



BRIEFING NOTE

India Energy Subsidy • December 2018

Highlights

- Draft amendments to the Electricity Act 2003 proposed in September 2018 include provisions to promote renewable energy, improve quality of power supply, impose stronger penalties for violations of Power Purchase Agreements (PPA), and initiate a direct benefit transfer for electricity subsidies to households.
- Government says it is likely to exceed the renewable energy target of 175 GW by 2022 and may increase the target to 225 GW.
- Oil subsidy burden on the rise with volatile crude oil prices; may cost the exchequer up to USD 7.4 billion in financial year 2018–19.
- Supreme Court to hear pleas of owners of stressed power assets directed to declare insolvency by Reserve Bank of India.

Electricity (Amendment) Act 2018: Inclusions on renewable energy and ensuring quality power supply

In September 2018, the Ministry of Power released draft amendments to the Electricity Act 2003. The amendments aim to keep at pace with changing market dynamics, increasing renewable capacity and challenges of providing quality power supply (Jai, 2018).

The key amendments proposed were (Ministry of Power, 2018a):

- Establishing the legal basis for introduction of a direct benefit transfer (DBT) for electricity subsidies (payment of subsidies to consumers' bank accounts rather than electricity companies).
- Penalties for violation of Power Purchase Agreements (PPAs) up to INR 1 crore (~ USD 140,000).¹
- Permitting more than one distribution licensee to operate in one area.
- Development of a central government policy framework for promotion of renewable energy including granting of fiscal and financial incentives and a National Renewable Energy Policy to deliver electricity to un-electrified households.

¹ This briefing note uses an exchange rate of USD 1 equivalent to INR 71.78.



- Obliging the distribution or supply licensee to ensure a 24x7 power supply with the possibility of suspending or revoking the license if it fails to do so.
- Obliging the distribution or supply licensee to connect electricity to a premises within seven days of an application by the owner instead of the previously mandated one month.

Renewable Energy Target: Central government confident of meeting 175 GW target, may increase by 28 per cent to 225 GW

Speaking to the media in June 2018, Power Minister RK Singh noted that India will cross the 175 GW renewable energy target well before 2022 and is now aiming at 225 GW. The Minister noted that there are new schemes for offshore wind power, floating solar parks and hybrid parks, which will help outstrip the current target (Khan, 2018). This additional capacity may require new investment of USD 50 billion over the next few years (Saluja & Singh, 2018).

The outlook is less optimistic according to Wood Mackenzie, an energy research and consulting company. They project that India will achieve 76 per cent of its 175 GW target by 2022. India faces myriad challenges in the renewables industry, such as recent cancellation of auctions (which undermines investor confidence), and the duties on equipment that have led to an increase in solar prices (PTI, 2018).

Oil Subsidies: Fiscal burden may rise to INR 53,000 crore (~USD 7.4 billion)

High crude oil prices this year, peaking at USD 80 per barrel in early November, are expected to result in a subsidy burden for the government well above the budgeted INR 25,000 crore (~USD 3.5 billion). By the end of September the oil subsidy burden exceeded INR 460 billion, 84 per cent of the amount budgeted for the full financial year, April to March (Jacob & Roychoudhury, 2018). Moody's, a financial research company, has estimated that if crude oil prices average between USD 60 to USD 80 per barrel for the financial year, the petroleum subsidy burden could swell to INR 53,000 crore (~USD 7.4 billion) for FY2019, the highest since FY15 (ET Energy World, 2018).

Stressed Power Assets: RBI recommends insolvency, producers' petition in Supreme Court

On February 12, 2018 the Reserve Bank of India issued a revised framework for resolution of stressed assets. The framework introduced strict standards on loan defaults and required companies to start insolvency resolution under the Insolvency and Bankruptcy Code 2016 after 180 days of default.

These changes affect several electricity generating companies that have been under financial stress. Power firms and associations filed petitions against the circular in various courts arguing that the provision was unfair, as their debt repayment capacity was directly linked to revenue from power distribution companies and availability of coal, a natural resource closely regulated by the state.

The Supreme Court issued an interim order in September 2018 ordering a hold on implementation of RBI's circular as it applies to power producers and transferring all cases to itself (The Hindu, 2018). The hearing on the petitions began at the end of November. The country's power sector has been classified as "highly stressed," with close to INR 1 trillion in loans having turned bad or been recast. Around 66 GW of capacity is facing financial stress, including 55 GW of coal-based power (44 assets; 28 per cent of total coal capacity), 6.8 GW of gas-based power (9 assets; 27 per cent of total gas capacity) and 4.6 GW of hydropower (13 assets; 10 per cent of total hydro capacity) (Mittal, 2018).²

² Calculations of the proportion of stressed assets are based on capacity figures from Ministry of Power (2018b).



International Solar Alliance: India hosts First General Assembly, pitches for membership to all UN countries

The Founding Conference of the International Solar Alliance was jointly hosted by Prime Minister Narendra Modi and French President Emmanuel Macron in March this year in New Delhi. On October 2, 2018, India hosted the First General Assembly of the ISA. Speaking at the assembly, PM Modi proposed to open ISA membership to all UN members (not just those in the tropics). This would form a “one-world, one-sun, one-grid” network for supply of solar energy across borders, noting that improved connectivity would reduce the intermittency issues of solar power (Bhaskar, 2018).

Liquefied Petroleum Gas

The latest developments in LPG subsidies can be found in a recent digital story by IISD and GSI [“Support for Clean Cooking in India: Tracking the Latest Developments in LPG subsidies.”](#)

Prices

Since May 2018, the prices of liquefied petroleum gas (LPG) cylinders have increased every month due to changes in international prices and foreign exchange fluctuations. The price of a standard 14.2 kg cylinder increased from INR 650 in May to INR 942 in November (PPAC, 2018). All consumers must buy LPG at the market price. But under the Direct Benefits Transfer (DBT) scheme, eligible consumers can apply for reimbursement, which is transferred to their bank accounts. The DBT amount increased from INR 159 in May to 434 in November (PPAC, 2018). Thus, while prices per 14.2 kg cylinder have risen by INR 292 since May, subsidized consumers have experienced an increase of only INR 17 per cylinder.

Targeting

The central government has increased the target number of poor women to be provided with a free LPG connection (gas bottle, hose and regulator). The program, *Pradhan Mantri Ujjwala Yojana* (PMUY), launched in 2016 aims to provide deposit-free LPG connections to 5 crore (50 million) women living below the poverty line (BPL). The initial budgetary provision was INR 8,000 crore (USD 1.1 billion). The target number of BPL women has now been increased to 8 crore (80 million) with additional budgetary provision of INR 4,800 crore (USD 669 million) (Press Information Bureau, 2018).

NITI Aayog, the government’s policy think tank, has suggested to the Ministry of Petroleum and Natural Gas that the LPG subsidy instead be given as a “cooking subsidy” through direct benefit transfer. At present, recipients can only claim the refund with proof of purchase of LPG. While 4.6 crore (46 million) LPG connections released under the PMUY have led to smoke-free kitchens in rural India, the NITI Aayog in a note to the ministry said that attaching the subsidy to LPG is creating distortions in adopting alternative clean forms of fuel. The note advocates that piped natural gas (PNG) is the most efficient form of fuel in urban areas and biogas should be the preferred option in rural areas given availability of raw materials (Kumar, 2018b).

Kerosene

According to official data, four more states or Union Territories became kerosene-free this year, taking the total to eight. Andhra Pradesh, Dadar-Nagar Haveli, Daman-Diu and Puducherry have not requested any subsidized kerosene for the first quarter of FY2019. Allocation of subsidized kerosene to Chandigarh, Delhi, Haryana and Punjab had stopped earlier (Kumar, 2018a).



GSI's Recent Activities

On August 21, 2018, IISD and GSI, in collaboration with The Energy and Resource Institute (TERI) released the report [“Kerosene to Solar PV Subsidy Swap: The business case for redirecting subsidy expenditure from kerosene to off-grid solar.”](#) The report was released at the World Renewable Energy Technology Congress in New Delhi. It recommends using some of the subsidy savings from reductions in the kerosene subsidy to support off-grid solar technologies for marginalized households that are still dependent on kerosene. Kerosene results in harmful indoor air pollution and increased fire risk. In contrast, solar power provides greater luminosity, and many technologies offer the benefits of electricity in addition to light. Solar was found to be cheaper than kerosene over the life of the solar products.

In November, IISD and GSI published a digital story [“Support for Clean Cooking in India: Tracking the Latest Developments in LPG subsidies.”](#) The article describes how LPG subsidies have been successful in expanding energy access but has also put fiscal pressure on the government. A range of reforms were introduced from 2012 to better target the subsidy and ambitious programs have provided new LPG connections to tens of millions of people below the poverty line. Approaches that could help expand access while limiting budget blowouts are: better pricing of LPG stoves and refills to match household incomes, more stringent means testing, extended LPG distribution networks and deregulation of the non-subsidized LPG market.

Renewables

Policies

In June 2018, the Cabinet Committee on Economic Affairs, chaired by the Prime Minister Narendra Modi, gave its approval for implementation of Phase-III of the Off-grid and Decentralised Solar PV (Photo Voltaic) Application Programme (Cabinet Committee on Economic Affairs, 2018). The program aims to add 118 MW of peak off-grid solar PV capacity by 2020 through solar street lights, standalone power plants and study lamps.

In May 2018, the Ministry of New and Renewable Energy (MNRE) issued the National Wind–Solar Hybrid Policy (Ministry of New and Renewable Energy, 2018). The objective of the policy is promotion of large grid-connected wind–solar PV hybrid systems for efficient utilization of transmission infrastructure and land. The policy also aims to reduce the variability in renewable power generation and to achieve better grid stability. The hybrid power generated from the project may be used for captive purposes or sales to third parties under a range of pricing mechanisms.

Prices

Solar tariffs in India saw record lows of INR 2.44 per unit (kWh) in reverse auctions carried out by the Solar Energy Corporation of India (SECI) in May 2017 for 200 MW and again twice in July 2018, for 600 MW in each instance.

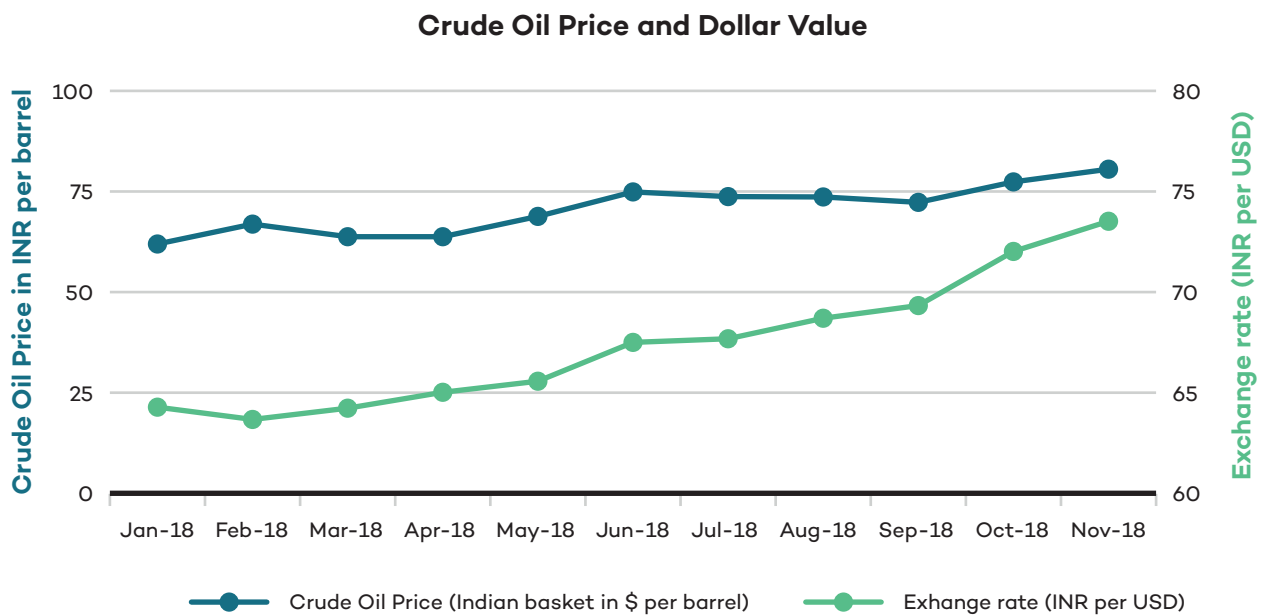
The low prices have led to speculations of future financial stress in the sector (Shaikh, 2018). States have been reluctant to accept bids above INR 3 per unit. There is pressure to achieve very low auction prices, even while some costs are increasing such as financing, import duties, operational costs and delayed payment from distribution companies.

The state of Uttar Pradesh cancelled a solar tender where the lowest tariff was INR 3.48 per unit on the grounds that the central government was achieving bids at INR 2.44 per unit. Gujarat Urja Vikas Nigam Ltd also scrapped

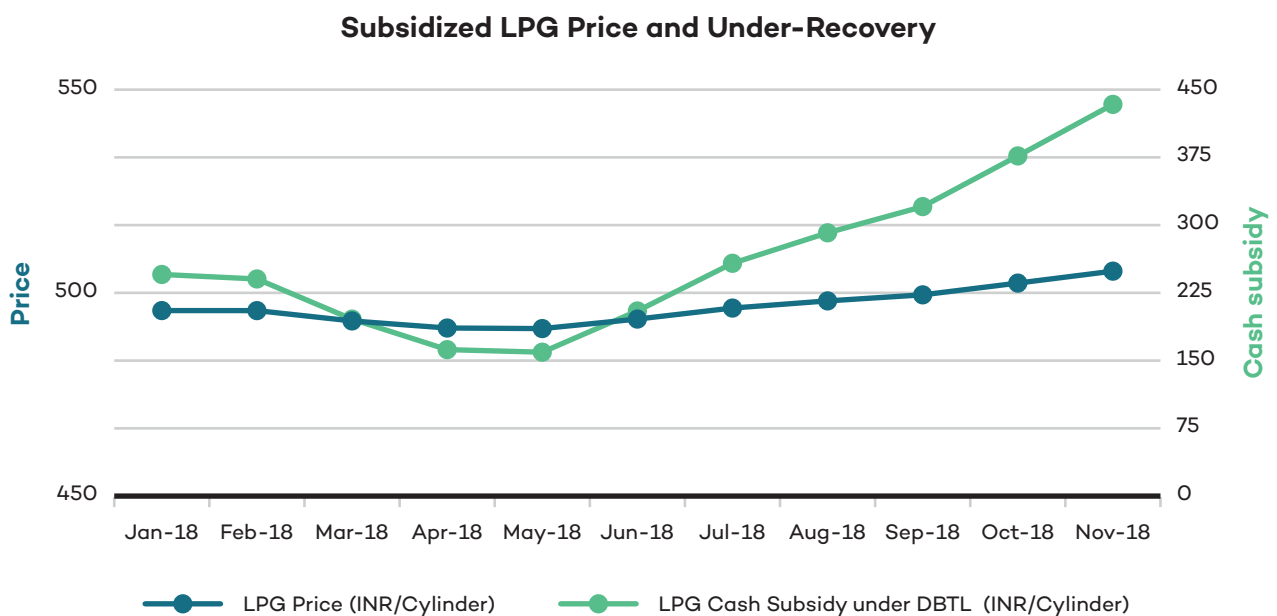
a 500 MW solar auction as the price discovered was higher at INR 2.98 per unit compared with INR 2.65 per unit in the previous auction (Shaikh, 2018).

MNRE has also proposed a cap on solar tariffs. In August 2018, it directed the Solar Energy Corporation of India (SECI) to bring future solar bids in a lot size of 1,200 MW with no upper cap and minimum bid size of 50 MW. The maximum permissible tariff was fixed at INR 2.68 per unit, including safeguard duty, and INR 2.5 per unit if the safeguard duty was not paid by the developer (Kondratieva, 2018). Solar developers and industry associations have expressed concerns about the negative impact of the proposed cap on the viability of solar projects.

Indicators

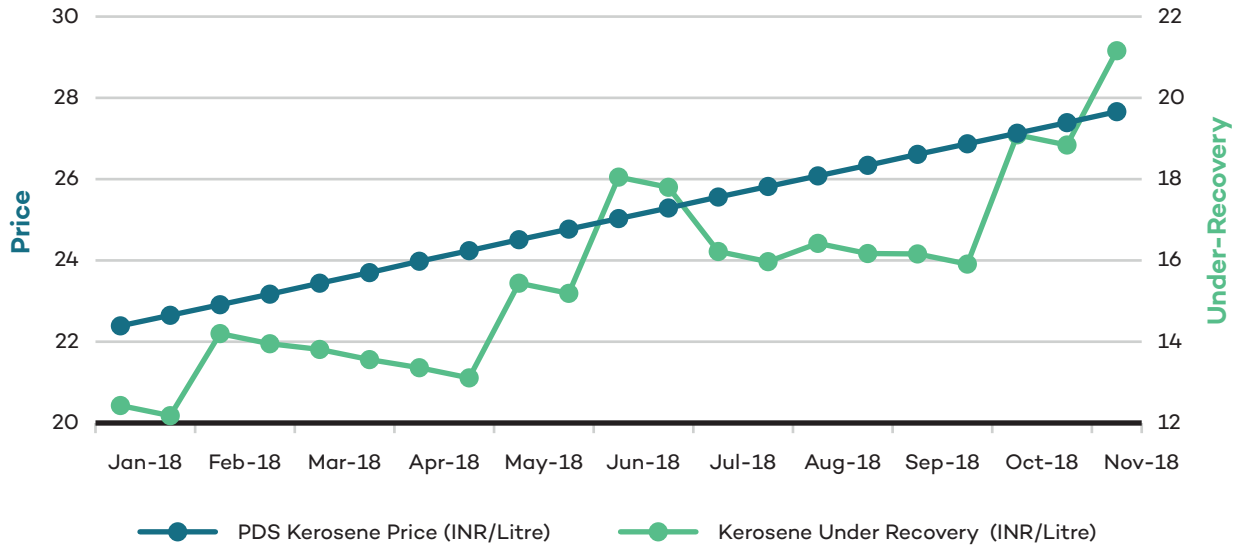


Source: (PPAC, 2018)



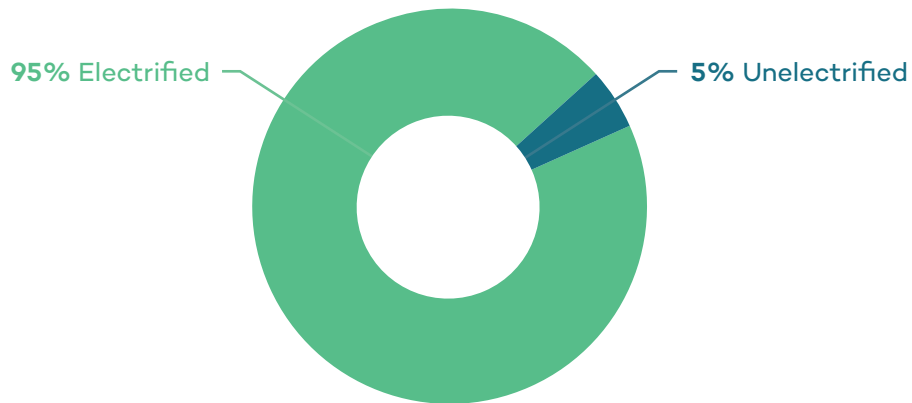
Source: (PPAC, 2018)

Kerosene Price and Under-Recovery



Source: (PPAC, 2018)

Household Electrification Status - November 2018



Source: Government of India (2018)



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