Publication:	News Logic	Edition:	Online
Date:	November 2, 2021	Link:	https://newslogic.in/business-news/energy-storage-an-impediment-in-india-s-energy-transition-drive/

News Logic

Energy Storage An Impediment In India s Energy Transition Drive

By **Damudat Naik** - November 2, 2021

Last month in October, India had a extreme energy disaster looming over attributable to a coal scarcity throughout the nation. On a number of days of the month, the coal inventory state of affairs at quite a few thermal energy crops was supercritical i.e., coal inventory of lower than 4 days. However, as a result of onset of autumn and heavy rainfall in a number of components of the nation within the final weeks of October and the federal government's efforts to ramp up coal provides to energy crops, the ability demand moderated and the coal inventory state of affairs on the energy crops inched in direction of normalcy.

Nonetheless, the media reviews overlaying the entire disaster, letters by some chief ministers to the PMO to make sure sufficient coal provides and a few advisory messages by distribution corporations to shoppers to make use of electrical energy judiciously created a kind of panic among the many lots. These occasions once more highlighted India's dependence on fossil fuels. Just like another disaster, folks began discussing options to stop such a disaster in future. An apparent different is new and renewable vitality the place India has now set a brand new goal of an vitality capability of 500 GW by 2030 at COP26.

According to the most recent knowledge by Ministry of Power, India at current has 154.825 GW of Non-Fossil Fuel primarily based put in era capability which interprets into 39.8 per cent share in India's whole put in era capability.

In an interview with BW Businessworld final month, Union Minister for Power, New and Renewable Energy, R.Ok. Singh mentioned that India is the quickest rising nation when it comes to vitality transition. He additional said that within the coming years almost 50 per cent of India's put in era capability will likely be from non-fossil fuel-based sources. However, one of many largest impediments on this transition drive which the Union Minister identified was relating to vitality storage and its pricing.

In one other dialog with a number one publication, the Minister mentioned, "I am adding huge quantities of renewables and I'm also adding storage which increases costs. I can't increase the cost for the people beyond a point. If the price of storage comes down soon enough, probably we are not going to be starting any new coal-based projects."

So why is storage of vitality so tough?

According to MK Battery, a US primarily based firm which offers in vitality storage states that photo voltaic vitality is much less predictable and it may well fluctuate seasonally and even hour to hour as native climate modifications. Also, photo voltaic vitality is simply produced when the solar is shining on the photo voltaic panels, which implies that there are a number of hours every day the place the panels are producing no vitality in any respect. Energy storage helps to entry this vitality when the solar has gone down.

The largest problem with solar energy storage is solely that the batteries used for this software are nonetheless fairly pricey, and they're massive. The extra energy you want, the bigger your battery will have to be. On common, a photo voltaic vitality storage answer from one of many main photo voltaic installers prices upwards of $5,000 relying on measurement, including a big chunk of change to the already excessive value of photo voltaic panels.

Sameer Gupta, Chairman & Managing Director, Jakson Group believes that batteries are probably the most sensible answer out there for storage which is certainly costly. However, there may be innovation occurring on alternate chemistries of batteries and disruption is predicted to carry down storage price.

"If we look at distribution, the key would lie in storage of distributed energy (produced at consumption site). With local manufacturing of Lithium-Ion batteries (for auto and stationary application), its cost is likely to come down to

Focus On Decentralised Renewable Energy

Devidayal Solar Solutions on the other hand believe in Decentralised Renewable Energy (DRE). DRE is recognized as renewable energy (solar, wind, small hydro) distributed both through the grid and through mini-grids and off-grid installations. "While the scale of DRE is small, energy-efficient appliances running on solar with storage are now becoming increasingly affordable and available to rural communities. DRE should clearly be a part of the larger clean energy transition plan for India," says Tushar Devidayal, Founder, Devidayal Solar Solutions.

The deployment of decentralized renewable vitality is fuelling a disruptive transformation of the vitality sector. The speedy development of decentralized renewable vitality applied sciences modifications the construction of the vitality sector in direction of a multi-actor set-up through which massive utilities work together with self-producing shoppers and mini-utilities.

"The key stakeholders in the energy and power sector, including the Government, policymakers and administrative bodies, and ground-level action takers, among others, should all come together to take strategic steps to make DRE mainstream in rural India, and pave the way towards a sustainable and inclusive future where such crisis-like scenarios due to over-dependency on fossil fuel can be avoided or averted entirely," says Ananth Aravamudan, Senior Advisor & Practice Lead – Energy, Villgro.

India’s vitality transition drive will get a contemporary momentum after Prime Minister’s announcement at COP 26 in Glasgow relating to India assembly a goal of web zero emissions by 2070. Currently, 70% of all energy in India is generated by coal, and whereas it is likely one of the least expensive producers of photo voltaic vitality on the earth, storage points as illustrated above can change into an enormous obstacle in India’s vitality transition efforts. At the identical time, Prime Minister Modi’s bold Hydrogen Mission wants consideration in addition to developments in hydrogen know-how and storage can even be wanted to assist India’s industrial sector wean itself off coal, which is unlikely to occur till round 2040 with out heavy investments in analysis and growth in direction of low carbon applied sciences equivalent to Photolysis and different biogenic strategies to provide Hydrogen.