

Non-fossil fuels to replace India's 50% capacity



National Electricity Plan outlines the plans of government to expand the non-fossil fuel sector over upcoming 10 years and converge more than half of India's total energy capacity. Non-fossil fuels like renewables, nuclear and large hydroelectric power plants will account 56.5% of India's energy by 2027.

If India is capable of generating 175 GW of renewable energy by 2022, it will not need to install any new coal-fired energy at least until 2027, apart from the existing 50 GW. The Ministry of Power produces a National Electricity Plan every five years, reviewing the progress made over the previous five years, and sets out a detailed action plan for the next 10 with the overarching aim of achieving universal access to electricity across India and ensuring that power is supplied efficiently and at reasonable prices.

The latest National Electricity Plan (NEP3) outlines how the government expects India's electricity sector to develop over the five years from 2017 to 2022, as well as the subsequent five years to 2027. When NEP3 was released in December last year, India had installed just over 50 GW of renewable power capacity, of which wind energy made up 57.4% and solar 18%. This gave a total of 15% share to India's total capacity of 315 GW, coal-fired energy gave 60% and the remaining 25% came from large hydropower, nuclear, gas and diesel.

NEP3 projects that not only will the 2022 target be achieved; renewable power capacity will reach 275 GW in 2027. This is three times the projection made in NEP2, of 70 GW, and significantly more ambitious than publicly proclaimed targets.

Comparing NEP3 with India's Intended Nationally Determined Contribution (INDC) under the Paris Agreement reached at the 21st Conference of Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015 shows a higher level of ambition to reach a low-carbon economy faster. In its INDC, India had said it planned to achieve 40% cumulative installed capacity from non-fossil fuel-based energy resources by 2030. But the ambitions of NEP3 are far more upbeat which forecasts to make up to 46.8% non-fossil fuel by 2022 and 56.5% by 2027.

The whole point of all the calculation is that India is planning for reducing the carbon footprints and will be depending on more than half of its energy capacity coming from non-fossil fuels. If achieved, Indian carbon emission will reduce reasonably and also the prices of fuel will fall down quite significantly. So it's all good with the 'good' energy.