

# Indian Railway as Distribution Licensee

# Background of Power Procurement by IR



- ▶ Advent of electric traction in IR came in 1925
- ▶ Indian Railway as Consumer was procuring power from respective Discoms. The tariff of the same varies from Rs. 6.00/ unit to Rs. 9.00/ unit depending from state to state.
- ▶ IR contributes to **~2% of India's total electricity consumption**
- ▶ Electricity consumption expected to be **~100 BUs by 2031-32 i.e. ~13000 MW**
- ▶ Hence, **efficient sourcing of electricity is of prime importance**

# Advantages of Distribution Licensee



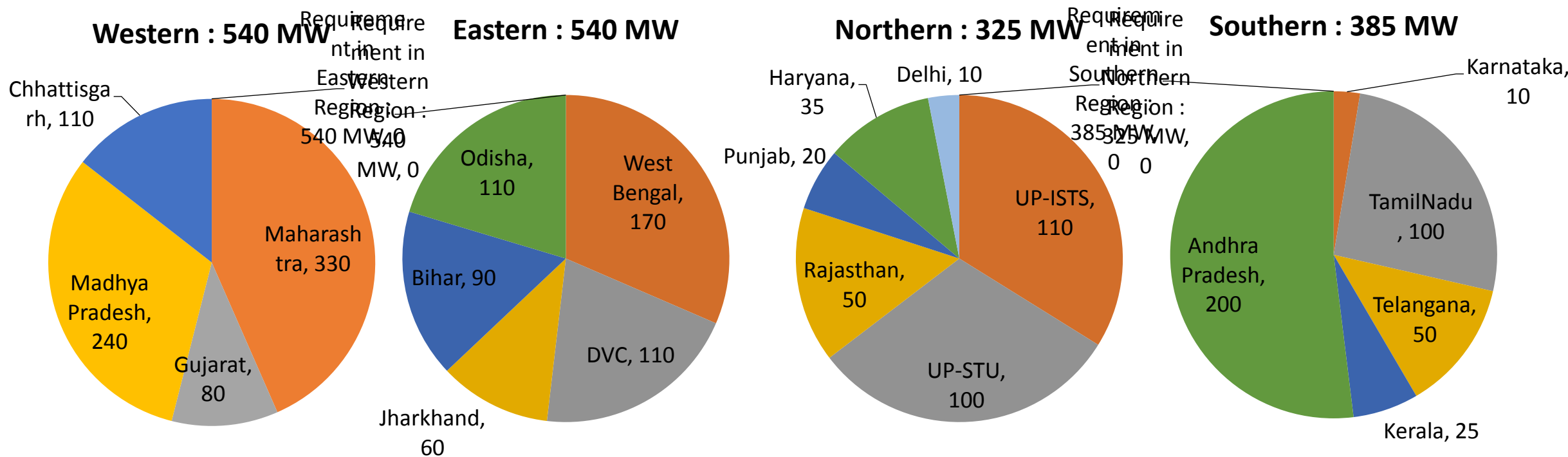
## Hon'ble MoP in May 2014 clarified Railway's status as deemed licensee under Section 14 of Electricity Act 2003

- ▶ Non-discriminatory open access to Central and State Transmission network for transmission of power.
- ▶ All TSSs in a State will be treated as a single entity for the purpose of scheduling.
- ▶ Procure power directly through competitive bidding.
- ▶ Non-applicability of Cross Subsidy Surcharges (CSS) and payment of wheeling charges and losses to asset owner (STU/CTU)
- ▶ Significant reduction in traction tariff.

# IR Current Power Requirement



- IR requirement pan India is 2010 MW
- IR consumption 16 BUs for traction
- Total annual bill Rs 9800 Cr for traction
- Average growth rate: 4%per annum



# Power Tied-up by IR



Source	Quantum (MW)	Rs/kWh	State	PPA Upto
RGPPPL	540	5.50	Maha, MP, Guj, J'khand, UP-ISTS, & Karnataka	March-22
Adani	50	3.69	UP- ISTS	March'19
JITPL	585	3.65	MP, C'Garh,UP, Raj, Delhi, Punjab, Haryana, Orissa,& Bihar	3 Years
BRBCL	820	6.0	Maha,Guj,MP,Chg, WB, DVC, J'Khand, Bihar, Orissa & UP	25 years
Total	1995			

➤ Unit 1 & 2 of BRBCL commissioned on 15.01.17 & 10.09.2017.

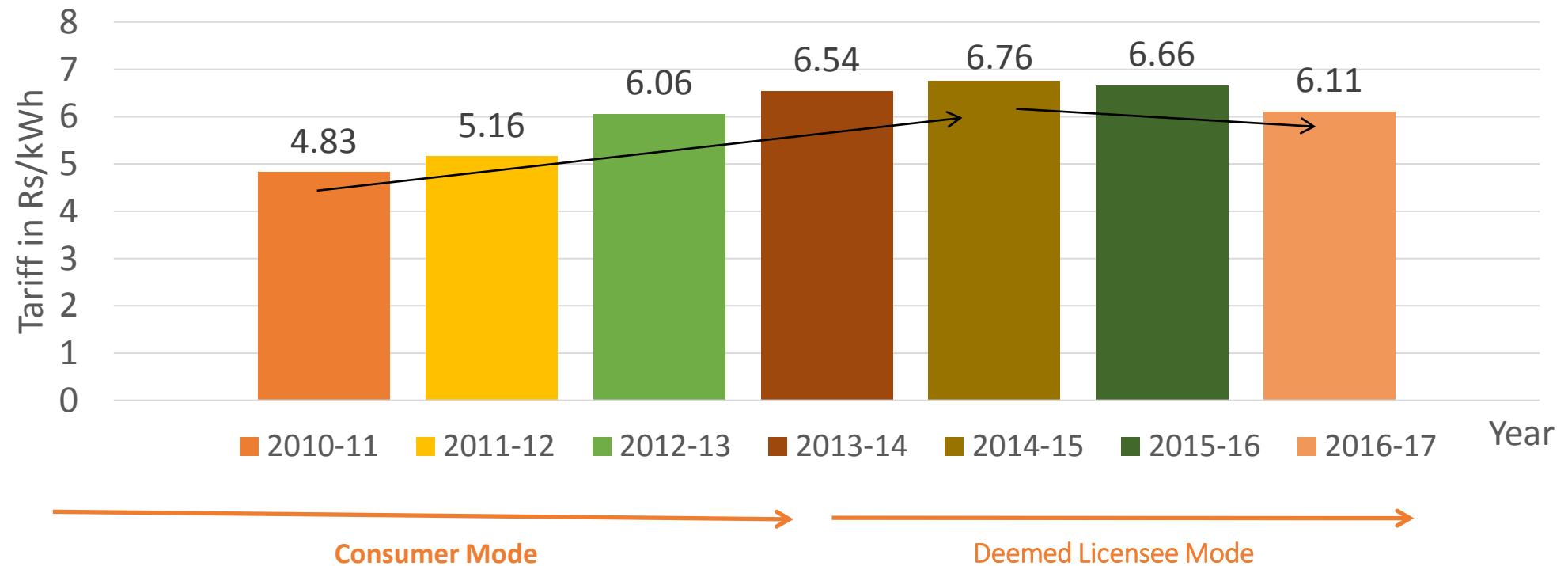
# Migration of power as Deemed Licensee



Sr.No.	State	Quantum	Source	Start Date
1	UP-ISTS	50	DVC/Adani	01.03.15/1.12.15
		50	RGPPL	01.04.17
		35	BRBCL	12.04.18
2	Maharashtra	210	RGPPL	26.11.15
		120	BRBCL	02.08.17
3	Gujarat	90	RGPPL	09.01.16
4	Jharkhand	70	RGPPL	17.01.16
5	Madhya Pradesh	85	RGPPL	22.01.16
		135	JITPL	02.07.16
		50	BRBCL	22.05.18
6	Rajasthan	55	JITPL	10.01.17
7	DVC	75	BRBCL	02.08.17
8	Karnataka +RWF	35	RGPPL	25.10.17
9	Haryana	40	JITPL	01.10.17
10	Delhi	09	JITPL	31.03.18
11	Bihar	50	BRBCL	22.05.18
12	UP-STU	100	JITPL	08.07.18
Total		1269	65 % of Requirement under open access Remaining power from DISCOM as consumer	

**Yet to be migrated:** WB (170 MW), Odisha (127 MW), Chhattisgarh (118 MW), AP (200 MW), TN (100 MW), Telangana (50 MW) and Kerala (25 MW)

# Reduction in Avg. Tariff for Railways



# Challenges faced by IR as a Licensee

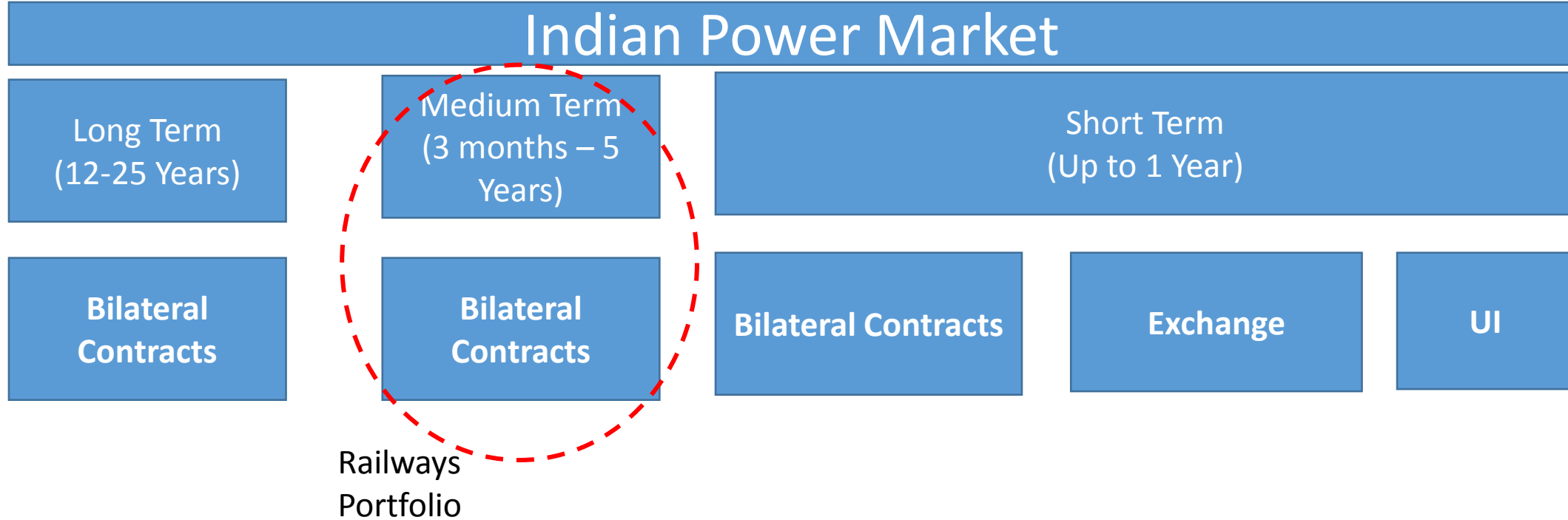


- ▶ Any scheduled/ un-scheduled plant shut down by the contracted generator, leads to reduction/ revision of power schedule for Railways
  - ▶ Presently power scheduled under Deviation Settlement Mechanism (DSM)
  - ▶ Huge pressure from SEBs/ LDCs for arrangement of Standby Power
  - ▶ Opportunity for arrangement of power through ST market at competitive prices
- ▶ Procurement of Renewable Power
  - ▶ In firm nature of RE power a key challenge
  - ▶ Limited capacity available under existing OA portfolio of Railways
- ▶ Optimization of scheduling and forecasting of demand for long term planning.

# Transition to a wider portfolio



## Indian Power Market



Procurement through multiple sources would help Railways optimize its overall power portfolio by taking advantage of market fluctuations and also provide requisite scheduling flexibility

# PTC's Association with REMCL for assisting IR in Power Procurement



## Areas of PTC's Assistance to REMCL for Power Procurement by IR

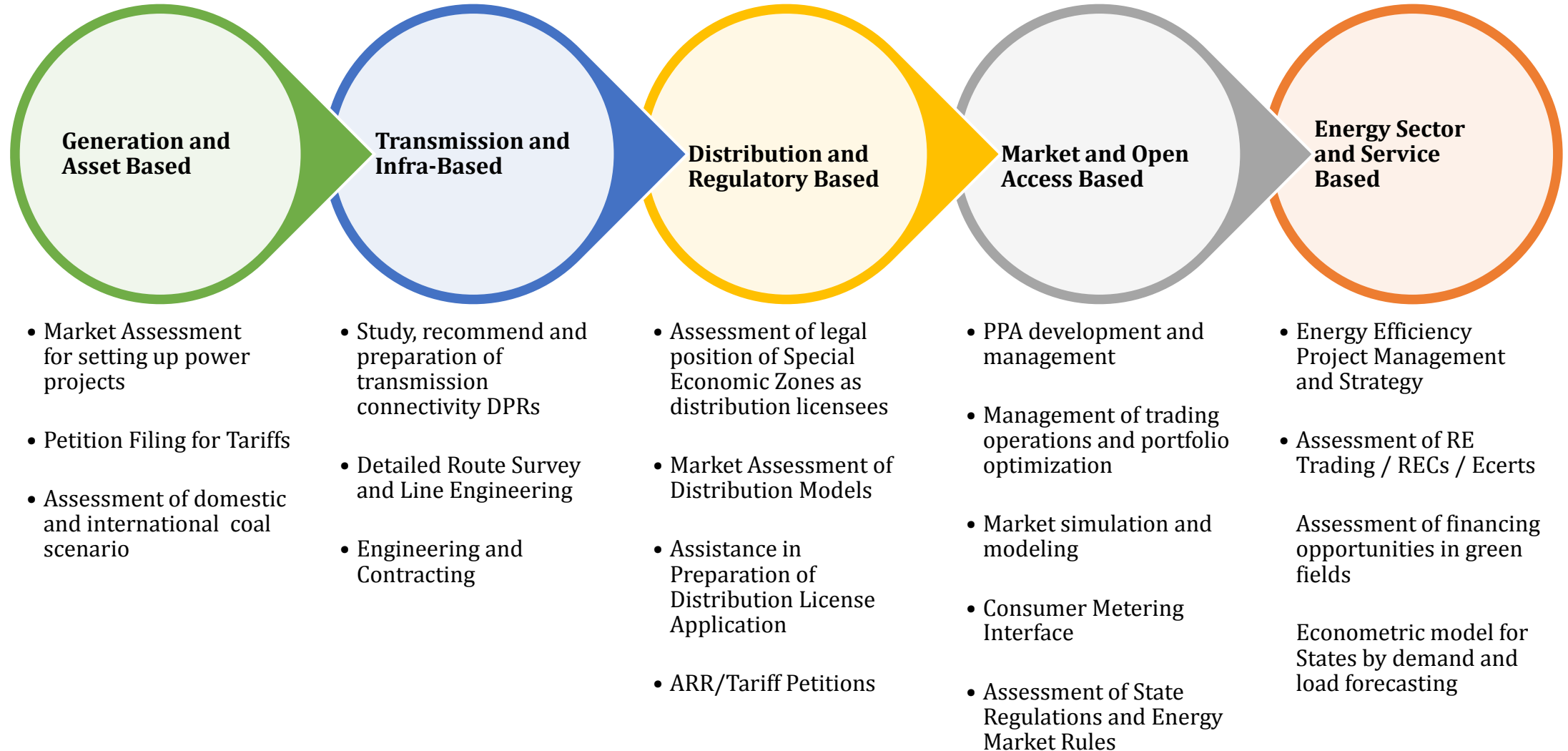
- Power Planning and Procurement
- Optimization of Power procurement Cost
- Operationalization of flow of power
- Verification of Power Procurement bills as per PPAs
- Advisory on Commercial Issues
- Training and Capacity Building

# About PTC : Genesis & Objective

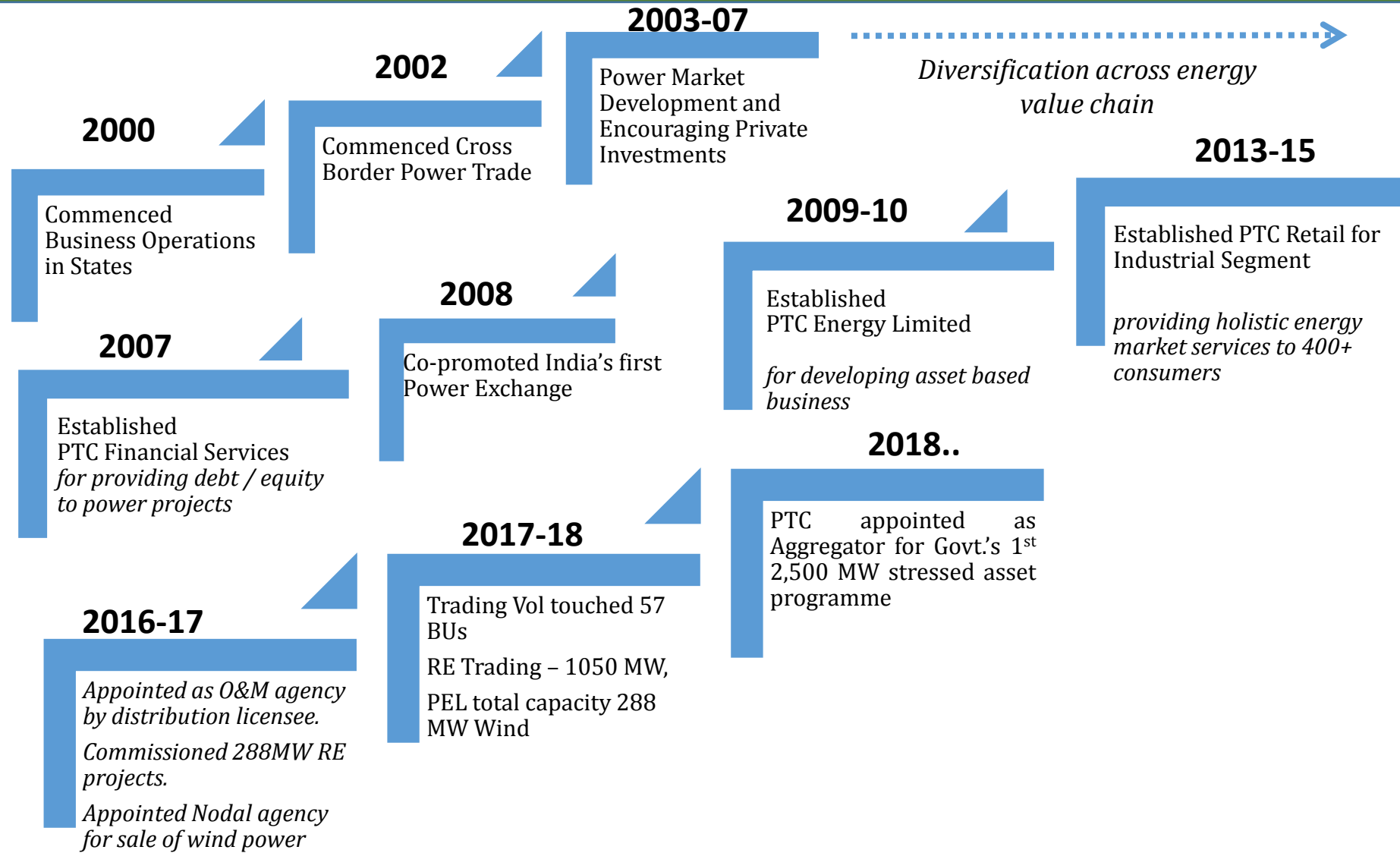


- **PTC India Ltd. (PTC)**, was established in 1999 by Govt. of India through a Cabinet Decision as a Public-Private Initiative, with twin objective of:
  - Mitigating Payment risks of mega projects
  - Initiate & develop a power market
  - Promoting power trading to optimally utilize existing resources
  - Attract investments in the power sector on the strength of multi-buyer model
  - Creating a Power Market in India and neighboring countries

# PTC: Presence across the Value Chain



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*Thank  
You*