

Clean Energy for Clean Air

By Jaymin Gajjar

Public health concerns have grown tremendously during the past two years because of the pandemic. The outbreak has led to a significant loss of lives and has serious implications for public health.

Some [global studies](#) have revealed a strong connection between air pollution — especially PM_{2.5} and nitrogen dioxide (NO₂) — COVID-19 infections, and mortality. According to these studies, air pollution exposure might increase COVID-19 transmission and its harmful effects on patients. Therefore, we need to adopt effective measures to control air pollution and clean the air.

The lockdown from 24 March to 17 May 2020 in India proved that air pollution could be controlled. A study by the [Massachusetts Institute of Technology](#) found that PM_{2.5} levels in New Delhi dropped approximately 50% in late March 2020 compared to the levels noted at the same time the former year. Similar trends were observed in 85 cities in India because of curbs in transportation and industrial activities. This goes on to prove that cutting down emissions is possible. But how?

Wide-scale adoption of clean energy technologies is the way forward for India to achieve clean air and blue skies. The Government should simultaneously promote rooftop photovoltaics (RTPV) and electric vehicles (EVs).

Homeowners should be encouraged to adopt both RTPV and EVs. RTPV would not only fulfil the household electricity demands but also cater to EV charging demands, reducing air pollution from the transportation and residential sectors. However, RTPV alone might not be enough to meet the EV charging demands of a city or state.

Setting up solar-based public charging stations can be an alternative and effective option, provided suitable locations for developing charging infrastructure are

identified. Aerial surveys of cities or states could be conducted to obtain digital 3D models. The Government can explore the most suitable locations for installing charging stations across cities or states, using the data available from these models.

CSTEP has done a similar exercise by developing [CSTEP's "Rooftop Evaluation for Solar" Tool \(CREST\)](#) to determine the RTPV potential of each building in Bengaluru, which proves that the concept can be put into practice.

According to [CSTEP's analysis](#), solar energy has a direct link with air pollution. A decline in pollution levels leads to an increase in solar energy generation. In April 2020 (during the nationwide lockdown), India's overall solar generation was 8% higher than in March 2020, which is exceptional.

With air pollution, climate change, and clean energy technologies being interlinked, it is time we make a start by adopting sustainable technologies to improve air quality and achieve UN Sustainable Development Goals 3 (Good Health and Well-Being), 7 (Affordable and Clean Energy), 11 (Sustainable Cities and Communities), and 13 (Climate Action).