

## India's Transmission Network Struggles to Keep Pace with the Booming Renewable Energy Industry

### Story Highlights

- *Transmission capacity has failed to keep pace with the energy production capacities*
- *Lack of co-ordination between the government agencies seems to be the likely reason for the same*
- *Ambiguity surrounding the rules for grant of connectivity is another possible reason*
- *Possibility of the sector becoming unviable for the investors is looming large*

In 2015, India set an ambitious target of increasing its renewable energy capacity to 175 GW comprising 100 GW Solar, 60 GW Wind, 10 GW Biomass and 5 GW small hydro. The move was not only praised by Indian Environmentalists but also lauded and spoken about by International Agencies working on climate change.

However, while the industry grew rapidly, the transmission infrastructure failed to keep pace. The renewable energy developers are complaining that there are not enough transmission facilities for power evacuation from completed projects or near completion projects. It seems that the nearest substations to these wind and solar power plants are running to full capacity while the construction of new substations will take approximately 3 years. The plants that are now under construction have to be ready in 18 months, or less, as per power purchase agreements which means that these ready projects will not be connected to the grid for at least a year till the transmission lines are installed. The delay in power evacuation will increase project costs. The developers are now demanding compensation for such standby projects.

In May 2017, the government started work on the Green Energy Corridor (GEC) which is a dedicated transmission network connecting 8 renewable energy rich states to those states that have little renewable energy potential. The GEC promises to strengthen intra-state and inter-state renewable energy transmission and comes with a welcome waiver of transmission charges. However, latest reports have stated that the work is lagging and the network is underfunded

which will lead to further delays in installing 8500 ckt-kms (circuit Kilometers) by 2022.

As per a report in *Economic Times*, the reason transmission infrastructure has failed to keep pace with auctions is because of lack of coordination between ministry of new and renewable energy (MNRE), Power Grid Corporation of India (PGCIL) and Central Electricity Authority (CEA). SECI, which operates under MNRE, held many auctions without ensuring whether there were enough transmission facilities.

In addition to the lack of infrastructure, there is some ambiguity surrounding the rules and regulations relating to the grant of connectivity to renewable energy projects. The developers want bids to be postponed until greater clarity is achieved on this subject. The bidding process requires developers to acquire 50 % of the land needed to build the project while applying for the bid. In the event that a project is not awarded grid connectivity, the developer will face huge losses.

## References

Kaavya Chandrasekaran, (2018, April 29) Renewable power developers headed for transmission woes [Web Log Post]

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