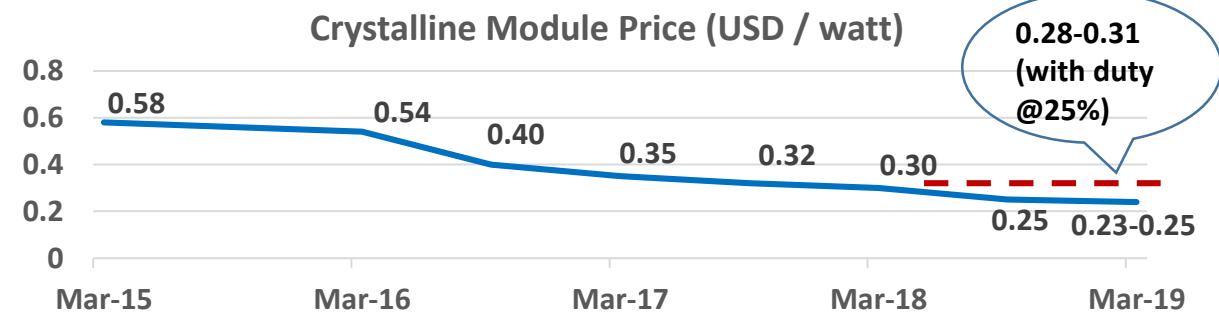
Refer slide 22

Improvement in technology to aiding wind and solar power sector

Higher PLFs because of change in technology



Higher hub height turbines being utilized in India



Source: Industry, CRISIL Research

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India Opportunity : Water Sector

- India is home to 18% of world's population, has ~2.5% of world's land area & 4% of water resources.
- Overall water sector is growing at 15-20% p.a. (Trade Council of India, estimates).
- Huge anticipated demand for water, with emphasis of government on creating 100 smart cities.

Avenues for Investment

Waste Water Treatment

- 69% of India's water (or 26Bn liters) goes untreated & ~39% of the actual operating capacity does not meet the government's standards for the safe disposal of water
- Assuming a 4-year completion cycle, annual opportunity in the range of US\$400 mn.

Projects by Urban Utilities

- Size of urban water supply investment requirement from 2012-31 is estimated to be USD 45 Bn. (Euro India Research Centre (EIRC) report)
- Individually municipalities have started to peruse some projects in the PPP space

Water Desalination

- Industries in Mah, Gujarat & TN are paying 0.60c - 0.90c/cubic meter for water supply costs, which is comparable to the cost of desalinated water.
- With scale & improvement in technology, the cost is expected to further reduce.

Ganga River Basis Management Plan (GRBMP)

- Capex requirement is estimated to tune of \$100 bn, with 70% expected under the PPP framework.
- Hybrid Annuity-based model successfully implemented under PPP framework where Government takes the demand risk

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- **Ideal platform to intermediate green funds from developed countries to India**
 - Supported by top brands – Tata and IFC, which have demonstrated commitment to sustainable growth
 - Has experience of funding more than 150 clean-tech projects in India with aggregate capacity of over 5.2 GW
 - Proven expertise demonstrated through NIL non performing assets in 6 years of its operations
 - Selected by Green Climate Fund to implement its mandate of developing solar rooftop segment in India
 - Domestic AAA rating from CRISIL (An S&P Global Company)



TATA CAPITAL

Thank You

Journey so far

- Advisory services to corporate India

Financial Advisory Experience



110 MW solar power project



36 MW solar power project



750 MW Renewable Energy projects in India

M&A Advisory

Bid Advisory

Cleantech Advisory Experience



Project in consortium with Swansea University of UK for commercialization of next generation solar PV technology



Climate Action Planning for Chennai and Bengaluru



Industrial use of Treated Municipal Waste Water from Bijapur Municipality by NTPC, Kudgi Plant



GIZ sponsored program for developing innovative models to promote solar rooftop in commercial and industrial clusters of Delhi

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Journey so far

- A few key syndication mandates executed



Syndication of project loan for
Water Desalination project



Syndication of project
loan for wind project



Infrastructure

Debt Advisory for
refinancing & restructuring
of operating road projects



Debt Syndication for wind
projects



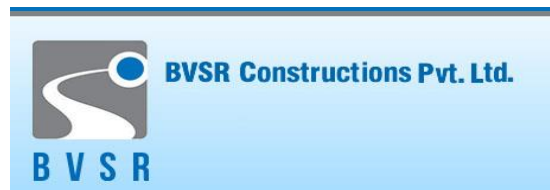
Syndication of debt refinancing
for operating solar projects



Syndication of project loan
for solar project



Debt Syndication for solar
projects



Syndication of project loan for
road HAM project

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Journey so far

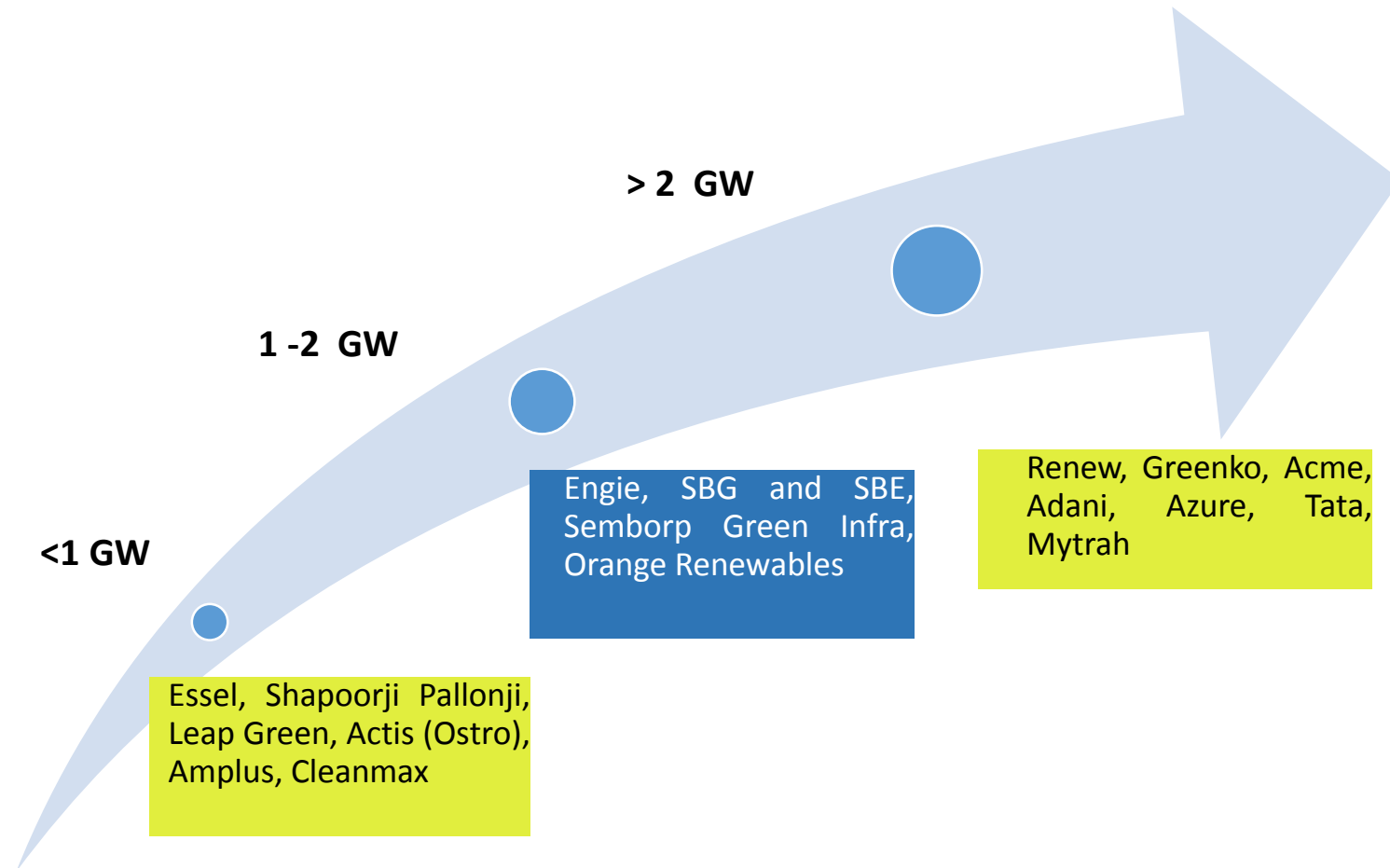
- Key Alliances



- Partnering Green Climate Fund (GCF) to develop solar rooftop market in India through USD 100 million credit line
- MoU with Indian Renewable Energy Development Agency Limited (IREDA) for joint underwriting and co-financing of renewable energy projects
- Collaboration with Tata Group companies for Rooftop and Energy Efficiency solutions, focused on SME sector
- MoU with Energy Efficiency Services Limited (EESL) for financing energy efficient motors for industry clusters for SMEs.
- MoU executed with Small Industries Development Bank of India (SIDBI) for financing of Energy Efficiency projects

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India Opportunity : Scale of major players



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