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Pandemic and renewable energy

The global renewable and sustainable energy scenario, which has grown impressively in the recent decades and enjoyed rapid growth, has encountered a serious challenge as a result of the coronavirus. The COVID-19 pandemic has struck the renewable energy manufacturing facilities, supply chains, and companies and slowed down the transition to the renewables. Even the well-established renewable energy policies are being re-looked by the sovereign governments, particularly those that burden industries, that are badly influenced by the crisis. Subsidies for the new adopters will come down. Many countries' budgets will inevitably be tightened, and the implementation of new renewable energy projects will almost certainly be deferred. The development projects of manufacturers that make/install equipment for renewable energy technologies will be shelved amidst the adoption of austerity measures. As an example, the American-based Morgan Stanley Company plans to decrease the installation of the US solar photovoltaics (PVs) in the second, third, and fourth quarters of 2020 by 48%, 28%, and 17% respectively. The disruptions of the supply chain will interrupt completion and shall result suspension of the under-construction renewable energy projects worldwide, particularly solar power plants, as considerable parts of the solar panels, connectors, modules, and cells are manufactured in China and East Asia.

The fossil fuel price reduction is particularly worrisome in developing countries where the low-cost electrical power supply seems imperative due to their poor economic situation at the time of COVID-19. The high sensitivity of these nations to the energy cost will compel their governments to adopt cheaper conventional energy sources instead of renewable energy, which would be detrimental to the global climate policy. In a \$60-per-barrel oil price period, the fossil fuel players commenced to invest in carbon mitigation strategies; however, due to the challenges of the COVID-19 and the oil price reduction, their investments in renewables has slowed down since. For instance, Calgary-based oil sands giant Suncor Energy Inc. announced cutting its 2020 capital budget by \$1.5 billion (or 26%) and held off two cogeneration units that would have mitigated GHG emissions and a wind power plant located at the northern and southern Alberta respectively.

According to the International Renewable Energy Agency's (IRENA) report, the global renewable energy capacity hit 2,537 GW (GW) at the end of 2019, which illustrates a 176 GW increase compared to 2018. The statistics indicate that 72% of all electrical power expansion in 2019 was due to development in the renewables, of which the wind and solar energies grew 60 GW and 90 GW respectively and together were responsible for 90% of renewable additions [9]. Based on the Global Wind Energy Council's (GWEC) report, 70% of the wind power new capacity in 2019 was installed in China, the U.S., U.K., India and Spain, all of which are suffering from ongoing COVID-19 pandemic.

More reading, source and courtesy: Seyed Ehsan Hosseini, "An outlook on the global development of renewable and sustainable energy at the time of COVID-19" Energy Research & Social Science, on print from October 2020.