



What does the pandemic mean for India's clean energy ambitions?

Opportunities, risks, and ways forward

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Energy Access



Renewables



Power Sector



Industrial Sustainability &
Competitiveness



Low-Carbon Pathways



Risks & Adaptation



Technology, Finance & Trade



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Build evidence.

Consistent, reliable, and up to date monitoring & analysis of clean energy markets – investment, payment schedules, market trends, etc.

Create coherence.

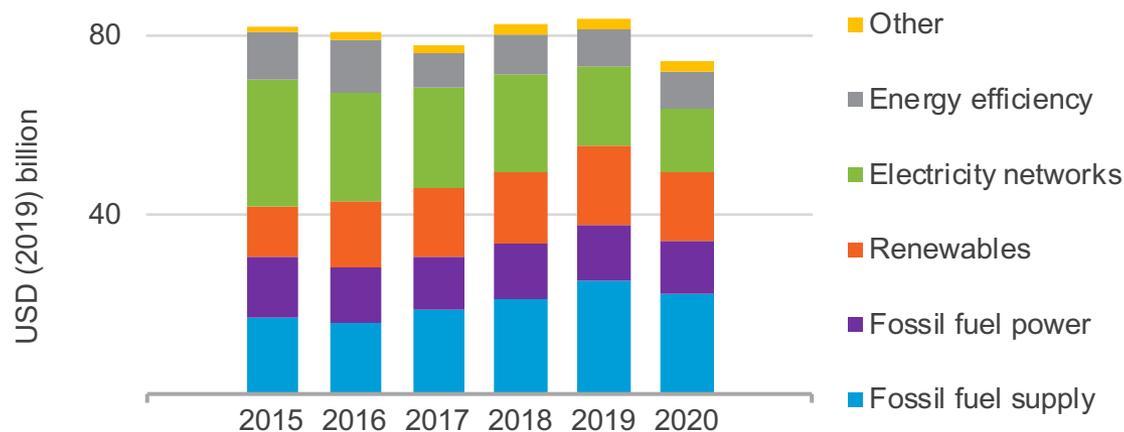
Periodic convening of multi-stakeholder groups to deliberate on market activities in clean energy

Design solutions.

Design and feasibility pilots of fit-for-purpose business models & financial solutions for clean energy solutions

It was the worst of times...

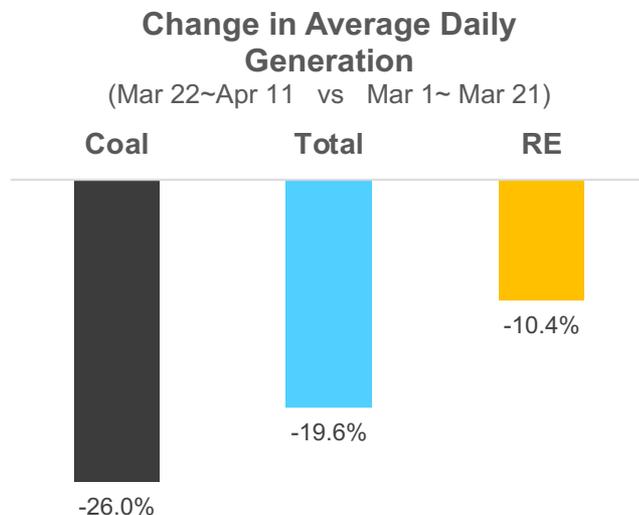
- COVID-19 related disruptions are likely to push energy investments in 2020 down by USD 400 billion, investments in India to decline to lowest since 2015



- By early July 2020, power demand had recovered and reached a peak of 170 GW (only 3% lower than July 2019) up from the 25% decline in demand in April and 10% decline in June 2020
- Moody's lowered India's economic growth forecasts to 0.2% for 2020
- As much as 62 GW of solar and wind capacity in pre-commissioning phase has suffered supply chain disruptions
- This is in addition to the 87.7 GW of installed RE capacity (not including 45.7 GW of large hydro)

It was the (relatively) best of times...

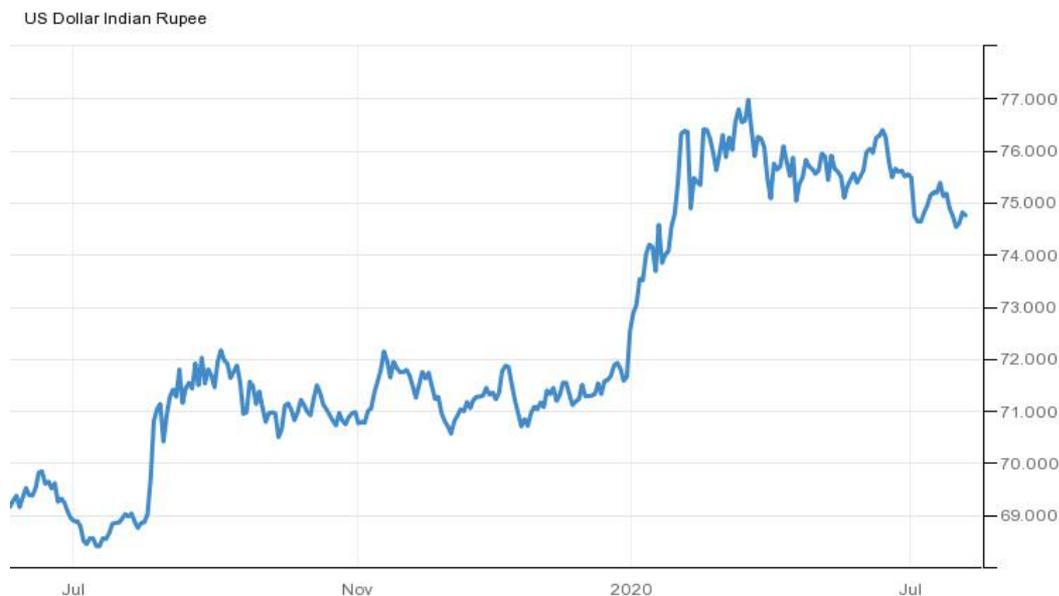
- Investment in solar PV and wind have stayed stable, but spending on other aspects that will enable the transition such grids, storage, flexibility are likely to decline



- Share of renewable energy in India's electricity market is climbing, hitting a record high of 30.9% in the week of June 15
- Thermal PLFs for FY 2020-21 (Apr-Jun) were the lowest ever at 46.5%. RE continued to see contracts being honoured, and new contracts being signed
- New market activity in domestic manufacturing, round-the-clock capacity projects, entry of global players etc.

Better, worse, or the same – COVID infected energy transition?

- **Counterparty risk – DISCOM financial health and demand risk**
 - Bill collections and ability/willingness adversely impacted
 - DISCOM debt tops INR 100,000 crore
 - Pressure to further reduce industrial tariffs to boost manufacturing to spur economic recovery
- **Policy uncertainty**
 - Domestic manufacturing and imposition of basic customs duty
 - EAB 2020
- **Rule of law**
 - Must run status
 - Force majeure
 - Change in Law
 - PPA renegotiation
- **Access to capital - Liquidity**
 - Repo rate at a low 4%
 - Competing demands on bank debt
- **Currency risk**
 - Bond markets
 - Equity investors



SOURCE: TRADINGECONOMICS.COM

Staying the course – the role of innovative instruments



INR 76,000 crore

Bond market flows estimated through a credit enhancement subsidy of INR 4,600 crore over 5 years



110,000

Potential new utility-scale solar and wind sector jobs from enhanced credit flow



INR 1.9 lakh crore

Potential additional GDP from multiplier effect of enhanced credit in infrastructure investment

- Opening up the bond market as a source of debt to refinance bank/NBFC debt to overcome power sector exposure limits
- INR 4,600 crore of public money over five years to enhance BBB and A rated bonds to AA could mobilise enough capital to double solar capacity (32 GW)
- Creating a class of domestic green investors

Staying the course – the role of comprehensive policy



**INR 15,000
crore**

Conservative cost of solar modules needed to meet 10 GW domestic demand per year



**INR 7,500
crore**

Possible forex outflow savings per year if half of the required solar modules are made in India



**INR 4,500 -
5,000 crore**

Estimated collections from safeguard duties on solar cells and modules since August 2018

- India averages annual imports of INR 17,600 crore (USD 2.6 billion) of PV cells and modules
- 10 GW of additional integrated cell and module manufacturing could create 26,000 jobs
- Indian modules are 33% more expensive than their Chinese counterparts
- 20% BCD will result in a 10% increase in tariff
- Comprehensive Green Industrial Policy for India
 - Defining the contours
 - Assessing the scale of the problem
 - Balancing multiple interventions

Staying the course – the role of new business models



INR 18,000 crore
Estimated investment to deploy
4 GW discom-led community RTS



50,000
Potential skilled and
unskilled jobs created by
4 GW of RTS

- Achievement based incentives for 4 GW of DISCOM led rooftop capacity under Phase II scheme
- INR 11,800 crore allocated under central scheme for supporting rooftop solar, INR 1,500 could be used to encourage business models that allow installation through the community-solar and solar-partners
- Benefits to discoms in the form of reduced cross subsidies, improved grid integration and management, creation of virtual power plants
- Benefits to consumers in the form of bill savings, green bragging rights

Tradeoffs and (real or lost?) opportunities

- Post pandemic policy signalling and public spending – halt, setback, or a pivot?
- Evolving geopolitics and calls for self reliance in manufacturing – lifeline for existing players or strategic policy design to support innovation and global scale?
- Investors reassessing risks – opportunity to price climate (physical and transition) risk or propping up unviable businesses with policy support and taxpayer money?

Thank you

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