

2.Electricity (Amendment) Bill, 2025 – Polity

Recently the Ministry of Power has released the Electricity (Amendment) Bill, 2025, which seeks to modernise India's electricity distribution framework.

1. Structural Inefficiencies in DISCOM Operations

Chronic Financial Stress– DISCOMs collectively suffer from mounting debt, leading to persistent bailouts. Causes include poor billing efficiency, outdated metering, leakages, and inadequate cost recovery.

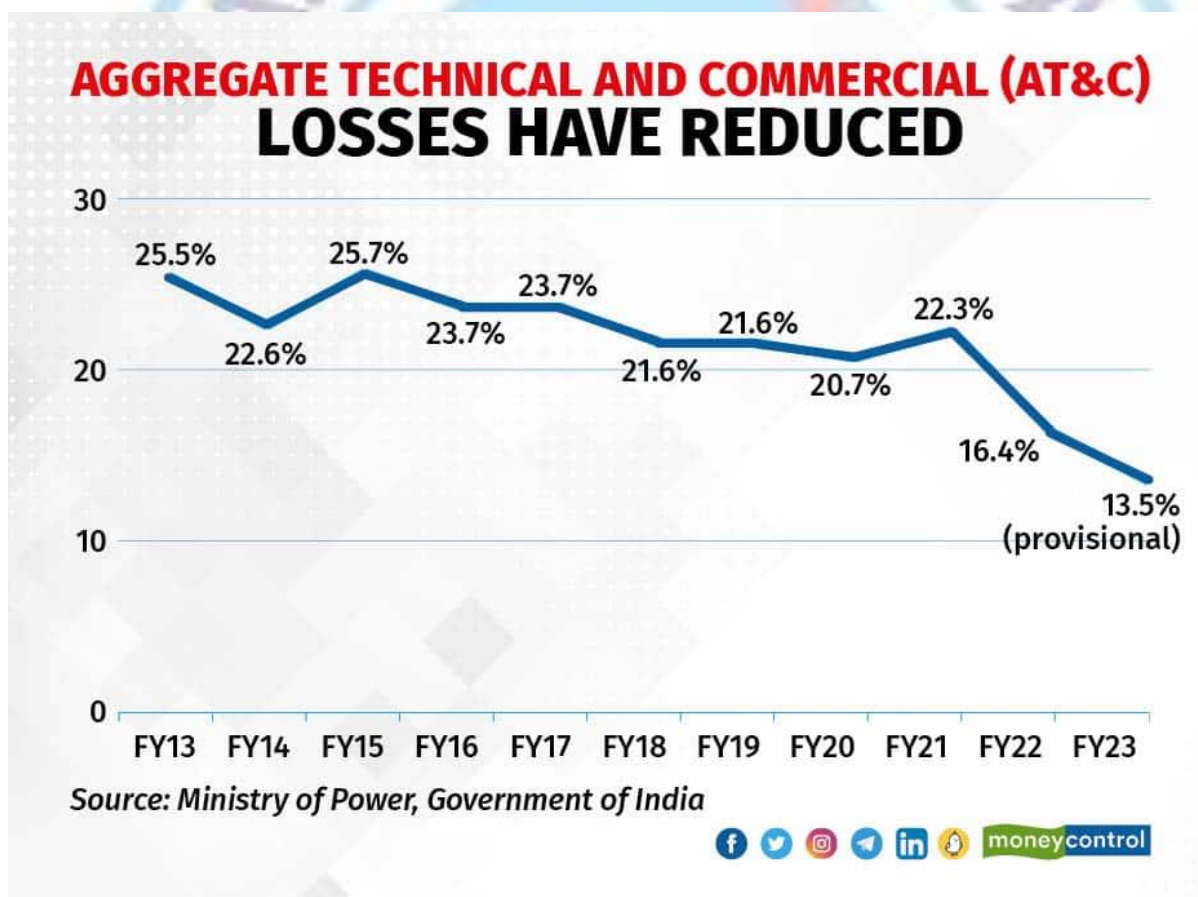
High AT&C Losses– In several states, AT&C losses exceed 20–25%, double the global benchmark of 10%. This erodes revenues, affecting payments to generators and transmission utilities.

Outdated Monopoly Model– Consumers have no choice of supplier, limiting competitive pressures for efficiency and service quality. Innovation is slow due to the comfort of monopoly operations.

2. Cross-Subsidy Distortions

Heavy Industrial Burden – Industries pay significantly higher tariffs to cross-subsidise agriculture and low-income consumers. This affects Make in India, manufacturing competitiveness, and investment decisions.

Skewed Tariff Structure – Tariffs often do not reflect actual costs → leading to revenue gaps and dependence on government subsidies.



Quality & Reliability Challenges

Frequent Outages & Poor Supply Quality – Inadequate investment in network upgrades, transformers, and feeder modernisation. Limited accountability mechanisms for poor service delivery.

Incentives Misaligned – Without competition or performance-linked regulation, service standards remain low.

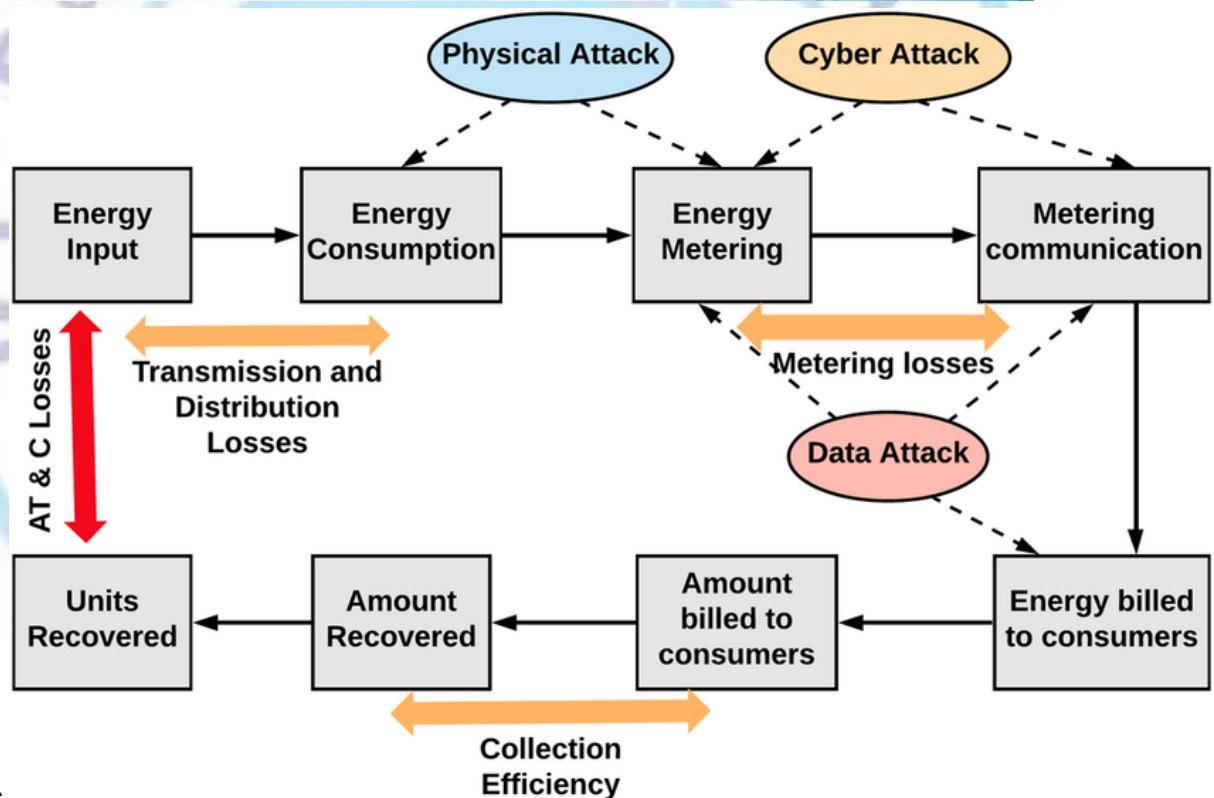
Electricity (Amendment) Bill, 2025



Powering Viksit Bharat @2047

Objective & Vision

- 1 Strengthening financial discipline and accountability
- 2 Optimizing distribution network utilization
- 3 Strengthening uninterrupted, efficient, and transparent service
- 4 Ensuring and protecting interests of the farmers and other consumers.



AT&C Losses

Definition

AT&C - Aggregate Technical & Commercial losses → the combined losses a distribution company experiences from power purchase to revenue collection.

Components

1. Technical Losses - Loss during transmission and distribution due to

1. Outdated / overloaded transformers
2. Weak conductors
3. Long feeder distances

4. Poor maintenance
5. Inadequate network planning

Unavoidable to a point, but can be reduced with modern infrastructure.

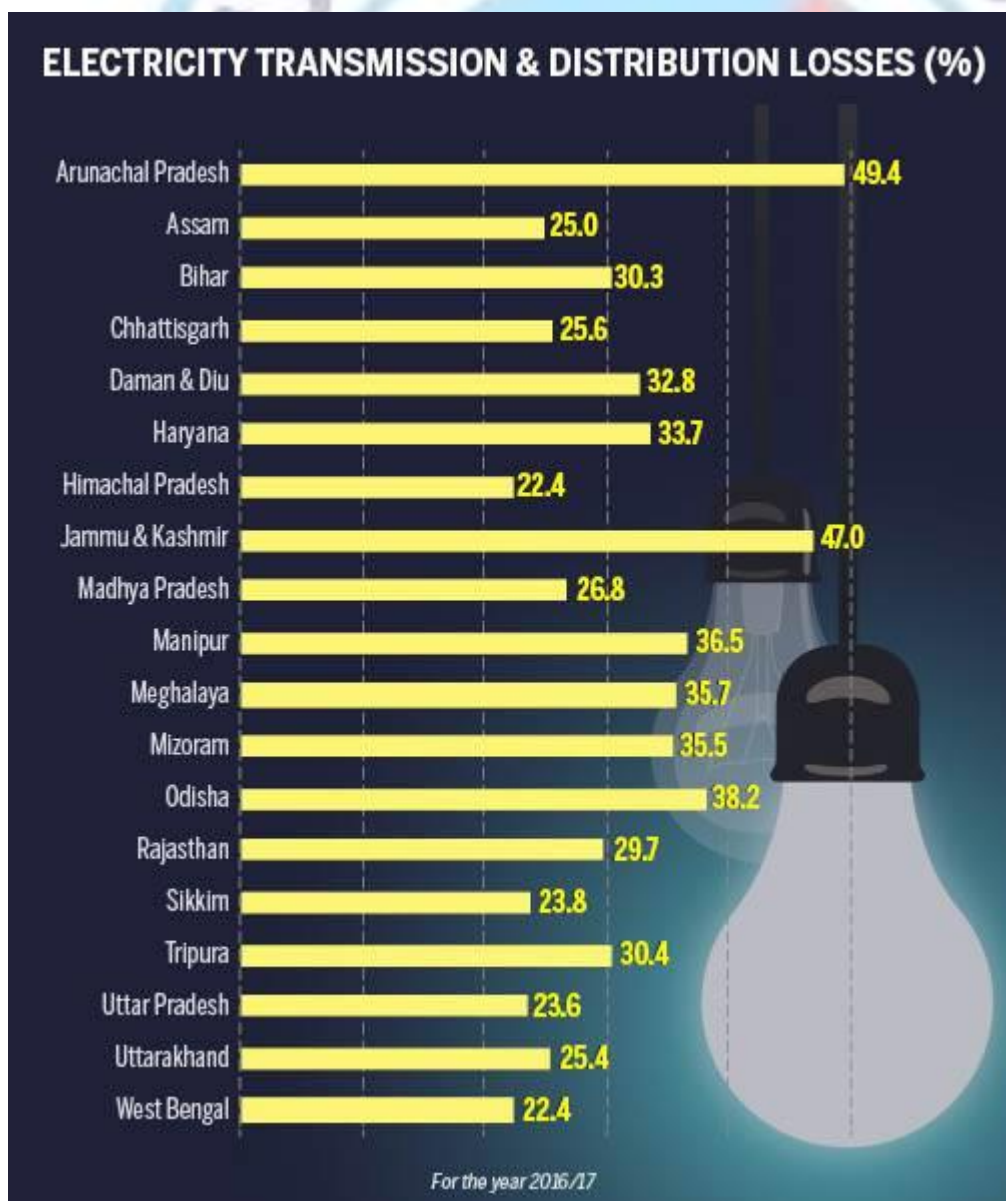
2. Commercial Losses

Loss due to -

1. Theft & pilferage
2. Meter tampering
3. Unmetered supply
4. Inaccurate billing
5. Poor collection efficiency
6. Human error in metering and billing cycles

AT&C Matters

1. Determines profitability and viability of DISCOMs.
2. High AT&C → low cash flow → delayed payments → stress in the entire power ecosystem (GENCOs, TRANSCOs).
3. Major determinant of bankability for private investment.



Core Pillars of Electricity (Amendment) Bill, 2025

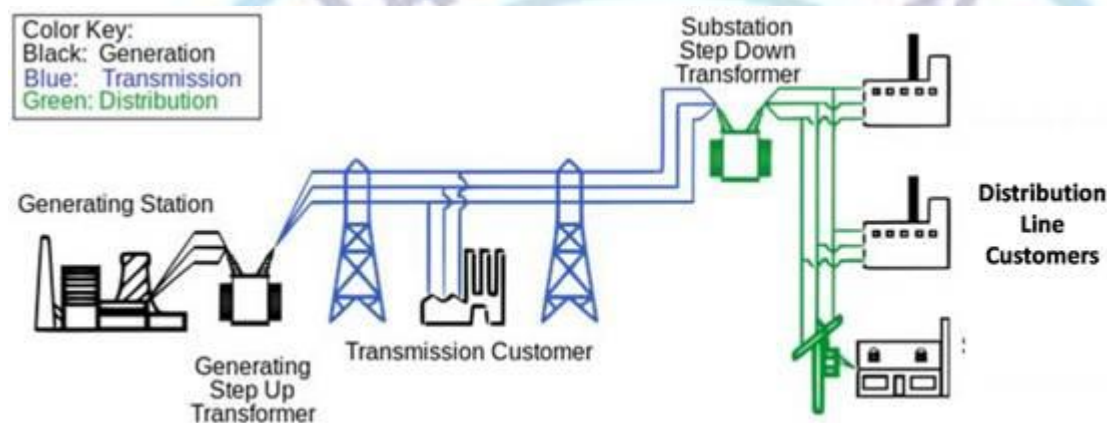
Structural Reforms

Regulated Competition in Distribution – Multiple licensees allowed in the same distribution area. Use shared infrastructure to avoid duplication. Regulated by SERCs to ensure –

1. Preventing cherry-picking of profitable consumers
2. Uniform grid standards
3. Non-discriminatory network access

Universal Service Obligation (USO) – All licensees must ensure universal supply to all consumers in the area. Prevents private players from avoiding rural/low-paying consumers. USO Exemption Clause

1. SERCs may exempt USO for Open Access consumers (>1 MW) after consulting State Governments.
2. Encourages industrial consumers to choose cheaper supply sources.



Tariff & Cross-Subsidy Rationalisation

Cost-Reflective Tariffs – Tariffs to reflect actual cost of supply → improving DISCOM finances. Transparent, predictable tariff design to encourage private participation.

Direct Benefit Transfer (DBT) of Subsidies – Subsidies will be funded directly from State budgets, not via inflated industrial tariffs. Reduces cross-subsidy burden and improves tariff discipline.

Cross-Subsidy Elimination for Industry – Within 5 years, cross-subsidies for

1. Manufacturing Industry
2. Railways
3. Metro systems

will be phased out.

Expected outcomes

1. Boost industrial competitiveness
2. Lower production costs
3. Strengthen India's global manufacturing position

Infrastructure & Network Efficiency

Uniform, Regulated Wheeling Charges – Commission-determined network charges →

1. Prevents arbitrary pricing
2. Ensures fair cost sharing
3. Facilitates competition & open access

Avoiding Network Duplication – Promotes efficient utilisation of existing networks rather than building parallel lines.

Energy Storage Systems (ESS) – Recognises ESS as core infrastructure.

Defines its role in –

1. Grid balancing
2. Renewable integration
3. Peak load management
4. Improving reliability

Governance & Regulatory Strengthening

Creation of Electricity Council – A new institutional platform for Centre–State coordination. Aims to resolve disputes and align policy frameworks.

Enhanced Powers of SERCs – Ability to

1. Enforce performance standards
2. Impose penalties
3. Initiate Suo motu tariff determination to avoid delays
4. Strengthen regulatory oversight and reduce political interference

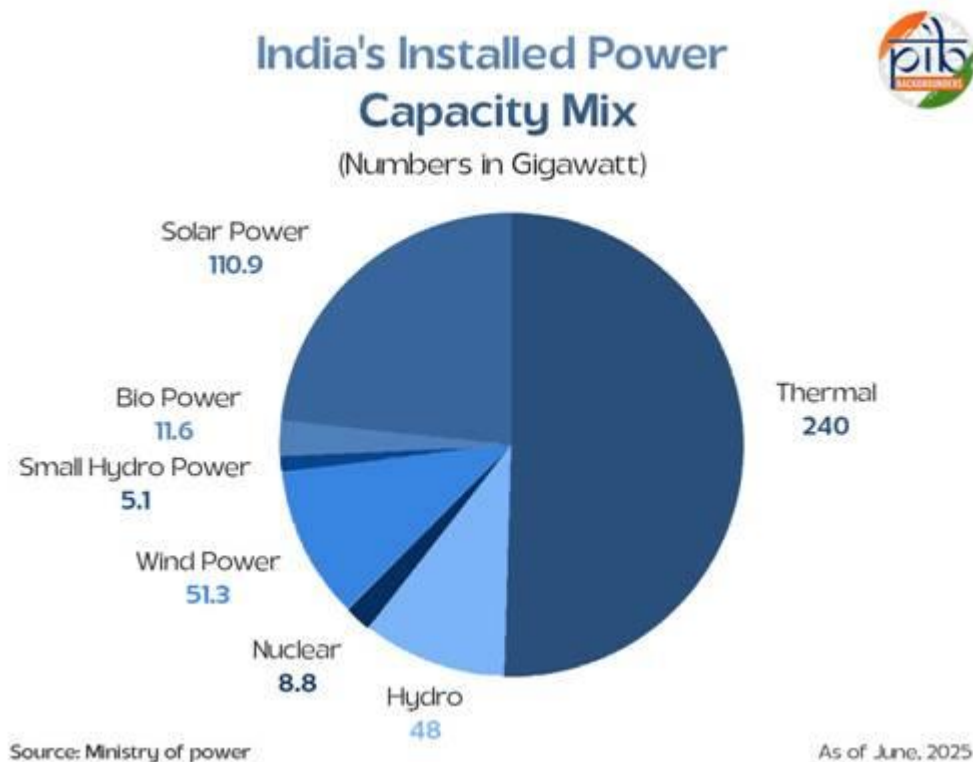
Sustainability & Market Development

Non-Fossil Energy Procurement Obligations – Higher Renewable Purchase Obligations (RPOs). Penalties for non-compliance encourage clean energy transition.

Power Market Reforms – Supports

1. New trading instruments
2. Day-ahead and real-time markets
3. Long-term contracts
4. Green Term-Ahead Markets (GTAM)
5. Financial risk-hedging mechanisms

Overview of India's Electricity Sector



Sectoral Characteristics

1. Covers generation, transmission, distribution, trading, and exchange markets.
2. India is the 3rd largest producer and consumer of electricity globally.
3. Electricity is in the Concurrent List, enabling joint regulation by Centre & States.

India's Energy Landscape (2025)

Installed Capacity - 476 GW (June 2025)

Non-fossil fuels - 235.7 GW (49%)

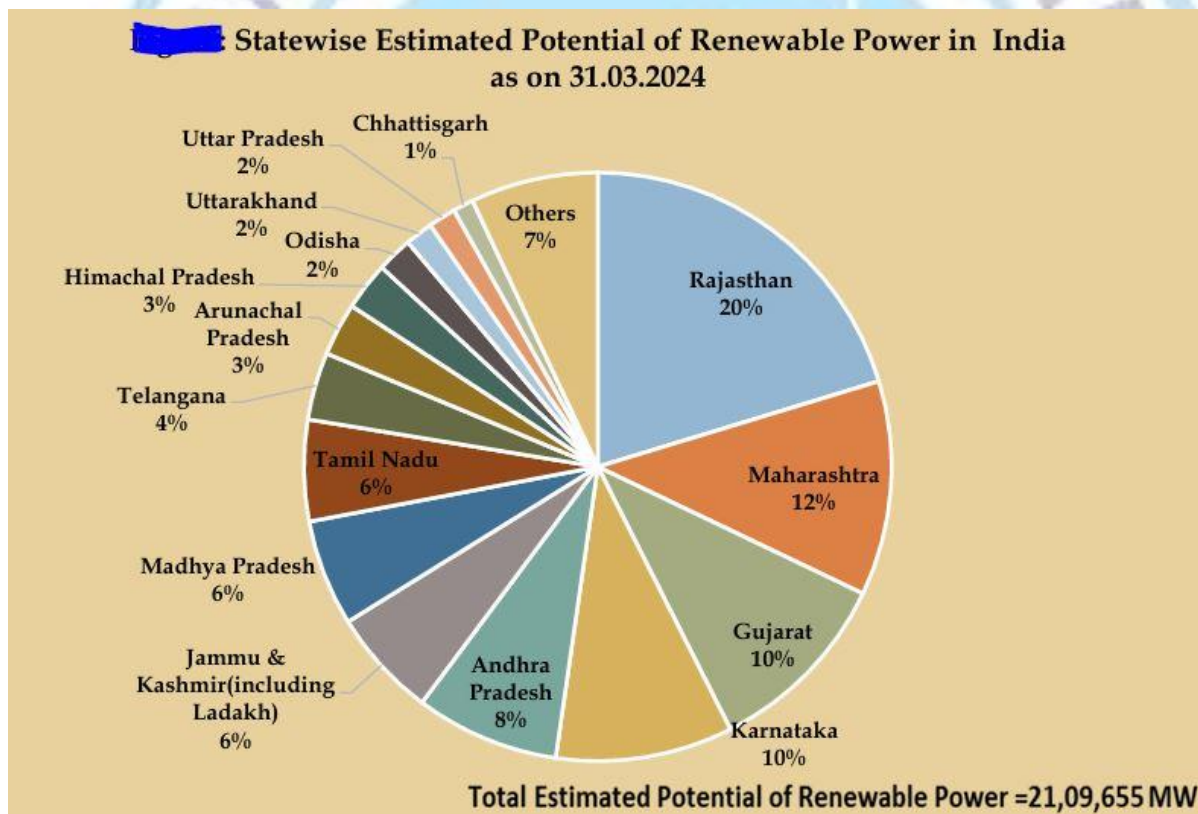
1. Renewables - 226.9 GW
2. Nuclear - 8.8 GW

Thermal power - 240 GW (50.52%) → still dominant.

Major Reforms in Power Sector

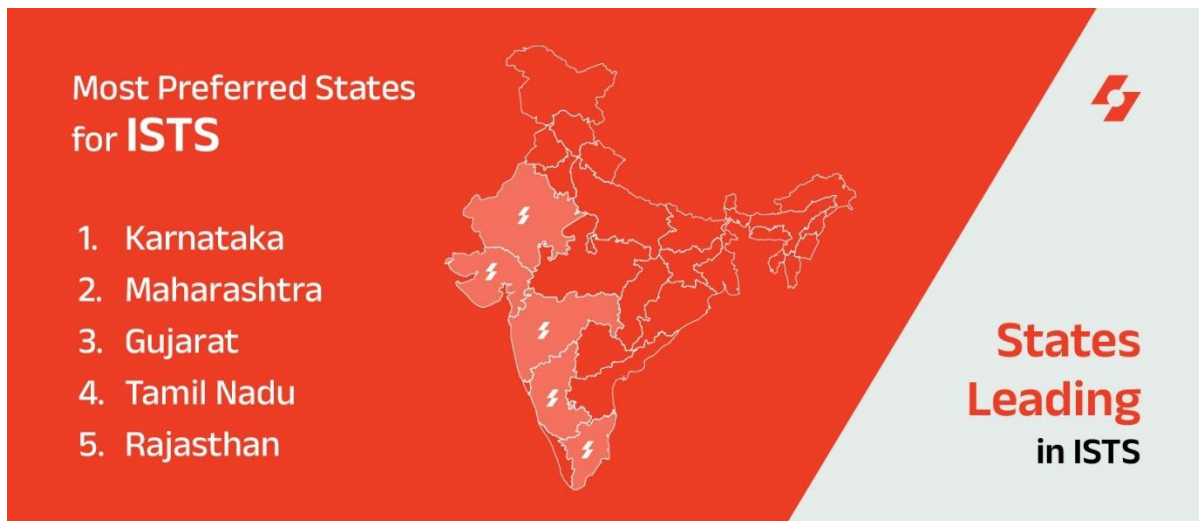
1. Ujwal DISCOM Assurance Yojana (UDAY), 2015 - Aimed at financial & operational turnaround of DISCOMs. Key components -

1. State takeover of DISCOM debt
2. Reduction of AT&C losses
3. Efficiency improvements
4. Smart metering & feeder segregation



2. Revamped Distribution Sector Scheme (RDSS), 2021 - Aim - Reduce AT&C losses to 12–15% by FY 2024–25. Eliminate the gap between ACS (Average Cost of Supply) and ARR (Average Revenue Realised). Focus on -

1. Smart prepaid metering
2. Distribution infrastructure upgrades
3. 24×7 reliable power supply
4. IT/OT modernisation



3. Inter-State Transmission System (ISTS) – Shared infrastructure model operated by both –

1. Public TSPs (e.g., POWERGRID)
2. Private TSPs

Regulated by Central Electricity Regulatory Commission (CERC). Supports large-scale renewable integration across states.

Conclusion

The Electricity (Amendment) Bill, 2025 aims to transform India's electricity distribution architecture through market-based reforms, improved governance, and competitive choice. It strengthens financial sustainability, promotes renewable energy integration, reduces cross-subsidies, and enhances consumer-centric service delivery. With DISCOMs at the core of the power sector ecosystem, the Bill seeks to create a future-ready, efficient, competitive, and sustainable electricity market aligned with India's growth and energy transition goals.

Source - <https://www.pib.gov.in/PressNoteDetails.aspx?NotelId=156151&ModuleId=3>