

Death by air pollution

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A recent report shows that over *a million Indians die every year* due to air pollution. Power plants have been encouraged to install scrubbers to curb emissions. Eighty per cent of particulate matter, sulphur and nitrous oxides comes from thermal power companies. Emissions cause lung disease, acid rain and smog and over a quarter of premature deaths are due to air pollution. In New Delhi, emissions are as high as 24 times the recommended level set by the [World Health Organization \(WHO\)](#). They are predicted to rise to over 1.1b metric tons by 2027 steadily.

The utility sector generates 1.2 trillion kWh of electricity annually, less than a tenth of the USA on a per-capita basis. The industry has been under financial stress ever since December 2017 when deadlines to comply with stringent emission standards were extended by six years. India is one of the fastest-growing economies in the region, and with a *population of 1.35b* has been struggling to meet these targets.

Needing to *double its energy output by 2030*, while addressing climate change and cutting back on rising carbon emissions, India is making an effort to go green by investing *\$12b to fight against pollution*. With renewable energy quickly decreasing towards the [three cents per kilowatt-hour](#), it sees now as the time to make a move. Several countries - notably in the Scandinavian region - are well poised to reap the fruits of their investments into renewables by going 100% green by 2020.

Many renewable sources are intermittent and require storage (e.g., solar, wind, tidal). Thus an augmented solution - *combining traditional and renewable sources* - is most feasible in the near term for countries like India where the plan is as follows:

- 1) Promote hybridization of solar and wind energy and build ancillary markets: shared transmission lines and higher capacity utilization will reduce variability in power generation.
- 2) Build enhanced evacuation infrastructure: enhanced high-voltage transmission lines, especially in under-serviced areas where storage solutions are

not yet available.

- 3) Invest in digitalization: ***demand response programmes*** are proven business models in renewables.
- 4) Develop battery storage solutions: as battery storage costs drop, this will enable grid operators to optimize energy demand as needed.
- 5) Turnaround the distribution companies: a quarter of electricity is lost in transmission due to inefficient old infrastructure, illegal hooking and tapping, and ineffective revenue collection.

India's acknowledgement of its pollution problem and investment in renewables, allows it to *kill two birds with one stone*: addressing climate change while *economically* reducing pollution and going a long way to address its unmet power demand. It also has implications for joining China's - *Reviving the Silk Road - **Belt and Road Initiative (BRI)***. As best said recently by Sumant Sinha, Chairman and Managing Director, ReNew Power: "*We owe our children a greener and safer planet, and a booming renewable energy sector will go a long way in helping us realize this vision*".