

TRANSMISSION

Basic idea: where transmission fits in the electricity chain

Electricity sector has three main stages:

Generation → Transmission → Distribution → Consumer

Generation means producing electricity in a power plant. Transmission means carrying that electricity from the generating station to another generating station or to a sub-station/load centre through high-voltage lines. Distribution means supplying electricity from the distribution system to final consumers like homes, shops, factories, institutions, etc.

A simple picture is:

Power Plant → Step-up Transformer → High Voltage Transmission Line → Sub-station → Step-down Transformer → Distribution Network → Consumer

Power is often generated at a comparatively lower voltage, such as 11 kV or 33 kV. It is then stepped up to a higher voltage for long-distance transmission because higher voltage reduces transmission losses. Near the consumer side, it is stepped down again so that it can be safely supplied through the distribution system. This is why transmission includes not only wires but also step-up and step-down transformers, switchgear, and other necessary works connected with the transmission system. The Act defines transmission lines as high-pressure cables and overhead lines carrying electricity from a generating station to another generating station or sub-station, along with step-up/step-down transformers, switchgear and related works.

Why transmission is a licensed activity

The Electricity Act, 2003 treats different electricity activities differently. **Generation** is generally de-licensed. Section 7 says a generating company may establish, operate and maintain a generating station without obtaining a licence, subject to technical standards relating to grid connectivity. But **transmission, distribution, and trading** require licence unless exempted. Section 12 says no person shall transmit electricity, distribute electricity, or undertake trading unless authorised by licence under section 14 or exempted under section 13. Section 14 allows the Appropriate Commission to grant a licence to transmit electricity as a transmission licensee.

The reason is practical. Generation can be opened more freely because a power producer can set up a plant and produce electricity. But transmission uses a network that connects the whole power system. If transmission is badly managed, the entire system can suffer. It affects grid stability, safety, losses, load flow, private investment, consumer supply, and even blackouts. Therefore, transmission is regulated through licensing.

Why transmission is so important

The lecture's main message is that **generation alone is not enough**. Even if many power plants are built, electricity is useless unless it can be evacuated from the plant and carried to the load centres. "Evacuation" simply means taking generated electricity out of the power plant and moving it into the transmission network.

For example, suppose a power plant in Odisha generates surplus electricity, but the transmission line to West Bengal, Bihar or Delhi is congested or unavailable. Then the power cannot properly reach the place where demand exists. The result may be wastage, under-utilisation of generation capacity, higher cost, and shortage in deficit areas. This is why the lecture says that power sector reform must give serious attention to transmission.

Transmission is therefore the backbone of the electricity market. It connects generating stations, sub-stations, distribution licensees and, in some cases, open access consumers. Without a strong transmission network, private investment in generation will not produce full benefit.

Meaning of congestion in transmission

Transmission congestion means the transmission network does not have enough capacity to carry all the electricity that needs to flow through it. It is like a narrow road where too many vehicles are trying to pass. Even if there are many power plants, electricity cannot move smoothly if the transmission line is overloaded or insufficient.

Congestion causes several problems:

It prevents generated electricity from reaching consumers. It may force power plants to reduce generation. It may increase cost because cheaper power cannot reach the buyer. It may affect grid stability. It may discourage private generators because they cannot find a reliable way to sell power.

So, when the lecture says transmission must be "decongested", it means the network must be strengthened, expanded and properly planned so that power can flow smoothly.

Transmission as a distinct activity

Before reform, electricity functions were often bundled together under State Electricity Boards: generation, transmission and distribution were handled in an integrated manner. The reform idea was to separate them so that each function could be regulated and improved separately.

The lecture explains that even before the Electricity Act, 2003, the 1998 reforms recognised transmission as a distinct activity. The 2003 Act continued this approach. Transmission was not treated merely as an internal part of generation or distribution. It became a separate regulated segment with its own institutions, licences, duties and planning structure.

This separation is important because transmission has a neutral network function. It should not favour one generator, one trader, one distribution licensee, or one consumer over another.

Central and State division: inter-State and intra-State transmission

The Act separates transmission into two levels.

Inter-State transmission means transmission involving movement of electricity from one State to another, or transmission through the system of the Central Transmission Utility. The Act defines inter-State transmission system to include conveyance of electricity from one State to another, across an intervening State, or within a State if it is on a system built, owned, operated, maintained or controlled by the Central Transmission Utility.

Intra-State transmission means transmission within one State, other than inter-State transmission.

This division matters because inter-State transmission is mainly handled at the central level, while intra-State transmission is handled at the State level. This is why the lecture mentions Central Transmission Utility and State Transmission Utility.

Central Transmission Utility and State Transmission Utility

The **Central Transmission Utility**, or CTU, is notified by the Central Government. Its main role is inter-State transmission. Section 38 says the CTU undertakes transmission through the inter-State transmission system, plans and coordinates inter-State transmission, ensures development of an efficient, coordinated and economical inter-State transmission system, and provides non-discriminatory open access to its transmission system.

The **State Transmission Utility**, or STU, is notified by the State Government. Section 39 says the STU undertakes transmission through the intra-State transmission system, coordinates intra-State transmission with CTU, State Governments, generating companies, Regional Power Committees, the Authority, licensees and others, and ensures development of an efficient, coordinated and economical intra-State transmission system for smooth flow of electricity from generating stations to load centres.

In simple terms:

CTU = national/inter-State transmission planning and coordination.

STU = State-level/intra-State transmission planning and coordination.

Why pan-India planning is necessary

Electricity generation is not evenly spread across India. Coal-based plants may be concentrated in coal-rich regions. Hydro power may be concentrated in hilly or river-rich regions. Renewable energy may be concentrated in States with high solar or wind potential. But demand exists everywhere.

Therefore, India needs a connected national grid where electricity can move from surplus regions to deficit regions. The lecture explains this through the idea that geographical limitations make central-level planning necessary. If one State has surplus generation and another State has shortage, the transmission system must allow power to flow from one to the other.

This is why transmission cannot be planned only locally. It needs coordinated planning across States and regions.

Role of Central Electricity Authority and technical standards

Transmission is highly technical. It involves voltage levels, grid stability, line capacity, safety standards, maintenance standards, and system operation. Therefore, the Act gives an important role to the **Central Electricity Authority**, or CEA.

Section 34 says every transmission licensee must comply with technical standards of operation and maintenance of transmission lines according to Grid Standards specified by the Authority. The Authority also has functions connected with safety requirements, construction, operation and maintenance of electrical plants and electric lines, and Grid Standards.

In simple language, CEA's role is to ensure that technical rules are followed so that the transmission network works safely and efficiently.

Load Dispatch Centres: NLDC, RLDC and SLDC

The lecture mentions three important institutions:

NLDC — National Load Despatch Centre

RLDC — Regional Load Despatch Centre

SLDC — State Load Despatch Centre

These bodies help operate the electricity grid in real time. Electricity cannot be stored in large quantities in the ordinary grid system. Generation and consumption must be balanced continuously. If too much electricity is injected or too much is withdrawn, the grid may become unstable.

The RLDC is responsible for optimum scheduling and dispatch of electricity within the region, monitoring grid operations, keeping accounts of electricity transmitted through the regional grid, supervising inter-State transmission, and carrying out real-time grid control.

The SLDC performs similar functions within the State. Section 32 says the SLDC is the apex body for integrated operation of the power system in a State. It is responsible for scheduling and dispatch, monitoring grid operations, keeping accounts, supervising intra-State transmission, and real-time grid control.

So, transmission licensees build and maintain the road; load dispatch centres manage traffic on that road.

Licensing procedure for transmission

Section 15 lays down the procedure for granting a licence. A person who wants to act as a transmission licensee must apply to the Appropriate Commission. The application must be in the form and manner specified and accompanied by the required fee. The applicant must publish notice of the application so that objections can be received and considered.

For transmission licence applications, the applicant must send a copy to the CTU or STU. The CTU or STU may send recommendations to the Appropriate Commission within 30 days. But these recommendations are **not binding** on the Commission. Before granting the licence, the Commission must publish notice in newspapers, consider objections and suggestions, and consider the CTU/STU recommendations. If the Commission rejects the application, it must record reasons in writing and give the applicant an opportunity of being heard.

This reflects transparency and natural justice. The regulator cannot reject the licence secretly or arbitrarily. It must give reasons.

Why CTU/STU only recommend and do not decide licence applications

This is an important legal point from the lecture. Earlier, transmission utility had a stronger role in approval. But that creates a conflict of interest because the transmission utility is itself operating in the transmission sector. If it decides whether a new private player can enter, it may be biased.

So the current idea is:

**CTU/STU gives technical and planning input.
Regulatory Commission makes the final decision.**

This balances two concerns. On one side, CTU/STU understands the ground reality of the network: capacity, congestion, technical needs, and whether new lines are necessary. On the other side, the final decision must be taken by the independent regulator to avoid bias and maintain fairness. The transcript discusses this as a move from approval to recommendation, and section 15 confirms that the recommendations are not binding on the Commission.

Multiple transmission licensees and competition

The lecture says that more than one transmission licensee may exist and that private participation is encouraged. The core reason is competition and efficiency. If the transmission sector remains fully controlled by government entities, private investment may remain limited. But if private

players are allowed to build, maintain and operate transmission lines, the network can expand faster.

However, transmission is not ordinary competition like shops in a market. It is network competition and regulated competition. Transmission lines require land, technical approval, safety compliance, capital investment and regulatory control. Therefore, private participation is possible, but under licence and regulatory supervision.

The deeper policy idea is that a competitive power market needs a strong neutral network. If the transmission network is open and non-discriminatory, generators and buyers can transact more freely.

Non-discriminatory open access

This is one of the most important ideas in the lecture.

Open access means allowing eligible users to use the transmission or distribution network on payment of charges. Section 2(47) defines open access as non-discriminatory provision for use of transmission lines or distribution system or associated facilities by licensees, consumers or persons engaged in generation.

In simple language, open access means: “The wire owner cannot unfairly block others from using the network if they are legally entitled to use it and pay the required charges.”

Section 40 requires a transmission licensee to provide non-discriminatory open access to its transmission system for use by any licensee or generating company on payment of transmission charges, and by consumers when open access is provided under section 42.

This is crucial for the **multi-buyer model**. Earlier, the electricity sector was closer to a single-buyer model where one entity, often the State Electricity Board or distribution utility, controlled purchase and supply. The 2003 Act moved towards a market where generators, licensees and eligible consumers could have more choices. But this is possible only if the transmission network is open on a non-discriminatory basis.

Multi-buyer model explained simply

In a single-buyer model, the generator generally sells to one dominant buyer, usually a State utility, and consumers do not have real choice.

In a multi-buyer model, electricity can be bought and sold through more routes. A generator may supply to a distribution licensee, trader, or eligible open access consumer. A consumer may, subject to law and charges, procure electricity from a source other than the local distribution company.

But for this to work, the transmission system must be available. The wire should not become a monopoly barrier. That is why non-discriminatory open access is central to the 2003 Act's market reform.

Why transmission entities should not trade electricity

The lecture explains that transmission entities should remain neutral. If the same entity controls the transmission network and also trades electricity, it may favour its own trading business. For example, it may give better access to its own transactions and delay or disadvantage competitors.

The Act addresses this conflict. Section 38 says the CTU shall not engage in generation or trading. Section 39 says the STU shall not engage in trading. Section 41 says a transmission licensee may use its assets for other business with prior intimation to the Commission, but it shall not engage in trading in electricity.

A small legal nuance: the lecture broadly says transmission licensees are barred from generation and trading. For exact statutory language, remember this distinction: **CTU is barred from generation and trading; STU is barred from trading; transmission licensees are expressly barred from trading under section 41.** This is the safer way to write in an exam.

Duties of transmission licensees

Section 40 gives three central duties of transmission licensees:

First, they must build, maintain and operate an efficient, coordinated and economical inter-State or intra-State transmission system.

Second, they must comply with directions of the Regional Load Despatch Centre or State Load Despatch Centre.

Third, they must provide non-discriminatory open access to their transmission system.

In simple language, a transmission licensee must:

build the network, maintain the network, operate the network, obey grid-control directions, and allow fair access to users.

Maintenance is very important. If transmission lines, towers, substations and equipment are not maintained, supply may fail and blackouts may occur. Transmission is not only about building lines once; it is about continuous operation and upkeep.

Transmission tariff

Transmission licensees recover money through transmission charges. These charges are regulated. The lecture mentions sections 61 and 62. Section 61 deals with tariff regulations, and

section 62 deals with determination of tariff. The basic idea is that the licensee should get enough revenue to maintain and operate the network, but charges should be fair and regulated.

So the tariff system tries to balance two interests:

**Transmission licensee needs revenue to maintain the system.
Consumers and users should not be overcharged.**

This is why tariff is determined by the Appropriate Commission and not left entirely to the transmission licensee.

Safety in transmission

Transmission lines carry very high voltage. High-voltage overhead lines can be dangerous to human beings, animals, buildings, trees, and property. Therefore, safety regulation is essential.

The transcript mentions section 54 for protection from dangers, but the more accurate statutory provision for safety measures is **section 53**. Section 53 empowers the Authority, in consultation with the State Government, to specify suitable measures for protecting the public and electricity workers from dangers arising from generation, transmission, distribution, trading, use of electricity, or electrical lines/plants. It also covers reducing risks of personal injury, property damage, accidents, failures, maps, inspections, and action to eliminate risks.

Section 54 is titled “Control of transmission and use of electricity”, but for exam purposes, if the question is about safety measures, section 53 is the key provision.

Private participation in transmission

The lecture emphasises that private participation is desirable in transmission. The reason is that transmission expansion requires huge capital, professional management, technology, and speed. Government utilities alone may not be able to build all required lines quickly.

Private participation can happen through independent private transmission projects or joint ventures between government entities and private players. The lecture gives examples such as Sterlite Energy, Reliance Infra, and Tata Power/Power Grid type participation. The policy reason is that independent power producers should not struggle merely because the transmission network is weak or unavailable.

The larger point is this: if India wants more generation, renewable integration, interstate power trade and reliable electricity supply, transmission investment must grow.

Right of Way problem

Right of Way, or RoW, means the right to use a strip of land for laying transmission lines and erecting towers. It does not usually mean full acquisition of the entire land like in a highway

project. Often the landowner continues to own the land, but the tower base and overhead line restrict how the land can be used.

This creates practical problems. Farmers and landowners may object because the tower area becomes difficult to use. Crops, trees, buildings or other activities may be restricted under the transmission corridor. People may also fear danger from high-voltage wires. Environmental clearances may be needed if lines pass through forests. Agricultural land may also be affected. The lecture treats RoW as one major bottleneck for transmission growth.

Compensation for Right of Way

The lecture refers to the 2015 Ministry of Power guidelines on compensation for RoW. Those guidelines were issued to create a more uniform method of compensation because compensation practices differed across States. The 2015 guidelines say compensation for tower base area may be 85% of land value as determined by the District Magistrate or other authority based on circle rate/guideline value/stamp act rates. They also provide compensation for diminution of land value in the RoW corridor, subject to a maximum of 15% of land value.

The legal idea is that transmission lines serve public infrastructure needs, but landowners should be compensated for damage, inconvenience and reduction in land use. Section 67 also says a licensee exercising works powers must cause as little damage, detriment and inconvenience as possible and must make full compensation for damage, detriment or inconvenience caused. Disputes can go to the Appropriate Commission.

Trees, obstacles and overhead lines

Transmission lines must remain clear from obstacles. If trees grow too close to overhead lines, they may interfere with electricity transmission or create danger. Section 68 deals with overhead lines and allows removal or dealing with trees, structures or objects near overhead lines if they interfere or are likely to interfere with transmission or access to works. It also provides for compensation in relation to trees in certain cases.

This explains why the lecture says the wire zone or corridor has to be kept clear and why trees beyond a certain height may need to be cut.

Load Despatch Centres under the Electricity Act, 2003

1. Basic meaning of Load Despatch Centre

A **Load Despatch Centre** is the institution that manages the real-time operation of the electricity grid. In very simple words, it is like the **traffic controller of the electricity system**.

Electricity has one special feature: it is difficult to store in large quantity in the ordinary grid. Therefore, at every moment, the amount of electricity being generated and injected into the grid must broadly match the amount being drawn by consumers and licensees. If too much power is injected or too much power is withdrawn, the grid may become unstable.

So, the Load Despatch Centre watches and controls things like:

Who is generating how much electricity.

Who is drawing how much electricity.

Whether any licensee is overdrawing.

Whether the grid frequency is stable.

Whether the transmission system is being used safely.

Whether scheduling and despatch are happening according to law, contracts and grid code.

That is why Load Despatch Centres are extremely important for grid discipline.

2. Why Load Despatch Centres became necessary

India's electricity generation is not evenly located. Some regions have more coal-based power plants. Some have more hydro power. Some have more renewable potential. But electricity demand exists everywhere.

For example, a coal-rich eastern region may generate surplus electricity, while an industrial western region may need more electricity. The surplus power cannot remain unused in one region if another region needs it. It must be transported through the grid. This requires proper planning, scheduling, monitoring and coordination.

That is the basic reason for Load Despatch Centres. They ensure that electricity generated in one region can be properly supplied to another region without disturbing grid stability. The lecture explains this as the need for coordinated planning beyond one region.

3. Historical development

The concept of load despatch did not suddenly appear in the Electricity Act, 2003. It evolved gradually.

The lecture traces the history in this way:

First, the need for an integrated transmission system was visualised around **1964**, when regional grids came into existence.

Then, around **1970**, the regional grid bodies began functioning more like Regional Load Despatch Centres.

In **1991**, load despatch centres were formally conceptualised through amendments to the Electricity (Supply) Act, 1948.

In **1998**, Regional Load Despatch Centres became more important as apex bodies for smooth and efficient grid operation.

Finally, the **Electricity Act, 2003** gave a proper statutory structure to Load Despatch Centres through provisions on NLDC, RLDC and SLDC. The Act expressly contains provisions on National Load Despatch Centre, Regional Load Despatch Centre, State Load Despatch Centre, their powers, functions and compliance of directions.

4. One Nation, One Grid, One Frequency

The lecture also explains the importance of connecting India's regional grids.

The basic idea was that India should not have isolated regional grids. If regional grids remain isolated, surplus electricity in one region cannot easily support another region. Interconnection creates a national electricity system.

The rough development was:

Eastern Grid connected with North-Eastern Grid in 1991.

Western Grid connected with Eastern/North-Eastern Grid in 2003.

Northern Grid connected with the combined grid in 2006.

Southern Grid connected with the rest of the grid in 2013.

The Government has officially stated that the synchronous National Grid was established in 2013 after commissioning of the 765 kV Solapur–Raichur lines, interconnecting the Western Region and Southern Region, fulfilling the idea of **“One Nation-One Grid-One Frequency.”**

This is important because a national grid improves reliability, supports power transfer across regions, helps investors, and reduces the danger of regional shortages.

5. 2012 grid outage and need for stronger grid management

The lecture refers to the 2012 outage. The point is that large-scale grid failure showed why grid discipline is essential. If States or distribution licensees overdraw electricity beyond schedule, grid frequency may fall and the system can become unstable.

A Load Despatch Centre is therefore not just a management office. It performs a protective function. It prevents the grid from collapsing by monitoring, warning, directing and, where necessary, enforcing compliance.

6. Institutional evolution: from Power Grid/POSOCO to GRID-INDIA

Earlier, load despatch functions were connected with transmission utilities like Power Grid. Later, a separate institutional structure was created through **Power System Operation Corporation Limited**, known as **POSOCO**. POSOCO was later made independent from Power Grid, and its equity was transferred to the President of India.

The current name is **Grid Controller of India Limited**, or **GRID-INDIA**. Official sources state that POSOCO changed its name to Grid Controller of India Limited in 2022 to reflect the role of grid operators in ensuring reliability, integrity, economy, resilience and sustainable operation of the Indian electricity grid.

For exam writing, you can say:

POSOCO, now GRID-INDIA, represents the institutional separation of grid operation from transmission ownership.

7. Why separation from transmission utility is important

This is one of the most important conceptual points.

Earlier, transmission utilities were involved in both:

owning/operating transmission infrastructure, and
managing system operation/load despatch.

But after the 2003 Act, transmission was opened for private participation and open access. If the same transmission utility also controls scheduling and despatch, there can be a conflict of interest.

For example, if a government-controlled transmission utility competes with private transmission players, it should not also be the body deciding operational access in a way that may favour itself. Therefore, the lecture emphasises the need for a separate independent system operator.

In simple terms:

Transmission operator = owns/maintains transmission lines.

System operator/load despatch centre = manages real-time grid operation.

This distinction helps ensure fairness, neutrality and non-discriminatory access.

8. Link with open access

The Electricity Act, 2003 introduced the idea of open access to increase competition in the electricity market. Open access means eligible users can use transmission/distribution networks on payment of charges.

But open access can work only if someone neutral manages the system. If the grid operator favours one generator, one trader or one licensee, open access becomes meaningless.

Therefore, Load Despatch Centres support open access by ensuring that all grid-connected players follow the same rules of scheduling, despatch, drawal and injection.

9. Three-tier structure of Load Despatch Centres

The Act creates a three-level structure:

National Load Despatch Centre — NLDC

Regional Load Despatch Centre — RLDC

State Load Despatch Centre — SLDC

The NLDC operates at the national level. The RLDC operates at the regional level. The SLDC operates at the State level.

Section 26 deals with the **National Load Despatch Centre**. It says the Central Government may establish NLDC for optimum scheduling and despatch of electricity among Regional Load Despatch Centres. It also says NLDC shall not engage in trading in electricity.

Section 27 deals with the **constitution of Regional Load Despatch Centres**. The Central Government establishes one centre for each region, and until a government company or authority is notified, the Central Transmission Utility operates the RLDC. The Act also says RLDC shall not engage in generation or trading.

Section 31 deals with the **State Load Despatch Centre**. The State Government establishes the SLDC. Until a notified government company or authority is created, the State Transmission Utility operates it. The Act also says SLDC shall not engage in trading.

10. Section 25: regional demarcation

Section 25 allows the Central Government to make region-wise demarcation of the country for efficient, economical and integrated transmission and supply of electricity. This is the basis for dividing the country into regions for grid management.

The lecture mentions five regions:

Northern
Western
Southern
Eastern
North-Eastern

Each region has a Regional Load Despatch Centre.

11. Functions of RLDC under Section 28

Section 28 says the RLDC is the **apex body to ensure integrated operation of the power system in the concerned region**. This means it is the highest operational authority for grid operation within that region.

Its main functions are:

It follows the Grid Code and rules specified by the Central Commission.

It is responsible for optimum scheduling and despatch of electricity within the region according to contracts between licensees and generating companies.

It monitors grid operations.

It keeps accounts of electricity transmitted through the regional grid.

It supervises and controls the inter-State transmission system.

It carries out real-time operations for grid control and despatch through secure and economic operation of the regional grid.

It may levy and collect fees and charges from generating companies or licensees engaged in inter-State transmission, as specified by the Central Commission.

In simple language, RLDC decides and monitors how power should move within the regional grid and through inter-State transmission systems.

12. Section 29: compliance with RLDC directions

Section 29 gives teeth to the RLDC. It says the RLDC may issue directions and exercise supervision and control to ensure grid stability and maximum economy and efficiency in operation. Every licensee, generating company, generating station, sub-station and any other person connected with power system operation must comply with RLDC directions.

This is very important. RLDC directions are not optional. If there is a dispute, the matter can go to the Central Commission, but until the Commission decides, the RLDC direction must still be followed. Failure to comply may attract penalty up to **₹15 lakh**.

So the rule is:

First comply, then dispute.

This is necessary because grid operation cannot wait for litigation. If every direction is challenged before compliance, the grid may collapse.

13. Functions of SLDC under Section 32

Section 32 says the SLDC is the **apex body to ensure integrated operation of the power system in a State**. It performs at the State level what RLDC performs at the regional level.

Its main functions are:

Optimum scheduling and despatch of electricity within the State according to contracts.

Monitoring grid operations.

Keeping accounts of electricity transmitted through the State grid.

Supervising and controlling the intra-State transmission system.

Carrying out real-time operations for grid control and despatch within the State, according to Grid Standards and State Grid Code.

It may also levy and collect fees and charges from generating companies and licensees engaged in intra-State transmission, as specified by the State Commission.

14. Section 33: compliance with SLDC directions

Section 33 gives SLDC power to issue directions for integrated grid operation and efficient power system operation within the State. Every licensee, generating company, generating station, sub-station and any other person connected with the power system must comply. SLDC must also comply with RLDC directions.

If there is a dispute, it goes to the State Commission. But until the State Commission decides, the SLDC direction must be followed. Failure to comply may attract penalty up to **₹5 lakh**.

So, at regional level, non-compliance may attract up to ₹15 lakh; at State level, up to ₹5 lakh.

15. Meaning of scheduling and despatch

Scheduling means deciding in advance how much electricity will be generated, injected, transmitted and drawn during a particular time block.

Despatch means actual operational control of electricity flow according to that schedule.

Example:

A generating company says it will inject 100 MW between 10:00 and 10:15.

A distribution licensee says it will draw 100 MW during that period.

The Load Despatch Centre approves and monitors the schedule.

If the distribution licensee draws 130 MW instead, it is overdrawing.

If the generator injects electricity without approval, it creates unscheduled injection.

Both overdrawal and unscheduled injection can disturb the grid.

16. Overdrawal explained

Overdrawal means drawing more electricity from the grid than scheduled or permitted.

Example: A distribution company is allowed to draw 500 MW but draws 600 MW. That extra 100 MW may disturb the balance of the grid.

The lecture gives the example of grid frequency going below safe levels due to overdrawal. The standard grid frequency in India is around 50 Hz. If frequency falls too much, it means demand is more than supply. This can cause instability and even blackout.

Therefore, Load Despatch Centres issue warnings, directions and may take corrective action.

17. Injection explained

Injection means putting electricity into the grid.

Scheduled injection is lawful and planned. Unscheduled injection is problematic.

Example: A captive power plant suddenly injects electricity into the grid without informing the SLDC. Even though the electricity may be consumed by someone, it creates operational and accounting problems because the system was not planned for that injection.

This is why the lecture discusses the Indo Rama Synthetics case.

18. Real-time operation

Section 2(54) defines real-time operation as action to be taken at a given time when information about the electricity system is made available to the concerned Load Despatch Centre. The Act

also includes load despatch activities within the definition of “power system” under section 2(50).

In simple language, real-time operation means immediate grid control. The Load Despatch Centre cannot wait for a long legal process when frequency is falling or electricity is being overdrawn. It must act immediately.

19. No trading by Load Despatch Centres

A very important rule is that Load Despatch Centres should not trade in electricity.

Why? Because trading creates financial interest. If a Load Despatch Centre is also trading electricity, it may favour its own trading transactions. That would destroy neutrality.

The Act therefore says:

NLDC shall not engage in trading.

RLDC shall not engage in generation or trading.

SLDC shall not engage in trading.

This preserves independence and fairness.

20. Financial autonomy

The lecture explains that functional autonomy is not enough. A Load Despatch Centre must also have financial autonomy.

If it depends completely on government funding, it may face pressure because the government itself may own generating companies, transmission utilities or distribution entities. Therefore, the Act allows Load Despatch Centres to levy fees and charges as specified by the concerned Commission.

RLDC fees are specified by the Central Commission.

SLDC fees are specified by the State Commission.

This gives them some financial independence.

21. Role as bridge between law and market

Load Despatch Centres deal with two sides.

On one side, they deal with statutory and policy bodies: Central Commission, State Commission, Central Electricity Authority, government authorities.

On the other side, they deal with actual market players: generating companies, transmission licensees, distribution licensees, traders, open access users and consumers.

So, Load Despatch Centres are the operational bridge between law, regulation and the electricity market.

22. Section 30: intra-State transmission

Section 30 says the State Commission shall facilitate and promote transmission, wheeling and interconnection arrangements within its territorial jurisdiction for efficient and economical transmission and supply of electricity.

This means the State Commission has a role in ensuring that electricity can move properly within the State.

23. Sections 35 and 36: intervening transmission facilities

Section 35 allows the Appropriate Commission to require one licensee to allow another licensee to use surplus transmission capacity in intervening transmission facilities. Section 36 deals with charges for such use. If the parties cannot agree, the Appropriate Commission may specify fair and reasonable charges.

In simple language, if a transmission line has spare capacity, it should not remain unused when another licensee needs it. The law tries to ensure optimum use of infrastructure.

24. Section 37: government directions to RLDC/SLDC

Section 37 allows the Appropriate Government to issue directions to RLDC or SLDC to take necessary measures for maintaining smooth and stable transmission and supply of electricity to any region or State.

The lecture compares this with section 11. Section 11 deals with government directions to generating companies in extraordinary circumstances. Section 37 is different because it deals with directions to Load Despatch Centres for smooth and stable transmission and supply.

But the lecture makes an important policy point: the government should use section 37 cautiously. The Electricity Act, 2003 is based on liberalisation and independent regulation. If the government uses section 37 for political purposes, it may weaken the reform model.

25. Challenges before Load Despatch Centres

A. Renewable energy

Renewable energy creates new challenges because solar and wind generation can vary with weather. Unlike conventional thermal projects, renewable projects may be set up faster, and their output can change quickly.

This requires better forecasting, scheduling and grid preparedness.

B. Prosumers

A **prosumer** is a person who is both a consumer and producer of electricity.

Example: A person installs rooftop solar. They consume electricity from the grid, but they may also generate electricity and inject surplus power into the grid.

This complicates grid management because consumers are no longer only passive users.

C. Energy storage

Battery storage and other storage technologies can change grid operation. Storage can absorb electricity when surplus exists and release it when demand is high. This can help the grid, but it also requires new rules and coordination.

D. Cross-border electricity trade

If India exports or imports electricity from neighbouring countries, grid operation becomes more complex. Load Despatch Centres must coordinate not only within India but also with cross-border systems.

E. Electric vehicles

Electric vehicles increase electricity demand through charging stations. If many vehicles charge at the same time, it can affect load patterns. Load Despatch Centres must plan for this new kind of demand.

26. Case 1: Maharashtra State Electricity Power Trading Corporation v CERC

This case is important for the principle of **independence and neutrality**.

The appellant, Maharashtra State Electricity Power Trading Corporation, applied for an inter-State trading licence. It was connected with the same group structure that included Maharashtra

State Transmission Company, which was notified as STU and also operated the SLDC. The concern was that granting a trading licence could violate the spirit of the Act because STU/SLDC and transmission licensees must remain neutral and should not engage in electricity trading. APTEL discussed sections 31, 39 and 41 and the need to prevent conflict of interest in open access.

The important legal point is that the corporate veil can be lifted where group ownership/control may defeat the statutory purpose of independent and non-discriminatory grid access. The case supports the idea that Load Despatch Centres and transmission utilities must remain insulated from trading interest.

Simple exam point:

Grid operator must be neutral. Trading interest may create bias. Therefore, corporate structure cannot be used to indirectly defeat the statutory bar on trading.

27. Case 2: Vijay Ramchandra Agrawal v Power Grid Corporation of India Ltd.

This case relates to **Right of Way** and construction of transmission towers.

The landowner objected that Power Grid was constructing a transmission tower and laying high-voltage lines over his land without consent. The court considered section 164 of the Electricity Act, 2003 read with section 10 of the Indian Telegraph Act, 1885. The basic principle is that consent of the landowner is not always necessary where statutory powers are validly exercised, but the landowner is entitled to compensation for damage caused.

Simple exam point:

For transmission lines, public infrastructure need is given importance, but the landowner's remedy is compensation, not necessarily stopping the line merely for want of consent.

28. Case 3: Delhi Transco Ltd. v CERC / DERC context

The lecture discusses a case where Delhi Transco, functioning as SLDC, was warned by RLDC about overdrawal. Some licensees were drawing more electricity, causing grid frequency to fall below safe levels. RLDC gave warnings, but SLDC mainly issued advisories and did not take strong corrective action.

The dispute involved section 29. The SLDC argued that RLDC directions under section 29(2) could not apply to it because it was not "any person". But this argument was rejected. The Act defines "power system" broadly and includes load despatch activities, and section 29 requires every person connected with power system operation to comply with RLDC directions.

The key lesson is:

SLDC cannot remain passive. If overdrawal threatens grid stability, merely issuing advisory may not be enough. SLDC must take effective action to protect the grid.

29. Case 4: Simhapuri Energy case

The lecture refers to two generating companies located close to each other, sharing boundary/common area, and seeking permission to develop a common dedicated transmission line. The question was whether two generating units could use one dedicated transmission line and still be treated separately for scheduling, accounting and metering.

The Tribunal accepted that the Act does not prohibit two generating companies from developing a common dedicated transmission line. The Load Despatch Centre could not refuse to treat them separately merely by saying it did not have the metering arrangement. The statutory duty under sections 29/32 could not be avoided by relying on technical inconvenience.

Simple exam point:

Load Despatch Centres must adapt their operational arrangements to fulfil statutory duties. Technical or metering difficulty cannot override legal entitlement.

30. Case 5: Indo Rama Synthetics Ltd. v Maharashtra Electricity Regulatory Commission

This case involved inadvertent injection of electricity into the grid from a captive power plant. Indo Rama injected electricity without proper schedule/communication and later sought compensation. The issue was whether SLDC was responsible for not informing the generator and whether the generator was entitled to higher compensation.

APTEL records that the appeal concerned compensation for inadvertent injection of 1.607 million units into the network of the transmission licensee from Indo Rama's captive power plant.

The legal lesson is that scheduling must happen in advance. A generator cannot simply inject electricity into the grid without informing the Load Despatch Centre and then claim compensation as of right. Load Despatch Centres cannot be expected to track every unscheduled injection if it is not brought to their notice.

Simple exam point:

Unscheduled injection is not encouraged. Grid discipline requires prior scheduling and communication.

DISTRIBUTION

Important keywords from this lecture

DISCOM — Distribution company supplying electricity to consumers.

Distribution licensee — Licensed entity authorised to operate and maintain distribution system and supply electricity in an area.

Distribution system — Local wires and facilities carrying electricity from transmission/generation delivery point to consumer connection.

Area of supply — Geographical area where the licensee is authorised to supply electricity.

AT&C loss — Aggregate Technical and Commercial loss; includes physical system loss, theft, non-metering, wrong billing and non-collection.

Cross-subsidy — One consumer category pays more so another category can pay less.

Parallel licensing — Two or more distribution licensees operating in the same area.

Cherry-picking — Selecting only profitable consumers and avoiding loss-making or subsidised consumers.

Universal service obligation — Duty of distribution licensee to supply electricity to applicants in its licensed area.

Franchisee model — Another person performs distribution functions under an existing licensee's authority, without becoming a separate licensee.

Distribution under the Electricity Act, 2003

1. Position of distribution in the electricity chain

The electricity sector has three main operational stages:

Generation → Transmission → Distribution → Consumer

Generation means production of electricity. Transmission means carrying electricity at high voltage from generating stations to load centres or sub-stations. Distribution begins after transmission ends. At the distribution stage, electricity is stepped down to a lower voltage and supplied to final consumers.

So, distribution is the last-mile stage. It directly connects the electricity system with households, shops, industries, offices, institutions and agricultural consumers.

This is why distribution is very important. Even if generation and transmission are strong, the electricity sector cannot succeed if electricity does not reach the final consumer in a reliable and affordable manner.

2. Why distribution is the most important revenue link

Distribution is the stage where money is collected from final consumers. The generating company produces electricity. The transmission network carries it. But the final revenue usually comes through the distribution company, or **DISCOM**, which bills and collects money from consumers.

So, if distribution companies are financially weak, the whole electricity chain suffers. If consumers do not pay, or if billing is poor, or if theft is high, the distribution company cannot pay generators and transmission licensees properly. This creates stress in the entire power market.

In simple words:

Generation gives electricity. Transmission carries electricity. Distribution collects money from consumers.

That is why distribution is described as the crucial link of the sector.

3. Distribution as the weakest link

The lecture says that although distribution is the most important link, it is also the weakest link. The reason is that distribution has not attracted the same level of reform and investment as generation or transmission.

Generation was liberalised. Private players entered generation more strongly. Transmission also saw institutional reforms. But distribution still remains largely controlled by State-owned DISCOMs in many areas.

The major problems in distribution are:

High technical and commercial losses.

Electricity theft.

Poor infrastructure.

Weak billing and collection.

Lack of proper metering.

Political pressure on tariff.
Cross-subsidy burden.
Poor financial health of DISCOMs.
Limited private investment outside metro cities.

The lecture points out that private participation has happened mostly in metropolitan or high-paying urban areas. This is because such areas have consumers who can pay regularly and at higher tariffs. Private players are less attracted to rural or low-income areas because recovery may be difficult.

4. Meaning of AT&C losses

The lecture refers to **AT&C losses**, meaning **Aggregate Technical and Commercial losses**.

Technical loss means loss of electricity due to physical reasons in the system. For example, poor wires, old transformers, overloading, and inefficient equipment may cause electricity loss.

Commercial loss means loss caused by non-technical reasons. For example, theft of electricity, defective meters, unmetered supply, wrong billing, and non-payment of bills.

So:

AT&C loss = technical loss + commercial loss

Example: A DISCOM purchases 100 units of electricity. Only 75 units are properly billed and paid for. The remaining 25 units may be lost due to technical loss, theft, non-metering, or non-collection. That 25% is the loss.

High AT&C loss means the distribution company is losing money. If the DISCOM loses money, it cannot improve infrastructure, and if it cannot improve infrastructure, losses continue. This becomes a cycle.

5. Why metering is important

Proper metering is essential because the distribution licensee can bill consumers only if it knows how much electricity they have consumed.

If there is no meter, defective meter, or manipulated meter, the DISCOM cannot correctly calculate consumption. This leads to revenue loss.

Metering is also important for fairness. A consumer who uses more electricity should pay more. A consumer who uses less should pay less. Without proper metering, tariff discipline becomes weak.

6. Unbundling of State Electricity Boards

Earlier, many State Electricity Boards performed generation, transmission and distribution together. This was called a vertically integrated structure.

Reform required **unbundling**, meaning separation of functions:

Generation company handles generation.

Transmission company handles transmission.

Distribution company handles distribution.

This reduces conflict of interest and allows each segment to be regulated separately.

The lecture explains that restructuring of State Electricity Boards created separate entities for generation, transmission and distribution. This was meant to improve efficiency, transparency and accountability.

7. Where transmission ends and distribution begins

Transmission generally carries electricity at high voltage over long distances. Distribution begins where electricity is stepped down and is ready for supply to the end consumer.

In legal terms, section 2(19) defines **distribution system** as the system of wires and associated facilities between the delivery points on transmission lines or generating station connection and the point of connection to the consumer's installation.

So, the distribution system includes the wires, feeders, transformers, meters and associated facilities that connect electricity supply to final consumers.

8. Meaning of distribution licensee

Section 2(17) defines a **distribution licensee** as a licensee authorised to operate and maintain a distribution system for supplying electricity to consumers in his area of supply.

So, three elements are important:

First, the person must be a licensee.

Second, the licensee must operate and maintain a distribution system.

Third, the licensee supplies electricity to consumers in a defined area of supply.

The lecture says the distribution licensee is under an obligation to “supply” and not “sale.” Legally, however, the Act defines “supply” in relation to electricity as the **sale of electricity to a licensee or consumer**. So the better way to understand the lecture is this: a distribution licensee is not merely a trader buying and reselling electricity in an abstract market; it has a statutory duty to maintain the distribution system and supply electricity to consumers in its licensed area.

9. Area of supply

A distribution licensee does not operate everywhere. It operates in a defined **area of supply**. This area is specified by the Appropriate Commission while granting licence.

The area may be based on factors like:

- Revenue district.
- Municipal corporation limits.
- Specified urban area.
- Industrial area.
- Other notified supply area.

The exact area depends on the licence and regulations.

This is important because the licensee's duties, tariff obligations and consumer service obligations are tied to that area.

10. Distribution is a licensed activity

Generation is generally delicensed under the Electricity Act, 2003. But distribution remains a licensed and regulated activity.

Section 12 says no person shall transmit electricity, distribute electricity or undertake trading unless authorised by licence or exempted. Section 14 empowers the Appropriate Commission to grant licence for distribution of electricity.

This means a person cannot simply start supplying electricity to consumers as a distribution business. A licence is necessary.

The reason is simple: distribution directly affects consumers. It involves public supply, billing, metering, consumer protection, infrastructure, safety, tariff and universal service obligations. Therefore, it must be regulated.

11. Licence period

The lecture mentions that once conditions are fulfilled, a distribution licence can be granted for 25 years.

The important exam point is that distribution licence is not a casual permission. It is a long-term regulated authorisation because distribution requires heavy infrastructure investment and continuous consumer service.

12. Cross-subsidy model

This is one of the most important parts of the lecture.

Cross-subsidy means one class of consumers pays more so that another class can pay less.

For example, suppose the actual cost of supply is ₹5 per unit.

A domestic or agricultural consumer may be charged ₹4 per unit.
An industrial or commercial consumer may be charged ₹6 per unit.

Here, the industrial/commercial consumer is paying more than cost, and that extra amount helps subsidise the domestic/agricultural consumer.

So:

Higher-paying consumer subsidises lower-paying consumer.

Traditionally, residential and agricultural consumers receive subsidised electricity, while industrial and commercial consumers pay higher tariffs.

13. Why cross-subsidy is both necessary and problematic

Cross-subsidy has a social purpose. Electricity is an essential service. Poor households, rural users and agricultural consumers may not be able to pay full cost-reflective tariffs. If electricity becomes unaffordable, electrification will remain only on paper.

So cross-subsidy supports inclusiveness.

But cross-subsidy also creates problems. Industrial and commercial consumers pay high tariffs. If their tariff becomes too high, they may shift to captive power, open access, or another supplier. This reduces the DISCOM's revenue. Then the DISCOM is left with subsidised consumers and becomes financially weaker.

So the law wants cross-subsidy to be reduced gradually, not suddenly removed.

Section 42 recognises open access and also permits cross-subsidy surcharge where consumers receive supply from a person other than the distribution licensee of their area. The surcharge is meant to meet the current level of cross-subsidy, and the Act contemplates progressive reduction of such surcharge.

14. Why cross-subsidy cannot be removed immediately

The lecture correctly explains that cross-subsidy cannot be eliminated in one stroke. If suddenly every consumer has to pay full cost, many poor or rural consumers may stop using electricity.

Electricity reform cannot mean supply only to rich or industrial consumers. The growth of the electricity sector must be inclusive. Therefore, tariff reform must balance two goals:

Financial health of DISCOMs.
Affordable electricity for vulnerable consumers.

That is why gradual reduction is preferred.

15. Parallel licensing: the major reform idea

The most important concept in this lecture is **parallel licensing**.

Parallel licensing means that **two or more distribution licensees may be allowed to supply electricity in the same area through their own distribution systems**.

Section 14 contains the key provision. The sixth proviso says the Appropriate Commission may grant a licence to two or more persons for distribution of electricity through their own distribution system within the same area, subject to additional requirements relating to capital adequacy, creditworthiness and code of conduct. It also says that an applicant who complies with all requirements shall not be refused licence merely because another licensee already exists in the same area for the same purpose.

In simple language:

The existence of one DISCOM in an area does not automatically block another DISCOM from entering that area.

16. Purpose of parallel licensing

The purpose is consumer choice and competition.

The lecture gives the example of telecom. A consumer can choose Airtel, Jio, Vodafone-Idea or BSNL. Similarly, the idea is that electricity consumers should also have a choice between suppliers.

If one licensee gives poor service, the consumer should be able to shift to another. If one licensee charges too much or gives unreliable supply, competition may pressure it to improve.

So parallel licensing is meant to create:

Consumer choice.
Competition.
Better service quality.
Competitive tariff.
Improved efficiency.

Improved financial discipline.
Pressure on licensees to perform.

17. Parallel licensing is not automatic

This is a very important legal point.

The word used in the sixth proviso to section 14 is “**may**”. This means the Appropriate Commission has discretion. It is not automatically bound to grant licence to every applicant.

Even if an applicant satisfies capital adequacy, creditworthiness and code of conduct requirements, the Commission can still examine whether granting a parallel licence would promote competition or distort the market.

So the principle is:

Existing licensee in the area is not a ground for refusal by itself. But parallel licence is also not an automatic right.

The Commission must examine the overall public interest, consumer interest, market effect and statutory conditions.

18. Conditions for parallel licence

The lecture identifies three major requirements:

Capital adequacy.
Creditworthiness.
Code of conduct.

Capital adequacy means the applicant must have enough financial capacity to create and maintain distribution infrastructure.

Creditworthiness means the applicant should be financially reliable and able to raise funds or meet obligations.

Code of conduct means the applicant must follow regulatory norms and behave fairly in the market.

These additional requirements are prescribed under the Distribution of Electricity Licence (Additional Requirements of Capital Adequacy, Creditworthiness and Code of Conduct) Rules, 2005, made under section 176 read with the sixth proviso to section 14.

19. Universal service obligation under section 43

Section 43 is very important. It says every distribution licensee shall, on application by the owner or occupier of premises, give supply of electricity within one month after receipt of the application, subject to statutory conditions and extensions where distribution mains or sub-stations are required.

This means a distribution licensee cannot only serve profitable consumers and ignore others in its area.

In simple terms:

If a person in the licensed area applies for supply and fulfils the requirements, the distribution licensee has a duty to supply.

This duty is called **universal service obligation**.

20. Why universal service obligation matters in parallel licensing

Parallel licensing can create competition, but it can also create cherry-picking.

Suppose Licensee A is already supplying all consumers: households, farmers, small shops, industries, poor consumers and high-paying consumers.

Then Licensee B enters the same area and tries to supply only industrial and commercial consumers because they pay more and default less.

What happens then?

Licensee A loses its profitable consumers but remains responsible for subsidised or low-paying consumers. Its financial position becomes worse. This may distort the market instead of improving it.

That is why universal service obligation is important. A parallel licensee should not be allowed to enter only to capture rich consumers and avoid difficult consumers.

21. Meaning of cherry-picking

Cherry-picking means selecting only the most profitable consumers and avoiding less profitable consumers.

In distribution, cherry-picking usually means targeting industrial and commercial consumers because they pay higher tariffs and are more reliable payers.

This is a major challenge in parallel licensing.

Example: A new licensee enters a city and offers electricity only to malls, factories, IT parks and large commercial buildings. It avoids slum areas, villages, low-income households and agricultural consumers. This would damage the existing DISCOM's financial structure and may harm universal access.

So, the regulator must prevent parallel licensing from becoming selective profit-taking.

22. Infrastructure duplication problem

The sixth proviso to section 14 allows parallel licensees to distribute electricity through their **own distribution system**. This means the second licensee may lay its own wires, meters, feeders and related infrastructure.

This creates a practical problem.

Indian cities are already congested with electric poles, wires, telecom cables, roads, drains and buildings. If every licensee creates separate wires in the same area, there may be duplication of infrastructure, higher cost, safety problems and urban congestion.

So parallel licensing creates a conflict:

Competition needs multiple players.
But multiple networks may create duplication and cost.

This is one reason parallel licensing has been difficult to implement widely.

23. Why DISCOMs resist parallel licensing

Existing DISCOMs often oppose parallel licensing because they fear losing high-paying consumers.

Their concern is that private or second licensees may attract only industrial and commercial consumers, leaving the old DISCOM with residential, agricultural or subsidised consumers.

This affects the old DISCOM's ability to recover revenue. So existing DISCOMs may object before the Commission.

Some objections may be genuine. For example, the new applicant may lack financial strength or infrastructure. But some objections may be defensive, based on fear of competition.

The regulator must separate genuine objections from anti-competitive objections.

24. Minimum area requirement

The lecture says one challenge is that the minimum area requirement may be large, such as a revenue district. This can discourage applicants because building a distribution system for a large area requires heavy investment.

The legal position has also evolved. The Distribution of Electricity Licence Rules, as amended in 2022, clarify that for grant of a distribution licence within the same area under the sixth proviso to section 14, the minimum area of supply may be the area covering a Municipal Corporation, three adjoining revenue districts, or a smaller area as notified by the Appropriate Government.

So, the minimum area requirement can be a barrier because it affects cost, feasibility and business planning.

25. Tariff and parallel licensing

The lecture refers to section 62 and says that the Appropriate Commission may fix only the maximum ceiling of tariff for retail sale/supply in a competitive situation.

Section 62 deals with determination of tariff by the Appropriate Commission. It also contains a provision that where there is more than one distribution licensee in the same area, the Commission may fix only the maximum ceiling of tariff for retail sale of electricity to promote competition.

The idea is that where there are multiple distribution licensees, price competition may work. Instead of fixing every tariff rigidly, the Commission may set a ceiling and allow licensees to compete below that ceiling.

In simple terms:

Regulator may say: you cannot charge above this price; below that, compete.

26. Benefits of parallel licensing

The lecture identifies several benefits.

First, it promotes competition. More players can reduce monopoly behaviour.

Second, it gives choice to consumers. Consumers are not trapped with one licensee.

Third, it improves service quality. Licensees will try to avoid losing consumers.

Fourth, it may improve tariff efficiency. Competition may reduce unnecessary cost.

Fifth, it may improve financial discipline. Licensees must perform better to retain consumers.

Sixth, it encourages investment. New players may bring capital and technology.

Seventh, it may improve consumer satisfaction. Poor service can lead consumers to switch.

27. Challenges of parallel licensing

The lecture identifies several challenges.

First, duplication of wires and infrastructure may increase cost and congestion.

Second, cherry-picking may harm existing DISCOMs.

Third, cross-subsidy may become difficult if high-paying consumers leave.

Fourth, existing DISCOMs may oppose new entrants.

Fifth, regulators may hesitate to approve applications.

Sixth, minimum area requirements may discourage applicants.

Seventh, universal service obligation may become difficult to enforce.

Eighth, competition may distort the market if not properly regulated.

So parallel licensing is not automatically good or bad. It depends on regulatory design.

28. Franchisee model

The lecture briefly mentions that if a distribution licensee uses another person to undertake distribution work, that person may not need a separate licence. This is similar to a franchisee model.

In a franchisee model, the licence remains with the distribution licensee, but certain functions like billing, collection, local distribution management or supply operations may be handled by another entity.

The key difference is:

Parallel licensee has its own licence.

Franchisee works under the licence of an existing distribution licensee.

29. Case law: Noida Power Company Ltd. v Paschimanchal Vidyut Vitran Nigam Ltd.

This is the main case discussed in the lecture.

In this case, Noida Power Company Ltd. was already the distribution licensee in the Greater Noida area. Paschimanchal Vidyut Vitran Nigam Ltd. applied for and was granted a second/parallel distribution licence in the same area. Noida Power challenged the grant.

APTEL considered the scope of the sixth proviso to section 14. The Tribunal explained that parallel licensing is an enabling provision intended to promote competition, but the applicant must satisfy statutory and regulatory requirements. It also emphasised that the existence of an earlier licensee is not by itself a ground to refuse a second licence.

The important point from the lecture is that the Commission must examine whether the applicant genuinely has the ability to discharge immediate statutory obligations. A distribution licensee has duties from the date licence is granted; it cannot be given a licence merely on the basis of future promises or a long phased plan if it is not ready to meet consumer obligations.

30. Legal principle from Noida Power case

The Noida Power case gives three important principles.

First, parallel licence is possible under section 14.

Second, the existence of an existing licensee cannot alone justify refusal.

Third, grant of parallel licence is still discretionary and must be based on proper satisfaction of statutory requirements such as capital adequacy, creditworthiness, infrastructure capacity and ability to meet universal service obligations.

So the case supports competition but not careless licensing.

31. Why the second licence was problematic in that case

According to the lecture, the second licensee was given time of up to five years to develop infrastructure. There was also concern that the applicant did not show sufficient capital of its own and relied more on State support/assurance.

The Tribunal's concern was that once a licence is granted, the licensee has an immediate statutory responsibility to supply electricity. A licence cannot be granted first and infrastructure created much later if that defeats the statutory scheme.

Simple exam point:

A parallel licensee must be capable of supplying electricity and meeting statutory obligations; it cannot merely promise to build capacity later.

32. Correct understanding of “shall not be refused”

The sixth proviso says that an applicant who complies with all requirements shall not be refused licence on the ground that there already exists a licensee in the same area.

This does **not** mean every applicant must automatically get a licence.

It only means:

Existing licensee is not a sufficient ground for refusal.

But the Commission may still refuse for other valid reasons, such as:

- Lack of capital adequacy.
- Lack of creditworthiness.
- Lack of technical capability.
- Risk of market distortion.
- Failure to meet universal service obligation.
- Consumer interest concerns.
- Inadequate distribution system plan.

That is the precise legal meaning.

33. Distribution and consumer choice: telecom analogy

The lecture uses the telecom example. In telecom, consumers can choose between different service providers. The electricity law tries to imagine something similar.

But electricity is more difficult than telecom because electricity requires physical wires, transformers, substations, safety standards and universal service obligations. Mobile telecom competition can happen using spectrum and towers, but electricity distribution often requires physical local infrastructure.

So the analogy is useful, but not perfect.

34. Why distribution reform is harder than generation reform

Generation reform is easier because many generators can produce electricity and sell into the grid. Distribution reform is harder because distribution involves direct retail supply, local infrastructure, consumers, billing, political sensitivity, subsidies and public service obligations.

A generation company can choose its business model more freely. But a distribution licensee must serve consumers in its licensed area and comply with tariff, metering, standards of performance and consumer protection rules.

Therefore, distribution liberalisation is more sensitive and complex.

Duties and Powers of Distribution Licensee

Keywords

Open access — use of distribution/transmission network by a consumer or licensee to receive electricity from another source.

Wheeling — carrying electricity through another licensee's wires.

Wheeling charges — charges paid for using the network.

Cross-subsidy surcharge — amount paid by open access consumer to compensate the DISCOM for loss of cross-subsidy.

Additional surcharge — amount paid to meet fixed cost of DISCOM arising from its obligation to supply.

Universal service obligation — duty to supply electricity to eligible applicants in the area of supply.

Owner or occupier — both owner and lawful occupant/tenant can apply for electricity.

Complete application — proper application with documents, charges and compliances.

Security deposit — money taken by licensee to protect against non-payment.

Pre-payment meter — meter where consumer pays in advance; normally removes need for consumption security.

Supply Code — regulatory code governing billing, recovery, disconnection, restoration, meters and related issues.

1. Main theme of this lecture

The earlier lecture dealt with **distribution as a licensed activity** and the concept of **parallel licensing**. This continued lecture moves to the next question: once a person becomes a distribution licensee, **what are its legal duties and powers?**

The main provisions discussed are:

Provision	Topic
Section 42	Duties of distribution licensee and open access
Section 43	Duty to supply electricity on request
Section 44	Exceptions from duty to supply
Section 45	Power to recover electricity charges
Section 46	Power to recover expenditure for electric line/plant
Section 47	Power to require security
Section 50	Electricity Supply Code

Two transcript corrections are important at the beginning. The word repeatedly appearing as “**search charge**” should be understood as **surcharge**, especially **cross-subsidy surcharge**. The word appearing as “**willing charges**” should be understood as **wheeling charges**.

2. Section 42: basic duty of distribution licensee

Section 42(1) says that it is the duty of every distribution licensee to:

develop and maintain an efficient, coordinated and economical distribution system in its area of supply; and supply electricity according to the Act.

This is not a casual responsibility. It is a **statutory duty**. A distribution licensee cannot say that it will only collect revenue but will not develop wires, transformers, substations or distribution infrastructure. The Act makes it responsible for the entire distribution system in its licensed area. Section 42 expressly says that the licensee must develop and maintain an efficient, coordinated and economical distribution system in its area of supply.

In simple words, the distribution licensee must ensure that electricity reaches consumers properly. It must lay wires, install transformers, maintain substations, repair faults, manage distribution infrastructure and make supply possible.

3. Open access under Section 42

Open access means that a consumer or another authorised person can use the existing distribution network to receive electricity from someone other than the local distribution licensee.

For example, suppose an industrial consumer is located in the area of DISCOM A. But the consumer wants to buy electricity from Generator B or Licensee C because the price is better. The consumer cannot physically carry electricity in a truck. It must use wires. So the consumer

may use DISCOM A's network to receive electricity from Generator B or Licensee C, subject to charges and regulatory conditions.

This is called **open access**.

Section 42(2) says the State Commission shall introduce open access in phases, subject to conditions including cross-subsidy and operational constraints. So open access was not meant to be introduced suddenly for everyone. It was meant to come gradually because the electricity sector was historically controlled and heavily regulated.

The purpose of open access is:

- to bring competition;
- to give choice to consumers;
- to reduce monopoly power of one DISCOM;
- to allow large consumers to purchase power from other sources;
- to make the electricity market more transparent and competitive.

4. Why open access is introduced gradually

The electricity sector was historically a controlled sector. The State used to dominate generation, transmission and distribution. If the entire sector is opened suddenly, it may create financial and operational instability.

Therefore, the Act follows a gradual model. First, large consumers were allowed open access. Then, depending on market development, regulatory readiness and network capacity, open access could be expanded further.

The idea is: **competition is desirable, but uncontrolled disruption is not desirable.**

5. Cross-subsidy surcharge

When a consumer leaves the local DISCOM and buys electricity from another supplier through open access, the local DISCOM loses revenue. This is important because the DISCOM may have been using revenue from high-paying consumers to subsidise low-paying consumers.

For example:

A large industrial consumer pays high tariff.

That high tariff helps the DISCOM supply cheaper electricity to domestic or agricultural consumers.

If the industrial consumer shifts to open access, the DISCOM loses that high-paying consumer. Then the DISCOM may struggle to continue subsidised supply to poorer consumers.

To deal with this, Section 42 allows a **surcharge** in addition to wheeling charges. This surcharge is used to meet the current level of cross-subsidy in the area of supply. The Act also says that surcharge and cross-subsidy should be progressively reduced.

So, cross-subsidy surcharge is not a punishment. It is a balancing mechanism. It allows consumer choice through open access, but also protects the DISCOM from sudden revenue loss.

6. No surcharge for captive generation used for own consumption

Section 42 also says that cross-subsidy surcharge is not leviable where open access is provided to a person who has established a **captive generating plant** for carrying electricity to the destination of its own use.

This means if a company generates electricity in its own captive power plant and uses the distribution/transmission system to carry that electricity for its own use, cross-subsidy surcharge is not charged.

Reason: the law wants to encourage generation capacity. If a person generates electricity for self-consumption, the law does not treat it the same way as buying from an outside supplier to escape DISCOM tariff.

Simple example:

A factory owns a captive power plant 50 km away.

The factory wants to use that electricity for its own industrial unit.

It uses the network to transport electricity.

It may have to pay network/wheeling charges, but cross-subsidy surcharge is not payable in such captive self-use cases.

7. Open access for consumers above 1 MW

The Act specifically pushed open access for large consumers. Section 42 says that the State Commission must provide open access to all consumers requiring supply where the maximum power to be made available at any time exceeds **1 megawatt**.

This is important because large consumers are usually industrial or commercial consumers. They consume a lot of electricity and can meaningfully participate in competitive procurement.

So, the law begins with large consumers because they are commercially capable of using open access.

8. Wheeling charges

Wheeling means transporting electricity through the distribution system.

If a consumer buys electricity from someone else but uses the local DISCOM's wires, the DISCOM must be paid for use of its network. That payment is called **wheeling charge**.

Simple example:

Consumer X buys electricity from Generator Y.
But the electricity passes through DISCOM Z's distribution wires.
DISCOM Z is not selling the electricity, but its infrastructure is being used.
So Consumer X must pay wheeling charges to DISCOM Z.

Section 42(3) says where a person requires supply from a generating company or licensee other than the local distribution licensee, that person may require the distribution licensee to wheel such electricity, and the distribution licensee's duty is that of a **common carrier providing non-discriminatory open access**.

9. Additional surcharge

Section 42(4) deals with **additional surcharge**. This is different from cross-subsidy surcharge.

Additional surcharge is imposed to meet the **fixed cost** of the distribution licensee arising from its obligation to supply.

Why is this needed?

A DISCOM plans its power purchase and infrastructure based on expected demand in its area. It may enter long-term power purchase contracts. It may have fixed costs like financing cost, depreciation, interest, tax liability and return on capital. If a big consumer shifts away through open access, the DISCOM may still remain burdened with fixed costs.

Therefore, Section 42(4) says where the State Commission permits a consumer or class of consumers to receive supply from someone other than the local distribution licensee, that consumer may be liable to pay additional surcharge on wheeling charges to meet the fixed cost of the distribution licensee arising from its obligation to supply.

So:

Cross-subsidy surcharge = protects existing subsidy structure.
Additional surcharge = compensates stranded fixed cost of DISCOM.
Wheeling charge = payment for use of network.

10. Section 43: universal service obligation

Section 43 is one of the most important provisions in distribution law.

It says that every distribution licensee shall, on application by the **owner or occupier** of any premises, give supply of electricity to such premises within **one month** after receipt of the application.

This is called **universal service obligation**, although the exact phrase is not used in the section.

The idea is simple:

Electricity is not a luxury today. It is necessary for dignified life, education, health, communication, work and development. So, if a person applies for electricity connection and fulfils legal requirements, the distribution licensee must supply electricity.

11. Owner or occupier: even tenant can apply

Section 43 uses the words **owner or occupier**.

This is important. It means electricity connection is not limited only to the legal owner of the premises. A lawful occupier, including a tenant, may also apply.

So, the distribution licensee cannot automatically refuse supply merely because the applicant is not the owner. The applicant must, of course, comply with documents, charges, safety rules and other legal requirements.

This reflects equality and universality. Electricity supply is connected with actual occupation and use of premises, not only ownership title.

12. One-month timeline

The general rule is that electricity supply must be given within **one month** from the date of receipt of a complete application.

But the timeline can change in special situations. If supply requires extension of distribution mains or commissioning of a new sub-station, supply must be given after such extension or commissioning within the period specified by the Appropriate Commission. If the area is a village, hamlet or area where no supply infrastructure exists, the Commission may extend the period needed for electrification.

So the rule is:

If infrastructure exists → supply within one month.

If new infrastructure is needed → extended timeline allowed.

If rural/remote area has no supply system → Commission may extend time.

13. Complete application is necessary

The one-month period does not begin from an incomplete or defective request. The explanation to Section 43 says that “application” means an application complete in all respects, in the proper form, with documents showing payment of necessary charges and other compliances.

Therefore, the consumer also has duties:

- submit proper application;
- provide required documents;
- pay necessary charges;
- comply with safety and supply conditions.

Only then the statutory duty of the licensee becomes fully enforceable.

14. Duty to provide electric plant or line

Section 43(2) says it is the duty of every distribution licensee to provide, if required, electric plant or electric line for giving supply to the premises.

This means the licensee cannot simply say, “There is no wire, so no connection.” If infrastructure is required and the applicant has complied with the legal requirements, the distribution licensee must take necessary steps to provide the line or plant, subject to cost recovery under law.

15. Penalty for failure to supply

Section 43(3) says that if the distribution licensee fails to supply electricity within the specified period, it may be liable to penalty up to **₹1,000 for each day of default**.

This is why Section 43 has real force. It is not merely moral language. It creates a legally enforceable duty.

16. Section 44: exception from duty to supply

Section 44 says Section 43 does not require a distribution licensee to supply electricity if it is prevented by cyclone, floods, storms or other occurrences beyond its control.

So, if there is a natural disaster or an event beyond the licensee’s control, the licensee may not be penalised for delay.

But ordinary administrative delay, negligence, unwillingness, or arbitrary refusal will not be protected.

17. Meaning of universal service obligation

Universal service obligation means essential infrastructure service should be available:

to all eligible persons, without discrimination, at reasonable/affordable conditions.

The lecture connects this idea with telecommunication law. The idea originally became prominent in telecom: basic communication services should be available to all people, including rural and poor populations.

In electricity, the same idea means that supply should not be restricted only to profitable consumers or urban areas. Distribution licensees serve a public function. They are not ordinary private sellers. They are public utilities.

18. Universal does not mean automatic door-to-door connection

A very good conceptual question is raised in the lecture: if Section 43 requires an application, how is the obligation “universal”?

The answer is:

Universal service obligation means every eligible person has a right to apply and receive supply if conditions are met. It does not mean the licensee must automatically give electricity to every person without application.

So Section 43 has two sides:

Consumer must apply and comply.

Licensee must supply within time.

The deeper policy question is whether the State should also create awareness and encourage people to apply, especially in rural or low-income areas. Legally, Section 43 is triggered by application; socially, universal electrification may need awareness, affordability and infrastructure campaigns.

19. Is universal service only about connection or also quality?

This is another important question from the lecture.

Does Section 43 mean only that a wire must reach the premises? Or does it also include reliable, 24x7, quality supply?

Strictly, Section 43 deals with the **duty to supply on request**. But if read with Section 42 and standards of performance regulations, the broader idea is not merely formal connection. A consumer needs meaningful electricity supply.

So, for exam purposes, write this carefully:

Section 43 creates a right to obtain supply on request. Section 42 requires an efficient, coordinated and economical distribution system. Together, these provisions support the broader idea that electricity supply should be real, reliable and non-discriminatory, not merely symbolic.

20. Section 45: power to recover charges

Section 45 gives the distribution licensee power to recover charges for electricity supplied.

The charges may include:

- fixed charge;
- charge for actual electricity consumed;
- rent or charges for electric meter;
- charges for electrical plant provided by the licensee.

Section 45 also says charges must be fixed according to methods and principles specified by the State Commission and must be published properly. The licensee cannot show undue preference or discrimination while fixing charges.

Simple meaning:

A licensee has a duty to supply, but the consumer has a duty to pay.

21. Difference between Section 45 and Sections 61–62

Section 45 deals with the licensee's power to recover charges from consumers.

Sections 61 and 62 deal with tariff principles and tariff determination by the Commission.

So:

Sections 61–62 = regulatory tariff framework.

Section 45 = actual power of distribution licensee to recover charges according to tariff/licence conditions.

22. Section 46: power to recover expenditure

Section 46 allows the State Commission to authorise a distribution licensee to recover expenses reasonably incurred in providing an electric line or electrical plant for giving supply under Section 43.

Example:

A person applies for a new connection in an area where an additional transformer or line extension is needed. The DISCOM may incur expenditure to create that infrastructure. Under Section 46 and relevant regulations, the DISCOM can recover reasonable expenses from the applicant.

This prevents unfair burden on the licensee and other consumers.

23. Section 47: power to require security

Section 47 allows the distribution licensee to require reasonable security from a person seeking supply.

Why? Because the licensee supplies electricity first and receives payment later. If the consumer defaults, the licensee suffers loss. Security deposit protects the licensee.

Section 47 allows security for:

- payment for electricity supplied;
- provision of electric line, plant or meter.

If the consumer fails to give security, the licensee may refuse supply for the period of failure. If security becomes insufficient, the licensee may require additional security after notice. The licensee must pay interest on the security and refund it on request as per law.

24. Pre-payment meter and security

Section 47(5) says the distribution licensee is not entitled to require security for electricity supply if the person is prepared to take supply through a **pre-payment meter**.

Reason is simple. In a prepaid system, the consumer pays first and consumes later. So the risk of non-payment is reduced.

However, the lecture discusses a case where the consumer wanted a prepaid meter, but the licensee argued that prepaid meters were not available. Courts have sometimes accepted that if prepaid meter facility is not practically available under the applicable regulations, the licensee may still require security deposit. The case discussed appears to be **Sarvottam Ispat Ltd. v**

Southern Power Distribution Company, where the issue concerned Section 47(5), prepaid meter availability and demand for security/additional security.

Simple exam point:

If prepaid meter is available and the consumer is prepared to use it, security for consumption should not be demanded. But where prepaid metering is not practically/regulatorily available, courts may permit security deposit to protect the licensee.

25. Section 50: Electricity Supply Code

Section 50 requires the State Commission to specify an Electricity Supply Code.

This Code may deal with:

- recovery of electricity charges;
- billing intervals;
- disconnection for non-payment;
- restoration of supply;
- prevention of meter tampering;
- entry for disconnection/removal of meter;
- replacement or maintenance of meters, lines and plants;
- other supply-related matters.

Section 50 is important because many practical consumer-licensee disputes are governed by the Supply Code.

26. Case law 1: Punjab State Electricity Board Ltd. v Zora Singh

This case is important for understanding the public duty of electricity supply.

The case was under the older Indian Electricity Act, 1910, especially Section 22. The Supreme Court explained that electricity undertakings are public utilities. Since they serve the public under statutory licence, they must provide adequate and reasonably efficient service without unjust discrimination and at reasonable rates to persons who apply and comply with rules. APTEL later referred to this case while explaining that Section 43 of the 2003 Act embodies the principle of universal supply obligation.

Simple legal principle:

Electricity supply is a public utility function. A licensee cannot act arbitrarily or discriminate between similarly placed applicants.

27. Case law 2: Sanjay Balvantrai Desai v Dakshin Gujarat Vij Company Ltd.

This case deals with a very practical issue: whether a new purchaser of premises must clear the electricity dues of the previous owner before getting a new connection.

The Gujarat High Court held that the distribution licensee could not refuse a new connection merely because dues of the previous consumer were unpaid, where the statute did not authorise such recovery from the new applicant. The court examined Sections 43, 50, 56 and related regulation-making powers and held that denial of supply on that ground was not sustainable.

However, this point must now be read carefully because the Supreme Court later clarified the law in **K.C. Ninan v Kerala State Electricity Board**. In K.C. Ninan, the Supreme Court held that the duty to supply under Section 43 is not absolute; the applicant must comply with statutory conditions and pay necessary charges, and the supply code may validly require clearance of electricity arrears connected with the premises in certain situations.

So, for exam writing:

Lecture position: New purchaser should not automatically be forced to pay old owner's dues unless law/regulation authorises it.

Current safer position after K.C. Ninan: Section 43 duty is not absolute; if valid statutory regulations/supply code require payment of past dues for the premises, the licensee may insist on compliance before supply.

28. Case law 3: BEST v MERC / Tata Power consumer switching case

This case is important for consumer choice, parallel licensing and universal service obligation.

In the Mumbai area, BEST was a local authority/deemed distribution licensee. Tata Power was also a distribution licensee in overlapping areas. Consumers wanted to shift from BEST to Tata Power because Tata Power's tariff was lower. BEST resisted and argued that Tata Power could not supply in that manner.

The Supreme Court accepted that consumers could approach another distribution licensee in the same area. However, where BEST was a local authority, Tata Power could not force use of BEST's network; Tata Power had to supply through its own network. The Supreme Court recognised that Section 43 casts universal service obligation on distribution licensees to give supply to owners or occupiers within their area of supply.

APTEL had also held that Tata Power, as distribution licensee, had a statutory duty under Section 42(1) to develop and maintain its own distribution system and supply electricity in accordance with the Act.

Simple legal principle:

A second distribution licensee cannot avoid its duty to supply merely because a local authority is already operating in that area. If necessary, it must develop its own distribution network.

29. Case law 4: Sarvottam Ispat Ltd. and prepaid meter/security deposit issue

The lecture discusses a case where a high-consumption consumer was asked to pay security deposit/additional security. The consumer argued that it had asked for a prepaid meter and therefore, under Section 47(5), no security should be demanded.

The issue turned on whether prepaid meter facility was actually available. In the case identified from the transcript as **Sarvottam Ispat Ltd.**, the court considered Section 47(5), regulations and the practical availability of prepaid meters. The reasoning was that Section 47(5) protects a consumer willing to take supply through prepaid meter, but if prepaid meter facility is not available under the applicable regulatory framework, the distribution licensee may still demand security deposit/additional security.

Simple legal principle:

Section 47 protects consumers from unnecessary security demand where prepaid supply is available, but it does not destroy the licensee's right to protect itself where prepaid metering is not practically available.

30. Important conceptual balance

The lecture's final theme is balance.

The law protects consumers by giving them:

- right to apply for electricity;
- right to supply within one month;
- right against arbitrary refusal;
- right to non-discriminatory treatment;
- right to grievance redressal;
- right to open access in appropriate cases.

But the law also protects distribution licensees by allowing them to:

- recover charges;
- recover reasonable expenditure;
- ask for security;
- receive wheeling charges;
- receive surcharge/additional surcharge;

- refuse or delay supply in genuine exceptional cases.

So, electricity distribution law is not one-sided. It balances **consumer access** with **financial viability of the distribution licensee**.

31. Simple examples for exam understanding

Example 1: Tenant applies for electricity

A tenant living in a rented house applies for a connection. The DISCOM cannot reject the application only because the tenant is not the owner. Section 43 allows an owner or occupier to apply. The tenant must provide required documents, pay charges and comply with supply conditions.

Example 2: Industrial consumer uses open access

A factory in DISCOM A's area wants to buy cheaper electricity from Generator B. It uses DISCOM A's wires. It must pay wheeling charges, and depending on the law and Commission's order, may also pay cross-subsidy surcharge and additional surcharge.

Example 3: Captive power plant

A company generates electricity in its own captive power plant and wants to carry that electricity to its own factory. Cross-subsidy surcharge is not leviable for captive self-use, though network charges may still apply.

Example 4: New purchaser and old electricity dues

A person buys a property where the old owner had unpaid electricity dues. As per the lecture's Gujarat High Court case, the new purchaser should not automatically be denied connection merely for old dues. But after the Supreme Court's K.C. Ninan decision, the safer current position is that if valid supply regulations require payment of such dues connected with the premises, the applicant may have to comply.

Example 5: Prepaid meter

A consumer says: "I will take electricity through prepaid meter, so do not ask for security deposit." If prepaid meter supply is available, Section 47(5) supports the consumer. If such facility is not available under the applicable system/regulations, the licensee may be allowed to demand security.

OPEN ACCESS

Important keywords

Open access — non-discriminatory use of transmission/distribution network by eligible users.

Power market — organised system where electricity is bought and sold.

Power exchange — platform for trading electricity.

Day-ahead market — electricity bought/sold one day before delivery.

Real-time market — electricity bought/sold close to actual delivery.

PPA — Power Purchase Agreement; contract for sale and purchase of electricity.

UI charges — old deviation-related charges for unscheduled interchange.

Deviation — difference between scheduled and actual injection/drawal.

Overdrawal — drawing more electricity than scheduled.

Over-injection — injecting more electricity than scheduled.

Grid Code — operational rules for secure and reliable grid operation.

Frequency — indicator of real-time balance between supply and demand.

Ancillary services — support services for grid reliability and stability.

Inter-State open access — open access across State boundaries.

Intra-State open access — open access within one State.

Long-term access — access for long duration.

Medium-term open access — access for intermediate duration.

Short-term open access — access for short duration.

Open Access under the Electricity Act, 2003

1. Main theme of the lecture

Earlier topics covered **generation, transmission and distribution**. Generation was liberalised and generally made a delicensed activity. Transmission and distribution remained licensed and regulated activities. After studying these three segments, this lecture moves to the broader reform idea that connects all of them: **open access**.

The lecture's main point is this:

Open access is the mechanism through which competition is introduced into the electricity market.

Without open access, a consumer would be forced to buy electricity only from the local distribution licensee, and a generator would depend only on limited buyers. With open access, eligible consumers and licensees can use transmission or distribution networks to buy electricity from other sources, subject to charges and regulations.

2. Meaning of open access

Section 2(47) of the Electricity Act, 2003 defines **open access** as the non-discriminatory provision for use of transmission lines, distribution systems or associated facilities by any licensee, consumer or generating company, according to regulations made by the Appropriate Commission.

In simple language, open access means:

The owner of the wire cannot unfairly stop others from using the wire, if they are legally entitled to use it and pay the required charges.

Example: A large industrial consumer is located in the area of DISCOM A, but wants to buy cheaper electricity from Generator B. The electricity must still pass through transmission/distribution wires. Open access allows that consumer to use the network on a non-discriminatory basis.

So, open access separates two things:

Who owns the wire and who sells the electricity.

3. Why open access is important

Open access is important because electricity reform is not complete merely by increasing generation. If a generator produces electricity but cannot reach buyers, the market remains

restricted. Similarly, if a consumer wants cheaper or better electricity but cannot use the network, consumer choice becomes meaningless.

Open access tries to achieve four things:

First, it promotes competition.

Second, it gives choice to eligible consumers.

Third, it allows generators to find buyers beyond traditional DISCOMs.

Fourth, it helps create a power market where electricity can be traded more efficiently.

That is why the lecture calls open access almost the “soul” of the Electricity Act, 2003. The Act’s preamble itself refers to development of the electricity industry, promotion of competition, protection of consumer interest and supply of electricity to all areas. Open access is one of the main tools for achieving that objective.

4. Preamble and statutory interpretation

The lecture spends time explaining the importance of the **preamble**.

In statutory interpretation, the preamble helps understand the object and purpose of the law. It is especially useful when a provision is ambiguous. The preamble cannot override the clear words of the Act, but it can help explain why the Act was enacted and what policy direction it follows.

The Electricity Act, 2003 aims to develop the electricity industry, promote competition, protect consumer interest, rationalise tariffs, ensure transparent subsidies and create independent regulatory mechanisms. Therefore, when we read open access provisions, we should read them in light of these objectives.

In simple words:

If there is doubt, interpret the Act in a way that supports competition, consumer interest and sectoral development.

5. Open access and competition

Competition means more than one player participating in the market. In electricity law, competition can exist at different levels:

Generators may compete to sell power.

Traders may compete to arrange power transactions.

Distribution licensees may compete in the same area in some cases.

Power exchanges may create market-based price discovery.
Large consumers may choose suppliers through open access.

Open access supports this by preventing the transmission or distribution network from becoming a monopoly barrier.

For example, if only one DISCOM owns the wires and refuses to carry electricity from other suppliers, no real competition can exist. Open access prevents that by requiring non-discriminatory network use.

6. Role of independent regulatory commissions

The lecture says the rules of the game are determined by independent regulatory bodies. This is important because the Electricity Act, 2003 reduced direct State monopoly and created a framework where independent commissions regulate the sector.

At the central level, the **Central Electricity Regulatory Commission**, or CERC, regulates inter-State matters.

At the State level, the **State Electricity Regulatory Commissions**, or SERCs, regulate intra-State matters.

Open access depends heavily on regulations because the Act gives the broad principle, but the details are decided by the Appropriate Commission. These details include eligibility, charges, scheduling, congestion management, application process, priority and settlement.

7. Link with tariff policy and competitive bidding

The lecture refers to tariff policy and competitive bidding. A small correction is useful here: India had a **Tariff Policy in 2006**, and it was later **revised in 2016**. The 2016 Revised Tariff Policy continued the emphasis on competition, consumer interest and procurement through competitive processes.

The simple idea is this:

Instead of every tariff being fixed only through administrative calculation, electricity procurement should increasingly happen through competition, especially competitive bidding, wherever possible.

This helps discover a more efficient price.

For example, if many generators bid to supply electricity to a buyer, the buyer may get a better tariff than through a non-competitive arrangement.

8. Power Purchase Agreements and market-based pricing

A **Power Purchase Agreement**, or PPA, is a long-term contract under which a buyer agrees to purchase electricity from a generator.

Traditionally, many PPAs were long-term and tariff was often determined through regulatory norms. But a competitive market also allows other forms of procurement, including bidding, power exchange transactions and short-term market purchases.

The lecture contrasts two models:

In one model, price is settled bilaterally through agreement and regulatory guidelines.

In the other model, price is discovered dynamically through market competition.

Open access supports the second model because it allows buyers and sellers to interact beyond a closed monopoly structure.

9. Power exchanges and 2008 initiative

The lecture mentions the development of power exchange transactions around 2008.

A **power exchange** is like an organised marketplace for buying and selling electricity. Buyers and sellers submit bids and offers. The exchange matches them and discovers market price.

The CERC made regulations for open access in inter-State transmission in 2008, and the power market framework later developed through Power Market Regulations. These created a structure for market-based electricity transactions and exchange-based trading.

In simple words:

Power exchange = electricity marketplace.

A generator with surplus electricity can sell.

A buyer needing electricity can purchase.

The exchange helps discover price.

10. Day-ahead market

The lecture refers to the **day-ahead market**.

Day-ahead market means electricity is bought and sold one day before actual delivery.

Example: On Monday, buyers and sellers submit bids for electricity to be delivered on Tuesday.

This helps in planning because electricity cannot be casually injected or withdrawn without schedule. Day-ahead scheduling helps generators know how much to generate and helps grid

operators maintain discipline. CERC's Power Market Regulations recognised reporting and operation of day-ahead market transactions through power exchanges.

In simple language:

Day-ahead market = buy/sell electricity today for delivery tomorrow.

11. Why day-ahead scheduling is important

Electricity is difficult to store at grid scale. Therefore, generation and consumption must be balanced continuously.

If buyers inform their requirement in advance, generators can plan generation. Load Despatch Centres can schedule power flows. Transmission capacity can be checked. Grid discipline can be maintained.

So, day-ahead market is not only about price. It is also about system stability.

12. Unscheduled Interchange Charges, 2009

The lecture then discusses **Unscheduled Interchange Charges**, or UI charges. CERC notified the Unscheduled Interchange Charges and Related Matters Regulations, 2009, which came into force from 1 April 2009.

The basic idea is simple. In an ideal electricity system, scheduled generation and scheduled drawal should match. If a generator injects more or less than scheduled, or a buyer draws more or less than scheduled, there is deviation.

Such deviation affects grid stability.

UI charges were meant to discipline these deviations by attaching financial consequences to over-injection, under-injection, overdrawal or underdrawal.

13. Over-injection and overdrawal

Over-injection means a generator injects more electricity into the grid than scheduled.

Overdrawal means a buyer or DISCOM draws more electricity from the grid than scheduled.

Both can disturb the grid.

Example: If many DISCOMs overdraw electricity at the same time, demand becomes higher than scheduled supply. Frequency may fall. If frequency falls too much, grid stability is threatened.

Therefore, deviation charges create discipline.

14. UI charges as discipline and price signal

The lecture explains that UI charges served two purposes.

First, they maintained grid discipline.

Second, they created economic signals. If electricity is scarce, deviation prices may be higher. If there is surplus, the value may differ.

So UI mechanism was not merely a penalty. It was also a way to make participants respond to real-time system conditions.

Today, the UI framework has evolved into deviation settlement mechanisms, but for understanding this lecture, remember:

UI charges = financial mechanism to discourage unscheduled deviation from schedule.

15. Grid Code Regulations, 2010

The lecture refers to the Indian Electricity Grid Code, 2010. CERC notified the Indian Electricity Grid Code Regulations, 2010, which came into force from 3 May 2010.

The Grid Code is important because it provides rules for secure, reliable and coordinated operation of the grid.

It helps regulate:

scheduling;
despatch;
frequency discipline;
grid connectivity;
system security;
coordination between grid participants.

The lecture mentions the frequency band of **49.5 Hz to 50.05 Hz**, which was historically significant under the 2010 framework. The basic idea is that grid frequency must remain within safe limits so that electricity supply remains stable and reliable.

16. Frequency explained simply

Electricity grid frequency in India is meant to remain around **50 Hz**.

If demand is more than supply, frequency falls.

If supply is more than demand, frequency rises.

Too much deviation can damage equipment or cause grid instability.

So, frequency is like the heartbeat of the grid.

A stable frequency means the grid is healthy. An unstable frequency means generation and consumption are not balanced.

17. Why Grid Code supports open access

Open access means many more participants can use the network. More participants means more complexity. If there are no common rules, the grid may become unstable.

The Grid Code gives common operational rules. This gives confidence to generators, licensees, open access consumers and power exchanges.

Therefore, Grid Code is a backbone for open access.

18. Proposed separation of network and supply business

The lecture refers to the proposal around 2014 to separate **network business** and **supply business**.

This means separating:

Wire business — owning and maintaining distribution network; and
Supply business — selling electricity to consumers.

This proposal is important because distribution licensees traditionally do both. They own the wires and sell electricity. But when the same entity controls both network and supply, it may block competitors.

If network and supply are separated, the wire owner becomes a neutral carrier, and multiple suppliers may compete to sell electricity.

In simple language:

One company may own the road; many companies may run vehicles on it.

In electricity:

One entity may maintain wires; different suppliers may sell power through those wires.

This would make open access and retail competition easier.

19. Ancillary Services Regulations, 2015

The lecture then refers to ancillary services. CERC notified the Ancillary Services Operations Regulations, 2015. Ancillary services support grid operation, especially when there is congestion, imbalance or system disturbance.

Ancillary services help maintain grid reliability. For example, if the grid suddenly needs additional support, certain generators may be instructed to increase or decrease generation. They are compensated according to regulations.

In simple language:

Ancillary services = emergency/support services that help keep the grid stable.

They are especially important in a system with open access because many participants are injecting and drawing electricity.

20. Real-time market, 2020

The lecture refers to the introduction of the **real-time market** around 2019–2020. India launched a pan-India real-time electricity market in June 2020. The official release described it as an alternate mechanism for DISCOMs to access a larger market at competitive prices, using double-sided auction and bids for 15-minute time blocks.

Real-time market allows buyers and sellers to adjust closer to actual delivery.

Example: A DISCOM expected 500 MW demand tomorrow, but actual demand becomes 550 MW. Instead of relying only on long-term contracts or emergency arrangements, it can buy extra power closer to real time.

This improves flexibility.

21. Why real-time market matters

Consumption patterns are changing. Households use more appliances. Rural electrification has increased demand. Industries may have varying consumption. Renewable energy generation also varies due to weather.

Therefore, predicting demand and supply far in advance is difficult.

Real-time market helps because it allows correction closer to actual time of use. It reduces dependence on guesswork and improves efficient balancing.

22. Role of information technology

The lecture rightly says information technology plays a significant role.

Modern electricity markets require real-time data, forecasting, scheduling software, digital bidding platforms, metering, energy accounting and communication between grid participants.

Without IT systems, open access cannot operate efficiently because every transaction must be scheduled, measured, settled and monitored.

So, electricity reform is also a technology-driven reform.

23. Delicensing generation and captive generation

The lecture connects open access with generation reform.

Generation was made largely delicensed under the 2003 Act. Captive generation was also encouraged. This increased generation capacity and made it possible for electricity to become a tradable commodity.

If there is no surplus generation, there is nothing meaningful to trade. But once more generators and captive plants exist, electricity can be sold through contracts, open access, exchanges and market mechanisms.

So:

Generation reform creates supply.

Open access creates market access.

Power exchanges create price discovery.

24. Non-discriminatory access to transmission and distribution network

Open access depends on non-discriminatory access to both transmission and distribution networks.

Transmission open access allows electricity to move over high-voltage inter-State or intra-State networks.

Distribution open access allows electricity to reach the final consumer through local distribution systems.

If either network is blocked, competition fails.

Therefore, the law requires open access to be regulated by the Appropriate Commission.

25. State's reduced role after the 2003 Act

The lecture explains that before reform, the electricity sector was highly controlled by the State. After the Electricity Act, 2003, the State's role became more limited in ordinary market functioning.

The State can still intervene in public interest situations. For example:

Section 11 allows government directions to generating companies in extraordinary circumstances.

Section 37 allows government directions to Load Despatch Centres for smooth and stable transmission and supply.

But the ordinary regulation of the electricity market is meant to be done by independent regulatory commissions.

This is the shift:

From State monopoly → to regulated competition.

26. Inter-State and intra-State open access

The lecture explains one classification based on geography.

Inter-State open access means access involving transmission from one State to another. CERC frames regulations for this.

Intra-State open access means open access within one State. The State Commission frames regulations for this.

So:

Across State boundary = CERC.

Within State boundary = SERC.

This classification is important for exams because jurisdiction depends on the nature of transmission/use.

27. Time-based classification of open access

The lecture then explains another classification based on duration.

Open access may be:

Long-term access

Medium-term open access

Short-term open access

Under the inter-State framework discussed in the lecture, long-term access was generally understood as access for a long duration, medium-term for a period between a few months and several years, and short-term for shorter durations such as up to a few months. The CERC open access framework gave priority to long-term and medium-term customers over short-term customers for use of the inter-State transmission system.

The lecture states:

Long-term: more than 12 years.

Medium-term: 3 months to 12 years.

Short-term: intra-day to 3 months.

For the lecture, remember this classification as the conceptual structure.

28. Nodal agencies for open access

The lecture mentions nodal agencies.

For long-term and medium-term inter-State access, the Central Transmission Utility plays a key role.

For short-term access, the responsibility is connected with NLDC/RLDC depending on the nature of the transaction.

The reason is practical. Long-term and medium-term access require planning of transmission capacity. Short-term access is more operational and depends on available surplus capacity and grid conditions.

29. Open access mainly benefits large consumers first

The lecture says that most open access regulations were designed with bigger consumers in mind, especially industrial and commercial consumers.

This is because large consumers buy electricity in bulk and are more likely to look for competitive prices. They also have the technical and financial capacity to participate in open access.

Under Section 42, open access was to be provided to consumers requiring supply above **1 MW** within the statutory timeline contemplated by the Act.

So the lecture divides consumers into two broad categories:

Consumers above 1 MW — consumers with supplier choice/open access eligibility.

Consumers below 1 MW — consumers usually without effective supplier choice, though some States may make special provisions.

30. Why smaller consumers are not fully covered yet

Small consumers, such as ordinary households or small shops, usually do not participate directly in open access because transaction cost, metering, scheduling, billing and settlement are complicated.

For small consumers, retail competition requires deeper reform, such as supplier separation or aggregation. Some States may experiment with limited forms of access, but full retail choice is still difficult.

So, open access began with large consumers because they are easier to regulate and have meaningful demand.

31. Open access and consumer choice

The ultimate purpose of open access is consumer choice.

If consumers have no choice, the local DISCOM remains a monopoly. Monopoly may lead to poor service, high cost or inefficiency.

If eligible consumers can choose their supplier, DISCOMs and generators must compete on price, reliability and quality.

However, consumer choice must be balanced with grid discipline, cross-subsidy, fixed cost recovery and network safety.

32. Relationship between open access and trading

Open access also supports electricity trading.

Electricity trading means buying and selling electricity as a commercial activity. But trading is possible only if electricity can physically move through the network.

So trading needs open access. Without open access, traders cannot deliver power from seller to buyer.

In simple terms:

Trading is commercial transaction.

Open access is network access that makes the transaction physically possible.

33. Relationship between open access and power exchange

A power exchange needs open access because power sold on the exchange must be delivered through the grid.

If a buyer purchases electricity on the power exchange, the grid must allow that scheduled electricity to move. This requires transmission access, scheduling, metering and settlement.

Thus:

Power exchange gives market platform.

Open access gives network route.

Load Despatch Centre gives operational control.

34. Why open access is difficult to implement

Although open access is central to reform, it is difficult to implement because of:

Network congestion.

Cross-subsidy surcharge disputes.

Additional surcharge disputes.

DISCOM resistance.

Technical constraints.

Metering and accounting issues.

Scheduling and deviation management.

Regulatory differences between States.

Need to protect subsidised consumers.

Need to maintain grid stability.

So open access is legally simple in definition but operationally complex.

35. Lecture's chronological development of open access initiatives

The lecture gives a broad timeline. For exam purposes, remember it like this:

2003 — Electricity Act creates legal foundation for open access and competition.

2006/2016 — Tariff policy encourages competitive procurement and market-based efficiency.

2008 — Power exchange/open access framework develops for market transactions.

2009 — UI charges discipline deviations from schedule.

2010 — Grid Code strengthens grid discipline and operational confidence.

2014 — Proposal to separate wire business and supply business.

2015 — Ancillary services framework supports grid reliability.

2020 — Real-time market gives flexibility close to actual delivery.

This timeline shows that open access is not only one section in the Act. It is a continuing reform process.

The earlier lecture explained the **policy background** of open access. This lecture moves to the **legal provisions**.

The basic question is:

If a consumer wants electricity from someone other than the local DISCOM, how can that electricity reach the consumer?

The answer is: through **open access**.

Open access allows a generator, licensee or consumer to use the existing transmission or distribution network on payment of charges. Without open access, every generator and consumer would have to create their own wires and network, which is practically impossible and very costly.

So, open access is a legal mechanism for using the existing electricity network in a fair and non-discriminatory way.

2. Why open access is needed

Electricity travels through physical infrastructure: transmission lines, distribution wires, transformers, substations and associated facilities.

A generating company may produce electricity, and a consumer may be willing to buy that electricity. But they cannot directly transact unless the electricity can physically move through the grid.

It is not practical for every generator and every consumer to build their own separate network. If that were required, the cost of electricity would become very high.

So, open access allows the existing network to be shared.

In simple words:

Open access means using existing wires to buy or sell electricity from another source.

Example:

A cement factory is located in the area of DISCOM A. The factory wants to buy cheaper electricity from Generator B. The electricity will still pass through transmission and/or distribution wires. Open access allows this, subject to payment of charges.

3. Statutory definition: Section 2(47)

Section 2(47) of the Electricity Act, 2003 defines **open access** as the **non-discriminatory provision for use of transmission lines, distribution system or associated facilities by any licensee, consumer or person engaged in generation, in accordance with regulations made by the Appropriate Commission.**

This definition has four important parts:

First, open access must be **non-discriminatory**.

Second, it applies to **transmission lines and distribution systems**.

Third, it is available to **licensees, consumers and generating companies**.

Fourth, it must operate according to regulations made by the **Appropriate Commission**.

4. Meaning of “non-discriminatory”

Non-discriminatory means fair, equal and unbiased.

The network owner should not unfairly favour one party and block another. This is important because DISCOMs may have a financial interest in preventing large consumers from leaving them. If a large consumer shifts to open access, the DISCOM loses revenue.

Therefore, open access cannot be left entirely to the discretion of the DISCOM or transmission utility. The law gives the rule-making power to the Appropriate Commission so that access is regulated objectively.

In simple words:

The wire owner cannot misuse control over wires to block competition.

5. Who can use open access?

Open access may be used by:

Generating companies — to sell electricity to buyers.

Licensees — such as distribution licensees or trading licensees.

Consumers — especially large consumers who want to buy power from another source.

For example, even a DISCOM may use open access to buy cheaper electricity from another generator and supply it to its consumers.

So open access is not only for private consumers. It is a wider market mechanism.

6. Role of Appropriate Commission

The definition of open access itself says that open access must operate according to regulations made by the Appropriate Commission.

The **Central Electricity Regulatory Commission**, or CERC, generally deals with inter-State open access.

The **State Electricity Regulatory Commission**, or SERC, deals with intra-State and distribution-level open access.

This is important because open access involves technical and financial questions: capacity, congestion, charges, scheduling, cross-subsidy, additional surcharge, metering and grid safety.

So the Act gives the broad principle, and the Commission creates the detailed working rules.

Open Access in Transmission

7. Section 38: Central Transmission Utility

Section 38 deals with the **Central Transmission Utility**, or CTU. One of its functions is to provide **non-discriminatory open access** to its inter-State transmission system on payment of transmission charges.

So, if electricity is being transmitted through the central/inter-State transmission network, the CTU must provide access fairly, subject to charges and regulations.

8. Section 39: State Transmission Utility

Section 39 deals with the **State Transmission Utility**, or STU. Like the CTU, the STU also has a duty to provide non-discriminatory open access to its intra-State transmission system.

So, if electricity is moving within a State through the State transmission network, the STU has a similar obligation.

9. Section 40: transmission licensee

Section 40 deals with the duties of a transmission licensee. A transmission licensee must provide non-discriminatory open access to its transmission system on payment of transmission charges.

So, at all levels, the principle is the same:

Transmission network must be available fairly, subject to charges.

Open Access in Distribution

10. Section 42: distribution open access

Section 42 is the key provision for open access in the distribution segment.

Section 42(2) says the State Commission shall introduce open access in phases and subject to conditions, including cross-subsidies and other operational constraints.

This means distribution open access is not introduced suddenly for everyone. It is introduced gradually.

Why? Because distribution is financially sensitive. DISCOMs have universal service obligation. They must supply electricity to all eligible applicants in their area. If all profitable consumers leave through open access, DISCOMs may be left only with subsidised consumers.

So the law allows open access, but carefully.

11. Open access is not absolute from day one

The lecture correctly explains that open access is not treated as an unrestricted right from the very beginning.

The State Commission must introduce it in phases. This is because the electricity market has cross-subsidy, technical constraints, network limits and DISCOM financial obligations.

In simple words:

Open access is a statutory policy goal, but its actual use is regulated.

12. Open access for large consumers

The lecture says that large consumers above **1 MW** were given open access first. Section 42 provides that State Commissions were to allow open access to consumers requiring supply above 1 MW within the statutory timeline.

This is because large industrial and commercial consumers have meaningful electricity demand and can participate in competitive procurement.

However, for current understanding, also note this update: for **green energy open access**, the 2022 Green Energy Open Access Rules reduced the threshold from **1 MW to 100 kW**, enabling smaller consumers also to purchase renewable power through open access.

So, for exam based on this lecture, write **1 MW**. For updated legal awareness, mention **100 kW for green energy open access**.

Why Cross-Subsidy Matters

13. Cross-subsidy problem

Cross-subsidy means one category of consumers pays more so another category can pay less.

Usually, industrial and commercial consumers pay higher tariffs. Domestic and agricultural consumers often pay lower/subsidised tariffs.

Example:

Actual cost of supply = ₹6 per unit.

Agricultural consumer pays = ₹3 per unit.

Industrial consumer pays = ₹8 per unit.

The industrial consumer indirectly supports the subsidised consumer.

Now suppose the industrial consumer leaves the DISCOM and buys power through open access. The DISCOM loses a high-paying consumer but still has to supply subsidised consumers.

That is why cross-subsidy is central to open access.

14. Universal service obligation and open access tension

Section 43 creates a duty on the distribution licensee to supply electricity to eligible applicants. This is called universal service obligation.

So even if profitable consumers leave, the DISCOM cannot say:

“I will not supply poor or subsidised consumers.”

It must continue to supply.

This creates tension:

Open access gives choice to large consumers.

Universal service obligation keeps responsibility on DISCOM.

Cross-subsidy surcharge tries to balance both.

Charges Payable for Open Access

The lecture explains that open access is not free. Several charges may apply.

15. Cross-subsidy surcharge

Cross-subsidy surcharge is paid by an open access consumer to compensate the local DISCOM for loss of cross-subsidy.

If a high-paying industrial consumer leaves the DISCOM, the DISCOM loses money that was helping support subsidised consumers. Cross-subsidy surcharge is meant to fill that gap.

But the surcharge must be reasonable. If it is too high, open access becomes useless. If it is too low, the DISCOM suffers.

So the regulator must balance:

Compensating DISCOM and not killing competition.

Section 42 expressly provides for surcharge to meet the current level of cross-subsidy in the area of supply, and also contemplates progressive reduction of surcharge and cross-subsidy.

16. Transmission charges

Transmission charges are paid when the transmission network is used.

If electricity travels through transmission lines, the user must pay for the use of that network. Transmission licensees need revenue to maintain, upgrade and operate the transmission system.

Example:

Generator in State A sells power to consumer in State B. The electricity uses inter-State transmission lines. Transmission charges must be paid.

17. Wheeling charges

The transcript says “willing charges,” but the correct legal term is **wheeling charges**.

Wheeling means transporting electricity through the distribution network.

If a consumer buys power from another supplier but uses the local DISCOM’s distribution wires, the consumer must pay wheeling charges.

Example:

A cement plant buys electricity from an outside generator. But the last-mile distribution wires belong to the local DISCOM. The cement plant must pay wheeling charges for use of those wires.

So:

Transmission charges = for using transmission network.

Wheeling charges = for using distribution network.

18. When transmission charges and wheeling charges apply

The lecture explains this very practically.

If both generator and consumer are connected through the transmission network, then transmission charges apply, but wheeling charges may not apply.

If the generator is connected to the transmission system but the consumer is connected to the distribution system, then both transmission charges and wheeling charges may apply.

So charges depend on:

where the generator injects electricity;
where the consumer draws electricity;
which networks are used;
whether transmission, distribution or both are involved.

19. Additional surcharge

Additional surcharge is different from cross-subsidy surcharge.

It is paid to compensate the DISCOM for **fixed costs** arising from its obligation to supply.

DISCOMs often enter into long-term Power Purchase Agreements and create infrastructure based on expected demand. If a large consumer suddenly shifts to open access, part of that planned capacity or contracted power may become unused or “stranded”.

Additional surcharge helps recover such stranded fixed cost.

Section 42(4) recognises additional surcharge where a consumer is allowed to receive supply from someone other than the area distribution licensee, to meet fixed cost arising out of the licensee’s obligation to supply.

Simple distinction:

Cross-subsidy surcharge = compensates subsidy loss.

Additional surcharge = compensates fixed cost/stranded capacity.

20. Other charges

The lecture also mentions other possible charges:

default supply charge;
balancing market charge;
open access application charges;
Load Despatch Centre charges.

These charges may differ depending on regulations, State practice, type of open access and nature of transaction.

The main idea is that open access involves not only buying electricity. It also involves scheduling, metering, settlement, grid balancing and system operation. Therefore, multiple charges may arise.

Challenges of Open Access

21. Frequent switching by consumers

One challenge is that a consumer may shift between the DISCOM and open access repeatedly.

For example, during one season, electricity may be cheaper through open access. The consumer shifts away from the DISCOM. Later, open access becomes costly, and the consumer returns to the DISCOM.

But the DISCOM has universal service obligation. It cannot easily refuse supply.

This creates planning problems. The DISCOM cannot accurately estimate future demand if large consumers keep switching.

So frequent switching affects:

supply planning;
power purchase planning;
network planning;
financial stability;
quality and reliability of supply.

22. Cross-subsidy surcharge may be inadequate or excessive

The lecture raises an important difficulty.

If cross-subsidy surcharge is too low, DISCOMs cannot recover the revenue lost when high-paying consumers leave.

If it is too high, open access becomes commercially unattractive.

So the regulator faces a difficult balance.

Open access must be affordable enough to encourage competition, but not so cheap that it destroys DISCOM finances.

23. Additional surcharge calculation problem

Additional surcharge is also difficult to calculate.

DISCOMs may claim that they have long-term power purchase commitments and stranded capacity. Open access consumers may argue that additional surcharge is being inflated to discourage open access.

So disputes arise over:

- whether fixed cost is actually stranded;
- whether the consumer's exit caused the cost;
- how much should be recovered;
- how long additional surcharge should continue;
- whether DISCOM planning was efficient.

This is why additional surcharge is often controversial.

24. DISCOM resistance

Open access directly affects DISCOM revenue. Large industrial and commercial consumers are valuable customers. If they leave, the DISCOM loses a major source of income.

Therefore, DISCOMs may resist open access.

Resistance may happen through:

- delaying approvals;
- raising technical objections;
- claiming network constraints;
- increasing charges;
- challenging eligibility;
- discouraging consumers from switching.

The lecture suggests that State Commissions may also sometimes be slow or hesitant because granting open access may financially hurt DISCOMs.

25. Technical bottlenecks

Open access also creates technical issues.

Before allowing open access, the system must check:

- whether network capacity is available;
- whether congestion exists;
- whether metering is adequate;
- whether scheduling can be managed;
- whether load despatch approval is possible;
- whether grid stability will be affected.

So not every denial is necessarily wrong. Sometimes there may be genuine technical constraints. But technical grounds should not be used as an excuse to block competition.

Simple Example: Open Access Transaction

Suppose a steel plant in West Bengal wants to buy electricity from a generator in Odisha.

The generator injects power into the transmission grid.
The power travels through inter-State transmission lines.
It reaches West Bengal.
Then local distribution wires may be used to deliver it to the steel plant.

The steel plant may have to pay:

- transmission charges;
- wheeling charges if distribution system is used;
- cross-subsidy surcharge;
- additional surcharge;
- open access application charges;
- scheduling/load despatch charges.

This shows why open access gives choice but is not a simple free-market transaction. It is a regulated network transaction.

Section 65: Government Subsidy

Difference between cross-subsidy and government subsidy

Cross-subsidy and government subsidy are different.

Cross-subsidy means one consumer class pays more so another consumer class can pay less.

Government subsidy under Section 65 means the State Government decides to support a class of consumers and pays the subsidy amount.

Section 65 says that if the State Government requires grant of subsidy to any consumer or class of consumers, it must pay in advance the amount to compensate the affected person, in the manner directed by the State Commission. If the advance payment is not made, the direction for subsidy is not operative. (indiacode.nic.in)

So, under Section 65, the burden should fall on the government budget, not hidden inside tariff.

Section 65 brings transparency.

If a State Government wants free or subsidised electricity for farmers, poor households or a particular industry, it can do so. But it must pay the amount to the distribution licensee in advance.

This prevents the government from announcing subsidy while leaving the DISCOM unpaid.

In simple terms:

Government may give subsidy, but it must pay for it.

Case Law Discussed

23. Keshree Metallurgies Pvt. Ltd. v Telangana State Electricity Regulatory Commission

This case dealt with cross-subsidy surcharge payable by an open access consumer.

The petitioner was using the distribution network through open access but challenged the levy of cross-subsidy surcharge. One argument was that the tariff order did not properly contain the cross-subsidy surcharge component, and therefore the consumer should not be made to pay.

The Telangana High Court examined the purpose of Section 42 and the rationale of cross-subsidy surcharge. The Court treated cross-subsidy surcharge as a statutory mechanism to compensate the distribution licensee when a high-paying consumer shifts to open access. It

rejected the idea that an open access consumer can enjoy the benefit of using the system while avoiding the surcharge obligation. The Court also recognised that avoiding such surcharge could result in undue enrichment of the open access consumer.

Simple legal principle:

An open access consumer who uses the network and shifts away from the DISCOM may still be required to pay cross-subsidy surcharge because the DISCOM continues to carry universal supply obligations.

Why Keshree Metallurgies is important

This case shows that cross-subsidy surcharge is not merely an optional charge. It is connected with the structure of the Act.

Without the surcharge, open access may benefit large consumers but damage the DISCOM's ability to supply subsidised consumers. The Court's reasoning supports a balance between competition and universal access.

So the case protects the financial logic behind Section 42.

Damodar Valley Corporation v Jharkhand State Electricity Regulatory Commission

This case arose during the COVID-19 lockdown period.

Industrial and commercial consumers sought relief because business activity was shut down. The Jharkhand Government issued a communication under Section 108 requesting relief, including moratorium on bills and waiver of demand/fixed charges. The State Commission passed an order granting moratorium and provisional waiver of demand/fixed charges for industrial and commercial consumers for April, May and June 2020.

Damodar Valley Corporation, a distribution licensee, challenged the order before APTEL. It argued that waiver of fixed charges harmed the distribution licensee's revenue and that if the government wanted to subsidise consumers, it had to follow Section 65 and pay compensation in advance. APTEL noted that the appellant's argument was based on non-compliance with Section 65 and the financial impact on the distribution licensee.

Section 108 and Section 65 issue

Section 108 allows the State Government to issue directions to the State Commission on matters of policy involving public interest. But Section 108 cannot be used to indirectly rewrite tariff obligations in a way that burdens the licensee without following the subsidy mechanism.

Section 65 says subsidy must be paid in advance to compensate the affected person. APTEL recorded the argument that a relief having the effect of reducing tariff cannot be implemented without making provision under Section 65, and the statutory text itself requires advance payment for subsidy.

Simple legal principle:

Public interest relief to consumers must also respect tariff law and licensee viability. If relief is really a subsidy, Section 65 must be followed.

APTEL's balancing approach

APTEL did not say consumer hardship was irrelevant. It accepted that COVID-19 created an extraordinary situation. But it also emphasised that the interest of the distribution licensee cannot be ignored.

The Tribunal found the retrospective waiver of demand/fixed charges problematic because the Commission had already determined tariff, and the licensee had financial obligations. APTEL observed that the direction requiring waiver/refund of demand/fixed charges was arbitrary and inequitable, and also referred to the principle under Section 61(g), which requires reduction of cross-subsidy rather than perpetuating it in another form.

So the key lesson is:

Electricity regulation requires balancing consumer relief, DISCOM viability, tariff discipline and statutory subsidy rules.

conclusion

Open access and cross-subsidy create a central tension in Indian electricity law. Open access promotes competition, consumer choice and efficient procurement, but it also allows high-paying consumers to leave the local DISCOM. Since DISCOMs still have a universal service obligation under Section 43, they must continue supplying subsidised and low-paying consumers. Cross-subsidy surcharge under Section 42 therefore acts as a balancing mechanism: it allows open access but compensates the DISCOM for loss of subsidy support. The law originally contemplated elimination of cross-subsidy, but after practical and political difficulties, the approach shifted to progressive reduction. Section 65 provides a more transparent alternative where the State Government pays subsidy directly or in advance, but that shifts the burden from large consumers to taxpayers. The cases of **Keshree Metallurgies** and **Damodar Valley Corporation** show that courts and tribunals try to maintain a balance between consumer relief, competitive access, tariff discipline and financial viability of distribution licensees.

TARRIF

Plant load factor — measure of how much a plant actually generates compared with its capacity.

Tariff under the Electricity Act, 2003

1. Main theme of the lecture

Till now, the lectures covered **generation, transmission, distribution, consumer interest, open access and cross-subsidy**. This lecture moves to **tariff**, which is one of the most important parts of electricity law.

Tariff simply means the **price or charge payable for electricity service**. It is what a consumer pays for consuming electricity, and what licensees/generators recover for supplying, transmitting or wheeling electricity.

The word “**tariff**” is **not separately defined in the Electricity Act, 2003**, so it is understood in its ordinary commercial sense as a schedule or system of rates/charges. The Supreme Court in the tariff context has also recognised tariff as a schedule of standard prices or charges for specified categories of consumers.

In simple language:

Tariff = electricity price fixed or approved under law.

2. Why tariff is so important

Tariff affects almost everyone in the electricity sector.

For consumers, tariff decides how much they pay.

For generators, tariff decides whether their investment is commercially viable.

For transmission and distribution licensees, tariff decides whether they can recover the cost of maintaining networks.

For regulators, tariff is a tool to balance competition, consumer interest, investment and efficiency.

For the Government, tariff affects subsidy policy, inflation, industrial competitiveness and social welfare.

So tariff is not just a price. It is the economic heart of the electricity sector.

3. Historical shift: from Government control to regulatory control

Under the earlier regime, especially under the **Electricity (Supply) Act, 1948**, tariff determination was largely controlled by Government and statutory electricity boards.

The Government determined financial norms such as depreciation and reasonable return. The Central Electricity Authority dealt with operational norms such as plant load factor. So, tariff fixation was mainly an administrative/governmental function.

This changed after reforms. The **Electricity Regulatory Commissions Act, 1998** created independent regulatory commissions. The purpose was to take tariff and market regulation away from direct Government control and place it before specialised independent bodies.

The **Electricity Act, 2003** strengthened this model. It treated tariff determination as a function of the appropriate regulatory commission, not the Government. The Supreme Court has described the 2003 Act as an exhaustive code on electricity matters and noted that the regulatory regime is entrusted to commissions, distancing Government from tariff regulation.

4. Why Government was moved away from tariff determination

Tariff determination requires economic, technical and legal balancing. If tariff is controlled directly by Government, it may be influenced by political considerations.

For example, Government may prefer low tariff for political popularity, but if tariff is too low, generators and DISCOMs may not recover costs. On the other hand, if tariff is too high, consumers suffer.

Therefore, the Act gives tariff determination to independent commissions. This creates greater confidence for:

- investors;
- generating companies;
- transmission licensees;
- distribution licensees;
- consumers;
- open access users.

The idea is that an independent commission can decide tariff more transparently and objectively.

5. Role of Government after the 2003 Act

Government does not directly determine tariff under the 2003 Act. However, Government is not completely absent.

Government may frame policy. Section 3 says the Central Government shall prepare the National Electricity Policy and Tariff Policy in consultation with State Governments and the Central Electricity Authority, and may review or revise them from time to time.

Government may also give subsidy under Section 65. If a State Government wants certain consumers to receive subsidised electricity, it may do so, but the subsidy mechanism must follow the Act.

So the distinction is:

Tariff determination = Regulatory Commission.
Policy and subsidy support = Government.

Tariff Policy and Regulatory Commissions

6. Tariff policy

The tariff policy is a policy document prepared by the Central Government under Section 3. It guides tariff principles across the country.

The purpose of consulting State Governments and the Central Electricity Authority is to create a more uniform, coordinated and realistic policy framework. Electricity is in the Concurrent List, so both Centre and States have a role. But tariff policy helps maintain broad national consistency.

The lecture explains that this uniformity is important for investors, consumers and operators because they need regulatory certainty.

7. CERC and SERC: division of tariff jurisdiction

The Act divides tariff responsibility between the Central Electricity Regulatory Commission, or **CERC**, and State Electricity Regulatory Commissions, or **SERCs**.

CERC deals mainly with central and inter-State matters. Section 79 gives CERC functions such as regulating tariff of generating companies owned or controlled by the Central Government, regulating tariff of other generating companies with composite schemes for generation and sale in more than one State, regulating inter-State transmission, and determining tariff for inter-State transmission.

SERC deals with State-level matters. Section 86 provides that the State Commission determines tariff for generation, supply, transmission and wheeling of electricity within the State. It also regulates power procurement by distribution licensees and facilitates intra-State transmission and wheeling.

In simple words:

CERC = central/inter-State tariff matters.

SERC = State/intra-State tariff matters.

8. Advisory role of CERC

Section 79(2) also gives CERC an advisory function. It advises the Central Government on formulation of National Electricity Policy and Tariff Policy, promotion of competition, efficiency and economy in electricity industry, promotion of investment, and other referred matters.

This is not just a decorative function. Because the Act gives CERC statutory expertise, its advice is important for policy-making. The lecture explains that such advice should not be treated as an empty formality.

[Sections 61, 62 and 63](#)

9. Difference between Section 61 and Section 62

This is the most important statutory distinction in the lecture.

Section 61 deals with **tariff regulations**. It tells the Appropriate Commission to specify the **terms and conditions for determination of tariff**. This means Section 61 gives the broad regulatory framework.

Section 62 deals with **actual determination of tariff**. It is where the Appropriate Commission determines tariff for supply by generating companies to distribution licensees, transmission of electricity, wheeling of electricity, and retail sale of electricity.

In simple words:

Section 61 = how tariff should be determined.

Section 62 = actual tariff determination.

Example:

Section 61 is like preparing the exam rules.

Section 62 is like applying those rules to mark the answer sheet.

10. Section 63: tariff through bidding

Section 63 deals with tariff determined through competitive bidding.

It says that notwithstanding Section 62, the Appropriate Commission shall adopt the tariff if it has been determined through a transparent bidding process in accordance with Central Government guidelines.

This is important because the Act recognises two broad tariff routes:

Regulated tariff under Section 62.

Competitive bidding tariff adopted under Section 63.

In Section 63, the Commission does not redetermine the tariff like a full cost-plus exercise. It checks whether the bidding process was transparent and followed Government guidelines. If yes, it adopts the tariff.

Principles under Section 61

11. Section 61: broad guiding principles

Section 61 says the Appropriate Commission must specify terms and conditions for tariff determination, subject to the Act. While doing so, it must be guided by several principles.

These include:

- commercial principles;
- competition;
- efficiency;
- economical use of resources;
- good performance;
- optimum investment;
- consumer interest;

reasonable cost recovery;
efficiency-based rewards;
multi-year tariff principles;
progressive reflection of cost of supply;
reduction of cross-subsidies;
promotion of co-generation and renewable energy;
National Electricity Policy and Tariff Policy.

This shows that tariff is not fixed randomly. It must be guided by statutory principles.

12. Commercial principles

The Act expects generation, transmission, distribution and supply of electricity to be conducted on commercial principles.

This does not mean consumer protection is ignored. It means the electricity sector must not run purely on political subsidy or arbitrary pricing. Costs, investments, returns and efficiency must be considered.

A commercially irrational tariff may discourage investment and damage the sector.

13. Competition and efficiency

Section 61 requires the Commission to consider factors encouraging competition, efficiency and economical use of resources.

Competition means the market should not remain unnecessarily monopolistic. Efficiency means electricity companies should reduce waste, improve performance and avoid unnecessary cost. Economical use of resources means coal, gas, water, renewable sources, transmission capacity and distribution infrastructure should be used sensibly.

The idea is that consumers should not pay higher tariff because of inefficiency.

14. Consumer interest and cost recovery

This is the central balancing principle.

Consumers want cheaper electricity.

Investors and licensees want cost recovery and reasonable return.

Section 61 requires the Commission to safeguard consumer interest while also allowing recovery of electricity cost in a reasonable manner.

So tariff must not be too high for consumers, but it also cannot be so low that the sector becomes financially unviable.

In simple terms:

Consumer protection + reasonable recovery = tariff balance.

15. Rewarding efficiency

Section 61 also refers to rewarding efficiency in performance.

This means that if a generator, transmission licensee or distribution licensee performs better than the benchmark, it may receive incentives. If it performs badly, it may face disincentives or lower recovery.

The idea is to make companies efficient instead of simply reimbursing all costs.

16. Multi-year tariff principle

The lecture highlights **multi-year tariff**, also called **MYT**.

Under MYT, tariff principles are fixed for a multi-year control period instead of being changed unpredictably every year. This gives certainty to investors and licensees.

For example, if a distribution licensee knows the regulatory framework for the next five years, it can plan investments, maintenance, power purchase and network improvement better.

MYT helps reduce uncertainty.

17. Tariff and regulatory certainty

Regulatory certainty is very important in electricity because power plants and transmission networks require huge investment. Investors will not invest if tariff rules keep changing unpredictably.

So, tariff regulation must be stable enough to encourage investment, but flexible enough to adapt to market changes.

The lecture explains that the Commission must remain open to market changes. A rigid, outdated tariff approach may harm the sector.

18. Progressive reflection of cost and reduction of cross-subsidy

Section 61(g) says tariff should progressively reflect the cost of supply and reduce cross-subsidies in the manner specified by the Appropriate Commission.

This connects with the earlier lecture on cross-subsidy.

The law does not say that every consumer must immediately pay full cost. It says tariff should move progressively toward cost-reflective pricing.

So the direction is:

Move toward cost-based tariff, but gradually.

Approaches to Tariff Determination

19. Cost of service approach

The lecture explains that initially tariff determination was heavily based on the **cost of service approach**.

This means tariff is calculated by looking at the cost incurred in providing electricity service.

The two main components are:

fixed cost and **variable cost**.

20. Fixed cost

Fixed cost refers to costs that exist whether electricity is actually generated/supplied or not.

Examples:

financing cost;
interest;
depreciation;
return on equity/profit;
tax liabilities;
capital cost recovery.

Example: A power plant is built by taking loans and investing capital. Even if demand is low for some time, loan interest and depreciation still exist. These are fixed costs.

21. Variable cost

Variable cost changes depending on actual electricity generation or supply.

Examples:

fuel cost;
operation and maintenance cost;
cost of purchased electricity;
transmission and distribution losses;
certain taxes and surcharges.

Example: If a coal power plant generates more electricity, it burns more coal. Fuel cost increases. That is variable cost.

22. Unscheduled interchange / deviation component

The lecture says a third component entered because of better grid management: **unscheduled interchange**.

This refers to deviation between scheduled and actual injection/drawal of electricity. If a generator injects more or less than scheduled, or a consumer/licensee draws more or less than scheduled, it affects grid discipline.

Earlier, this was addressed through Unscheduled Interchange charges. Today, the concept is generally discussed through deviation settlement mechanisms, but for lecture purposes, remember:

Unscheduled interchange = financial treatment of deviation from schedule.

23. Two-part tariff for generation

For generating stations, tariff is often structured in two parts:

capacity/fixed charge and **energy/variable charge**.

Capacity charge recovers fixed cost.

Energy charge recovers variable cost, mainly fuel and operation cost.

This helps generators recover investment while also linking part of the tariff to actual generation.

24. Transmission tariff

For transmission, the lecture explains that tariff is often based on annual transmission charges. Transmission tariff is linked with availability.

If the transmission system is available above the benchmark, incentives may be given. If availability is below benchmark, disincentives may apply.

This makes sense because transmission licensees do not generate electricity. Their job is to keep the transmission system available and reliable.

So transmission tariff focuses on:

availability;
network reliability;
maintenance;
performance incentives/disincentives.

25. Normative approach and benchmarking

The lecture explains that tariff regulation is moving beyond pure cost reimbursement.

If every actual cost is simply passed on to consumers, inefficient companies may have no reason to improve. Consumers may end up paying for poor management.

Therefore, regulators increasingly use a **normative approach**.

Normative approach means setting standards or benchmarks. For example:

What should be the reasonable operation and maintenance cost?

What should be the acceptable auxiliary consumption?

What should be the plant availability factor?

What should be the transmission availability norm?

What should be the reasonable heat rate or fuel efficiency?

If the company performs better than the norm, it may benefit. If it performs worse, it may bear some loss.

26. Why benchmarking is needed

Benchmarking prevents inefficient generators or licensees from passing all inefficiency to consumers.

Example:

If a power plant consumes too much fuel because it is inefficient, should consumers pay for that inefficiency? The normative approach says: not fully. The regulator may allow recovery only up to efficient benchmark levels.

This encourages generators and licensees to improve performance.

27. Hybrid approach

The lecture says tariff regulation is moving toward a hybrid approach.

This means combining:

actual cost of service and **normative benchmarks**.

Actual cost is relevant because investors must recover genuine expenditure.

Normative benchmark is relevant because consumers should not pay for inefficiency.

So the ideal approach is:

Allow reasonable recovery, but only within efficient norms.

Case Law: Jharkhand State Electricity Board v Laxmi Business & Cement Co.

Facts of the case

The case involved agreements entered into before the Electricity Act, 2003. The Jharkhand State Electricity Board argued that tariff/demand charges should be governed by the earlier agreement, including terms from 1994.

The consumers argued that after the 2003 Act and the tariff order made by the State Electricity Regulatory Commission, tariff must be governed by the new regulatory framework, not the old agreement.

The Supreme Court had to decide whether the old agreement continued to govern tariff after the 2003 Act and the Commission's tariff order.

Issue

The main issue was:

Can the Electricity Board continue to charge tariff based on an old agreement after the Electricity Act, 2003 and the new tariff order issued by the State Commission?

Holding

The Supreme Court held that after the 2003 Act, tariff regulation falls within the domain of the Regulatory Commission. The Court noted that the Act repealed earlier electricity laws and placed tariff regulation within the statutory regulatory framework. It also noted that the 2003 Act distanced Government from tariff regulation and specifically assigned it to SERCs.

The Court further held that even if earlier agreements were assumed to be saved, the agreement in question stood replaced by the 2004 Tariff Schedule, and licensees/utilities can charge only tariff approved by the Commission.

Legal principle from the case

The case gives a very important principle:

After the Electricity Act, 2003, tariff fixed by the Regulatory Commission prevails over old arrangements inconsistent with the new tariff framework.

A licensee or Board cannot rely on old contractual terms to charge a different tariff if the Commission has already determined the applicable tariff.

Why this case matters

This case confirms the basic reform philosophy of the 2003 Act.

Tariff is no longer a matter of unilateral Board decision or old administrative arrangement. It is now a statutory regulatory function.

So the case supports three points:

Regulatory Commission has central role in tariff determination.

Old tariff agreements cannot override Commission-approved tariff.

The 2003 Act marks a new regulatory beginning in electricity law.

Tariff Determination under the Electricity Act, 2003

1. Main theme of the lecture

The previous lecture explained the broad principles of tariff regulation under **Section 61**. This lecture goes one step further and explains actual **tariff determination** under **Section 62**, the procedure for tariff orders under **Section 64**, and the limited space for contractual tariff arrangements under **Section 49**.

The main point is:

Section 61 gives the principles. Section 62 determines tariff. Section 64 gives the procedure. Section 49 allows open access consumers to enter private tariff agreements. Section 63 deals with competitive bidding, which is reserved for the next discussion.

2. Section 62: power of Appropriate Commission to determine tariff

Section 62 says that the **Appropriate Commission** shall determine tariff for four main things:

1. supply of electricity by a generating company to a distribution licensee;
2. transmission of electricity;
3. wheeling of electricity;
4. retail sale of electricity.

So, whenever the matter involves regulated electricity supply, transmission, wheeling or retail sale, the tariff is generally determined by the Commission under Section 62. The Act expressly gives this tariff-determination power to the Commission.

In simple language:

Section 62 is the main provision for regulated tariff fixation.

3. Tariff for supply by generating company to distribution licensee

The first category is tariff for supply of electricity by a generating company to a distribution licensee.

Example:

A thermal power company sells electricity to a State DISCOM. The tariff for that supply may be determined by the Appropriate Commission under Section 62.

The reason is that a DISCOM supplies electricity to final consumers. If the power purchase cost is high, consumer tariff may also become high. Therefore, the Commission supervises the tariff so that the generator gets reasonable return but consumers are not unfairly burdened.

4. Tariff ceiling during shortage of supply

Section 62 contains an important proviso. In case of shortage of supply of electricity, the Appropriate Commission may fix a **minimum and maximum ceiling of tariff** for sale or purchase of electricity under an agreement between a generating company and a licensee or between licensees.

This ceiling cannot be for more than **one year**. The purpose is to prevent parties from taking unfair advantage of shortage.

Example:

If there is a severe power shortage, a generator may try to charge excessively high rates. The Commission can step in and fix a maximum ceiling so that consumers are protected. Similarly, a minimum ceiling may also be used to prevent unfairly low pricing that damages market stability.

This provision protects consumer interest and prevents profiteering during scarcity.

5. Tariff for transmission and wheeling

Section 62 also covers tariff for **transmission** and **wheeling**.

Transmission tariff is the charge for using high-voltage transmission lines.

Wheeling tariff is the charge for using distribution wires to carry electricity.

Example:

A large consumer buys electricity from an outside generator. The electricity uses transmission lines and then local distribution wires. The consumer may have to pay both transmission charges and wheeling charges. Those charges are regulated by the Commission.

6. Tariff for retail sale of electricity

Section 62 also covers tariff for **retail sale of electricity**. This is the tariff paid by final consumers to distribution licensees.

Example:

Domestic consumer tariff.
Commercial shop tariff.
Industrial consumer tariff.
Agricultural tariff.

The Commission determines or approves these tariffs, keeping in mind consumer interest, cost recovery, cross-subsidy, efficiency and other Section 61 principles.

7. Multiple distribution licensees and maximum ceiling tariff

Where there are **two or more distribution licensees in the same area**, Section 62 allows the Commission to fix only the **maximum ceiling of tariff** for retail sale of electricity, in order to promote competition among distribution licensees.

This connects with the earlier lecture on **parallel licensing**.

If two DISCOMs operate in the same area, consumers may choose between them. The regulator may say:

You cannot charge above this ceiling. Below that, compete.

This allows price competition while protecting consumers from excessive tariff.

8. Power to ask for details from licensees and generating companies

Section 62(2) allows the Commission to require a licensee or generating company to furnish separate details for generation, transmission and distribution.

This is necessary because tariff cannot be fixed blindly. The Commission needs data.

It may ask for:

- capital cost;
- operation and maintenance cost;
- fuel cost;
- loan and interest details;
- depreciation;
- return on equity;
- transmission cost;
- distribution cost;
- expected revenue;
- consumer category-wise sales;
- loss levels.

The purpose is to find a reasonable tariff that allows cost recovery but avoids unfair burden on consumers.

9. Certainty in tariff

The lecture emphasises **certainty**. Investors, generators and licensees need predictability. Consumers also need predictable tariff.

Section 62(4) says tariff or part of tariff should ordinarily not be amended more than once in a financial year, except where changes are expressly permitted under a fuel surcharge formula.

This means tariff should not change every few weeks or months. Otherwise, market confidence will suffer.

However, fuel price changes may justify adjustment because fuel cost can fluctuate sharply.

Example:

If coal or gas prices rise significantly, the tariff formula may allow fuel surcharge adjustment. But apart from such permitted adjustment, tariff should normally remain stable during the financial year.

10. No undue preference under Section 62(3)

Section 62(3) says that the Commission shall not show undue preference to any consumer while determining tariff. But it may differentiate tariff on certain permitted grounds.

The permitted grounds include:

consumer's load factor;
power factor;
voltage;
total consumption during a specified period;
time of supply;
geographical position of area;
nature of supply;
purpose for which supply is required.

This means discrimination is not allowed, but reasonable classification is allowed.

11. Meaning of reasonable tariff differentiation

The Commission may create different tariff categories if there is a rational basis.

For example:

Industrial consumers may be charged differently from domestic consumers.

High-tension consumers may be charged differently from low-tension consumers.

Consumers in remote areas may have a different tariff structure.

Educational institutions may be classified differently depending on whether they are government-aided or self-financing, if the classification has a rational basis.

The key point is:

Difference is allowed. Arbitrary preference is not allowed.

12. Link with Article 14: reasonable classification

The lecture connects Section 62(3) with Article 14 of the Constitution.

Article 14 allows reasonable classification if two conditions are satisfied:

First, there must be an **intelligible differentia**, meaning a clear basis for separating one group from another.

Second, that differentia must have a **rational nexus** with the objective of the law or tariff classification.

So, if the Commission creates different tariff classes, it must show that the classification is not arbitrary.

Example:

Charging private self-financing colleges differently from government-aided colleges may be valid if the Commission can show that they differ in funding, fee structure, public welfare role or commercial character.

13. Expected revenue and tariff calculation

Section 62(5) allows the Commission to require licensees or generating companies to follow procedures for calculating expected revenue from tariff and charges.

This means tariff determination is linked with expected revenue requirement.

The Commission asks:

How much revenue does the licensee need to recover reasonable costs?

How much electricity is expected to be sold?

What are the consumer categories?

What tariff will generate the required revenue?

This is the logic behind tariff petitions.

14. Over-recovery prohibited

Section 62(6) says if a licensee or generating company recovers a price or charge exceeding the tariff determined under Section 62, the excess amount is recoverable by the person who paid it, along with interest equivalent to the bank rate.

This protects consumers and buyers.

In simple words:

A licensee cannot charge more than the approved tariff. If it does, the excess must be refunded with interest.

Nature of Tariff Determination

15. Is tariff determination judicial or legislative?

The lecture raises an important legal question:

Is tariff fixation a judicial function or a legislative/quasi-legislative function?

This matters because if it is judicial, every affected person may demand a personal hearing and detailed reasons. If it is legislative/quasi-legislative, public notice and objection procedure may be enough, unless the statute specifically requires more.

The lecture explains tariff fixation as **quasi-legislative** in nature. This means it resembles law-making because tariff applies generally to classes of consumers and market participants, not only to one private dispute.

16. Why tariff fixation is treated as quasi-legislative

Tariff orders often apply to a large class of consumers. They prescribe rates for categories like domestic, industrial, commercial and agricultural consumers. They are not merely deciding a dispute between two private parties.

Therefore, the Commission follows a regulatory/public process: application, publication, objections, consideration and tariff order.

This is why the lecture says that if no objections are filed, the tariff order may not be invalid merely because it does not contain detailed judicial-style reasoning.

But if objections are filed, the Commission must consider them properly.

17. Objections and duty to consider

The important practical point is:

If the tariff proposal is published and no one objects, the Commission may proceed to issue the tariff order.

But if objections or suggestions are filed, the Commission must consider them. If objections are ignored, the tariff determination may become legally vulnerable.

This is because Section 64 specifically requires consideration of suggestions and objections received from the public before issuing tariff order.

So, tariff fixation may be quasi-legislative, but it is not arbitrary. The statutory procedure must be followed.

Case Law 1: Central Coalfields Ltd. v Jharkhand State Electricity Regulatory Commission

Facts

Central Coalfields Ltd., a bulk electricity consumer, had invited DLF Power Ltd. to set up captive power plants at Giddi and Rajrappa. DLF Power supplied electricity exclusively to Central Coalfields. Disputes arose regarding capital cost and tariff.

The Jharkhand State Electricity Regulatory Commission passed a tariff-related order. Central Coalfields challenged the order before APTEL. The case history shows that the dispute involved capital cost of DLF's projects and tariff determined by the State Commission, with earlier proceedings before APTEL and the Supreme Court.

Legal issue

The key question was whether the State Commission's tariff fixation in this kind of captive-generation consumer arrangement was a tariff determination under Section 62, making it appealable under Section 111.

Central Coalfields argued against the tariff fixation and sought appellate review.

Tribunal's reasoning

APTEL noted that the earlier appeal had been dismissed on the ground that the State Commission did not have authority or jurisdiction to fix tariff between Central Coalfields as consumer and DLF Power as generator, because the Act provided jurisdiction to settle disputes between licensees and generating companies, not between a consumer and generator in that way.

The lecture's takeaway is that Section 62 applies where tariff is determined in the statutory categories mentioned in that section, such as supply by a generating company to a distribution licensee. It does not automatically apply to every private tariff dispute between a generator and a consumer, especially in a captive arrangement.

Principle from Central Coalfields

The principle is:

Section 62 is attracted only where the transaction falls within the statutory tariff categories. A private/captive arrangement between generator and consumer may be governed by contract, and the Commission's role may not amount to statutory tariff determination under Section 62.

This case is useful because it shows that not every electricity price dispute becomes a Section 62 tariff dispute.

Case Law 2: Kerala State Electricity Board v Principal Sir Syed Institute for Technical Studies

Facts

The Kerala State Electricity Regulatory Commission created different tariff categories for government/government-aided private educational institutions and self-financing private educational institutions. Self-financing institutions challenged this differentiation, arguing that all educational institutions perform the same educational function and should not be treated differently.

The case reached the Supreme Court as **Kerala State Electricity Board v Principal Sir Syed Institute for Technical Studies**, Civil Appeal No. 8350 of 2009, decided on 20 February 2020.

Issue

The main issue was:

Can the Regulatory Commission prescribe different electricity tariffs for government/aided educational institutions and self-financing private educational institutions?

Holding

The Supreme Court upheld the power of the Commission to prescribe differential tariffs if the differentiation is based on permissible factors under Section 62(3).

Section 62(3) allows differentiation based on factors such as load factor, power factor, voltage, total consumption, time of supply, geographical position, nature of supply and purpose for which supply is required. The Court accepted that self-financing educational institutions could be treated differently from government/aided institutions when the distinction had a rational basis.

Principle from Kerala case

The principle is:

Differential tariff is valid if it is based on statutory grounds under Section 62(3) and satisfies reasonable classification.

So the Commission cannot arbitrarily prefer one consumer. But it can create categories if the classification is intelligible and connected with the purpose of tariff regulation.

[Section 63: Tariff through Competitive Bidding](#)

1. Main theme of the lecture

The earlier tariff lectures explained:

Section 61 — principles and terms for tariff determination.

Section 62 — tariff determined by the Appropriate Commission.

Section 63 says that notwithstanding anything contained in Section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with Central Government guidelines.

2. Why Section 63 begins with “notwithstanding Section 62”

Section 63 starts with a **non-obstante clause**: “Notwithstanding anything contained in Section 62...”

This means Section 63 overrides Section 62 to that limited extent.

In simple language:

If tariff is discovered through proper competitive bidding, the Commission will not determine tariff again under Section 62. It will adopt the competitively discovered tariff.

But this non-obstante clause is only against **Section 62**, not against the whole Act. Therefore, Section 63 cannot be read in isolation. Section 61 principles, consumer interest, transparency, competition and the overall scheme of the Act still matter.

This is exactly why the lecture stresses that Section 63 is **not a standalone provision**.

3. Difference between “determine” and “adopt”

This is the most important distinction.

Under **Section 62**, the Commission **determines** tariff. It examines cost, investment, return, fuel cost, operation and maintenance cost, depreciation, efficiency norms and other factors.

Under **Section 63**, the Commission **adopts** tariff. The tariff has already been discovered through competitive bidding. The Commission does not redo the cost-plus exercise.

So:

Section 62 = Commission determines the price.

Section 63 = market bidding discovers the price; Commission adopts it.

The Supreme Court has also explained that under Section 62, the Commission determines tariff, whereas under Section 63, the bidding process determines the tariff and the Commission adopts it if statutory conditions are satisfied.

4. Commission is not a mere post office

Although the Commission does not determine tariff under Section 63, it is not powerless.

The Commission must check two things:

First, whether the bidding process was **transparent**.

Second, whether the bidding process followed the **guidelines issued by the Central Government**.

If these conditions are satisfied, the Commission adopts the tariff. If not, it may refuse adoption.

So the Commission is not merely receiving a bid document and mechanically approving it. It performs an oversight function.

The Supreme Court in **Tata Power Company Ltd. Transmission v Maharashtra Electricity Regulatory Commission** explained that the Commission has regulatory power even in the Section 63 route and that Section 63 does not remove the broader regulatory role of the Commission.

5. Why Section 63 does not give complete freedom to bidders

The lecture makes an important warning: competitive bidding does not mean complete private freedom.

The bidders must follow:

Central Government bidding guidelines;
standard bid documents;
Request for Proposal conditions;
Power Purchase Agreement terms;
transparency norms;
consumer interest principles;
Section 61 principles.

So the parties cannot simply say:

“We agreed through bidding, so no regulator can examine anything.”

That is wrong. The Commission may still examine whether the bidding process is lawful and whether consumer interest is protected.

6. Link between Section 63 and Section 61

Section 63 overrides Section 62 only. It does not override Section 61.

This means the broad tariff principles under Section 61 continue to influence Section 63.

Section 61 includes principles such as:

commercial principles;
competition;
efficiency;
economical use of resources;
consumer interest;
reasonable cost recovery;
multi-year tariff principles;
reduction of cross-subsidy;
promotion of renewable energy.

Therefore, even in competitive bidding, the final outcome cannot ignore consumer interest or the statutory scheme.

In simple terms:

Competitive bidding is allowed, but not at the cost of the Act's purpose.

7. Cost-plus approach vs competitive bidding approach

Under Section 62, tariff is usually based on a **cost-plus model**. That means the Commission looks at cost and allows reasonable return.

Example:

Capital cost + fuel cost + O&M cost + depreciation + interest + return on equity = tariff.

Under Section 63, tariff is based on competitive bid. The bidder quotes a tariff after assessing its own risks and costs. The Commission does not reopen the cost structure like under Section 62.

Therefore, Section 63 carries more commercial risk for bidders.

If a bidder quotes a low price and later its cost increases, it cannot automatically ask the Commission to increase tariff unless the PPA or law permits adjustment.

8. Risk under Section 63

The lecture explains that Section 63 involves greater risk than Section 62.

In Section 62, cost elements are scrutinised and recovery may be allowed according to regulations.

In Section 63, the bidder quotes a price in a competitive process. If the bidder miscalculates fuel cost, exchange rate, construction cost or other risks, the bidder may have to bear that risk unless the PPA contains a valid clause such as change in law or force majeure.

So:

Section 63 rewards competitive pricing but also places more risk on the bidder.

Power Purchase Agreement

9. Meaning of Power Purchase Agreement

A **Power Purchase Agreement**, or PPA, is a contract between a power generator and a buyer/procurer.

Usually, the buyer is a distribution licensee or authorised procurer. The PPA contains terms such as:

- quantity of electricity;
- duration of supply;
- tariff;
- payment mechanism;
- fuel risk;
- force majeure;
- change in law;
- scheduling;
- default;
- termination;
- dispute resolution.

In Section 63 bidding, the PPA is usually part of the bidding documents and becomes the contractual framework after the successful bid.

10. PPA and competitive bidding

In competitive bidding, the procurer invites bids. Bidders quote tariffs. The successful bidder is usually the one offering the most competitive tariff, subject to bid conditions.

After selection, the PPA is executed and tariff is placed before the Appropriate Commission for adoption under Section 63.

Once adopted, the tariff becomes legally binding.

Types of Competitive Bidding

11. Case 1 bidding

The lecture explains one type of bidding where the developer chooses major project features.

In this model:

- fuel is not specified;
- location is not specified;
- technology may not be specified;
- developer arranges clearances;
- developer chooses project structure;
- developer bears higher risk.

This is commonly understood as **Case 1 bidding** in Indian power procurement guidelines.

Here, the procurer mainly wants electricity. The bidder decides how to generate and supply it.

Example:

A DISCOM asks for 500 MW power supply. Bidders may arrange power from different plants or sources. The procurer does not specify the exact plant location or fuel.

This model gives flexibility to the developer but also places more responsibility and risk on it.

12. Case 2 bidding

The second type is where the project is more specifically identified.

In this model:

- fuel source may be specified;
- location may be specified;
- technology may be clearer;
- government/procurer may assist with clearances;
- developer risk is lower;
- procurer/state risk is higher.

This is commonly called **Case 2 bidding**.

Example:

The State says: a thermal power plant will be set up at a particular location with identified fuel linkage or imported fuel arrangement. Bidders compete to develop and supply power from that identified project.

This model is used where project resources and location are more defined.

13. Why bidding guidelines matter

Central Government guidelines and standard bid documents are important because they create uniformity and transparency.

They help ensure:

- fair competition;
- clear bid conditions;
- objective selection;
- consumer interest;
- reduced arbitrariness;
- less scope for post-bid manipulation.

The Ministry of Power's competitive bidding guidelines are issued under Section 63 for procurement of electricity by distribution licensees and deal with long-term and medium-term procurement.

Judicial Interpretation of Section 63

14. All India Power Engineers Federation v Sasan Power Ltd.

This Supreme Court case is important because it highlights that even in Section 63 matters, **consumer interest remains central**.

The case involved a competitively bid PPA for the Sasan Ultra Mega Power Project. The Court examined issues arising from the PPA structure and later events. The important broader principle from the case is that the Commission and courts must not allow contractual or post-bid arrangements to harm consumer interest or defeat the statutory scheme.

The lecture uses this case to explain that if later tariff alteration is sought, the alteration must be within the PPA and must not shift an unjustified burden to consumers.

Simple principle:

Competitive bidding tariff has sanctity, but consumer interest under the Electricity Act remains relevant.

15. Energy Watchdog v CERC

This is the most important case on Section 63, change in law and force majeure.

Facts

Several power generators had entered into PPAs after competitive bidding. Some of them relied on imported coal from Indonesia. Later, changes in Indonesian regulations increased coal prices. The generators argued that the tariff should be revised because the project had become commercially difficult.

They claimed relief under:

force majeure;
change in law;
regulatory power of the Commission.

Supreme Court's reasoning

The Supreme Court held that Section 63 does not completely remove the Commission from the picture. Section 63 must be read with Section 61 and the Commission's regulatory functions.

However, the Court did **not** accept that Indonesian coal price increase automatically amounted to "change in law" under Indian PPAs. A foreign law change is not treated as change in Indian law unless the PPA covers it in that way. The Court also rejected broad relief on force majeure merely because performance became more expensive.

But the Court recognised that changes in Indian coal allocation policy may qualify as **change in law**, depending on the PPA terms.

Simple principle:

Section 63 tariff cannot be reopened merely because the project becomes commercially difficult, unless the PPA or law permits relief, such as a valid change-in-law clause.

16. Why Energy Watchdog matters

Energy Watchdog teaches four important points:

First, Section 63 is not outside the Act.

Second, the Commission still has regulatory power, but it cannot rewrite commercial bargains freely.

Third, force majeure does not usually cover mere increase in cost unless the contract says so.

Fourth, change in law depends on the wording of the PPA and the nature of the legal change.

This case protects both contractual certainty and consumer interest.

17. Essar Power Ltd. v Uttar Pradesh Electricity Regulatory Commission / Noida Power case

The lecture then discusses a case where a successful bidder was selected through competitive bidding, but another party later offered a lower tariff. The issue was whether the procurer or Commission could bring that other party into the process after the successful bidder had already been selected.

This appears to refer to **Essar Power Ltd. v Uttar Pradesh Electricity Regulatory Commission**, Appeal No. 82 of 2011 before APTEL. Noida Power had elected to procure power under Section 63 and had declared Essar Power as the successful bidder. A later attempt was made to introduce Athena Power, a non-participant in the bid process, with a lower tariff. APTEL held that once the successful bidder had been declared and a petition for adoption of tariff had been filed, it was not open to introduce an extraneous party into the Section 63 process.

Simple principle:

A lower tariff from a non-bidder cannot be introduced later through the backdoor after the competitive bidding process has concluded.

18. Why the Noida Power / Essar case matters

The purpose of Section 63 is not just to get the lowest number at any later stage. It is to discover tariff through a fair, transparent and structured bidding process.

If outsiders are allowed to enter after bids are opened and evaluated, the process becomes unfair. Bidders who followed the rules would lose certainty, and future bidding would lose credibility.

So the Tribunal protected the integrity of competitive bidding.

19. Renegotiation of bid-out PPAs

The lecture also refers to cases where a Commission tried to direct renegotiation of tariff after a bidding process.

The principle is:

Once tariff has been discovered through a transparent bidding process and adopted under Section 63, the Commission cannot casually direct renegotiation merely because a lower tariff is later available or market conditions have changed.

APTEL has repeatedly emphasised that under Section 63, the Commission's role is to adopt the tariff discovered through transparent bidding, not to rewrite or renegotiate the PPA after the bidding process is concluded.

Simple principle:

A concluded competitive bidding process has sanctity. Tariff cannot be renegotiated casually after adoption.

20. Sanctity of competitive bidding

The lecture's larger point is that courts and tribunals give strong sanctity to competitive bidding.

Why?

Because competitive bidding works only when bidders trust the process. If tariff can be reopened easily after bidding, serious bidders may stop participating. They may fear that their successful bid can later be disturbed, or that a non-bidder can enter later with a lower number.

So judicial approach generally protects:

transparency;
finality of bid process;
consumer interest;
PPA certainty;
regulatory discipline.

21. Section 63: what the Commission can and cannot do

Commission can:

check transparency of bidding;
check compliance with Central Government guidelines;
check whether deviations from standard bid documents were approved;
check whether consumer interest is protected;
adopt tariff if conditions are satisfied;
consider PPA-based relief such as change in law if legally available.

Commission cannot:

redetermine tariff as if it is a Section 62 case;
rewrite the commercial bargain freely;
allow backdoor entry of a non-bidder;
order renegotiation merely because a lower tariff later appears;
ignore the PPA terms;
ignore consumer interest.

22. Section 62 vs Section 63: exam comparison

Point	Section 62	Section 63
Nature	Regulatory tariff determination	Tariff adoption after bidding
Who fixes tariff?	Commission	Competitive bidding process
Commission role	Determines tariff	Adopts tariff after checking process
Method	Cost-plus / normative regulation	Market-discovered bid tariff
Cost scrutiny	Detailed cost scrutiny	No full cost-plus scrutiny
Risk	Lower commercial risk for generator/licensee	Higher risk for bidder
Consumer protection	Through Commission's cost and tariff scrutiny	Through transparent competition and Section 61 principles

Point	Section 62	Section 63
Flexibility after tariff	Tariff may adjust as per regulations	PPA terms and change-in-law clauses become crucial
Key phrase	“shall determine tariff”	“shall adopt tariff”

CONSUMER PROTECTION

Consumer Welfare and Consumer Rights under the Electricity Act, 2003

The Electricity Act, 2003 is a reform-oriented legislation, but it is not only concerned with liberalisation, private participation and competition. It also gives strong importance to **consumer welfare**. The reason is that electricity is not an ordinary market commodity; it is an essential public service required for education, health, livelihood, communication, domestic life, agriculture and overall human development. Therefore, when electricity supply moved from State-controlled Electricity Boards to a more market-oriented model, the law had to ensure that private players and licensees do not act only for profit. The Act therefore balances **competition with consumer protection**.

The concern for consumers begins from the **Preamble** itself. The Preamble of the Act shows two connected objectives: one is to promote competition and develop the electricity industry, and the other is to protect consumer interest and ensure supply of electricity to all areas. The Preamble is important because it helps understand the intention of the law-maker and assists in interpreting the provisions of the Act where there is ambiguity. Thus, consumer interest is not an accidental part of the Act; it is one of its basic purposes.

Under **Section 2(15)**, a consumer means a person who is supplied electricity for his own use, and it also includes a person whose premises are connected for receiving electricity. The important point is that the electricity must be for **own use**, not for resale. Even if electricity is not actually being consumed at a particular moment, the person may still be a consumer if the premises are connected for receiving electricity. The 2020 Consumer Rights Rules further clarify the idea of **occupier**, which includes the owner, tenant or any person in occupation of premises. This is important because electricity connection may be in the owner’s name, but the actual user may be a tenant; recognition of the occupier helps avoid unfair billing and load-related problems.

One of the strongest protections is the **universal service obligation** under **Section 43**. It means that when an owner or occupier applies for electricity connection and fulfils the required conditions, the distribution licensee has a statutory duty to supply electricity within the prescribed time. This gives the consumer a statutory right to electricity connection. The licensee cannot sit over the application or supply electricity according to its own convenience. This obligation also implies that electricity supply should be reliable and of reasonable quality.

Consumer interest is also protected through **open access**. Open access gives eligible consumers the choice to buy electricity from a source other than the local distribution licensee. This creates competition and may help consumers get electricity at a better price and better quality. The idea is that if consumers have choice, distribution licensees and suppliers will be under pressure to improve their service. However, this is balanced with charges like cross-subsidy surcharge so that subsidised consumers are not harmed.

The Act also protects consumers by requiring proper **standards of performance** under **Section 57**. The Appropriate Commission lays down performance standards after consulting the licensees and affected persons. This shows that the law does not impose standards blindly; it uses consultation. If the licensee fails to meet these standards, penalty or compensation may follow. Persistent failure to maintain uninterrupted supply can even become a ground for suspension of licence. The word **persistent** is important: one occasional power cut will not be enough; there must be repeated or continuous failure.

Consumer interest is also central in **tariff determination**. Under **Section 61**, the Commission must safeguard consumer interest while also allowing recovery of electricity cost in a reasonable manner. This means the consumer should not be overcharged, but the electricity sector should also remain financially viable. Under **Section 62(3)**, the Commission cannot give undue preference to any consumer, but it may differentiate tariff on reasonable grounds such as load factor, power factor, voltage, total consumption, time of supply, geographical position, nature of supply and purpose of supply. This allows realistic tariff categories, for example, agriculture, domestic, commercial and industrial consumers, especially in a country where farming seasons and rural supply needs are important.

The Act also recognises **subsidy** under **Section 65**. If Government wants to support a class of consumers, such as poor households, farmers or certain industries, it may grant subsidy. This protects vulnerable consumers, but the law also requires proper subsidy payment so that the distribution licensee is not financially harmed.

Another consumer-protective feature is **public participation**. Under tariff and licensing provisions, the Regulatory Commission must consider public objections and suggestions. For tariff matters, Section 64 requires public participation; for licence matters, Section 15 requires consideration of public views. This is important because regulatory commissions are independent bodies and not directly elected, so public consultation makes the process more transparent and accountable.

Section 56 protects consumers against arbitrary disconnection. If a consumer neglects to pay electricity charges, the licensee may disconnect supply only after giving **15 clear days' notice**. The expression "neglects" indicates that there must be failure to pay despite liability. If the consumer pays the amount under protest, disconnection should not take place. Section 56(2) further says that old dues cannot be used for disconnection after two years from when the amount first became due, unless they were continuously shown as recoverable arrears. This prevents harassment through old or suddenly revised bills. In **Ajmer Vidyut Vitran Nigam Ltd. v Rahamatullah Khan**, the Supreme Court clarified that a supplementary demand may be raised later, but disconnection for such old dues is restricted.

The Act creates specific consumer grievance institutions. Under **Section 42(5)**, every distribution licensee must establish a **Consumer Grievance Redressal Forum (CGRF)** according to guidelines of the State Commission. The forum may function at different levels such as subdivision, circle, zone or company level. It generally includes officers of the licensee, consumer/prosumer representation and an independent member familiar with consumer affairs. A concern is that if a licensee officer heads the forum, there may be bias in favour of the licensee. Therefore, independent participation is important. The forum is meant to be informal and self-correcting, more like conciliation than a strict court process. Ideally lawyers should not be needed, but if the licensee uses a lawyer, the consumer should also be allowed one for fairness.

If the consumer is not satisfied with the CGRF, he can approach the **Electricity Ombudsman** under **Section 42(6)**. The Ombudsman is appointed by the State Commission. The use of the word “settle” does not mean the Ombudsman is only a mediator; it also performs an adjudicatory function. Generally, it is the consumer who approaches the Ombudsman, because the licensee usually has no grievance when the forum decides in its favour. The Ombudsman must also prepare reports about the kinds of grievances received, responses of licensees and its own views, and submit them to the Commission and Government. These reports help identify recurring problems and improve future regulation.

The CGRF and Ombudsman mainly settle consumer grievances. They do not generally impose statutory penalties or compensation in the same way as the Commission. If standards of performance or statutory directions are violated, penalty-related powers lie with the Appropriate Commission, for example under Section 142. Thus, grievance redressal and regulatory punishment must be kept separate.

The Act also preserves consumer remedies under other laws. A consumer may still use remedies under laws like the Consumer Protection Act, where applicable. However, if the dispute relates specially to the Electricity Act, such as unauthorised use or theft, then the special mechanism of the Electricity Act will apply. In **U.P. Power Corporation Ltd. v Anis Ahmad**, the Supreme Court held that deficiency in service may go to consumer forum, but unauthorised use and theft-related matters must follow the Electricity Act mechanism.

Consumer welfare is also protected through advisory and policy-level bodies. The **Central Electricity Authority** must keep in mind reliable and affordable electricity for consumers. The **Central Advisory Committee** and **State Advisory Committee** include consumer representatives and advise the Commission on consumer protection, quality of service and supply-related issues. The Commission may also authorise a person to represent consumer interest in proceedings. Under **Section 166**, District Committees may be created to review quality of power supply and consumer satisfaction. This shows that consumer protection is not only individual grievance redressal but also part of policy supervision.

The **Electricity (Rights of Consumers) Rules, 2020** further strengthen consumer rights. These Rules were framed under Section 176 and aim to ensure minimum standards of quality in consumer service. They require new connections and modification of existing connections to be simple, transparent, technology-based and time-bound. Online application is encouraged. The

lecture mentions timelines of 7 days for metro cities, 15 days for other municipal areas and 30 days for rural areas, depending on infrastructure conditions.

The 2020 Rules also emphasise proper **metering**. No connection should be given without a correct meter. Earlier, unmetered supply caused revenue loss, theft and inefficiency. The Rules promote **prepayment meters** and **smart meters**. Prepaid meters improve revenue collection because the consumer pays before using electricity. They may also support targeted subsidy or direct benefit transfer. Under **Section 47(5)**, if a consumer is ready to take supply through a prepaid meter, security deposit should not be demanded. If the consumer buys a meter according to approved specifications, the licensee should not charge separately for that meter; otherwise, the licensee must install it and may ask for reasonable security, subject to the law.

Smart meters are important because they help understand consumption patterns, support demand-side management, improve billing accuracy, reduce theft and allow better planning. They can help the distribution licensee plan procurement during peak and low-demand periods. But smart meters also raise privacy concerns. Consumption data may reveal when a person is at home, when the house is vacant, or what kind of lifestyle pattern exists. Therefore, the lecture correctly says that smart meters should not be abandoned, but they must be supported by a proper data privacy regime.

The 2020 Rules also deal with **billing and payment**. Billing must be transparent, tariff categories must be clearly disclosed, online payment must be available, advance payment may be allowed, and in exceptional situations like a pandemic the consumer may send a photograph of the meter reading. If a bill is not issued properly, the licensee may have to give rebates and make details available on its website. These small procedural rights build consumer trust and make the licensee more accountable.

The Rules also say that licensees should supply **24x7 electricity**, subject to practical exceptions. For example, lower hours of supply may be specified for agriculture. To ensure reliable supply, the licensee should have an automated system for monitoring and restoring outages instead of depending only on phone complaints. Technology should help both consumers demand better service and licensees deliver better service.

Another important development is recognition of the **prosumer**. A prosumer is a consumer who also produces electricity, usually through rooftop solar or another renewable source. Even after becoming a producer, the person continues to enjoy consumer rights. The Rules allow the consumer to set up renewable generation either personally or through a service provider. In **net metering**, the electricity exported by the consumer is adjusted against the electricity consumed. In **gross metering**, the consumer sells all generated electricity to the licensee at a feed-in tariff and separately buys electricity from the licensee. The lecture points out that gross metering may discourage larger housing societies, commercial users and industries because the feed-in tariff is often lower than the retail tariff; they sell cheaper but buy costlier.

Two case laws are important. In **Sadita Industries v Himachal Pradesh Electricity Regulatory Commission**, the issue was difference in meter reading between the consumer premises and grid sub-station. The Tribunal held that if the regulation requires the meter to be

installed at or near the consumer premises, billing cannot be based on a meter installed at an unauthorised place like a grid sub-station. This protects the consumer from arbitrary billing.

In **Superintending Engineer, Dharapuram Electricity Distribution Circle v Minakshi India Ltd.**, the Madras High Court clarified that the Electricity Ombudsman is not merely a mediator but also performs an appellate/adjudicatory role in consumer grievance matters. This strengthens the remedial structure for consumers.

In conclusion, consumer welfare under the Electricity Act, 2003 is protected through a complete framework: the Preamble's consumer-protection objective, definition of consumer, occupier rights, universal service obligation, open access, performance standards, tariff safeguards, subsidy, public participation, protection against disconnection, CGRF, Ombudsman, advisory committees, district committees, preservation of remedies under other laws, and the Electricity (Rights of Consumers) Rules, 2020. The overall philosophy is that electricity is an essential public service. Therefore, competition and private participation are allowed, but they must operate with affordability, reliability, transparency, accountability, quality supply and consumer dignity.

Case Law from Consumer Rights Lecture

Sadita Industries v Himachal Pradesh Electricity Regulatory Commission

The lecture discusses **Sadita Industries v Himachal Pradesh Electricity Regulatory Commission**, an APTEL decision from 2014.

The issue involved difference in meter readings. One meter was at the consumer's premises and another was at the grid sub-station. The licensee relied on the meter at the grid sub-station for billing.

The Tribunal held that if the regulation requires the consumer meter to be installed at the consumer's premises, billing should follow that regulatory requirement. The licensee cannot ignore the regulation and rely on a meter placed elsewhere merely by claiming fairness or convenience.

Simple principle:

Metering must follow the regulations. Billing cannot be based on an unauthorised metering arrangement.

U.P. Power Corporation Ltd. v Anis Ahmad

This case explains the relationship between the Electricity Act and Consumer Protection Act.

The Supreme Court held that consumer forums can deal with electricity complaints involving deficiency in service, but they cannot decide matters relating to assessment under Section 126 or offences under Sections 135 to 140 of the Electricity Act, such as unauthorised use or theft. (indiankanoon.org)

Simple principle:

For normal deficiency in electricity service, consumer remedies may be available. For unauthorised use/theft/special electricity assessment, the Electricity Act mechanism applies.

THEFT AND UNAUTHORISED USE OF ELECTRICITY

Consumer-Related Offences under the Electricity Act, 2003

1. Basic idea of this lecture

The Electricity Act, 2003 protects consumers, but it also expects consumers to use electricity lawfully. Electricity is a valuable public resource. If some consumers misuse electricity, steal electricity, tamper meters, or illegally divert supply, the distribution licensee suffers revenue loss. That loss ultimately affects the whole electricity system and honest consumers.

So, the Act identifies certain consumer activities as wrongful. The lecture mainly focuses on two concepts:

1. **Unauthorised use of electricity — Section 126**
2. **Theft of electricity — Section 135**

The lecture does not focus on offences committed by licensees or electricity companies. It focuses on wrongful acts by consumers/users.

2. Unauthorised use of electricity — Section 126

Unauthorised use of electricity means the consumer has some connection or access to electricity, but uses it in a way that is not legally permitted.

This is different from simple non-payment of bill. It is also different from pure theft in some cases. It is mainly about **misuse of supply**.

Section 126 says that if, after inspection of premises, equipment, gadgets, machines, devices or records, the assessing officer concludes that a person is indulging in unauthorised use of electricity, he shall make a **provisional assessment** of the electricity charges payable. The assessment is made “to the best of his judgment.”

3. Meaning of “best judgment assessment”

“Best judgment” means the officer may estimate the liability based on available facts, inspection, connected load, consumption pattern, records, meter condition and other material.

It does not mean arbitrary guesswork. It means the officer may make a reasonable assessment when exact data is not fully available.

This phrase is also common in tax law. For example, if a taxpayer does not give proper records, the tax officer may make a best judgment assessment. Similarly, in electricity law, if unauthorised use is found, the officer may assess how much electricity was misused and what amount should be recovered.

4. Who is the assessing officer?

The **assessing officer** is an officer of the State Government, Board or licensee designated by the State Government for this purpose. So it may be an officer connected with the electricity distribution system, but he must be properly designated.

The word “Board” appears because, when the 2003 Act was enacted, some State Electricity Boards still existed or were being unbundled. The Act therefore used broader language to avoid a legal gap.

5. Procedure under Section 126

The procedure is:

First, the assessing officer inspects the premises, equipment, gadgets, machines, devices or records.

Second, if he finds unauthorised use, he makes a **provisional assessment**.

Third, the provisional assessment order is served on the person in occupation, possession or charge of the premises.

Fourth, the person has two choices. He may accept the provisional assessment and deposit the assessed amount within **7 days**, or he may file objections before the assessing officer.

Fifth, if objections are filed, the assessing officer must give a reasonable opportunity of hearing and pass a **final assessment order** within **30 days** from service of the provisional assessment order.

So the consumer/user is not condemned unheard. He gets an opportunity to object before final liability is fixed.

6. Period and rate of assessment

The transcript says that assessment is presumed for 3 months in domestic/agricultural cases and 6 months in other cases, and that the rate is one-and-a-half times the tariff. That reflects an earlier position or lecture simplification. The current statutory position after amendment is different.

Under the current Act, if the period of unauthorised use can be identified, assessment is made for that actual period. If the period cannot be ascertained, it is limited to **12 months immediately before the date of inspection**. The assessment is made at **twice the tariff** applicable to the relevant category.

For exam purposes, write the current position: **up to actual period; if not ascertainable, 12 months; rate is twice the applicable tariff**.

7. What counts as unauthorised use?

Section 126 explains unauthorised use as use of electricity:

1. by artificial means;
2. by a means not authorised by the concerned person, authority or licensee;
3. through a tampered meter;
4. for a purpose other than the authorised purpose;
5. for premises or areas other than those for which supply was authorised.

Simple examples:

If a person has a domestic connection but uses it for a factory, it is unauthorised use.

If a person has a connection for one shop but supplies electricity to another shop also, it is unauthorised use.

If a person uses electricity through a tampered meter, it may be unauthorised use and may also become theft if dishonest intention is present.

If electricity is sanctioned for one premises but used in another premises, it is unauthorised use.

The core idea is this:

There is some permission to use electricity, but the actual use goes beyond that permission.

8. Appeal under Section 127

If a person is aggrieved by the final assessment order under Section 126, he may file an appeal under **Section 127** within **30 days**.

But there is an important condition: the appeal will not be entertained unless the person deposits **half of the assessed amount**.

The reason is practical. The law does not want a person to misuse the appeal process simply to delay payment. By requiring deposit of half the amount, the Act ensures seriousness from the appellant's side and also protects the licensee from revenue loss.

The appellate authority hears the parties and passes an order. The order of the appellate authority is final. Also, no appeal lies against a final order made with the consent of the parties.

9. Why deposit of half amount is required

This rule exists because unauthorised use causes financial loss to the electricity system. If the user could file appeal without depositing anything, he may continue delaying the matter and enjoying the benefit. The deposit rule discourages unnecessary litigation and encourages early resolution.

In simple words:

If you seriously dispute the assessment, deposit half and pursue the appeal.

10. Theft of electricity — Section 135

Theft of electricity is more serious than unauthorised use.

Section 135 deals with **dishonest abstraction, consumption or use of electricity**. The section begins with the word “**dishonestly**.” This is very important because theft has a criminal element.

Theft involves two elements:

1. **Mental element** — dishonest intention.
2. **Physical element** — some act like tapping, tampering, damaging meter, using tampered meter, etc.

11. Meaning of “dishonestly”

The lecture connects “dishonestly” with Section 24 of the Indian Penal Code. Dishonestly means doing something with intention to cause **wrongful gain** to one person or **wrongful loss** to another person.

In electricity theft, wrongful gain usually means the consumer gets electricity without paying properly. Wrongful loss means the licensee loses revenue.

So theft is not merely irregular use. It requires dishonest intention.

12. Why proving dishonest intention is difficult

In ordinary criminal law, intention must usually be proved. But in electricity theft cases, proving intention is difficult because meters, wires, appliances and tampering devices may be inside the consumer’s premises.

A consumer may say, “I did not know the meter was tampered,” or “I never used that device.” So the Act creates a special presumption.

13. Presumption of dishonesty under Section 135

Section 135 says that if artificial means or unauthorised means exist for abstraction, consumption or use of electricity, then it shall be presumed, until the contrary is proved, that such abstraction, consumption or use was dishonestly caused by the consumer.

This is very important.

It means once the licensee proves that an artificial or unauthorised device/means existed, the burden shifts to the consumer to explain that he did not dishonestly cause the theft.

In simple language:

If illegal arrangement is found in the consumer's control, the law presumes dishonesty unless the consumer proves otherwise.

14. Acts amounting to theft under Section 135

Theft of electricity includes:

tapping electricity lines or cables;

tampering a meter;

using a tampered meter;

using current reversing transformer, loop connection or other device interfering with proper metering;

damaging or destroying meter, apparatus, equipment or wire to interfere with accurate metering;

using electricity for a purpose other than authorised in a dishonest manner.

Examples:

Directly hooking wire from an electric line.

Breaking meter seals to slow down meter reading.

Using a device to reverse current or reduce recording.

Using domestic connection dishonestly for commercial/industrial activity.

Damaging the meter so that actual consumption is not recorded.

15. Difference between unauthorised use and theft

This is the most important conceptual distinction.

Unauthorised use under Section 126 is mainly a civil assessment mechanism. It is about recovering charges for electricity used in an unauthorised manner.

Theft under Section 135 is a criminal offence. It requires dishonest intention, though dishonesty may be presumed in certain circumstances.

Simple difference:

Point	Section 126	Section 135
Nature	Civil/assessment proceeding	Criminal offence
Focus	Misuse or unauthorised use	Dishonest theft of electricity
Intention	Dishonesty not always necessary	Dishonesty is essential
Authority	Assessing officer	Criminal process/Special Court
Result	Assessment and recovery	Punishment + fine + civil liability
Appeal	Section 127 appeal	Trial before Special Court

But both can overlap. If unauthorised use is done dishonestly, it may also become theft.

16. Can Section 126 and Section 135 both apply?

Yes. The lecture explains that there may be overlap between unauthorised use and theft.

For example, using a domestic connection for industrial purpose may be unauthorised use. If it is done dishonestly to avoid higher tariff, it may also become theft.

The important test is:

Unauthorised use + dishonest intention = theft may also be attracted.

Allahabad High Court has explained that some unauthorised uses may also amount to theft when dishonest intention is present. It also observed that Section 126 is for recovery of charges for unauthorised consumption, while Section 135 makes such conduct criminal when it amounts to theft.

17. Immediate disconnection in theft cases

When theft is detected, the licensee or supplier may immediately disconnect electricity supply. But this can be done only by an authorised officer or a higher-ranking officer.

After disconnection, the officer must lodge a written complaint at the police station within **24 hours**. On payment of assessed amount or electricity charges, supply must be restored within **48 hours**, though the criminal complaint may still continue.

So payment may restore supply, but it does not automatically erase the offence unless compounding happens under Section 152.

18. Search and seizure powers

Section 135 gives authorised officers powers to:

enter, inspect, break open and search premises;

search, seize and remove devices, instruments, wires or other articles used for unauthorised use;

examine or seize books of account or documents relevant to proceedings.

These powers are strong because theft of electricity is often hidden. But the Act also gives safeguards to the consumer.

19. Safeguards during search

The Act provides important safeguards:

The occupant or a person on his behalf has the right to remain present during search.

A list of seized items must be prepared and delivered to the occupant/person present.

Domestic premises should not be searched between sunset and sunrise except in the presence of an adult male member occupying the premises.

CrPC provisions relating to search and seizure apply as far as possible.

So the Act gives inspection powers, but not uncontrolled powers.

20. Punishment for theft under Section 135

The general punishment for theft of electricity is imprisonment up to **3 years**, or fine, or both.

If the load does not exceed **10 kW**, the fine for first conviction shall not be less than **three times** the financial gain. For second or subsequent conviction, it shall not be less than **six times** the financial gain.

If the load exceeds **10 kW**, first conviction also carries fine not less than three times the financial gain. For second or subsequent conviction, punishment is imprisonment for not less than **6 months**, which may extend to **5 years**, and fine not less than six times the financial gain. The person may also be debarred from getting electricity supply for a period between three months and two years.

So repeated theft is treated more seriously.

21. Why the Act focuses on financial recovery

A key point in the lecture is that the Act is not only interested in sending the wrongdoer to jail. It is also interested in making good the loss suffered by the licensee.

Distribution licensees often face financial difficulty. If electricity is stolen, the licensee loses revenue. So the law strongly focuses on recovering the financial loss through assessment, fines and civil liability.

This does not mean imprisonment is irrelevant. It means the Act combines criminal punishment with revenue recovery.

Cognizable and non-bailable offences — Section 151B

Offences punishable under Sections **135 to 140** and Section **150** are cognizable and non-bailable.

This shows that electricity theft and related offences are treated seriously.

Important case-law point: overlap between Sections 126 and 135

The lecture discusses the court's clarification that Section 126 and Section 135 can overlap.

Section 126 deals with unauthorised use and assessment. Section 135 deals with theft and criminal punishment. Some acts may fall under both.

The correct test is:

If there is unauthorised use without dishonest intention, Section 126 applies. If unauthorised use is accompanied by dishonest intention, Section 135 may also apply.

The court also used words like “assessed amount” in Section 135 and “amount deposited” in Section 154 to show that assessment and theft proceedings may be connected. The Act therefore permits both monetary assessment and criminal action when the facts justify it.

REGULATORY COMMISSIONS AND OTHER INSTITUTIONS

1. **Regulatory Commissions**
2. **Powers and functions of Regulatory Commissions**
3. **Appellate Tribunal for Electricity**
4. **Other institutions: Arbitrator, Central Electricity Authority, Coordination Forum and Forum of Regulators**

Below are complete simple notes.

1. Regulatory Commissions under the Electricity Act, 2003

Basic idea

The Electricity Act, 2003 gives a very important role to **Regulatory Commissions**. The idea is that electricity is no longer managed only by the Government. After liberalisation, private players entered generation, transmission, distribution and trading. Therefore, an independent body was needed to regulate the sector fairly.

Earlier, under the old system, the Government had a major role in tariff fixation and sector control. But after the 1991 economic reforms and the Electricity Regulatory Commissions Act, 1998, the idea developed that electricity regulation should be handled by an independent expert body. The Electricity Act, 2003 strengthened this system.

In simple words:

Government makes policy. Regulatory Commission regulates the market.

Why Regulatory Commissions are needed

Regulatory Commissions are needed because electricity is a highly technical and public-interest sector. If everything is controlled by Government, decisions may be affected by political pressure. If everything is left to the market, private companies may focus only on profit.

So the Commission acts as a middle institution. It protects consumer interest, gives confidence to investors, promotes competition, regulates tariff, grants licences, decides disputes and ensures orderly development of the sector.

The purpose is:

less political interference + expert decision-making + consumer protection + investor confidence.

Central and State Commissions

Because electricity is in the **Concurrent List**, both the Union and States have roles. Therefore, the Act creates:

Central Electricity Regulatory Commission (CERC)

State Electricity Regulatory Commissions (SERCs)

Joint Electricity Regulatory Commission

There is no strict hierarchy between CERC and SERC because both operate in their respective fields. But State Commissions should generally be guided by Central Commission regulations, because regulatory certainty and uniformity are important in the electricity sector.

Legal status of Commission

The Commission is a **body corporate**. This means it has a separate legal identity. It has perpetual succession, common seal, power to acquire and hold property, enter into contracts, sue and be sued.

This is important because the Commission is not merely a Government department. It has independent legal personality.

Composition and appointment

The Commission has a Chairperson and Members. The CERC also includes the Chairperson of the Central Electricity Authority as an ex-officio member. Members may come from disciplines like engineering, law, economics, commerce, finance or management.

The appointment is made through a selection process. However, the lecture raises a concern: the selection committee largely consists of Government officials, and the Ministry gets to choose from names recommended. This may affect the real autonomy of the Commission.

If a judge of the Supreme Court or Chief Justice of a High Court is considered for appointment as Chairperson, consultation with the Chief Justice of India becomes important. This protects judicial independence and institutional credibility.

Independence and autonomy

The Act tries to protect independence in several ways:

The Commission has separate legal status.
Members get fixed tenure.
Terms and conditions cannot be varied to their disadvantage.
There is a cooling-off period after retirement.
Members should not have conflict of interest in the electricity sector.

But autonomy is not perfect. Financial dependence on Government may affect independence. Section 106 requires the Commission to prepare budget estimates and forward them to Government. Creation of posts may also need Government sanction. This may create some dependence.

So, the lecture's balanced point is:

The Act tries to create independent Commissions, but selection and financial dependence may still affect autonomy.

Accountability and transparency

Independent bodies must also be accountable. Therefore, the Commission must prepare reports, forward them to Government, and these reports are placed before Parliament or the State Legislature. This ensures that even though the Commission is independent, its functioning remains visible to people's representatives.

Transparency is also promoted by publication of draft regulations, public consultation and hearing of affected parties before important regulatory decisions.

Advisory Committees

Sections 80 and 87 provide for Central and State Advisory Committees. These committees include representatives from commerce, industry, transport, agriculture, labour, consumers, NGOs, academic and research institutions.

The purpose is to make regulation participatory. The Commission should not decide only from inside its office; it should hear different stakeholders. However, the lecture also raises a practical question: whether these committees actually represent stakeholders effectively in practice.

Powers and Functions of Regulatory Commissions

The Commission performs three kinds of functions:

mandatory functions,
advisory functions, and
legislative/regulation-making functions.

Mandatory functions

Under Sections **79(1)** and **86(1)**, the Commission performs important statutory functions.

For CERC, these mainly relate to central and inter-State matters. For SERC, these relate to State and intra-State matters.

Important functions include:

tariff regulation and determination;
grant, suspension and revocation of licence;
regulation of inter-State or intra-State transmission;
adjudication of disputes between generating companies and licensees;
approval/adoption of tariff through competitive bidding;
grid code and standards-related regulation;
promotion of competition and market development.

The Commission is therefore not a passive body. It actively shapes the electricity sector.

Advisory functions

Under Sections **79(2)** and **86(2)**, the Commission advises the Government on electricity policy, tariff policy, promotion of competition, investment, efficiency and economy in the electricity industry.

This advice should not be treated as an empty formality. Since the Commission is an expert body, Government should give serious consideration to its advice.

Legislative or regulation-making function

Sections **178** and **181** give regulation-making power to CERC and SERC respectively.

The Commission can make regulations on:

licensing,
grid code,
open access,
trading margin,
fees,
transmission charges,
subsidy and cross-subsidy,
standards of performance,
tariff procedure.

This function is legislative in nature because the Commission is making general rules for the future. It is not deciding one individual dispute.

Difference between legislative and adjudicatory function

This is an important exam point.

When the Commission makes regulations, it performs a **legislative function**. It lays down general rules for future conduct.

When the Commission decides a dispute between parties, it performs an **adjudicatory/quasi-judicial function**. It looks at facts, applies law and gives a decision.

Therefore, procedure differs. In legislative functions, strict personal hearing may not always be necessary. In adjudicatory functions, natural justice becomes very important.

Adjudicatory function

The Commission can adjudicate disputes between generating companies and licensees. For CERC, the dispute should relate to central/inter-State matters. For SERC, it should relate to State/intra-State matters.

The lecture explains that regulatory adjudication is different from ordinary court adjudication. A court usually looks at the dispute between two parties. But a regulatory body must also keep in mind the larger interest of the sector, consumers and other stakeholders.

Powers of Commission during adjudication

Section 94 gives the Commission powers similar to a civil court. It can:

- summon witnesses,
- examine witnesses on oath,
- receive evidence on affidavit,
- review its orders,
- call for documents,
- enter premises and seize relevant documents.

Proceedings before the Commission are treated as judicial proceedings for some purposes. This gives seriousness and legal sanctity to Commission proceedings.

Non-compliance with Commission directions

If directions of the Commission are not followed, action may be taken under provisions like Section 142 and Section 146. This means the Commission is not merely advisory; its orders have enforceable legal force.

Legal member requirement: State of Gujarat v Utility Users Welfare Association

This is a very important case.

The Supreme Court held that because Regulatory Commissions perform adjudicatory functions, there must be a person with proper legal background in the Commission. It is not enough that someone merely has a law degree. The person should have judicial experience, professional legal experience, or qualifications suitable for appointment as a High Court judge or District Judge.

The principle is:

Where a body performs judicial or quasi-judicial functions, legal expertise is necessary.

PTC India case

In **PTC(Power Trading Corp) India Ltd. v CERC**, the Supreme Court clarified the relationship between regulations and decision-making powers.

The Commission can exercise its statutory decision-making powers even if regulations are not yet framed. Regulation-making is not a precondition for exercising statutory powers. However, once regulations are made, the Commission must act consistently with those regulations.

The Court also said that the power to make regulations is wider than ordinary decision-making power. Regulations can even affect existing arrangements such as PPAs, provided they are within the statutory framework.

Other Institutions under the Electricity Act, 2003

The Electricity Act, 2003 does not depend only on Regulatory Commissions. It creates a wider institutional framework to regulate the electricity sector, resolve disputes, maintain technical standards, and ensure coordination between different authorities. The important institutions discussed here are the **Appellate Tribunal for Electricity (APTEL)**, **arbitrator**, **Central Electricity Authority (CEA)**, **Coordination Forum**, **District Committees**, and **Forum of Regulators**.

1. Appellate Tribunal for Electricity — APTEL

Before the Electricity Act, 2003, appeals against the orders of Electricity Regulatory Commissions went to the High Court. However, electricity disputes are usually technical and urgent. They may involve tariff, power purchase agreements, transmission, distribution, investment, infrastructure, and public service. Ordinary courts may not always have the technical expertise or time to decide such matters quickly.

That is why the Supreme Court, in **West Bengal Electricity Regulatory Commission v CESC**, observed that appeals from Commission orders should go before a specialised expert body having both judicial and technical members. This led to the creation of the **Appellate Tribunal for Electricity**, commonly called **APTEL**.

APTEL was established under **Section 110** of the Electricity Act, 2003 and came into existence in 2005.

Purpose of APTEL

APTEL was created mainly for three reasons:

First, to reduce the burden on ordinary courts.

Second, to provide faster disposal of electricity disputes.

Third, to bring technical expertise into electricity adjudication.

Electricity disputes cannot remain pending for many years because delay affects consumers, investors, generating companies, distribution licensees, tariff, infrastructure and public supply.

Jurisdiction of APTEL

Under **Section 111**, any person aggrieved by an order of the **Appropriate Commission** or an **Adjudicating Officer** may file an appeal before APTEL.

An **Adjudicating Officer** is generally a member of the Regulatory Commission appointed to inquire into non-compliance of directions or regulations and impose penalties. Before imposing penalty, the party must be given an opportunity of hearing. This follows the principle of natural justice.

So, APTEL hears appeals against:

1. orders of the Central or State Electricity Regulatory Commission; and
2. orders of the Adjudicating Officer.

Who can appeal before APTEL?

Only an **aggrieved person** can appeal under Section 111.

An aggrieved person means a person who has suffered a legal injury, whose legal right has been affected, or who has a real legal grievance. A person who is merely interested in the matter, but not legally affected, cannot ordinarily appeal.

This means APTEL is not generally meant for public interest litigation. A person must show that he is directly affected by the order.

A practical concern is that small consumers may find it difficult to approach APTEL because the Tribunal is located mainly in Delhi and the fee may be high. Therefore, in practice, APTEL is mostly approached by generating companies, distribution licensees, transmission licensees, trading licensees and large consumers.

Limitation and deposit before appeal

An appeal before APTEL must generally be filed within **45 days** from the date of receipt of the order.

However, if there is sufficient cause for delay, APTEL may condone the delay.

If the appeal is against a penalty imposed by an Adjudicating Officer, the penalty amount normally has to be deposited first. But if deposit of the amount would cause undue hardship, APTEL may waive or relax this requirement. While doing so, it must also consider how the amount will be recovered if the appeal fails.

This rule prevents parties from filing appeals only to delay payment.

Powers of APTEL

APTEL can confirm, modify or set aside the order appealed against. It can call for records, hear parties, examine the correctness of the Commission's order, and apply principles of natural justice.

APTEL should normally dispose of an appeal within **180 days**. If it cannot decide within that time, it must record reasons. This shows that the Act expects speedy dispute resolution in electricity matters.

APTEL has powers similar to a civil court, such as summoning witnesses, calling documents and receiving evidence. But it is not strictly bound by the Code of Civil Procedure. It can regulate its own procedure, provided it follows natural justice.

Composition of APTEL

APTEL consists of a **Chairperson** and members. It has both **judicial members** and **technical members**.

The Chairperson is usually a sitting or retired Judge of the Supreme Court or a Chief Justice of a High Court. A bench of APTEL must normally include at least one judicial member and one technical member.

This composition is important because electricity cases require both legal reasoning and technical understanding. Judicial members ensure legality and fairness. Technical members bring expertise in electricity, engineering, economics, commerce, finance, management or related areas.

The Act also permits circuit benches, but in practice APTEL mainly functions from Delhi. This creates difficulty for parties from distant States.

Section 121: Supervisory power of APTEL

Section 121 gives APTEL a special supervisory power over Regulatory Commissions.

Under this provision, APTEL may issue orders, instructions or directions to a Commission for performance of its statutory functions.

This power is different from ordinary appellate power. Under Section 121, APTEL does not decide the original dispute itself. It only ensures that the Commission performs its duty.

For example, if State Commissions are not regularly revising tariff, APTEL may direct them to determine tariff annually. But APTEL cannot take over a pending matter before the Commission and decide it directly under Section 121.

So, Section 121 is a **supervisory power**, not a substitute for Commission proceedings.

Appeal from APTEL to Supreme Court

Under **Section 125**, an appeal from APTEL lies directly to the **Supreme Court**.

The High Court route is bypassed. This is because APTEL itself is a specialised appellate body having judicial and technical expertise.

Can APTEL strike down regulations?

In **PTC India Ltd. v CERC**, the Supreme Court held that APTEL can interpret regulations, but it cannot decide the constitutional validity or vires of regulations.

If someone wants to challenge a regulation as ultra vires, the proper remedy is before the High Court under Article 226 or the Supreme Court under Article 32.

The reason is simple: APTEL is a statutory tribunal created under the Electricity Act. It cannot strike down regulations made under the same Act.

2-Arbitration under the Electricity Act

The Electricity Act also allows disputes to be referred to arbitration.

Under **Section 158**, the Appropriate Commission may refer a dispute to an arbitrator. Sections **79(1)(f)** and **86(1)(f)** provide that the Central Commission or State Commission may adjudicate disputes between generating companies and licensees, or refer the matter to arbitration.

The wording uses “and”, but logically it must be read as “or”. If the Commission itself adjudicates the dispute, there is no need for arbitration. Therefore, the correct meaning is:

The Commission may either decide the dispute itself or refer it to arbitration.

Why arbitration is provided

Arbitration may be useful where the dispute is highly technical, where expert resolution is needed, or where the Commission does not have enough time to decide the matter quickly.

But the arbitrator gets jurisdiction only when the matter is referred by the Appropriate Commission. Parties cannot bypass the Commission and directly appoint an arbitrator under the general Arbitration Act for disputes covered by the Electricity Act.

Gujarat Urja Vikas Nigam Ltd. v Essar Power

In **Gujarat Urja Vikas Nigam Ltd. v Essar Power**, the Supreme Court held that the Electricity Act is a special law and also a later law. Therefore, for electricity disputes covered by the Act, the Electricity Act prevails over the Arbitration and Conciliation Act, 1996.

This means the High Court cannot appoint an arbitrator under the general Arbitration Act when the dispute falls under the special mechanism of the Electricity Act. The power to appoint or refer the dispute to arbitration lies with the Regulatory Commission.

The principle is:

Electricity Act mechanism prevails over the general arbitration mechanism.

TANGEDCO v PPN Power

In **Tamil Nadu Generation and Distribution Corporation Ltd. v PPN Power**, the Supreme Court held that the Commission's decision to refer or refuse to refer a dispute to arbitration cannot be arbitrary.

Since the power to refer a dispute to arbitration is a statutory power, the Commission must exercise it reasonably, fairly and in public interest. If a party is aggrieved by the Commission's decision, APTEL can examine whether the decision was proper.

So the Commission does not have unlimited power. Its decision can be reviewed.

MP Power Trading case

In the **MP Power Trading** case, the Supreme Court considered what happens if an arbitrator is appointed by the wrong authority, such as by the parties or by the High Court, when the Electricity Act requires appointment through the Commission.

The Court held that such an objection can be raised even at a later stage. This is because the issue is one of jurisdiction and competence. If the arbitrator had no legal authority from the beginning, the defect does not disappear merely because parties did not object earlier.

So, appointment of arbitrator under the Electricity Act must follow the special statutory mechanism.

3-Central Electricity Authority — CEA

The **Central Electricity Authority**, or **CEA**, is another important institution under the Electricity Act, 2003.

It has its roots in the Electricity (Supply) Act, 1948. Under **Section 70** of the 2003 Act, the CEA is established by the Central Government.

The CEA consists of a Chairperson and members. The lecture mentions that it has 14 members, including full-time members. Members should have expertise in electricity-related matters.

Appointment and conflict of interest

Appointment of CEA members is based on the **pleasure doctrine**. This means the Government has strong control over appointment and removal.

Section 71 also says that members should not have commercial interest in electricity-sector activities. This is important to avoid conflict of interest.

For example, a person having commercial interest in a power company should not be placed in a position where he frames technical standards affecting that sector.

Functions of CEA under Section 73

The functions of CEA can be grouped into four broad categories.

A. Advisory function

CEA advises the Central Government on the National Electricity Policy and other technical matters.

Generation is delicensed under the 2003 Act, but technical standards still apply. A person may not need a licence to establish a generating station, but the generating station must comply with technical standards specified by the CEA.

So, CEA plays a key technical advisory role in generation, transmission and distribution planning.

B. Regulatory or standard-setting function

CEA lays down technical standards for:

- construction of electrical plants;
- electric lines;
- grid connectivity;
- safety requirements;
- grid standards;
- metering.

This is very important because electricity is dangerous if handled carelessly. Technical standards protect the grid, consumers, workers and infrastructure.

C. Monitoring and data function

CEA monitors timely completion of projects and implementation of schemes. It also publishes statistics, tariff and duty data, and collects information useful for policy-making.

This helps Government and regulators understand the condition of the power sector.

D. Research and safety function

CEA promotes research for improvement of the electricity sector. It also has responsibilities relating to safety measures for electrical installations belonging to or controlled by the Central Government.

This safety role should not be confused with the enforcement role of Regulatory Commissions. CEA is mainly technical, advisory, standard-setting and monitoring-oriented.

4-Coordination Forum under Section 166

Section 166 provides for coordination forums.

At the central level, the Coordination Forum may include CERC, CEA, generating companies, transmission licensees and other stakeholders. At the State level, similar forums may include State Commission, generating companies, transmission licensees and distribution licensees.

The purpose is coordination.

Electricity sector cannot function in isolated compartments. Generation, transmission, distribution, load despatch, tariff, open access and consumer supply are all connected. Therefore, different authorities and market players must coordinate.

The Coordination Forum helps in smooth and coordinated development of the electricity sector.

5-District Committees

Section 166 also allows the creation of **District Committees**.

These committees review quality of power supply and consumer satisfaction at the local level.

This is important because electricity problems are often local: power cuts, poor voltage, delay in connection, billing issues, transformer failure, agricultural supply problems and rural supply problems.

District Committees show that the Act is not concerned only with national-level regulation. It also recognises local-level consumer service issues.

Forum of Regulators

Section 166(2) provides for the **Forum of Regulators**.

It is constituted by the Central Government. It consists of the Chairpersons of CERC and State Electricity Regulatory Commissions. The Chairperson of CERC is the Chairperson of the Forum.

The need for this body arises because electricity is in the **Concurrent List**. Both Centre and States regulate electricity. Different State Commissions may adopt different practices. This can create inconsistency.

Therefore, the Forum of Regulators helps bring coordination and uniformity.

Functions of Forum of Regulators

The Forum of Regulators studies tariff orders and other orders of Commissions, analyses regulatory practices, shares best practices and promotes common approaches.

For example, in matters like open access, tariff design, consumer protection, renewable energy and regulatory procedure, one State's experience may help another State.

In simple words:

Forum of Regulators helps different electricity regulators learn from each other and maintain consistency across India.

Conclusion

The Electricity Act, 2003 creates a complete institutional structure for electricity governance. APTEL provides expert appellate review over the orders of Regulatory Commissions and Adjudicating Officers. It combines judicial and technical expertise and gives faster remedies in electricity disputes. Arbitration is also possible, but only through the special mechanism of the Electricity Act, where the Commission refers the matter. The general Arbitration Act cannot override this special law. The Central Electricity Authority performs technical, advisory, standard-setting, monitoring, data and safety functions. Coordination Forums, District Committees and the Forum of Regulators ensure cooperation between different authorities, promote uniformity, and bring local consumer concerns into the regulatory framework.

Thus, these institutions show that the Electricity Act, 2003 is not merely about supply of electricity. It creates a modern regulatory system where expert bodies, appellate mechanisms, arbitration, technical authorities and coordination forums work together to promote efficiency, investment, consumer welfare, technical safety and orderly development of the electricity sector.

CASE LAWS

[M.K. Ranjitsinh v. Union of India, 2025 INSC 1472 — Case Note in the Context of the Electricity Act, 2003](#)

1. Basic idea of the case

M.K. Ranjitsinh v. Union of India is mainly an environmental protection case, but it is very important for the **Electricity Act, 2003** because it deals with **overhead power lines, renewable energy projects, power transmission corridors, undergrounding of electric lines, bird flight diverters, and Section 68 approvals.**

The case concerns the protection of the **Great Indian Bustard**, also called **Godawan**, and the **Lesser Florican**, both of which are endangered birds. These birds are especially vulnerable to collision with overhead electric transmission lines. At the same time, Rajasthan and Gujarat have huge solar and wind energy potential, and renewable energy projects require power lines for evacuation and transmission of electricity. So the Court had to balance two public interests:

protection of endangered species on one side, and
development of renewable energy and electricity infrastructure on the other side.

2. Facts of the case

The petitioners filed a writ petition under **Article 32** seeking urgent directions for protection of the Great Indian Bustard and Lesser Florican. They asked for measures like bird diverters, restrictions on new projects, protection of critical habitats, and appointment of a committee to oversee conservation.

Earlier, by an order dated **19 April 2021**, the Supreme Court had imposed wide restrictions on overhead transmission lines over a very large area of about **99,000 sq. km**. The Court had also directed that existing overhead lines in priority and potential areas should be fitted with bird diverters, and where feasible, overhead lines should be converted into underground power lines.

Later, the Union Ministries, including the Ministry of Environment, Ministry of Power and Ministry of New and Renewable Energy, sought modification. Their argument was that the 2021 order was too wide and would seriously affect India's renewable energy potential, especially solar and wind energy in Rajasthan and Gujarat. They also argued that undergrounding high-voltage lines was technically difficult, costly, unsafe in some situations, and could increase dependence on coal-based electricity.

In **March 2024**, the Supreme Court modified the earlier blanket direction and appointed an Expert Committee. The Court said that the matter required technical and scientific assessment rather than a one-size-fits-all judicial direction. The Committee included wildlife experts, Government representatives, and importantly for electricity law, special invitees from the **Central Electricity Authority** and **Central Transmission Utility of India Ltd.**

3. Main legal issue

The main issue was:

How should the Court balance endangered species protection with renewable energy development and electricity transmission requirements?

In the specific context of the Electricity Act, the issue was:

Can overhead power lines and renewable energy infrastructure be restricted, undergrounded, rerouted or permitted only through power corridors, especially when Section 68 of the Electricity Act governs overhead lines?

4. Connection with the Electricity Act, 2003

The most direct provision involved is **Section 68 of the Electricity Act, 2003**.

Section 68 deals with **overhead lines**. It says that an overhead line can be installed or kept above ground only with prior approval of the Appropriate Government, subject to statutory exceptions. The Appropriate Government may impose conditions while granting approval. It may also vary or revoke approval. The provision also deals with removal of trees or structures interfering with overhead lines and compensation in certain situations.

So, this case is important because the Court is effectively saying that permission for overhead lines cannot be viewed only as an electricity-infrastructure question. It must also consider ecological consequences, especially where the lines pass through habitats of critically endangered species.

The case also indirectly relates to the role of the **Central Electricity Authority** because CEA gives technical inputs on electricity lines, grid standards, safety and technical feasibility. The Court did not treat undergrounding or rerouting as a purely legal question. It treated it as a technical issue requiring expert assessment.

Reasoning of the Court

The Court's reasoning is balanced and practical.

First, the Court accepted that the Great Indian Bustard is critically endangered and requires urgent protection. The bird has ecological, cultural and constitutional importance. Conservation of such a species cannot be ignored.

Second, the Court also recognised that renewable energy is itself an environmental necessity. If renewable energy projects are blocked completely, India may need more coal-based power, which would increase pollution and carbon emissions. Therefore, environmental protection cannot be understood narrowly as only bird protection. Climate change is also an environmental threat.

Third, the Court held that a **blanket direction** for undergrounding all high-voltage and low-voltage lines over a huge area was not appropriate. The Court observed that undergrounding has technical, safety and environmental problems. For example, underground cables may have more joints, higher risk, higher downtime, greater transmission loss in some cases, and may create practical difficulties in desert regions. Therefore, a uniform order would not be scientifically sound.

Fourth, the Court emphasised the need for **expert-based judicial review**. Courts should not decide technical matters like undergrounding of power lines merely by general assumptions. The Court said that domain experts must assess feasibility based on terrain, population density, infrastructure requirements, ecological sensitivity and energy needs.

Fifth, the Court preferred a **site-specific and evidence-based approach**. Instead of banning all overhead lines everywhere, it accepted the Expert Committee's differentiated approach: some lines should be undergrounded, some rerouted, some mitigated, and some allowed through dedicated corridors.

This is the most important reasoning:

The Court refused both extremes. It did not allow unrestricted power infrastructure, and it did not impose a total ban on power lines. It adopted a regulated, scientific and balanced solution.

Why the judgment is important under the Electricity Act

This judgment is important for electricity law because it shows that powers under the Electricity Act, especially relating to **overhead lines under Section 68**, cannot be exercised in isolation from environmental duties.

Normally, Section 68 is about approval for overhead electric lines. But this judgment shows that when overhead lines affect endangered species, the approval process must consider ecological risk, scientific mitigation, route planning and conservation needs.

It also shows that electricity infrastructure planning must be coordinated with environmental protection. Transmission lines are necessary for renewable energy evacuation, but they must be planned through corridors, rerouting, undergrounding and technical mitigation where required.

The judgment also shows the importance of technical bodies like **CEA** and **CTU**. Since power transmission involves engineering, grid safety and feasibility, courts should rely on expert bodies rather than issue broad technical directions without evidence.

10. Reasoned judgment in simple form

The Court reasoned like this:

The Great Indian Bustard is critically endangered, and its extinction would be an irreversible ecological loss.

Overhead transmission lines are a serious threat because the bird's physical features make it vulnerable to collision with wires.

But renewable energy is also necessary to fight climate change. If solar and wind projects are blocked completely, India may need more coal power, which would harm the environment in another way.

Therefore, the Court should not choose one goal and destroy the other. Species conservation and renewable energy are both environmental goals.

A blanket undergrounding direction is not practical because undergrounding high-voltage lines may be technically unsafe, costly and inefficient in many places.

The correct approach is expert-led, site-specific and evidence-based mitigation.

Therefore, the Court accepted the Expert Committee's recommendations and imposed targeted restrictions in revised priority areas, while allowing renewable energy development through regulated corridors and technical safeguards.

This is a classic example of **sustainable development**, where the Court balances ecology, electricity infrastructure, renewable energy, technical feasibility and public interest.

Corporate environmental responsibility point

The Court also discussed **Corporate Social Responsibility** and said that CSR must include **Corporate Environmental Responsibility**. Companies cannot claim to be socially responsible while ignoring the environment. The Court connected corporate duties with Article 51A(g), which imposes a fundamental duty to protect the environment and have compassion for living creatures.

The Court said that where corporate activities such as power generation, mining or infrastructure threaten endangered species, the **polluter pays principle** requires companies to bear the cost of species recovery. It also stated that power generators operating in GIB areas must remember that they share the environment with the Godawan and must act as guests in its habitat.

This is important for electricity companies because power generators and transmission developers cannot treat environmental mitigation as charity. It becomes part of their legal and constitutional responsibility.

Legal principle from the case

The main legal principle is:

Electricity infrastructure, especially overhead transmission lines under Section 68 of the Electricity Act, must be planned and approved in a manner that balances energy development with environmental conservation. Renewable energy is necessary, but it cannot be developed by ignoring endangered species. At the same time, species protection

must be achieved through scientific and practical measures, not through blanket prohibitions that may harm renewable energy and climate goals.

K.C. Ninan v. Kerala State Electricity Board, 2023

Basic idea of the case

K.C. Ninan v. Kerala State Electricity Board is an important Supreme Court case on **electricity dues of the previous owner** and whether a **new purchaser or auction purchaser** can be forced to clear those dues before getting a new electricity connection.

In simple language, the question was:

If A owned a factory/property and did not pay electricity bills, and later B purchased that property in auction, can the Electricity Board/DISCOM refuse electricity connection to B unless B pays A's old dues?

The Supreme Court answered this in a balanced way. It held that a new purchaser is not personally liable like the previous consumer, but if valid electricity supply regulations or supply code require clearance of old dues relating to the premises, the distribution licensee can insist on compliance before giving a new connection.

Facts of the case

This was not one single dispute. It was a batch of **nineteen appeals** from different States such as Kerala, Maharashtra, Gujarat, Assam and West Bengal. The facts were broadly similar.

The previous owners of certain premises had taken electricity supply and failed to pay electricity dues. Because of non-payment, the electricity supply was disconnected. Later, those premises were sold, usually in auction, often on an “**as is where is**” basis. The auction purchasers/new owners then applied for new electricity connection. The electricity boards or distribution licensees refused to give electricity connection unless the new purchasers paid the arrears of the previous owners. These refusals were based on conditions of supply, electricity supply codes, notifications or State regulations. The new purchasers challenged the refusal before High Courts, and the matters finally reached the Supreme Court.

Main legal issue

The main issue was:

Can unpaid electricity dues of the previous owner be recovered from the new owner or auction purchaser as a condition for giving electricity connection?

The Court also examined several connected questions:

Whether the duty to supply electricity under **Section 43** is absolute.

Whether supply of electricity is linked to the **consumer** or to the **premises**.

Whether an auction purchaser's application is a **fresh connection** or **reconnection**.

Whether State Commissions can make regulations under **Section 50** requiring clearance of old electricity dues.

Whether old electricity dues create a **charge on the property**.

Whether the two-year limit under **Section 56(2)** bars recovery of such dues.

What is the effect of sale on "**as is where is**" basis.

Relevant provisions of the Electricity Act, 2003

The important provisions are:

Section 2(15) defines "consumer". It includes a person supplied with electricity for his own use and also a person whose premises are connected for receiving electricity.

Section 43 creates the duty of a distribution licensee to supply electricity on request by owner or occupier.

Section 45 allows recovery of electricity charges.

Section 46 allows recovery of expenditure for electric line or plant.

Section 47 allows the licensee to demand reasonable security.

Section 50 empowers the State Commission to frame the Electricity Supply Code, including matters relating to recovery of electricity charges, billing, disconnection and restoration.

Section 56 deals with disconnection for non-payment and contains the two-year limitation rule for disconnection.

Section 181 gives regulation-making power to the State Commission.

Arguments of the electricity boards / DISCOMs

The electricity utilities argued that **Section 43 is not absolute**. According to them, a person applying for electricity must comply with all legal requirements, including requirements under the Electricity Supply Code. They said Section 43 begins with the words “**save as otherwise provided in this Act**”, meaning the right to supply is subject to other provisions of the Act, including Section 50. They also argued that the Explanation to Section 43 requires a complete application with payment of necessary charges and other compliances. Therefore, if the Supply Code requires payment of previous dues connected with the premises, the applicant must comply.

They further argued that electricity supply is linked to the premises because electricity infrastructure is installed for a particular place. If old dues attached to the premises are ignored, the loss would eventually be passed on to honest consumers through higher tariff.

They also said that the Electricity Supply Code has statutory force because it is framed under Section 50 read with Section 181. Therefore, the State Commission can validly provide that a new owner must clear dues of the previous owner before supply is restored or a new connection is given.

Arguments of the auction purchasers / new owners

The auction purchasers argued that they did not consume the electricity. The electricity was consumed by the previous owner. Therefore, they should not be forced to pay someone else’s dues.

They relied on **Section 43**, saying that a distribution licensee has a statutory duty to supply electricity to an owner or occupier who applies for connection. They argued that the only exception is Section 44, where supply is impossible due to cyclone, flood, storm or other circumstances beyond control.

They also argued that electricity dues are personal dues of the previous consumer. They do not automatically become a charge on the property. In simple words, electricity dues are not like a mortgage or land revenue charge unless law specifically says so.

They relied on the earlier case **Isha Marbles v. Bihar State Electricity Board**, where the Supreme Court had held that in the absence of a statutory provision, an auction purchaser cannot be forced to pay the previous owner’s electricity dues. The Court in K.C. Ninan noted that Isha Marbles was decided in a context where there was no specific statutory rule or condition imposing such liability on a subsequent purchaser.

Court’s reasoning: Section 43 duty is not absolute

The Supreme Court held that the duty to supply electricity under **Section 43** is important, but it is **not absolute**.

Section 43 gives the owner or occupier a right to apply for electricity supply, and it imposes a corresponding duty on the distribution licensee. But this duty arises only when the application is complete and the applicant fulfils the required conditions. The Explanation to Section 43 itself says that the application must be complete in all respects and must include documents showing payment of necessary charges and other compliances.

The Court read Section 43 along with Sections **45, 46, 47, 48 and 50**. From this combined reading, the Court held that an applicant must pay charges, give security, accept lawful restrictions, and comply with the Supply Code. Therefore, the new purchaser cannot say: “Section 43 gives me an unconditional right to electricity.”

Simple point:

Section 43 gives a right to electricity, but only after legal conditions are fulfilled.

Court’s reasoning: electricity supply is to consumer, not to premises

This is one of the most important parts of the judgment.

The electricity utilities argued that electricity supply is to the premises, so dues attach to the premises. The Court rejected this broad argument.

The Court held that under the scheme of the Electricity Act, supply of electricity is to the **consumer**, not to the property itself. The word “premises” is used because electricity must physically be supplied at a particular location. Unlike ordinary goods, electricity cannot be collected from a shop or warehouse. The distribution licensee must carry electricity through wires to the consumer’s premises. Therefore, the premises only identifies the location where supply is to be given.

The Court explained that the consumer is the person who uses or receives electricity. The premises itself cannot be a defaulter. A building cannot consume electricity by itself; a person consumes electricity through that premises. Therefore, liability is normally on the consumer, not automatically on the land or building.

Simple point:

Electricity is supplied at premises, but legally it is supplied to a consumer. The premises is only the place of supply.

Fresh connection or reconnection?

The Court held that when a **new owner or auction purchaser** applies for electricity supply, it is generally a **fresh connection**, even if the same premises had electricity earlier.

A reconnection occurs when the same consumer whose connection was disconnected seeks restoration of supply. But if a different person purchases the premises and applies for supply, that person is a new consumer.

So the Court clarified:

Same consumer + same premises = reconnection.

New purchaser/new consumer + same premises = fresh connection.

This point is important because earlier cases had used different language. The Court clarified the law under the 2003 Act.

Can Supply Code require payment of old dues?

Yes. This is the most important holding.

The Supreme Court held that **Section 50** gives wide power to the State Commission to frame the Electricity Supply Code. Section 50 expressly deals with recovery of electricity charges, billing, disconnection, restoration of supply and related matters. Therefore, the Supply Code can validly provide that a new or subsequent owner must clear electricity arrears of the previous owner as a condition for new connection or reconnection.

The Court held that such a condition has a reasonable connection with the objects of the Electricity Act. Electricity dues are not purely private contractual dues. Electricity is a public utility service, and unpaid dues affect the financial health of the electricity system.

Therefore, if the Electricity Supply Code or valid conditions of supply say that old dues must be cleared before a new connection is given, the distribution licensee can insist on payment.

Simple point:

A new purchaser is not automatically liable in every case, but if valid Supply Code/regulations require clearance of old dues, the DISCOM can insist on it before granting supply.

Do electricity dues create a charge on the property?

The Court made a nuanced distinction.

Electricity dues do not automatically become a charge on property merely because they are unpaid. The dues are primarily against the consumer who used electricity.

However, the Court held that the regulation-making power under **Section 50 read with Section 181** is wide enough to allow the State Commission to provide for a statutory charge or condition

for recovery in the Supply Code, even if the parent Act itself does not expressly create such a charge.

This is why the Court did not fully accept the auction purchasers' argument that dues are always only unsecured personal debts.

The real position is:

Electricity dues do not automatically run with the land. But valid statutory regulations/Supply Code can create conditions requiring clearance of dues before supply is given.

Section 56(2): two-year limitation

Section 56(2) says that dues older than two years cannot be recovered through disconnection unless they were continuously shown as arrears.

The auction purchasers argued that if old dues are time-barred under Section 56(2), they cannot be recovered from new owners.

The Supreme Court rejected this broad argument. It held that Section 56(2) limits the **remedy of disconnection**. It does not completely destroy the right to recover dues through other legal methods. The Court explained that the power to file a civil suit or recover dues through valid statutory conditions is separate from the power to disconnect supply.

Simple point:

Section 56(2) restricts disconnection as a recovery method; it does not wipe out the electricity dues completely.

Effect of “as is where is” sale

Many auction sales were on “**as is where is**” basis. The Court held that this expression puts the auction purchaser on notice that the property is being sold with its existing liabilities or conditions. The buyer must make proper inquiry before purchase.

If the auction notice or supply regulations mention electricity dues, the purchaser cannot later say that he had no knowledge. He is expected to check dues, obtain a no-dues certificate, or factor the liability into the auction price.

The Court held that “as is where is” basis means that the seller does not take responsibility for liabilities connected with the property, including dues like electricity dues, service charges or local taxes.

Simple point:

Auction purchaser must be careful. Buying property “as is where is” means buying with risks and liabilities attached by law or notice.

Relationship with Isha Marbles

The Court did not completely overrule **Isha Marbles**. Instead, it explained its limited application.

In *Isha Marbles*, there was no statutory condition or regulation requiring the auction purchaser to pay the old dues. Therefore, the Court had held that the auction purchaser could not be forced to pay previous owner’s dues.

But after later developments, especially under the 2003 Act and State Supply Codes, the position changed. If valid statutory conditions exist, *Isha Marbles* cannot protect the new purchaser.

So the principle is:

Isha Marbles applies only where there is no statutory rule, regulation or Supply Code requiring payment of previous dues.

Final holding of the Supreme Court

The Supreme Court held:

The duty to supply electricity under Section 43 is not absolute.

Electricity supply is legally to the consumer, not to the premises, though the premises identifies the place of supply.

A new owner/auction purchaser applying for electricity connection is seeking a fresh connection, not reconnection, unless the same consumer is seeking restoration.

State Commissions have power under Section 50 read with Section 181 to frame Supply Codes requiring payment of arrears of previous owners before supply is given.

Such conditions have a reasonable connection with the objects of the Electricity Act.

Section 56(2) only restricts disconnection after two years; it does not extinguish the right to recover electricity dues through other remedies.

Auction sale on “as is where is” basis puts the purchaser on notice regarding liabilities.

In exercise of Article 142, the Court directed waiver of outstanding interest accrued on principal dues from the date of application for electricity supply by the auction purchasers.

Executive Engineer, SOUTHCO v. Sri Seetaram Rice Mill — Explained

1. Context under the Electricity Act, 2003

This case explains the difference between **unauthorised use of electricity under Section 126** and **theft of electricity under Section 135**.

The Electricity Act, 2003 was enacted to create a better regulatory system, improve revenue recovery, reduce misuse of electricity, and deal separately with **unauthorised use** and **theft**. The Court noted that the Act has a strong **revenue focus**, because misuse of electricity causes financial loss to electricity utilities and affects honest consumers also.

So, the case asks a simple but important question:

If a consumer uses electricity beyond the sanctioned/contracted load, is it “unauthorised use of electricity” under Section 126?

The Supreme Court answered: **Yes**.

2. Facts of the case

M/s Sri Seetaram Rice Mill was a small-scale industrial unit. It had an electricity supply agreement dated **9 December 1997**. Based on its contracted load, it was placed in the **medium industry category**, which covered contract demand of **99 KVA and above but below 110 KVA**.

On inspection, the electricity officers found that the rice mill had consumed electricity up to **142 KVA**, which was beyond the permitted load. Because 142 KVA crossed the limit of the medium industry category, the electricity authority treated it as falling under the **large industry tariff category**.

A provisional assessment order was issued under **Section 126** for unauthorised use of electricity. The demand was around **₹7,77,300**, calculated for 15 months at twice the tariff applicable to the large industry category.

The rice mill did not file objections before the assessing officer. Instead, it directly filed a writ petition before the Orissa High Court.

The High Court accepted the rice mill’s argument and held that excess drawal of maximum demand did not amount to “unauthorised use of electricity” under Section 126. The electricity authority then appealed to the Supreme Court.

3. Issues before the Supreme Court

The Supreme Court considered three main issues:

First, whether consumption of electricity beyond the contracted/sanctioned load attracts **Section 126**.

Second, whether the High Court was justified in interfering at the stage of **provisional assessment/show-cause notice**.

Third, whether the writ petition was maintainable when the Act provides an alternative remedy under **Section 127**.

4. Relevant legal provisions

Section 126 deals with assessment for unauthorised use of electricity. If an assessing officer finds unauthorised use after inspection, he may issue a provisional assessment. The consumer may file objections, and then a final assessment is passed.

Section 127 provides appeal against a final assessment order under Section 126.

Section 135 deals with theft of electricity. It is a criminal offence and requires dishonest intention.

The Court said Sections **126 and 127 together form a complete code** for assessment in cases of unauthorised use of electricity.

5. Argument of the rice mill

The rice mill argued that Section 126 should be interpreted strictly. According to it, using electricity beyond the contracted load was not covered within the definition of “unauthorised use of electricity”.

Its argument was that at most, the authority could reclassify the consumer or charge higher tariff under the Orissa Supply Regulations, but it could not invoke Section 126.

In simple words, the rice mill said:

Excess load may be a tariff issue, but it is not unauthorised use under Section 126.

6. Argument of the electricity authority

The electricity authority argued that the consumer was authorised to use electricity only up to the contracted load and only within the agreed consumer category. Once the rice mill consumed

electricity beyond 110 KVA, it breached the supply agreement and the statutory supply conditions.

The authority argued that excess drawal of maximum demand was use of electricity **by means not authorised by the licensee** and also for a purpose/category not authorised.

In simple words, the authority said:

Permission was given only for medium industry load. Once the consumer crossed that limit, the use became unauthorised.

7. Supreme Court's reasoning: purposive interpretation

The Supreme Court rejected a narrow interpretation of Section 126.

The Court said that the Electricity Act, 2003 must be interpreted as a whole. The purpose of the Act is not only supply of electricity, but also prevention of misuse, protection of revenue, proper tariff regulation and discipline in electricity consumption.

The Court applied a **purposive interpretation**. It said Section 126 should not be read in a way that allows consumers to escape liability for misuse merely because the misuse is not theft.

So, the Court said:

Section 126 must cover malpractices and unauthorised consumption which are not serious enough to be theft under Section 135, but still violate the Act, regulations or agreement.

8. Difference between Section 126 and Section 135

This is the most important part of the case.

The Court clearly distinguished **Section 126** from **Section 135**.

Section 126 applies to unauthorised use of electricity. It is mainly a civil assessment provision. It does not require dishonest intention.

Section 135 applies to theft of electricity. It is a criminal offence. It requires dishonest intention or mens rea.

The Court said Section 135 begins with the word "**dishonestly**", while Section 126 does not. Therefore, the two provisions operate in different fields.

Simple distinction:

Section 126	Section 135
Unauthorised use	Theft
Civil assessment	Criminal offence
No mens rea required	Dishonest intention required
Assessing officer assesses charges	Criminal prosecution follows
Appeal under Section 127	Trial before criminal/special court

Example:

If a consumer uses electricity beyond sanctioned load, it is Section 126.

If a consumer bypasses the meter or directly hooks electricity dishonestly, it is Section 135.

9. Meaning of “unauthorised use of electricity”

The Court held that “unauthorised use” should not be given a narrow meaning. Electricity supply is always subject to the Act, regulations, supply code and agreement between the consumer and licensee.

So, if electricity is used in violation of those conditions, it may become unauthorised use.

The Court observed that “unauthorised use of electricity” includes not only the examples expressly mentioned in Explanation (b) to Section 126, but also other misuse violating the statutory or contractual framework.

The Court especially relied on Explanation (b)(iv), which covers use of electricity **for a purpose other than the purpose for which it was authorised**.

The rice mill was authorised to use electricity as a medium industry consumer. But by consuming 142 KVA, it crossed into the large industry category. Therefore, the purpose/category of use changed.

10. Role of Orissa Supply Regulations

The Orissa Electricity Regulatory Commission Distribution Conditions of Supply Code, 2004 was also important.

The Court noted that the consumer was prohibited from using power in excess of approved contract demand. Regulation 106 specifically said that no consumer shall use power in excess of the approved contract demand or use power for a purpose other than the one for which the agreement was executed.

Therefore, the rice mill’s use of 142 KVA was not merely a technical irregularity. It violated the agreement and statutory supply conditions.

11. Why excess load is harmful

The Supreme Court also gave practical reasons.

Excess drawal of electricity is not harmless. If consumers draw more than sanctioned load, it can disturb the supply system, create voltage fluctuations, overload infrastructure, affect other consumers and reduce system efficiency.

Therefore, overdrawal of electricity is not merely a private contractual matter between the consumer and licensee. It affects the public electricity system.

In simple words:

If one consumer takes more load than permitted, the whole local system may suffer. Other consumers may face voltage problems or supply disturbance.

12. Finding on Section 126

The Supreme Court held that consumption of electricity beyond sanctioned or connected load is **unauthorised use of electricity** under Section 126.

The Court said that once the consumer exceeded the permitted load, especially when it changed the consumer's tariff category, Section 126 was attracted.

So the High Court was wrong in holding that overdrawal of maximum demand does not fall under Section 126.

13. Finding on writ petition and alternative remedy

The Supreme Court also said that the High Court should not normally interfere at the stage of provisional assessment.

Section 126 gives the consumer the right to file objections before the assessing officer. Only after final assessment is passed can the consumer file an appeal under Section 127.

Here, the rice mill did not file objections before the assessing officer. It directly approached the High Court against the provisional assessment. The Supreme Court held that although writ jurisdiction under Article 226 is not completely barred, the High Court should exercise it carefully when a statutory mechanism exists.

In simple words:

First use the remedy given in the Electricity Act. Do not directly rush to the High Court unless there is an exceptional legal issue.

14. Final holding

The Supreme Court held that:

1. Consumption of electricity beyond sanctioned/contracted load amounts to unauthorised use under Section 126.
2. Section 126 must be interpreted purposively to prevent misuse of electricity and revenue loss.
3. Section 126 and Section 135 operate in different fields.
4. Section 126 does not require dishonest intention.
5. Section 135 deals with theft and requires dishonest intention.
6. The rice mill's excess consumption changed its category from medium industry to large industry and attracted higher tariff.
7. The High Court should not have interfered at the provisional assessment stage when the Act provided a statutory procedure.