

# Legislative Brief

## The Electricity (Amendment) Bill, 2022

The Electricity (Amendment) Bill 2022 was introduced in Lok Sabha on August 8, 2022. Subsequently, it was referred to the Standing Committee on Energy.

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### Highlights of the Bill

- ◆ The Electricity Act, 2003 permits more than one distribution licensee (discom) to operate in the same area. They are required to supply electricity through their own network. The Bill removes this requirement.
- ◆ A network-owning discom will be required to provide open and non-discriminatory access to its network to other discoms.
- ◆ The power and associated costs from existing power purchase agreements (PPAs) will be shared among all discoms in an area.
- ◆ The State Commission will determine the floor and ceiling tariffs for retail supply, if there is more than one discom in an area.
- ◆ The state government will set up a Cross-subsidy Balancing Fund to deposit surplus of cross-subsidy with one discom, and to provide for any deficit with another discom in the same or any other area.
- ◆ The Bill provides for a payment security mechanism to ensure timely payment to generation companies.
- ◆ The Bill amends the qualification for chairpersons and other members of the Central and State Commissions.

### Key Issues and Analysis

- ◆ Existing PPAs have to be shared among all discoms in an area. Power procurement forms 70%-80% of the total cost and in many states, most of the existing demand is tied to long-term PPAs. Hence, the scope for cost-efficiency gains and competition may be limited, initially.
- ◆ The network-owning discom will compete for the supply business. This creates a conflict of interest in sharing the network. This may also have adverse implications for investments in the network.
- ◆ Empowering the State Commissions to determine the sharing of PPAs may override the agency of private parties to negotiate terms and conditions of a contractual arrangement for procuring power.
- ◆ The Bill does not require the chairpersons of Central and State Commissions to have any experience in the power sector. The question is whether this is appropriate.
- ◆ The need for a central government nominee in the selection committee for SERC is unclear. The committee will not have any expert members.
- ◆ The Bill provides for the removal of SERC or CERC members on certain grounds pertaining to their actions. This raises the question how a single member could be held responsible for a decision of the Commission, as decisions are taken collectively.

## PART A: HIGHLIGHTS OF THE BILL

### Context

The Electricity Act, 2003 is the central law regulating the electricity sector.<sup>1</sup> It demarcates the electricity sector into three sub-sectors: (i) generation, (ii) transmission, and (iii) distribution. Generation is the process of producing power using various sources of energy. Transmission refers to carrying high voltage power from generation plants to distribution sub-stations through a transmission grid. Distribution refers to transferring electricity from sub-stations to individual consumers via a distribution network.

A recurring theme in the Indian power sector has been the poor financial performance of distribution utilities (discoms).<sup>2,3</sup> Between 2017-18 and 2020-21, the cumulative losses of all discoms were about three lakh crore rupees.<sup>3</sup> In most states, electricity distribution is a local monopoly business, where a single state government-owned distribution utility provides electricity in a given area.<sup>3</sup> Discoms have continued to register financial losses, and have required government support from time to time to be bailed out from these situations.<sup>2</sup> Reasons for these losses include high level of technical and commercial losses (22% as of 2020-21), and under-pricing of tariffs.<sup>2,3</sup> Technical and commercial losses include losses in energy transfer and losses due to theft.

Amendments to the 2003 Act have been considered at multiple instances to address some of the above issues, primarily by restructuring the distribution business and rationalising tariffs. In 2014, a Bill to amend the 2003 Act was introduced in Lok Sabha.<sup>4</sup> Among the key changes, the Bill sought to provide for separate licenses for distribution network and supply businesses. It was examined by the Standing Committee on Energy, however, it lapsed with the dissolution of 16<sup>th</sup> Lok Sabha.<sup>5</sup> Following this, draft amendments to the 2003 Act were released by the Ministry of Power in 2018 and 2020 for public feedback.<sup>6,7</sup> While the 2018 draft Bill provided for the segregation of distribution business similar to the 2014 Bill, the 2020 draft Bill did not have a similar provision. It instead provided for the appointment of sub-licensees to distribute electricity on the behalf of the distribution licensees. These Bills also sought to mandate a payment security mechanism, direct benefit transfer of subsidy, and rationalisation of tariff and cross-subsidy. Cross-subsidy refers to the arrangement where one consumer category subsidises the consumption of another consumer category. In many states, cross-subsidy levels are higher than the long-term policy goal of keeping it within the range of  $\pm 20\%$  of the average cost of supply.<sup>2</sup>

The Electricity (Amendment) Bill, 2022 was introduced in Lok Sabha in August 2022.<sup>8</sup> It has been referred to the Standing Committee on Energy for detailed examination.

### Key Features

- **Multiple discoms in the same area:** The Act provides for multiple distribution licensees (discoms) to operate in the same area of supply. It requires discoms to distribute electricity through their own network. The Bill removes this requirement. The Bill adds that a discom must provide non-discriminatory open access to its network to all other discoms operating in the same area, on payment of certain charges. The central government may prescribe the criteria for determining an area of supply.
- **Power procurement and tariff:** Upon grant of multiple licenses for the same area, the power and associated costs as per the existing power purchase agreements (PPAs) will be shared between all discoms. To meet any additional power requirements, a discom may enter into additional PPAs after meeting the obligations of existing agreements. Such additional PPAs need not be shared with other discoms. Under the Act, in case of multiple discoms in the same area of supply, the SERC is required to specify the maximum ceiling for tariff. The Bill adds that the SERC will also specify a minimum tariff for such cases.
- **Cross-subsidy Balancing Fund:** The Bill adds that upon the grant of multiple licenses for the same area, the state government will set up a Cross-subsidy Balancing Fund. Any surplus with a distribution licensee on account of cross-subsidy will be deposited into the fund. The fund will be used to finance deficits in cross-subsidy for other discoms in the same area or any other area.
- **License for distribution in multiple states:** As per the Bill, the CERC will grant licenses for the distribution of electricity in more than one state.
- **Payment security:** The Bill provides that electricity will not be scheduled or despatched if a discom does not provide adequate payment security. The central government may prescribe rules in this regard.
- **Recovery of prudent costs of supply:** The Act provides that the tariff should progressively reflect the cost of supply. The Bill substitutes this to provide that tariff should recover all prudent costs incurred in supply.
- **Contract enforcement:** The Bill empowers the CERC and SERCs to adjudicate disputes related to the performance of contracts. These refer to contracts related to the sale, purchase, or transmission of electricity. Further, the Commissions will have the powers of a Civil Court.
- **Renewable purchase obligation:** The Act empowers SERCs to specify renewable purchase obligations (RPO) for discoms. RPO refers to the mandate to procure a certain percentage of electricity from

renewable sources. The Bill adds that RPO should not be below a minimum percentage prescribed by the central government. Failure to meet RPO will be punishable with a penalty between 25 paise and 50 paise per kilowatt of the shortfall.

- **Composition of Commissions and APTEL:** The Bill increases the number of members (including the chairperson) in SERCs from three to four. Further, at least one member in both the CERC and SERCs must have background in law. The Bill also amends the qualification for chairpersons as well as members.

**Table 1: Change in the qualifications of CERC and SERC Chairpersons**

The Electricity Act, 2003	The Electricity (Amendment) Bill, 2022
<b>Central Electricity Regulatory Commission (CERC)</b>	
Person who: (i) has adequate knowledge or experience in engineering (with specialisation in generation, transmission, or distribution of electricity), law, economics, commerce, finance, or management, or (ii) is or has been a Supreme Court judge, or the Chief Justice of a High Court.	Person who is or has been: (i) the head of an organisation dealing with distribution, transmission, or generation company, or (ii) Secretary to the central government or its equivalent. Candidates with at least two years of experience in the power sector will be preferred.
<b>State Electricity Regulatory Commission (SERC)</b>	
Person who: (i) has adequate knowledge of engineering, finance, commerce, economics, law, or management, or (ii) is or has been a High Court Judge.	Person who is or has been: (i) head of an organisation dealing with generation, transmission, or distribution of electricity, or (ii) Principal Secretary to the state government or its equivalent. Candidates with at least two years of experience in the power sector will be preferred.

Sources: Electricity Act, 2003; Electricity (Amendment) Bill, 2022; PRS.

- Under the Act, Appellate Tribunal for Electricity (APTEL) consists of a chairperson and three other members. The Bill instead provides that the APTEL will have three or more members, as may be prescribed by the central government.
- **Selection committee for SERCs:** Under the Act, the Chairperson of the Central Electricity Authority or the Chairperson of the CERC is one of the members of the selection committee for appointments to the SERCs. The Bill provides that instead of this person, the central government will nominate a member to the committee. The person should not be below the rank of Additional Secretary to the central government.

## PART B: KEY ISSUES AND ANALYSIS

### Multiple discoms in the same area to enable competition

#### Competition in the distribution segment

Promotion of competition in the Electricity sector is a key aim of the Electricity Act, 2003. It provides for multiple discoms to compete in the same area by supplying electricity through ‘their own network’. However, if each discom were to invest in its own network, this would lead to a replication of the network, and a rise in costs for the end-consumers, as the cost of capital investments would be passed through directly or indirectly.<sup>9,10,11</sup>

The distribution business can be demarcated into: (i) wire – the physical network which brings electricity from a high-voltage transmission system to the point of consumption, and (ii) supply- the business of procuring power from generators and supplying it to the end-consumer, billing, and collection. The nature of these two businesses is considered different. The wire business is a natural monopoly as it contains high capital costs, whereas the supply business is more suitable for a competitive multi-player market.<sup>9</sup> Competition in supply is expected to provide improvement in efficiency and loss reduction by a clearer demarcation of responsibilities, i.e., network improvement in the case of wire company, and efficiency in power procurement and consumer interface in case of supply company.<sup>9</sup> Further, it is expected to enable choice for consumers to switch between suppliers, which would put pressure for better quality of supply, lower tariff, and improved customer service.<sup>9</sup>

The Forum of Regulators (2013) had highlighted certain key pre-requisites for competition in the retail supply business: (i) development of a wholesale power market with the presence of multiple players, and avoiding dominant players, (ii) cost-reflective tariffs, (iii) distinct ownership of wire and supply segment to avoid conflict of interest, (iv) a plan for treating existing distribution and financial losses, (v) suitable supply infrastructure including advanced metering, and (vi) ease of switching between suppliers.<sup>9</sup>

The Bill enables more than one discom to supply electricity in a given area, without each owning a separate network. Where multiple discoms operate in the same area, the Bill provides for: (i) non-discriminatory open access to the distribution network, (ii) sharing of existing power purchase agreements (PPAs) between discoms, (iii) determination of only ceiling and floor tariffs for retail supply, and (iv) setting up of cross-subsidy balancing fund. We discuss certain issues with these provisions.

Bill: Clauses 5, 11, 13, and 15

### Scope for cost efficiency gains may be narrow initially, which may limit the scope for competition

The Bill seeks to promote consumer choice and bring efficiency through competition. It provides that existing PPAs and associated costs will be shared among all discoms operating in an area. Power procurement cost ranges between 70%-80% of the total cost structure of discoms.<sup>3</sup> PPAs are typically long-term agreements over 20-30 years. This raises the question about the scope for competition.

In many states, the capacity tied under long-term PPAs is higher than the prevalent demand.<sup>2</sup> A study report for NITI Aayog (2021) had observed that discoms have entered into expensive and long-term thermal PPAs based on incorrect estimates of power demand.<sup>12</sup> Fixed costs are incurred by discoms, even if power is not generated.<sup>12</sup> As existing PPAs are to be shared, the power procurement cost is likely to get equalised across discoms. This means that new licensees will have limited scope to bring in efficiency in the most significant part of the cost structure. This situation will change only slowly as demand increases with time, and long-term PPAs come to an end. The Forum of Regulators (2013) had noted that developing a wholesale power market is a pre-requisite for introducing competition in the distribution segment.<sup>9</sup> Network-related improvements are also beyond the control of the discom that is only in the supply business, as all competing discoms will be using the same network. These improvements may get equalised across competing discoms. Innovation in pricing mechanisms will also be constrained by floor and ceiling tariffs to be set by SERC. If the prices offered are not too different, consumers may not find switching attractive. This raises the question of the attractiveness of the proposed model for new entrants in the near term.

**Table 2: Cost Structure of Distribution Utilities in 2019-20 (in Rs/kWh)**

Cost Head	State Sector	Private Sector
Cost of Power	4.70	5.17
Employee Cost	0.51	0.49
Interest Cost	0.41	0.57
Depreciation	0.21	0.30
Other Costs	0.26	0.47
<b>Total</b>	<b>6.09</b>	<b>6.99</b>

Source: Report on Performance of Power Utilities 2020-21, Power Finance Corporation; PRS.

**Table 3: Revenue Structure of Distribution Utilities in 2019-20 (in Rs/kWh)**

Revenue Head	State Sector	Private Sector
Revenue from Operations	4.24	6.79
Tariff Subsidy Billed	1.01	0.35
Regulatory Income	0.08	0.31
Revenue Grants under UDAY	0.13	0.00
Other Income and Revenue Grants	0.34	0.10
<b>Total</b>	<b>5.80</b>	<b>7.56</b>

Source: Report on Performance of Power Utilities 2020-21, Power Finance Corporation; PRS.

### There is an inherent conflict of interest if the network-owning discom also competes for supply business

The Bill provides for a scenario where a discom need not own a network to supply electricity. Such a discom will be given open access to the network of another discom upon payment of certain charges. A network-owning discom will also continue to participate in the supply business. Thus, the network-owning discom may have a conflict of interest in facilitating access to its network, as it may lose out on supply business. The Bill empowers the regulator to impose penalties in case the network-owning discom does not provide such access to other discoms. The question is if this is an appropriate mechanism to address the issue.

The Forum of Regulators (2013) had observed that in a market structure where a single company handles the wire and the supply business, conflict of interest limits the scope for introducing competition in retail supply.<sup>9</sup> It had recommended that the ownership of wire and supply should be distinct for retail competition. It had also observed that where a single entity owns wire as well as supply, the returns from wire could cross-subsidise supply business, which would hinder investment and consequent efficiency improvement in the network. Earlier Bills (2014 Bill and 2018 Draft Bill) had also sought to provide for complete segregation of wire and supply businesses to address these issues<sup>13,14</sup> Indeed, this potential conflict was one of the reasons for the 2003 Act to trifurcate the sector into generation, transmission, and distribution sub-sectors.

In case of open access for large consumers, it has been observed that the discoms have created operational barriers such as: (i) refusal citing inadequate network capacity or congestion, (ii) stringent conditions on minimum number of hours of continuous drawl, advanced scheduling, and quantum of power during peak or off-peak hours, and (iii) delays in maintenance requests in case of network breakdown.<sup>2</sup> Regulators have specified high surcharges for open access, to protect the cross-subsidy level.<sup>15</sup> This is because, under such a mechanism, discoms may lose high-paying consumers, which would adversely impact their revenue prospects. Open access enables a consumer to get electricity supply directly from a generator, using the network of discom operating in its local area.

### Whether it is appropriate to empower SERCs to determine arrangements for sharing of PPAs

The Bill specifies that existing power purchase agreements (PPAs) of incumbent discoms will be shared with new licensees, as per the rules specified by the central government and arrangements specified by the SERC. The SERC may periodically review such arrangements. The question is whether it is appropriate to empower SERCs to determine arrangements for sharing of PPAs, with changing market conditions such as the entrance or exit of a licensee and changing market share.

Saving existing PPAs may have a two-fold objective: (i) predictability and stability for generators, and (ii) not leaving the incumbent discom with stranded/unused PPAs, for which it is bound to pay fixed costs. However, the Bill may be overriding the agency of these parties to negotiate the terms and conditions of a contractual arrangement for procuring power. To address this issue, the 2014 Bill and the 2018 Draft Bill provided for all existing PPAs to be pooled into an intermediary company, which was expected to allocate power to retail supply companies based on the switching of consumers.<sup>16,17,18</sup>

## Regulatory Commissions

The Bill amends the qualification for members of CERC and SERCs and the composition of the selection committee for SERC. It also adds certain additional grounds for the removal of members.

### Chairperson of the Regulatory Commission may not have experience in the sector

The Bill provides for a scenario where a person with no experience in the power sector may be appointed as the chairperson of CERC and SERC. The question is whether a certain level of expertise in the relevant sector should be required for chairpersons of regulatory commissions, who are expected to function as subject-matter experts. The chairperson has a casting vote in the decisions of the CERC and SERC. Key functions of these Commissions include licensing, tariff determination, and prescribing technical and performance standards.

As per the Bill, the following persons may be appointed as chairperson of CERC or SERC: (i) head of an organisation dealing with distribution, transmission, or generation company, or (ii) secretary to the central government or state government, respectively. It specifies that candidates with at least two years of experience in the power sector will be preferred. Thus, it is not mandatory to have a minimum level of experience in the sector. In contrast, the SEBI Act, 1992 specifies that the chairperson of SEBI should: (i) have shown capacity in dealing with problems relating to the securities market, or (ii) should have special knowledge or experience of law, finance, economics, accountancy, or administration, which in the opinion of the central government, shall be useful for the Board.<sup>19</sup> Similarly, the TRAI Act, 1997 requires the chairperson to have special knowledge and professional experience in telecom, industry, finance, accountancy, law, management, or consumer affairs.<sup>20</sup> These Acts do not specify qualifications in terms of designation, but subject-matter expertise.

### Need for a central government nominee to select the regulator at the state level is unclear

Under the Act, the selection committee to recommend appointments to SERC comprise: (i) Chief Secretary of the state government, (ii) Chief Justice of the High Court, and (iii) Chairperson of CERC or CEA. The Bill replaces the CERC/CEA chairperson with a nominee of the central government, who will be an officer of Additional Secretary rank or above. This raises the question about the need for the representation from the central government.

Under the Electricity Act, 2003, SERC has independent jurisdiction over intra-state matters. While the chairperson of CEA or CERC may bring in subject-matter expertise, the purpose of the nominee of the central government is unclear. The proposed amendment also leads to a situation where there is no expert in the selection committee to appoint members of a regulator, which is expected to act as an expert body.

### Additional clauses enabling the removal of members may not be exercisable

The Bill provides that a member of SERC or CERC may be removed if the member has: (i) wilfully violated or overlooked the provisions of the Act, or (ii) been grossly negligent in performing one or more functions assigned to him or the Commission. The Act provides that the decisions of the Commissions will be taken by a majority of votes of Members present and voting.<sup>21</sup> Thus, it could be construed that the actions of the Commissions are collective. This raises the question how a single member could be held responsible on the above grounds.

## Drafting issue

### Rule-making powers of the central government not specified

In various provisions related to multiple discoms in the same area, the Bill states that the provisions will be applicable “in accordance with the provisions of this Act and the rules made thereunder by the Central Government”. However, in certain cases, neither there is any specified rule-making power in the Act, nor the Bill provides for it. These include: (i) Section 42 dealing with duties of distribution licensee and open access, (ii) Sections 60 and 60A dealing with market domination, management of PPAs and cross-subsidy balancing fund, and (iv) Section 62 dealing with retail tariff determination.

1. [The Electricity Act, 2003](#).
2. [Diagnostic Study of the Power Distribution Sector](#), NITI Aayog, April 2019.
3. [Report on Performance of Power Utilities 2020-21](#), Power Finance Corporation, September 2022.
4. [The Electricity \(Amendment\) Bill, 2014](#), as introduced in Lok Sabha.

*Bill:* Clauses 17, 21(i), 22(i), and 25

*Bill:* Clauses 5, 11, 13, 15, 23, and 32.

*Act:* Sections 42, 60, 60A, and 62

5. [4th Report: The Electricity \(Amendment\) Bill, 2014](#), Standing Committee on Energy, May 2015.
6. [Draft Amendments to the Electricity Act, 2003](#), Ministry of Power, September 2018.
7. [The Draft Electricity \(Amendment\) Bill, 2020](#), Ministry of Power, June 2020.
8. [The Electricity \(Amendment\) Bill, 2022](#) as introduced in Lok Sabha.
9. “[Introducing Competition in Retail Electricity Supply in India](#)”, Forum of Regulators, July 2013.
10. “[Roll out Plan for Introduction of Competition in Retail Sale of Electricity](#)”, Forum of Regulators, July 2015.
11. [Appeal No 246 of 2012](#), Tata Power Company Limited vs Maharashtra Electricity Regulatory Commission, Appellate Tribunal for Electricity, November 28, 2014.
12. [Turning Around the Power Distribution Sector](#), NITI Aayog, August 2021.
13. Clause 9, The Electricity (Amendment) Bill, 2014 as introduced in Lok Sabha, [https://prsindia.org/files/bills\\_acts/bills\\_parliament/2014/Electricity\\_\(A\)\\_bill\\_2014.pdf](https://prsindia.org/files/bills_acts/bills_parliament/2014/Electricity_(A)_bill_2014.pdf).
14. Amendment to Section 14, Draft Amendments to the Electricity Act, 2003, Ministry of Power, September 2018, [https://prsindia.org/files/bills\\_acts/bills\\_parliament/1970/Draft%20Electricity%20Bill%202018.pdf](https://prsindia.org/files/bills_acts/bills_parliament/1970/Draft%20Electricity%20Bill%202018.pdf).
15. 26<sup>th</sup> Report: Review of Power Tariff Policy, Standing Committee on Energy, August 2022, [http://164.100.47.193/lsscommittee/Energy/17\\_Energy\\_26.pdf](http://164.100.47.193/lsscommittee/Energy/17_Energy_26.pdf).
16. Clause 8 (2), [The Electricity Bill, 2014](#).
17. Clause 2 (xvi), Clause 30, Clause 55, [The Electricity \(Amendment\) Bill, 2014](#).
18. Amendments to Section 62, Section 131, [Draft Amendments to the Electricity Act, 2003](#), Ministry of Power, September 2018.
19. Section 4 (5), [The Securities and Exchange Board of India Act, 1992](#).
20. Section 4, [The Telecom Regulatory Authority of India Act, 1997](#).
21. Section 92 (3), [The Electricity Act, 2003](#).

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