Paper Title: Shaping India’s Energy Policy to Address the Energy Deficit Crisis: An Evaluation of Sources and Solutions

Abstract:
India’s recent meteoric rise in population and economic growth has widened the gap between its supply and demand for energy. Largely dependent on exports of non-renewable sources of energy, India also faces increasing pressure from the global community to mitigate the environmental impact of its rapid growth. Recognizing that a reliable energy supply is essential for economic growth and poverty alleviation, in addition to meeting the electricity demands of the population, India will require a significant increase in energy production over the next two decades, potentially as great as three to four times the total amount of energy consumed today. However, with alarming rates of domestic environmental pollution and the global threat of climate change, India’s long-term strategy for energy production must also strive for sustainability. This paper provides a brief overview of the drivers for energy demand in India, and its current energy policy, and explores India’s challenges in transmitting power to the entire country given its relatively inefficient electrical grid system, suggesting that upgrading to smart grid technology in the long-term future may represent a significant savings to the overall economy. This paper also examines the major energy sources available to India: fossil fuels, renewable sources, and nuclear power. In doing so, this paper will assess India’s short and long-term strategies to meet its energy demand and propose recommendations about how the nation should proceed in balancing economic growth with sustainability.