Executive summary

Theme: Decentralized RE power generation (PM-KUSUM)

Stimulus action

- Generation based incentives for decentralized grid connected solar PV systems co-located with crops on agriculturally productive land parcels
- Dedicated financing facility for improving farmer access to low cost debt funds and boosting commercial viability of 1-2 MW scale ground mounted Solar PV projects on CAPEX mode

Project pipeline and impact

- 44 projects
- 14.5 GW of pipeline capacity
- INR 13 thousand crore equity
- INR 29 thousand crore debt
- INR 7,050 crore capital subsidy
- 1.25 lakh fresh jobs
- 550 MT avoided CO_2 emissions

Theme: Original RE equipment manufacturing

Stimulus action

- Boost demand for high efficiency solar PV modules and Advanced Chemistry Cells (ACC) battery solutions
- Formulate and target new PLI schemes toward coal dependent states

Project pipeline and impact

- 12 projects
- INR 15 thousand crore equity
- INR 34 thousand crore debt
- 40,000 fresh jobs

Theme: EV Charging Infrastructure

Stimulus action

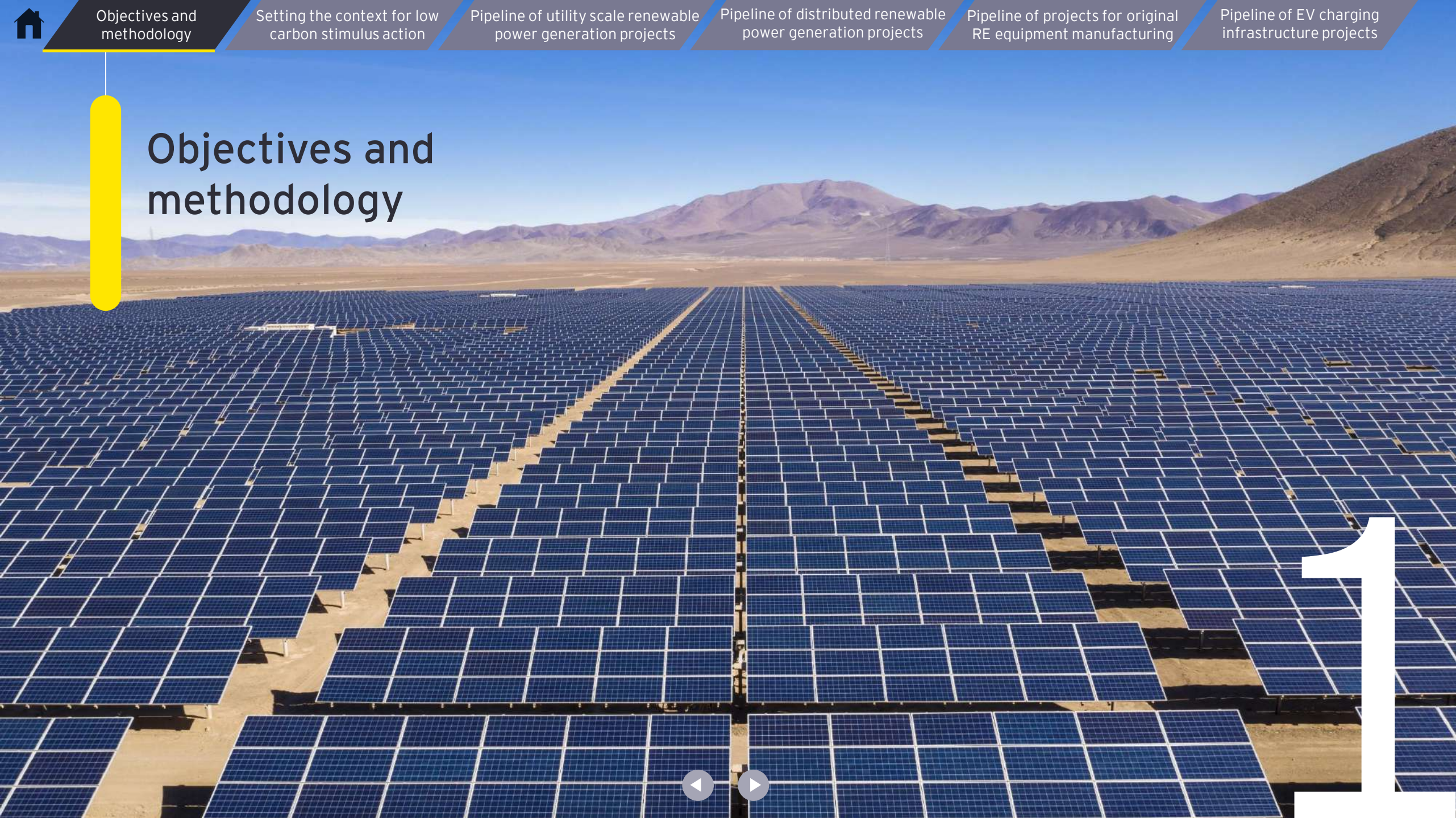
- National / state level policy frameworks to promote and incentivise electric utility investment in EV charging infrastructure
- Restructure markets to create alternate revenue streams for EV charge point operators and investors

Project pipeline and impact

- 4,180 stations
- INR 107 crore equity
- INR 248 crore debt
- INR 834 crore subsidy
- 13,263 fresh jobs

Content

Objectives and methodology



1

Objectives and methodology

EY is collaborating with the industry to inform the assessment of post COVID economic recovery plans by prioritizing 'shovel-ready' low carbon investment opportunities in the pipeline. These investment opportunities help achieve the right balance between economic recovery and climate neutrality goals in the post COVID stimulus action by Government of India. The principal objectives of this collaboration are as follows:

- Identify 'shovel ready' low carbon investment opportunities under development - 'project pipeline'
- Assess what is at stake in terms of impact on economic recovery and development, jobs and environment
- Build consensus on stimulus action to prioritize green investment opportunities in the post-COVID economic recovery plans

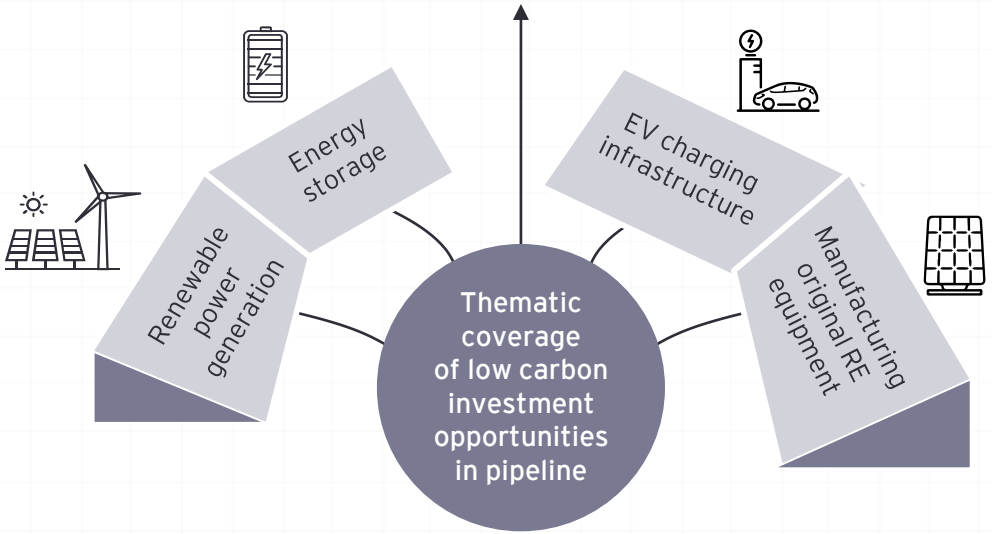
EY and FICCI teams have identified over 600 'shovel-ready' low carbon investment opportunities in the pipeline with tremendous potential for economic recovery, jobs and ultimately contributing toward India's long-term climate objectives. Project level information was gathered from primary and desktop research tools including online surveys and stakeholder consultations / interviews with project developers, OEMs, investors etc. Proprietary databases were also leveraged to identify the long list of infrastructure projects in the pipeline.

The "shovel-ready" projects identified have the desired potential to create social, environmental and economic value in the immediate future. As the purpose of the report is to uncover a pipeline of ready-to-invest projects, we have focused on projects that are expecting financial close in the short term.

Limitations

The project pipeline identified in this report represents just a fraction of the overall low carbon infrastructure investment under development in India. The project pipeline was put together from our assessment of the status of their development until February 2021. These projects illustrate the huge potential that exists across India to underpin a green and resilient recovery from the COVID-19 economic crisis. This is only a fraction of all projects with climate benefits under development in India at various levels of maturity. It is important to note that the project pipeline identified in this report is illustrative and should not be read as a full policy/commercial endorsement.

~ 660 low carbon infrastructure projects in the pipeline



Sources: EY's own tracking of RE auctions from central and state agencies, projects emerging from Government schemes promoting clean energy transition; National Infrastructure Pipeline hosted by Invest India; Other proprietary databases

Setting the context for low carbon stimulus action

2

A balanced stimulus is imperative to strengthen the economic fabric ahead of future climate-related shocks

Returning to "business as usual" will not deliver a sustained long-term economic recovery

With massive stimulus packages unveiled around the world, governments, businesses and societies as a whole have both a responsibility and self-interest to not only look for near-term measures to shore-up livelihoods and employment, but also to take a step back and reflect on the political and economic driving forces leading to the current crisis.

G20 countries committed to supporting environmentally sustainable recovery from COVID-19 induced economic contractions

In April 2020, G20 countries including India committed for environmentally sustainable recovery measures. Now, they must seize this opportunity to walk the talk. Encouragingly, an international poll revealed that a majority of citizens seek increased focus on environmental issues as a continued priority as we emerge from the COVID-19 crisis (IPSOS MORI, 2020). 81% of Indian respondents agreed that government actions should prioritize climate change in the economic recovery post COVID-19.

Low-carbon stimulus can spur economic recovery and job creation

Faced with the COVID-19 recession, governments do not have to compromise economic priorities for the sake of environmental ones. By carefully designing low-carbon stimulus packages, they can address both sets of priorities at once. For example, government spending on renewable energy and energy efficiency has been proven to create more jobs than spending on fossil fuels, which are increasingly becoming less competitive in major markets.

Stimulating low carbon economic recovery can boost India's self reliance in various sectors of the economy

India has pioneered the development of many low carbon technologies and solutions. Accelerating clean energy transition can boost energy security and make India self-reliant in the energy and transportation sectors while creating millions of new jobs. Stimulus measures focusing on a just transition can help the traditional fossil fuel industry minimize disruption to their workers and quickly adapt to emerging markets. Solar powered livelihood solutions are already driving self reliance in many segments of the rural economy.

The 'Assessment of Climate Change over the Indian region', a report from the Ministry of Earth Sciences, Government of India, has projected an alarming picture of the rise in average surface temperature, Indian ocean warming, changes in rainfall, droughts, sea level rise, tropical cyclones and changes in the mighty Himalayas by the end of this century. These climate change projections are based on a warming scenario called RCP8.5, which is most likely the worst case scenario in a business as usual sense. The policymakers should be mindful that climate change risks pose a much bigger threat to India's economic development goals than the shocks induced by the current pandemic.

The current urgency to deal with the pandemic induced economic contractions contains a risk for 'lock-ins'. Stimulus spending should therefore embed climate proofing instruments for economic recovery such as clean energy transition, low carbon resilient infrastructure, climate smart agriculture etc. A well balanced stimulus is imperative to strengthen the economic fabric ahead of future climate-related shocks.