



# IEEFA India: Post-Election, India Must Formalise Energy Reforms Already Long Deliberated

*Newly Elected Government Should Continue Push for Low Cost Renewable Energy While Combating Air Pollution*

**27 May 2019 (DELHI):** If you're living in the capital city of Delhi in India, it is the onset of summer, yet the city already feels like a 'gas chamber'. The coming months are expected to become even hotter. The situation is no different in other cities across India which are grappling with air pollution and extreme heat wave conditions.

India dominates the list of the [most polluted cities on earth](#). As per [World Bank estimates](#), air pollution costs India the equivalent of 8.5% of GDP. With increasing industrialization and urbanisation, the problem will exacerbate even further leading to serious health problems, including respiratory illness, cancer, strokes, heart disease, premature deaths, infant mortality and reduced life expectancy.

In 2019, [climate change and air pollution appeared in the manifesto of India's two major political parties](#), the Indian National Congress (INC) and the Bharatiya Janta Party (BJP).

**IT IS A POSITIVE SIGN THAT POLITICAL PARTIES ARE GIVING IMPORTANCE TO THE ENVIRONMENT.** It is now time for these promises to convert into action on the ground.

The Organisation for Economic Co-operation and Development (OECD) projects India's economy to grow at 7.25% in financial year (FY) 2018/19 and 7.5% in FY2019/20 buoyed by rural consumption and subdued inflation. This [economic growth will be driven by transformation across various sectors](#), the key being infrastructure build-out, energy availability and sustainability.

**Energy is at the fulcrum of India's economic development.**

Energy is at the fulcrum of India's economic development. While India relies heavily on fossil fuels to meet its energy requirement, the trend is shifting towards a clean energy transition. India has set a target to generate 275 gigawatts (GW) from renewable energy sources by 2027.

India has made tremendous progress in renewable energy installation. In the last few years, net capacity addition of renewable energy is in the order of 12-15 GW. On the other hand, net capacity addition of coal-fired capacity has declined to 3-4 GW annually.

Although FY2018/19 turned out to be a sluggish year for renewable energy deployment on account of policy uncertainty, power evacuation and grid infrastructure availability, renewable energy will continue its upward trajectory in the long term on account of better technology and price-based fundamentals.

**IEEFA notes there are a number of reforms that need to be prioritised by the incoming Government of India to assist the country achieve its target to support massive renewable capacity addition.**

### *Amendments to the Electricity Act, 2003*

The Electricity Act, 2003 was designed to transform the power sector in India. In September 2018, draft amendments to the Act were put forward for industry and stakeholder review.

The amendments incorporated matters such as Direct Benefit Transfers (DBTs), 24x7 power supply obligations, penalties for violations of power purchase agreements (PPAs) and penalties for the failure to meet Renewable Purchase Obligations (RPOs).

These amendments are good reforms and fundamental to the electricity sector in the rapidly growing economy of India.

**IEEFA recommends the amendments be revisited in Parliament as soon as possible and formalised accordingly.**

### *UDAY II*

The UDAY (Ujwal DISCOM Assurance Yojana) scheme introduced in 2015 has mainly focused on reducing the financial burden of discoms, reducing the average cost of supply (ACS) and average revenue realised (ARR) gap, and reducing the aggregate transmission and commercial (AT&C) losses.

Whilst UDAY has not been able to overhaul the situation of loss-making discoms, in IEEFA's view, the UDAY policy has been a step in the right direction.

The sequel of the scheme, UDAY II is designed to focus on reducing the losses of state-owned discoms while improving operational efficiencies.

**The UDAY policy has been  
a step in the right direction.**

**IEEFA recommends better planning, improving the financial management of distribution companies, and addressing the issue of policy uncertainty can**

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**assist in building investor confidence, including attracting more investment for greater deployment of renewable energy projects across the country.**

### *Time-of-day Pricing*

Low cost domestic renewable energy capacity is best able to meet the ambitious targets set by the Government of India and will progressively help to address the unsustainable reliance on imported fossil fuels.

India has an opportune moment to transform its electricity sector by introducing time-of-day pricing for both producers and consumers. The current pricing system is a largely flat tariff providing little incentive for network or consumer efficiency through load smoothing.

IEEFA notes there are measures to further enhance the reliability and matching of demand and supply so that India's nationally connected [grid](#) is better able to integrate the increasing share of low cost renewable energy.

Further, the intermittent nature of renewable energy increases the need for flexible sources of generation to help maintain grid stability. Various technologies that can provide this include pumped hydro storage, gas peaking plants, faster ramping, more flexible but lower utilisation of coal-fired power plants, and battery storage.

IEEFA notes a stronger [time-of-day price](#) signal to incentivise generators will help drive the roll-out of flexible power technologies, particularly if long term peaking price contracts can be incorporated to de-risk financing.

**IEEFA recommends time-of-day pricing be introduced for electricity producers to help manage peak demand and variability for renewable energy while providing a better deal for consumers.**

### *Payment Security Mechanism for Power Generation Companies (Gencos)*

Payment delays to renewable power producers is one of the biggest issues in a sector aiming to grow its renewable capacity exponentially over the coming decade.

In February 2019, the Ministry of Power constituted a committee to deliberate upon a new [payment security mechanism](#) for power generation companies.

Further, Solar Energy Corporation of India (SECI) is setting up a [payment security fund](#) (PSF) as a risk mitigation mechanism to ensure regular payments to renewable power producers. This would come into play if there are payment defaults by discoms owing to lack of funds.

**IEEFA recommends the Government of India further deliberate on payment security mechanisms and other options as an extremely important step towards de-risking the Indian renewable power sector.**

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## National Clean Air Program

Air pollution is another pressing issue that the government needs to address on a priority basis.

In January 2019, India launched the National Clean Air Programme (NCAP) to combat air pollution. Under the plan, the Government of India wants to achieve 0%–30% reduction of particulate matter (PM) from PM 2.5, a level which contains smaller particles that generally pass through the throat and nose and enter the lungs, to achieve a healthier PM10 concentration by 2024, with 2017 as the base year. A study by the Energy Policy Institute at the University of Chicago estimates an average person in India could live 1.3 years longer if the country reduces particulate pollution by 25% under the NCAP goal.

IEEFA notes a realistic road map should be developed as part of the NCAP, and success should be measured in effectively ensuring compliance and enabling enforcement.

**IEEFA recommends additional measures be implemented in tandem with the NCAP including deployment of decentralized renewable energy, and the promotion of schemes like solar irrigation pumps and distributed solar rooftops. Further, more adoption of electric vehicles and rail electrification should be accelerated to reduce air pollution from transport in India.**

## Conclusion

Certainty of policy is key.

India has been successful in attracting domestic and international capital at relatively low cost to underwrite the deployment of large capacities of renewable energy. This has been done by promoting competition and transparency through the world-leading reverse auction bidding mechanism.

**Increased reliance on  
domestic renewables  
builds energy security.**

IEEFA notes the states should not jeopardise this process by putting in place excessively aggressive caps, nor should they undermine investor confidence through unplanned policy changes.

India should embrace technological change as an innovation to modernise, expand and diversify its electricity system. Increased reliance on domestic renewables builds energy security, whilst progressively locking in a new, sustainable low cost, deflationary electricity supply.

India is progressing, but economic development should be done in a sustainable manner and not at the cost of subjecting its population to health hazards and other environmental risks.

Transitioning to clean energy can help the country achieve its twin objective of growth in a sustainable manner.

## About IEEFA

The Institute for Energy Economics and Financial Analysis conducts research and analyses on financial and economic issues related to energy and the environment. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. [www.ieefa.org](http://www.ieefa.org)

## About the Author

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Vibhuti Garg, an IEEFA energy economist, has advised private and public sector clients on commercial and market entry strategies, investment diligence on power projects and the impact of power sector performance on state finances. She also works on international energy governance, energy transition, energy access, reallocation of fossil fuel subsidy expenditure to clean energy, energy pricing and tariff reforms. In addition to India, she has worked in Nepal, Bangladesh, Vietnam and in the Caucasus.

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