REFORMS IN INDIAN **ELECTRICITY SECTOR**

ACUITY LAW

A SILVER LINING FOR DISCOMS

The Indian electricity sector is on the cusp of a reformation in light of the amendments proposed by the Ministry of Power in the draft Electricity Amendment Bill 2020 ("**Bill**") and also the other major policy changes proposed by the government. The Bill was published on 17 April 2020 and comments from all stakeholders have been invited by 5 June 2020. The Bill intends to address several hurdles plaguing the electricity sector and presents a positive outlook for electricity distribution companies ("**DISCOMS**"). DISCOMS are responsible for recovering the entire cost of generation, supply and distribution of electricity from the retail tariffs charged to its consumers. The operational inefficiencies and financial mismanagement by DISCOMS have a cascading effect on the entire sector as evident from the enormous financial pressure the sector has been reeling over the last few decades.

However, DISCOMS alone are not responsible for the shoddy health of the electricity sector. NITI Aayog, in its April 2019 report "Diagnostic study of the power distribution sector" (available here) recognises the following significant challenges faced by DISCOMS:

- Huge average technical and commercial losses ("**AT&C**");
- Tariffs that are not reflective of costs;
- Subsidy payments that are delayed or inadequate; and
- Inefficiencies in power generation.

AT&C losses and proposed measures to reduce them

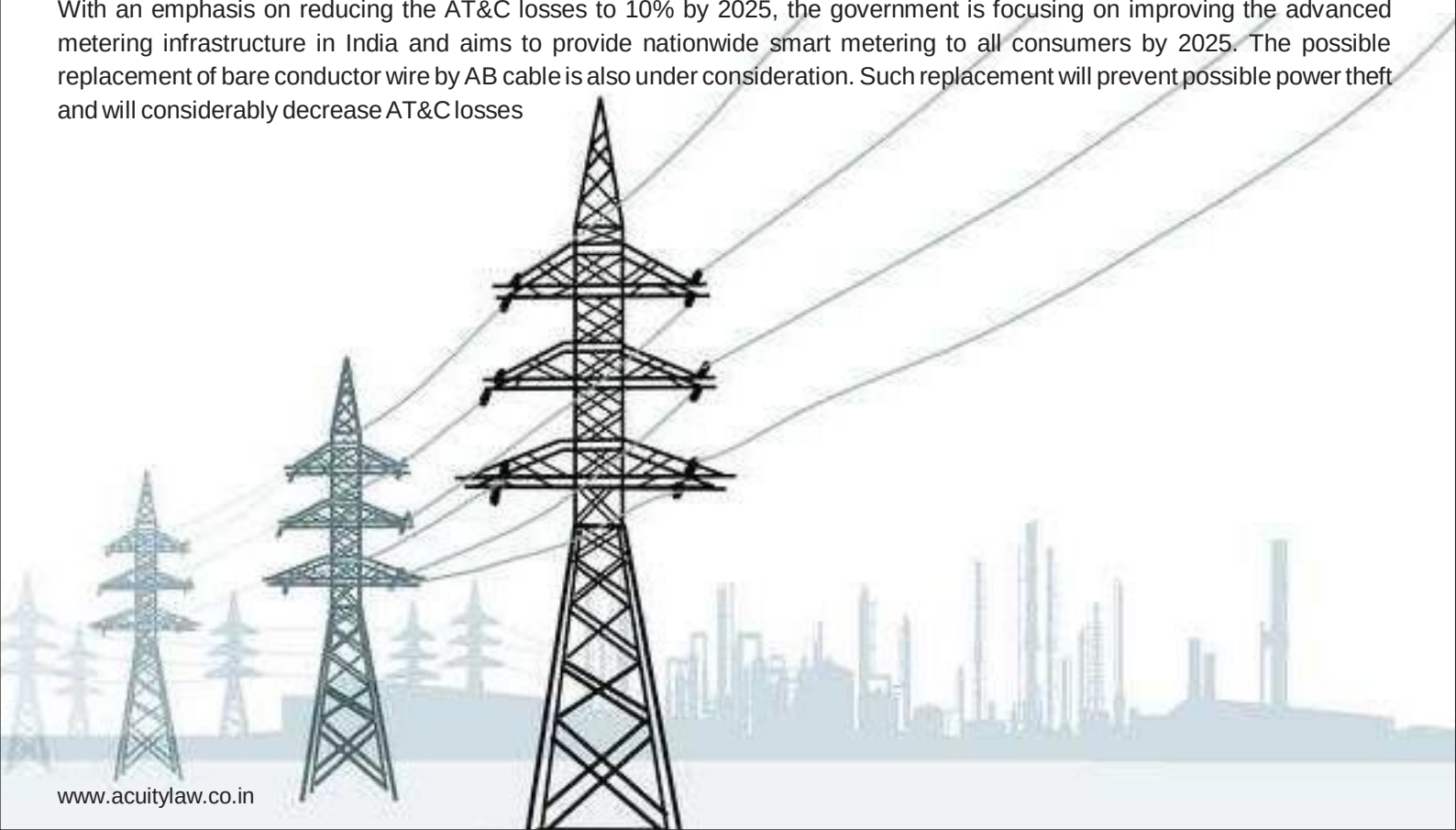
The concept of AT&C losses provides a realistic picture of loss situation in the sector as it is combination of energy loss (technical loss + theft + inefficiency in billing) and commercial loss (default in payment + inefficiency in collection). Such losses are primarily caused by power theft, poor distribution infrastructure and poor payment collection procedures. As per the National Infrastructure Pipeline ("**NIP**") final reports (available here and here), India's AT&C losses for 2018 stands at 19% which is significantly higher than China (6%), United States (6%), Singapore (2%) and the global average (8%).

The primary motive behind introducing the distribution franchisee model under the Electricity Act, 2003 ("**Act**") was the need to reduce AT&C losses. The franchise model encouraged privatisation of the power sector as it empowered a licensee to appoint a distribution franchise (without any regulatory authority) to distribute electricity on its behalf in its service area. Over the next decade the distribution franchise model worked admirably. In 2007, India's first urban franchise was awarded by Maharashtra State Electricity Distribution Corporation Limited ("**MSEDL"**) to Torrent Private Limited ("**TPL**") for distributing electricity in Bhiwandi area for a period of 10 years. As per the NITI Aayog's Report, 2019 (available here), the AT&C losses in Bhiwandi reduced from 61.3% in 2007 to 25% in 2016-17. Similar lower AT&C losses were also recorded in Nagpur (32.5% in 2010-11 to 17.5% in 2015-16), Cuttack (45% in 2013-14 to 35% in 2015-16) and other districts where such models were adopted.

Inspired by the success of the franchise model, the Bill proposes an additional sub-licensee model for enhancing distribution system and improving electricity access. The Bill further proposes that sub-licensees and franchisee will not need to obtain a separate license from State Electricity Regulation Commission ("**SERC**") and the distribution licensee shall continue to remain responsible for distribution of electricity in its area of supply. The proposed amendment is another endeavour at privatising the distribution sector in the hopes that privatization and hiring of professional and experienced management may help distressed DISCOMS to fare better. Further, this may enable them to increase revenues, reduce inefficiencies while providing a better overall consumer experience.

The Government, also recognising the need of a world class electricity distribution infrastructure, has earmarked INR 26.9 trillion for infrastructure development in the energy sector for F.Y. 2020-25 including INR 14.1 trillion specially allotted for the power sector, as per the NIP final report.

With an emphasis on reducing the AT&C losses to 10% by 2025, the government is focusing on improving the advanced metering infrastructure in India and aims to provide nationwide smart metering to all consumers by 2025. The possible replacement of bare conductor wire by AB cable is also under consideration. Such replacement will prevent possible power theft and will considerably decrease AT&C losses



Re-thinking Tariffs design and doing away with cross-subsidies

Consumers in each state are divided into five broad categories: residential, agricultural, commercial, industrial and railways which are further divided into sub-categories based on consumption levels, rural or urban consumers and other parameters. Tariffs for categories and sub-categories vary from state to state. State electricity utilities compute electricity tariffs on the basis of revenue required and the sales forecast and then approach the State government and the respective SERC for tariff approval. However, the approved tariffs are often lower than those petitioned for by the utilities. This markdown is done with the aim of meeting social and development objectives for different consumer categories especially agricultural, below poverty line households and residential consumers. The State governments then announce a lump sum amount of subsidy ("**Subsidy Booked**") to be disbursed to the utilities as compensation.

Section 65 of the Act mandates the State governments to make subsidy payment in advance to the state utilities for the following financial year. More often than not, however, the governments actually make the payment later. The actual subsidy payment to the utilities ("**Subsidy Released**") is often lower than the amount of subsidy booked. Supplying electricity at a tariff lower than the cost of supply, along with delay in tariff revisions essentially leads to lower recovery by the DISCOMS who in turn are unable to clear their dues of power generators ("**GENCOS**") effectively causing huge financial loses for the entire sector.

According to the Ministry of Power's payment ratification and analysis portal, PRAAPTI, outstanding dues from DISCOMs to GENCOS at the end of March 2020 stood at INR 799,510 million up by INR 513,870 million (a 55% rise) from the same period last year. The Government, as part of its Vision 2025 project, has proposed bill discounting facility to provide much needed liquidity respite to DISCOMS. If successfully implemented this will not only assist the DISCOMS but also help GENCOS raise upfront cash against receivables from DISCOMS thereby reducing ongoing stress on the sector.

The Bill proposes a two-pronged approach to rehabilitate the financially depleted sector. First, the Bill proposes that the SERC shall fix tariff without accounting subsidy. In addition, the tariff shall now be determined through a transparent and time-bound competitive bidding process. The Bill recognises that the tariff design should reflect the prudent and efficient cost of supply to the consumers while maintaining revenue neutrality. With the tariff cost now to be cost reflective, DISCOMS can charge the consumer as per the actual tariff rate determined without accounting any subsidy and are enthusiastic of positive recoveries. The Bill, with an eye to reduce cross-subsidies, recommends for direct benefit transfer of such subsidy from the Government to the consumer. The Bill favours better targeted subsidies to identified households rather than a category of consumers.

DISCOMS to benefit from renewable energy

A recent study by Council on Energy, Environment and Water ("**CEEW**") on impact of solar rooftops in Delhi on DISCOMS busted the myth that solar rooftops are causing revenue losses to DISCOMS. The study reveals that a DISCOM can enjoy net revenue gains up to INR 0.22 for every unit of electricity generated through solar rooftops. This gain is largely due to avoiding transmission charges, distribution capacity cost and power purchase cost. The net revenue earned by DISCOMS outweighs revenue loss and is a win-win situation for both the DISCOMS as well as the residential consumer. Over a solar rooftop system's lifetime, DISCOM could potentially save INR 5500 for every Kw of capacity installed. (CEEW study article available here)

The NIP report takes into account the need to promote and enhance domestic manufacturing of solar photovoltaic modules and cells and proposes large scale investments for the same. Domestic manufacturing of solar cells is also supported by the government through the modified special incentive package scheme that provides for 20-25% subsidy for capex investments, reimbursement of excise duty, imposition of import duty on import, and others measures to reduce India's imports of solar photovoltaic modules and cells. With India's solar manufacturing strategy looking robust, the DISCOMS shall be able to purchase cheaper domestic solar photovoltaic modules and cells resulting in higher earnings from solar rooftop systems and other solar sources of electricity. With the cost of renewable sources of electricity coming down substantially, the government has been persuading DISCOMS to up-scale rooftop installations and also to increase share of electricity purchased from such sources. This will serve the dual purpose of meeting the increasing power demand while avoiding the need to upgrade the distribution network. The Bill pushes the DISCOMS to purchase a minimum percentage of electricity from solar and hydro sources with hefty penalties in case of non-compliance. The Bill further proposes a National Renewable Energy Policy to be prepared by the Central Government after consultation with the State governments for promoting renewable sources of electricity. The proposal is intended to reduce the cost burden of the DISCOMS, balance out losses and make timely payments to theGENCOS.

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Reliefs for DISCOMS during COVID-19 pandemic

The COVID-19 pandemic and the ensuing national lockdown has shut down all but essential activities across India. Consequently, electricity demand from higher tariff industrial consumers has reduced while lower tariff residential demand is expected to increase. Considering the likely detrimental effect on the revenue collection of already struggling DISCOMS, the government has issued various notifications to alleviate such further aggravation of the DISCOMS and the Power sector.

On 27 March 2020, the Ministry of Power granted a 50% reduction in the letter of credit mechanism that is needed to be maintained by the DISCOMS when scheduling power. On 28 March 2020, the Ministry of Power issued directions to the Central Electricity Regulatory Commissions ("**CERC**") to provide a three month moratorium (from 01 March 2020 to 31 May 2020) on the payment of DISCOMS to GENCOS and further directed to waive or reduce the late payment surcharge under power purchase agreements. Accordingly, the late payment surcharge was reduced from 1.5% to 1% per month for invoices raised between 24 March 2020 to 30 June 2020. Additionally, the Ministry of Power has requested State governments to issue similar direction to their respective SERCs. Similar relaxations were also announced by various SERCs to ensure that the pandemic does have a long-term impact on the sector especially the already struggling DISCOMS.

On 13 May 2020, the Government announced a one-time emergency liquidity injection of INR 900 billion for the cash strapped DISCOMS. This vital liquidity inflow will help DISCOMS repay most of their INR 940 billion outstanding to GENCOS. This proposed liquidity injection will be infused by the state-owned Power Finance Corporation ("**PFC**") and Rural Electrification Corporation ("**REC**") against all the receivables in the books of DISCOMS. These special concessional loans shall be guaranteed by the respective State governments exclusively for discharging outstanding debt of DISCOMS to GENCOS. Additionally, these loans would be linked to certain reforms such as increasing digital payment interfaces, prepaid metering in government departments and making action plans for loss reduction among others. As the loans are contingent on improvement in operational performances, the package is expected to force States and DISCOMS to improve infrastructure and cut down on AT&C losses; effectively restructuring the power sector.
All reliefs announced and measures introduced during COVID-19 lockdown period are to enable the DISCOMS to clear their backlog outstanding to the GENCOS while also necessitating the need to carry out much needed fundamental and grass root level changes to the operations of the DISCOMs.

Our Analysis

Reforms have been proposed for the Indian power sector since 1991 however their implementation has been hampered by inadequate infrastructure, unattractive economic benefits for attracting participation of the private sector, unfair allocation of risk and lack of political will. However, the Bill along with NIP's suggested infrastructure development, relief measures announced during the lockdown and the various policy changes provides for a holistic reformation of the entire electricity sector and banks on major participation by private players. Private players are especially looking at solar power production of electricity and the 'Distribution – franchisee – sublicensee' model with enthusiasm. Privatization seems a possible solution to the woeful financial situation of DISCOMS. However, the government shall have to provide beneficial incentives to attract private companies in rural areas too otherwise leading to a lopsided market scenario. Financial and operational efficiency, long term planning and profit driven motivations of private players can assist in rescuing cash strapped DISCOMS. Additionally, competition amongst private players may also be beneficial for the consumers. Transparent and cost-effective tariffs combined with better targeted subsides might just be the required changes to commercially revive the power sector. The Bill is certainly one of the most relevant solutions to DISCOMS' distress and its implementation shall dictate the future of the power sector in India.