



# Session 1:RDSS Program by Gol for DISCOMs

# Training and Capacity Building in Distribution sector: Role of NPTI

**Dr. Tripta Thakur** 

**Director General NPTI** 

National Power Training Institute (NPTI), Ministry of Power, Gol

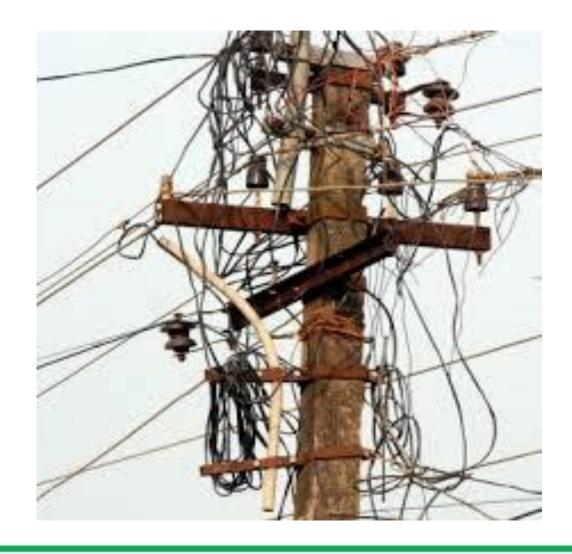


### Plectricity Distribution Networks in India





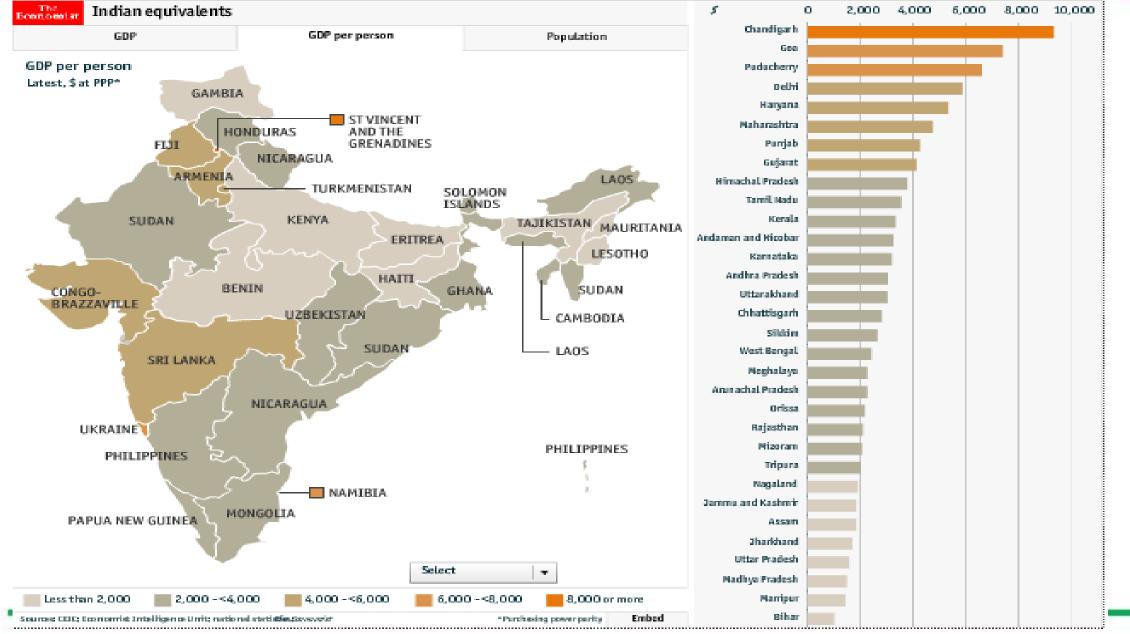






#### **Different States Different Economies**







- Ineffective electricity sector bottleneck to economic growth and social equity
- Barriers to improvement: Capacity and technical; Economic and financial; policy and institutional
- Despite sector reforms the distribution sector are characterised as having: large financial losses, inefficiency, low productivity, interruptions
- Thus, important to explore the linkage between performance of DISCOMs and quality of institutions





# Literature shows institutions affect economic growth. Does this also hold in Distribution sector?



#### Announcement by Hon'ble Finance Minister



#### **Budget Speech (FY2021-22):**

"The viability of Distribution Companies is a serious concern. A revamped reforms-based result-linked power distribution sector scheme will be launched with an outlay of INR 3,05,984 crores over 5 years. The scheme will provide assistance to DISCOMS for Infrastructure creation including pre-paid smart metering and feeder separation, upgradation of systems, etc., tied to financial improvements."



#### Objectives



- Improved Quality and Reliability of power supply to consumers
- Financially and operationally efficient distribution sector
  - oReduce AT&C losses to 12-15% by 2024-25\*
  - Reduce ACS-ARR gaps to zero by 2024-25\*
  - Developing Institutional Capabilities

\*AT&C loss reduction and ACS-ARR gap reduction targets mentioned above are national targets and state-wise targets would depend on their current levels of AT&C losses and ACS-ARR gap



#### Distinguishing features



- Focus on Reforms
- Funding linked to Results/Performance
- Thrust on Smart Metering
- Funds for works leading to
  - oloss reduction and
  - oimprovement in quality and reliability of power supply
- •Reform measures and works customised to the specific needs of the state



# Scope of the Revamped Distribution Sector Scheme



- Scheme outlay of INR 3,03,758Cr.; estimated grant from Central Govt of INR 97,631Cr.
- Revamped Scheme to have 2 key parts:
  - Part A Metering & Distribution Infrastructure works
  - Part B Training & Capacity Building and Other Enabling & Supporting Activities
- All State owned Discoms and State / UT Power Departments (excluding private sector power utilities) eligible for financial assistance under the revamped scheme.
- On going projects under IPDS, DDUGJY and PMDP 2015 (for the erstwhile State of J&K) to be subsumed under the new scheme
  - No new projects to be sanctioned under IPDS and DDUGJY
  - o Sanctioned projects will be eligible to receive funds upto 31st March 2022 in this scheme



#### Scheme Components



#### Part A Component 1

#### Metering

- 100% Consumer metering (including agri) through prepaid or smart prepaid mode
- Prepaid smart meter tenders initiated after 1st January 2020 in TOTEX mode eligible for funding
- 100% communicable DT & Feeder Metering with AMI to enable energy accounting
- Metering of unmetered feeders and making all feeder meters (new and old) online
- Replace existing non communicable DT meters with communicable AMI integrated meters
- Replacement or fresh DT meter installation in TOTEX mode

#### Part A Component 2

#### Distribution Infra Work

#### Targeted at loss reduction (DPR Part I)

- Armored / Aerial bunched Cables in high loss areas
- New feeders, capacitors, etc. for loss reduction
- Segregation / Bifurcation of feeders and allied works
- · HVDS in high loss areas
- Replacement of conductors, which are old/frayed

#### Targeted at network strengthening (DPR Part II)

- Augmentation of Substations
- IT/OT enablement works, SCADA in all urban areas
- DMS in 100 urban centres with population over 2.75 lakhs
- Additional HT lines to improve quality of supply
- Other distribution works for system strengthening

#### Part A Component 3

#### **Project Management**

- Project Management Agency (PMA) shall be appointed by each DISCOM
- Scope for PMAto include:
  - DPR preparation
  - Tender documents
  - Project awarding
  - Monitoring
  - Quality assurance
  - Material inspection
  - Results evaluation
  - o Other aspect as decided by Discoms
- PMA costs to be restricted to 1% of project cost
- PMA charges above the permitted amount to be borne by respective Discom / State government



#### NPTI: Introduction



Training Institute under the Ministry of Power, Govt. of India for Human Resources Development in Power Sector.

NPTI has trained over 3,65,000 power professionals in its regular programs over the past five decades.

NPTI operates through its Eleven (11) Institutes in the different power zones of the country on an all India basis.



## NPTI – An All India Organisation

























## Thank You

**India Smart Grid Forum** 

CBIP Building, Malcha Marg, Chanakyapuri, Delhi-110021 Website: www.indiasmartgrid.org