

Increase in coal tax will scale up Indian renewables

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Author: Pallav Purohit, IIASA

India needs economic growth for sustainable development, which in turn requires access to clean, convenient and reliable energy. An estimated [400 million people](#) ^[1] still lack access to electricity, and blackouts are still common across the country. A combination of rapidly increasing energy demand and fuel imports plus growing concern about economic and environmental consequences is generating growing calls for innovative policies and mechanisms to promote increased use of abundant, sustainable, renewable resources.



The Indian government initiated a renewable energy program to diversify national energy sources about three decades ago. The government aimed to add [455 GW](#) ^[2] of renewable capacity by 2050. Currently, renewable sources contribute [about 13 per cent](#) ^[3] (32 GW) to India's [249 GW](#) ^[4] installed capacity base.

The [National Action Plan for Climate Change \(NAPCC\)](#) ^[5] sets a target for the share of renewables-based power generation from the current 4 per cent to 15 per cent by 2020. As a result, renewable projects currently benefit from several policy initiatives: accelerated depreciation benefits, feed-in tariffs, a ten-year tax holiday and generation-based incentives. As part of the NAPCC, the government launched the [Jawaharlal Nehru National Solar Mission \(JNNSM\)](#) ^[6] in 2010 which aims to add 20 GW of grid-connected solar capacity by 2022, along with other solar targets for off-grid space.

The government plans to launch a similar program for wind. The [National Wind Energy Mission](#) ^[7], announced in January, will aim for 100 GW of wind power by 2022, a third of India's estimated wind energy potential. While the government has taken certain measures for the promotion of renewables, these need to be scaled up and expedited. The development of the sector suffers from a number of constraints, overlaps and gaps in the current policy and

regulatory environment.

The government's ambitious goals for solar energy, coupled with the country's rapid progress in developing wind energy, raise many questions regarding the sources and costs of the investment that will be needed to install and operate this infrastructure. Stressing the need for India to start addressing its emissions, a [government report](#) ^[8] released at the end of May 2014 put the costs of investing in low carbon energy systems at US\$834 billion up to 2030.

The National Clean Energy Fund (NCEF), announced by the Indian government in its [Union Budget 2010-11](#) ^[9], is seen as a major step in India's quest for energy security and reducing the carbon intensity of energy. The objectives of the NCEF are to fund research and innovative projects in clean energy technologies and to harness renewable sources to reduce dependence on fossil fuels.

The former UPA government had decided to levy a tax of \$US0.84 per tonne on both domestically produced and imported coal to build up the NCEF, and fund research and innovative projects in clean energy technology. However, the NCEF has been widely criticised for inconsistencies between the stated objectives, operational guidelines and final approval of the projects. The government had collected over [US\\$6.5 billion](#) ^[10] through the tax. But it has allocated just over 1 per cent of this amount to the Ministry of New and Renewable Energy (MNRE), out of which just [US\\$267,000](#) ^[11] has been spent so far on renewable energy projects in the past three years. There was a high degree of policy and regulatory uncertainty for investment in the renewables sector.

The newly elected Modi government announced a suite of initiatives for solar energy across the country and promised a '[saffron revolution](#)' ^[12] that will include ambitious targets for small, large and off-grid solar and a switch away from an assumed [reliance on coal](#) ^[13] as the country seeks to deliver on its momentous task of bringing electricity to the entire country. The new government increased the coal tax to [US\\$1.67 per tonne](#) ^[14] in July 2014. While this proposal was welcomed by renewable energy experts, there is uncertainty over what the additional revenue will be spent on, based on past experience.

The scope of expenditure from this fund has also been widened to include [environmental projects](#) ^[15] and research and development projects in the [clean energy](#) ^[16] and environment sectors. The new government will fund its ambitious [Ganga rejuvenation plan](#) ^[17] with the tax on coal. It is also planning to spend as much as [US\\$167 million](#) ^[18] on projects earmarked for this financial year and has earmarked US\$84 million for the initial implementation work for four ultra-mega solar power projects each with a capacity between 2 GW and 4 GW — the energy situation could change rapidly.

Another US\$67 million would be provided for installation of 100,000 solar-powered irrigation sets and water-pumping stations. Moreover, the canal-top solar power plant will receive US\$17 million this year. The new government also plans for a [5 GW](#) ^[19] solar power project in the Ladakh region. This further emphasises the scale of [India's renewable ambitions](#) ^[20]. The recently-announced Wind Energy Mission has also pinned its hopes on the NCEF for potential funding.

The increase in the clean energy tax can be still considered an innovative attempt by the Modi government to acquire additional resources to support its environmental plans. It can be seen as a step towards helping India meet its voluntary target to reduce the amount of carbon dioxide released per unit of gross domestic product by [25 per cent](#) ^[21] from 2005 levels by 2020. The NCEF must be used to provide much-needed impetus for the development of emerging renewable and clean energy technologies, and the financial capital to early-stage and high-potential projects. It is important that the government provides easier access to finance through NCEF for the renewables sector.

[Pallav Purohit](#) ^[22] is Research Scholar at the International Institute for Applied Systems Analysis (IIASA).

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