

Legislative Brief

Draft Amendments to the Electricity Act, 2018

The draft amendments to the Electricity Act, 2018 were released by the Ministry of Power on September 7, 2018.

The Electricity (Amendment) Bill, 2014 is currently pending in Lok Sabha. The Standing Committee on Energy (Chair: Dr. Kirit Somaiya) had examined this Bill and submitted its report on May 7, 2015.

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Highlights of the Amendments

- ◆ Under the Act, a distribution licensee supplies electricity and maintains the distribution system. The draft amendments provide for separate licences for the distribution system and supply of electricity. There can be multiple supply licensees in an area.
- ◆ Supply companies have to ensure 24x7 power supply to all consumers. All sale or purchase of power to meet the annual average demand of power in an area will be done through PPAs.
- ◆ The Amendments define renewable energy. They require a minimum proportion of renewable energy to be supplied by coal/lignite based generators, and a minimum percentage of renewable energy to be purchased by discoms/supply licensees.
- ◆ Currently, tariffs may include cross-subsidies for certain classes of consumers. The amendments seek to limit cross subsidies to 20%, and to eliminate them within three years. Governments may provide subsidies only through direct benefit transfer (DBT).
- ◆ Under the Act, the state government constitutes a selection committee to select members of the SERC. The draft amendments change the composition of the selection committee to: (i) have more central government members, and (ii) be chaired by a serving Supreme Court judge.

Key Issues and Analysis

- ◆ As per the amendments, supply companies will purchase all their power only through PPAs. However, they may face unanticipated demand at times, which may not be met only through PPAs. The question is why they are not allowed to procure any power through ways other than PPAs to meet any unanticipated demand.
- ◆ The amendments allow for multiple supply licensees in an area of supply. This would enable consumers to choose to buy electricity from multiple suppliers in an area. However, the explicit details of how such switching, or transition between suppliers will work have not been provided.
- ◆ Eliminating cross subsidies may increase tariffs for low paying consumers. The state or central government may choose to alleviate this increase in tariff by giving explicit subsidies to these consumers through DBT. This could increase the subsidy burden on the exchequer.
- ◆ It is unclear why the selection committee of a SERC needs to have more central representation. Further, the rationale of having a judicial member on this selection committee is not clear.

PART A: HIGHLIGHTS OF THE AMENDMENTS

Context

There are three segments in the electricity sector: generation, transmission, and distribution. Generation is the process of producing power using different sources of energy. Then high voltage power is carried from the generation plants to the distribution sub-stations through a transmission grid. In the third segment, electricity is transferred from the sub-stations to individual consumers through a distribution network. In India, till 1975, all three segments were bundled together with the state owned electricity boards (or departments). In the early 90s, the generation segment was opened up to the private sector. In the late 90s, a few states such as Odisha and Haryana started restructuring their state electricity boards by segregating the three segments.¹ In 1998, Regulatory Commissions were established by law, at both the central and state levels, to regulate power tariffs.

The Electricity Act, 2003 is the central law regulating the electricity sector. The 2003 Act brought several changes in the sector such as (i) reorganisation of the state electricity boards, (ii) giving more powers to the regulators, (iii) setting up the Appellate Tribunal, (iv) providing for competition in transmission and distribution, (v) introducing power trading as a licensed activity, and (vi) seeking to eliminate cross-subsidies in the sector. The 2003 Act was amended in 2007 to allow for reduction of cross-subsidies instead of eliminating them.

Opening up generation to private sector participation has helped improve the power generation capacity in the country.² Generation capacity has increased from around 75 GW in 1991 to 347 GW in 2018. While the 2003 Act does not regulate renewable energy, the renewable capacity has also grown significantly in the last few years. As of November 2018, 21% of the total generation capacity in the country comes from renewable sources (72 GW).³ However, competition in the transmission and distribution segments has been limited.² Transmission lines are owned mostly by state companies (57%), followed by central (37%), and private (6%) companies.⁴ Distribution is mostly carried out by state owned distribution companies (discoms). However, in cities such as Delhi and Mumbai, private entities also participate in the distribution business.²

The Electricity (Amendment) Bill, 2014 was introduced in Lok Sabha in December 2014, and is pending consideration. The 2014 Bill seeks to: (i) increase competition in the sector by segregating the distribution segment into distribution and supply, (ii) rationalise tariff determination, and (iii) promote renewable energy.⁵ The 2014 Bill was examined by the Standing Committee on Energy (Chair: Dr. Kirit Somaiya), which suggested certain changes to the Bill.⁶ The Ministry of Power has proposed draft amendments based on the Committee's recommendations and other stakeholder consultations.⁷ We discuss these draft amendments below.

Key Features

Segregation of distribution network and retail supply of electricity

- **Distribution and supply:** Under the Act, a distribution licensee supplies electricity and maintains the distribution network in an area of supply. The draft amendments provide for separate licences for maintaining the distribution network (distribution licence) and for the supply of electricity (supply licence). Further, multiple distribution and supply licences could be awarded for an area of distribution and supply.
- **Transfer scheme:** The state government will notify a transfer scheme for such segregation. The distribution licensee will be deemed to have the authorisation to supply electricity as a supply licensee till the transfer scheme is implemented in the area of the distribution licensee. The distribution and supply of electricity will be governed in the manner as stipulated in the transfer scheme from the date of implementation of the scheme.

Purchase and sale of power

- Under the Act, distribution licensees purchase power from generation companies (typically through power purchase agreements (PPAs)). The draft amendments provide that, post segregation, the supply or distribution licensees (as the case may be) will purchase power and sell it to consumers. The supply or distribution licensee will also be obligated to supply 24x7 power to its consumers.
- All sale or purchase of power to meet the annual average demand of power of an area will be done through long/ medium/ short term PPAs. Penalties will be levied by the Central or State Electricity Regulatory Commission (CERC/SERC) if either party fails to comply with such PPAs.

Tariff determination

- **Tariff determination:** For the retail sale of electricity, the CERC/SERC will determine only the ceiling tariff, and the supply licensee may charge any tariff below this ceiling. The ceiling tariff will be determined on the basis of normative costs and standards of performance as laid down by the Commissions. The draft

amendments also state that any penalty levied under the Act will not be accounted into the tariff, and will not be passed on to consumers as part of their tariff.

- **Tariff in case of bidding:** The draft amendments provide that the Commissions will not determine the tariff for retail supply to consumers if the electricity has been procured through competitive bidding. Any tariff determined through such transparent bidding will not be re-determined by the Commissions.

Power subsidies

- **Direct subsidy:** Under the Act, the state governments provide for subsidies to a consumer through an advance payment as determined by the SERC. Typically, this subsidy is transferred to the state discoms, who incorporate these subsidies directly into the tariffs for consumers. The draft amendments provide that if a state government or the central government seeks to provide a subsidy to any consumer, it will do so through direct benefit transfer to the bank account of the beneficiary.
- **Cross subsidy:** The draft amendments provide that the cross subsidisation of tariff within a distribution area will not exceed 20%. Further, such cross-subsidies will be progressively reduced and eliminated within three years. The CERC/SERC will determine the trajectory for such reduction, and will ensure that the reduction in cross subsidy is not less than six percent every year.

Renewable energy

- **Renewable energy:** The Act does not define renewable sources of energy. The proposed amendments define renewable energy sources to include hydro, wind, solar, bio-mass, bio-fuel, waste including municipal and solid waste, geo-thermal, tidal, co-generation from these sources, and other sources as notified by the central government. The maximum capacity for a hydro plant to be classified as renewable will be notified by the central government.
- **Renewable Purchase and Generation Obligation (RPO, RGO):** The amendments define RPO as the minimum percentage of electricity that must be procured by obligated entities (such as supply licensees) from renewable sources. RGO is defined as the renewable energy capacity that must be installed or procured by a coal or lignite based generation station. Such capacity could be procured from renewable sources, or any instrument representing renewable energy (such as renewable energy certificates). RPO and RGO will be notified by the central government.
- **Decentralised distributed generation:** Decentralised distributed generation is defined as electricity generated from certain sources for end use at or near the place of generation. These sources include wind, small hydro, solar, biomass, biogas, bio fuel, any kind of waste including municipal and solid waste, geothermal, hybrid power system, or other sources as may be notified by the central government.

Smart grid and metering

- The draft amendments define smart grid as an electricity network that uses information and communication technology to gather information and act intelligently in an automated manner. This should help improve the efficiency, reliability, economics, and sustainability of generation, transmission, and distribution of electricity. Such smart meters should be installed at each stage, for proper measurement of consumption.

Composition of the SERC selection committee

- Under the Act, the state government constitutes a selection committee for selecting members of SERCs. This selection committee is chaired by a person who has been a judge of the High Court of that state. Other members include: (i) the Chief Secretary of the concerned state and (ii) the Chairperson of the Central Electricity Authority (CEA), or the Chairperson of the CERC.
- The draft amendments change the composition of the selection committee. It will be chaired by a serving judge of the Supreme Court, to be nominated by the Chief Justice of India. Other members will include: (i) the Union Power Secretary, (ii) the Union New and Renewable Energy Secretary, (iii) the Chief Secretary or the Power Secretary of the concerned state, (iv) the Chairperson of the CEA, and (v) the Chairperson of the CERC.

Penalties

- The draft amendments increase the penalties for non-compliance of directions of the CERC or SERC. Under the Act, penalties for all companies are up to one lakh rupees for each contravention and up to Rs 6,000 for every day that such contravention continues. The amendments increase these to one crore rupees and one lakh rupees respectively.

PART B: KEY ISSUES AND ANALYSIS

It is unclear how easily consumers can switch between suppliers

Amendments:
Section 14,
Proviso 14

Under the Act, a distribution licensee maintains the distribution network and supplies electricity to retail consumers. The CERC/SERC may grant a licence to two or more persons for distribution of electricity through their own distribution system within the same area. The proposed amendments provide for separate licences for maintaining the distribution system (distribution licence) and for the supply of electricity (supply licence). Further, CERC/SERC may award multiple distribution and supply licences for a particular area.

The 2003 Act provides for multiple licensees to set up their own distribution network in the same area, thus allowing for competition. However, the electricity distribution segment has not seen much competition. Setting up a new network requires significant capital investment and hence acts as an entry barrier for new participants. Therefore, barring a few places in the country (such as Mumbai), most areas have one discom supplying electricity. The proposed amendments seek to enable competition in the supply segment by segregating the wire business from the supply business, and allowing for multiple supply licensees in an area of supply.

The rationale is that the consumer has the option to choose from (or switch between) multiple supply licensees. Each supply licensee will have an incentive to provide cheaper and better quality service to attract and retain customers. That is, suppliers will try to improve efficiencies as well as negotiate better prices for their PPAs and other costs, and pass on the benefits to consumers. For this to work, consumers should have the facility to easily switch from one supply licensee to another, if they wish to do so. Such switching should be smooth and the supply of power to the consumer should not be interrupted during such transition. The amendments do not explicitly provide for how such switching will work, and what will happen during the transition from one supplier to the other. Further, the amendments do not have an enabling clause that delegates the power to specify such details to the regulators (CERC, SERCs).

The Standing Committee on Energy that examined the 2014 Bill had suggested that the Bill should provide certain details regarding consumer switching between supply licensees.⁶ These include: (i) the mechanism for providing the consumer with the option to choose a supply licensee, and (ii) the transfer from one supplier to another based on the choice of the consumer, and the cost involved in such choice and transfer.

Power Purchase Agreements and trading of power

Supply licensees may not be able to engage in short-term trading

Amendments:
Sections
2(41A),
(42A), (71);
42(1), (2);
49(1)

Currently, power is typically procured through Power Purchase Agreements (PPAs) signed between the power plant (generation company) and the power distribution company (discom). The amendments provide that all purchase or sale of power to meet the annual average demand of power in an area will be done through long/medium/short term PPAs. This implies that discoms/supply companies will have to purchase all their power (for retail supply) only through PPAs. Considering that discoms/supply companies have to ensure 24x7 power supply to all consumers, one could question why they are not allowed to procure any power through ways other than PPAs (such as short term trading) to meet any unanticipated demand.

Under the amendments, the PPAs will be designed on the basis of the annual average demand of power. A supply company may engage in long and medium term PPAs to meet such annual average demand. Some variations in the average demand (seasonal over the year or variations based on time of day) can be met through short term PPAs. However, there could still be certain variations in the demand. Permitting short-term trading could help supply licensees fill the unanticipated demand.⁸ Short-term trading could also help supply companies sell any surplus power resulting from lower than anticipated demand.⁸

Currently, trading of power takes place on power exchanges. Power exchanges are online platforms that help generators and consumers sell and buy electricity transparently, based on the demand-and-supply mechanism.⁹ Prices on these exchanges are market determined. Power exchanges provide round-the-clock access to the electricity market. The NITI Aayog (2015) had noted that power exchanges provide for the needs of both buyers and sellers in the short-term.⁸ It had also noted that trading on exchanges can help meet the short-term needs of discoms arising from uncertainties in demand and supply.

Provision on trading by supply licensees is unclear

The amendments also provide that supply companies will not need a licence for trading in electricity. If all sale or purchase of power is to be done through PPAs, it is unclear what is the purpose of allowing supply licensees the power to trade without a licence.

Amendments:
Section 14
Proviso 19;
49(1)

Selection Committee for SERCs

The rationale for changing the SERC selection committee is unclear

Amendments:
Section 85

Under the Act, the state government constitutes a selection committee for selecting members of a State Electricity Regulatory Commission (SERC). This selection committee is chaired by a person who has been a judge of the High Court. Other members include: (i) the Chief Secretary of the concerned state and (ii) the Chairperson of the Central Electricity Authority (CEA) or the Chairperson of the Central Electricity Regulatory Commission (CERC). The draft amendments change the composition of the selection committee, and increases the number of members on it from three to six. The table below shows the current and proposed composition of the SERC selection committee.

Table 1: Composition of the SERC selection committee

Electricity Act, 2003	Draft amendments to the Electricity Act (2018)
State	
<ul style="list-style-type: none"> ▪ High Court judge (Chair) ▪ Chief Secretary of the concerned state 	<ul style="list-style-type: none"> ▪ Chief Secretary or the Power Secretary of the state
Centre	
<ul style="list-style-type: none"> ▪ Chairperson of the Central Electricity Authority (CEA), or the Chairperson of the Central Electricity Regulatory Commission (CERC) 	<ul style="list-style-type: none"> ▪ Serving judge of the Supreme Court (Chair) ▪ Union Power Secretary ▪ Union New and Renewable Energy Secretary ▪ Chairperson of the CEA ▪ Chairperson of the CERC

Sources: Electricity Act, 2003; Draft amendments to Electricity Act, 2003; PRS.

The proposed SERC selection committee has only one representative from the state, and five from the centre. This raises a few questions. First, the rationale for reducing the number of representatives from states and increasing the number of representatives from centre on the selection committee for state regulators is not clear. Second, it is unclear why the selection committees for state regulators need to have five common members.

The rationale for having a judicial member on the selection committee is unclear

Currently, one of the members on the selection committees for SERCs is a person who has been a judge of the High Court. The amendments provide that the selection committees will be chaired by a serving judge of the Supreme Court. SERCs are executive bodies that regulate power tariffs, and regulate inter-state and intra-state matters in generation, transmission, trading, and distribution of power. The question is why does a selection committee of a regulatory body need to have judicial members. Note that, under the Act, the selection committee of the CERC does not have a judicial member on it.

Further, a serving judge of the Supreme Court will have to be on the selection committee of all 27 SERCs in the country. There may be several members retiring from SERCs throughout the year, and every year. This is not a part of the core role of the judge and will add to his/her work load. Note that as of May 2018, about 54,000 cases were pending in the Supreme Court, and between 2006 and 2018, pendency in the Court increased by 36%.¹⁰ In such a situation, adding ancillary functions to the role of a Supreme Court judge may adversely affect the efficacy of the Court in its core role as the apex constitutional court.

Removing cross subsidies may increase subsidy burden on exchequer

Amendments:
Sections
45(1)(b),
61(1)(g), 65

Currently, consumers are charged different tariff rates based on their consumption category. State governments provide subsidies to most discoms to allow them to charge such differential tariff (from low paying consumers). In addition to these direct subsidies from the state governments, low paying consumers (agricultural and residential) are also cross subsidised by high paying consumers (commercial and industrial). In case of cross subsidies, subsidisation is inbuilt in the tariff. Such differential pricing and subsequent cross subsidising raises the input costs for manufacturing and service sectors.

The amendments provide that any subsidy to any category of consumer will be provided by the state or central government through direct benefit transfer (DBT). Further, the cross subsidisation within a distribution area will not exceed 20%, and will be progressively reduced and eliminated within three years. The CERC/SERC will have to ensure that the reduction in cross subsidy is not less than six percent in a year.

The cross subsidy for a consumer category is the difference between the cost to serve that category of consumers and the average tariff realised from that category of consumers.¹¹ Two possibilities may arise due to removal of such cross subsidy. First, it could increase the tariffs for the currently low paying consumers (agricultural and residential) who are being subsidised. Second, the state or central government may choose to

alleviate any increase in their tariffs by giving them explicit subsidies through DBT. This could increase the subsidy burden on the exchequer (either through the Union budget or state budgets or a combination of both).

Recommendations of the Standing Committee

The Standing Committee on Energy had examined the Electricity (Amendment) Bill, 2014, and submitted its report on May 7, 2015.⁶ Some of the recommendations of the Committee that have not been incorporated in the proposed amendments include:

- **Details of segregation:** The Committee had recommended that the law should provide more details on the segregation of distribution and supply, especially with regard to the needs of consumers. These details include: (i) whether it will be a single meter business for both distribution and supply, (ii) switching from one supplier to another, and the costs involved, and (iii) disconnections.
- **Franchisee:** The Act defines a franchisee as a person authorised by a distribution licensee to distribute electricity on its behalf in a particular area within his area of supply. The draft amendments amend this definition to provide that a franchisee will be a person authorised by a distribution or a supply licensee, to undertake distribution or supply of electricity in a specified area, on its behalf, within his area of distribution or area of supply. The franchisees will not be required to obtain a separate licence. The terms and conditions for appointment of franchisees will be approved by the CERC/SERC. Further, the distribution licensee or supply licensee will be held responsible for non-compliance of any provision of the law or Rules or Regulations by the franchisee. The Standing Committee had noted that franchisees must be held accountable since they directly interact with consumers. Such franchisees should be required to obtain a licence from the Regulatory Commissions.
- **Renewable Generation Obligation (RGO):** The draft amendments define RGO as the renewable energy capacity that must be installed or procured by a coal or lignite based generation station, as notified by the central government. Such capacity could be procured from renewable sources, or any instrument representing renewable energy (such as renewable energy certificates). The 2014 Bill mandates that a thermal generating station should have minimum 10% renewable energy capacity. The Standing Committee had noted that while this may be high, there should be a minimum RGO. It had recommended that the RGO be fixed at 5%, and be increased later based on the amenability of all related factors.

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