

Ready for a global solar grid

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Views are personal



The intention, tech & capital to make OSOWOG a reality are falling in place

A TA RECENT virtual energy conference, NITI Aayog's CEO Amitabh Kant reintroduced the idea of building an intercontinental solar power grid or the 'One Sun One World One Grid' (OSOWOG). This idea was originally proposed by PM Narendra Modi at the first assembly of the International Solar Alliance (ISA) in October 2018.

As a global community, we are living in one of the most challenging moments in recent history caused by an invisible enemy that has disrupted our lives. Yet history will in fairness record 2020 as the year when the world came together to fight Covid-19. Given our collective efforts to fight the pandemic, it should not take a lot to understand the power of what we can achieve as a 'global collective' and the plan of building a global solar grid is not such a farfetched idea.

Every passing day, the key elements of the big picture in the energy world are only getting more obvious. For more than one reason, the dependence on fossil fuels will continue to drop and we are not very far from a future that will be predominantly run on clean energy. There is little doubt that the age of renewable energy has finally arrived, and it is a matter of time before it overtakes conventional energy produced with coal and gas. According to the *Renewables 2019 Global Status Report*, the estimated share of renewables in global electricity generation was more than 26% by the end of 2018. Net capacity additions for renewable power were higher than for fossil fuels and nuclear combined for a fourth consecutive year, and renewables now make up more than one-third of global installed power capacity.

The driving force behind a global idea like the OSOWOG is simple. The sun is always available in some parts of the world where its light can be converted into energy. If we add a layer of dependable and economically viable storage to this, we have a global and sustainable source of energy.

It is a matter of great pride that India, as a co-founder of the ISA, is taking leadership in moving this global idea forward. India is also one of the fastest-growing renewable energy markets in the world. Over the last six years, India's solar power generation capacity has increased more than eight times with an installed capacity of 35 GW as of May 2020, which is around 10% of the total installed power capacity in the country. There is little reason to doubt that we will also have a little over 400 GW of solar power capacity by 2030 or half of the total power capacity.

The power storage side of the story is encouraging. In that sense, the linchpin that will make the OSOWOG a reality is the consistently falling cost of storage, which has dropped from around \$1,100 per kilowatt-hour (kWh) a decade ago to around \$150 now. By some estimates, this should further drop to around \$100 over 3-5 years.

The OSOWOG project is expected to be implemented in three phases starting with the Middle East, South Asia, and Southeast Asia (with India being a grid-fulcrum) with the global network expected to emerge in the final phase of this project. More than anything else, the success of this grand project will depend on the strength of the institutional framework and the conviction of its members. That is where the role of the ISA will be indispensable. The ISA is already working to mobilise more than a trillion dollars in investments in solar energy by 2030.

The intention, technology and the capital that will make the OSOWOG a reality are already falling in place. More than anything else, the idea of creating a global network of clean energy should, by itself, inspire all of us to work together to make it a reality. It isn't a surprise that the seed of this big idea has been sown in a country that is also the birthplace of a universal idea etched in two words: *Vasudhaiva Kutumbakam*, or The World is One Family.

The vision to create an intercontinental solar-based grid is an idea that could have come only from India