

Recommendations for Northeast India

Team Members: Evelyn Fairman, Alberto Giron Gutierrez, Paripat Pajayakrit, Binh Ndefru

India is home to vast energy reserves: approximately 6 billion barrels of oil can be found in the western part of the country, 50 trillion cubic feet of natural gas is located offshore, and India has the world's fifth-largest coal reserves. India has approximately 250 GW of installed electricity generation capacity, but about one quarter of the population still lacks access to electricity. India's grid lacks both reliability and generation capacity. As a developing country, India's demand for electricity has begun to outpace supply in recent years, leading to an increasing dependence on energy imports. Insufficient fuel supply, inefficient power plans, and high transmission and commercial losses are the major challenges to India's power sector.

India has a high solar potential—approximately 4-7 kWh/m²/day—so solar is an appealing solution for electrification and blackout challenges. Especially in the largely rural northern and north-eastern regions of India, where there is a vast amount of energy poverty, we recommend leapfrogging past the idea of a national, centralized grid to focus on distributed generation in these regions. Instead of investing in grid expansion, micro grids would be more economical for energy storage and renewable integration in the northern and north-eastern regions and would contribute to meeting emissions targets in addition to electrification goals. Our team makes this recommendation to the Indian government.

