

## Use solar panels to fight climate change

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Last week President Donald Trump declared he would rather protect Pittsburgh than Paris, which signaled the renegeing of the US commitment to the world. Following this announcement, the good denizens of Pittsburgh held marches to support actions recognising climate change!

In December 2015, the Paris Agreement marked the negotiation by 196 countries restricting global average temperature rise to less than 2°C above pre-industrial levels; lowering greenhouse gas emissions in a manner that does not threaten food production; and providing developing nations the access to latest technologies at competitive financial terms. Since then 175 countries including India have passed laws and taken measures to abide by this historic Agreement. Trump's action will surely have considerable consequences, which will reverberate immediately, as well as decades into the future.

India is the third largest emitter of carbon dioxide in the world after China and the US. We maybe the fourth largest energy producer but our per capita consumption is one sixth of China, and one sixteenth of the US! Above all, around 300 million Indians do not have access to electricity. These facts should put in perspective government policies aimed “to ensure continuous and uninterrupted electricity supply to all households, industries and commercial establishments by creating and improving necessary infrastructure.”

As of April 2017, wind power was about 10% of the installed power generating capacity of India, solar power constituted around 4%, and bio mass was 2.5%. The Government of India claims that in 2016 the installed wind power generating capacity was 5.7 gigawatts (Gw). The cost of photovoltaic cells is falling and there have been significant gains in efficiencies powered by perovskite type solar cells — from 4% in 2009 to 22% in 2016!

Solar power generation has increased steeply by 370% in the last 3 years to 12.2Gw. In 2014, the cost of power from a coal fired plant was around `3.05 per unit; but the current cost of solar power is `2.44 per unit and that of wind power is `3.46 per unit! It is significant that the Draft National Electricity Plan, prepared by Gol states that India does not need to plan for new coal based power plants from 2016 till 2027.

The deep questions are, what can a government do with aging coal powered plants that pollute the environment and humanity; and by when will it be possible to replace the 195 Gw or nearly 60% of India's coal based dirty power by clean renewable energy? Like China, India has reiterated its active support to plug the fallout caused by the US. As an individual you can lead by example. If possible, install a solar power plant at home.

Then apply to the Electricity Board for a Net Meter, so that the excess power that is generated can be fed back to the grid, and adjusted against your power bills. It will put to severe test the government's proclamations for cheaper and cleaner solar power. Individual actions alone contribute to low-carbon lifestyles which in turn help India and Earth reach sustainability goals.

Do not wait for the US to fight climate change, and certainly Trump should not matter!