

## **Economic Implication of India's Renewable Energy Targets**

Topic: Energy Policy II

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India was the first country in the world to set up a separate ministry focusing on identification, development and promotion of non conventional energy resources. India is facing serious problems with respect to energy deficit and is heavily dependent on fossil fuels, especially coal (40%) followed by crude oil (28%) and natural gas (6%), for about 70% generation of electricity. With threats to energy security, adversities of climate change and rising import bill due to external dependency for fossil fuels, renewable energy offers a critical solution as a supplement to achieve energy self sufficiency and India has laid out ambitious plan to expand its renewable and nuclear power sector. This paper will focus, firstly, on substituting the non renewable energy coefficients with the renewable coefficients to analyze the impact of this substitution on economy as a whole (Gross Domestic Product) in the Input-Output framework. Under the 12th Five Year Plan, targets for changing structure of fuel from conventional to unconventional fuels has been laid out, which will be used as a case for redefining the respective technical coefficients. Secondly, with the new technical coefficients, the analysis will further point out the impact on emissions. Lastly, the paper will conclude by changing the output growth as per the 12th Plan target and changing the substitution composition of renewable energy sources accordingly to achieve the twin target of renewable energy and economic growth.