



# **SNS COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution)**

**COIMBATORE-35**

**Accredited by NBA-AICTE and Accredited by NAAC – UGC with A+ Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai**

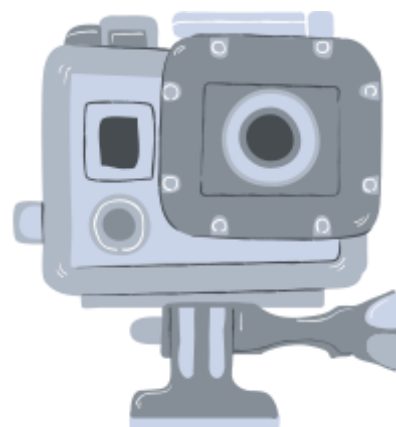


**UNIT 1**

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

## **Power Scenario in India**

**19EET302 – Power System 1  
III year / V Semester**





# INTRODUCTION

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## *Power: The Building Block of Economy*

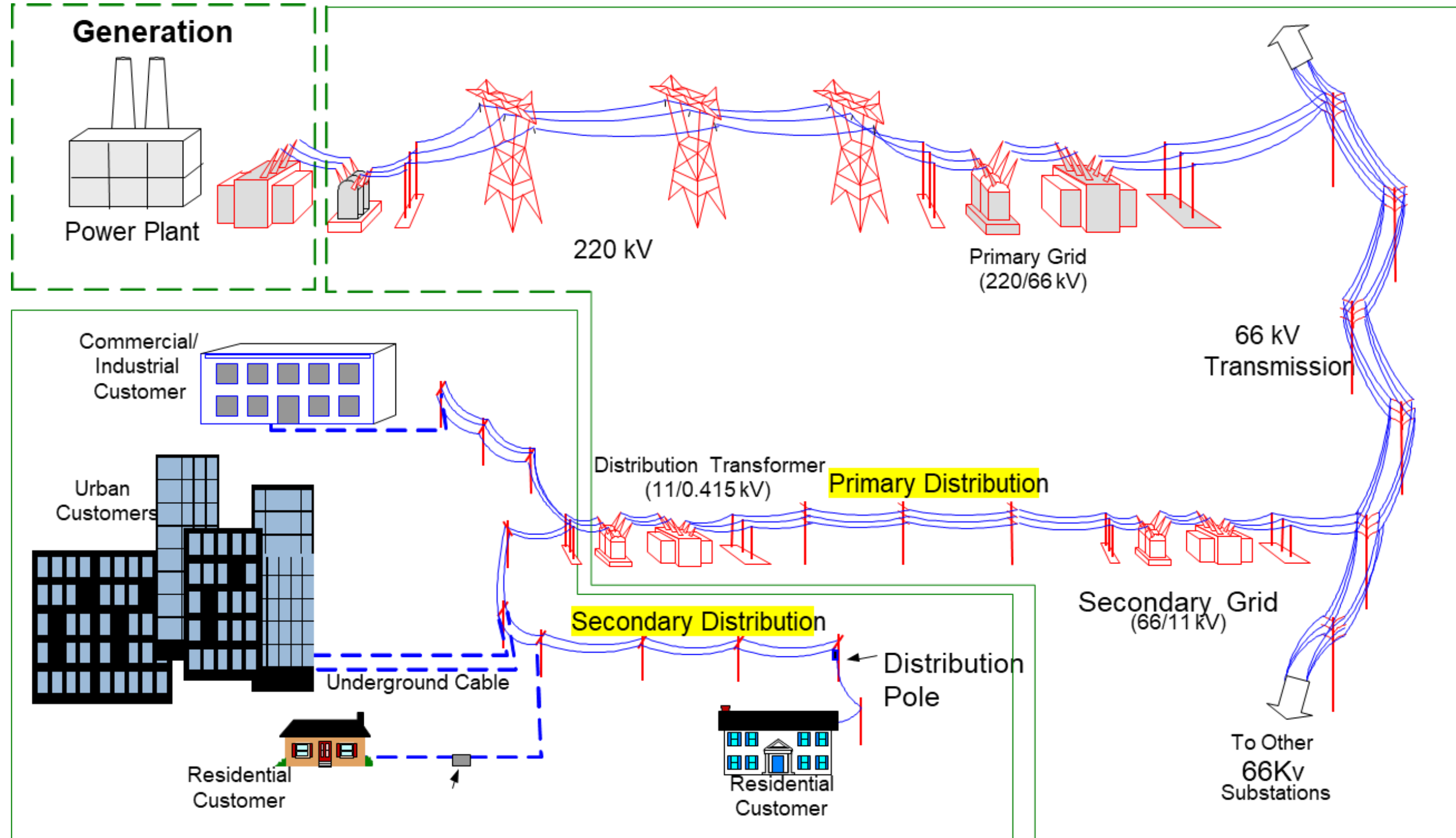
Electricity- the most imp. Infrastructural input in the dev. & growth of economy.

Consumption of electricity- imp. Index of advancement of the country & standard of living.

Economic growth rate of 8-9% on a sustained basis is necessary for us to catch up with the rest of the world.



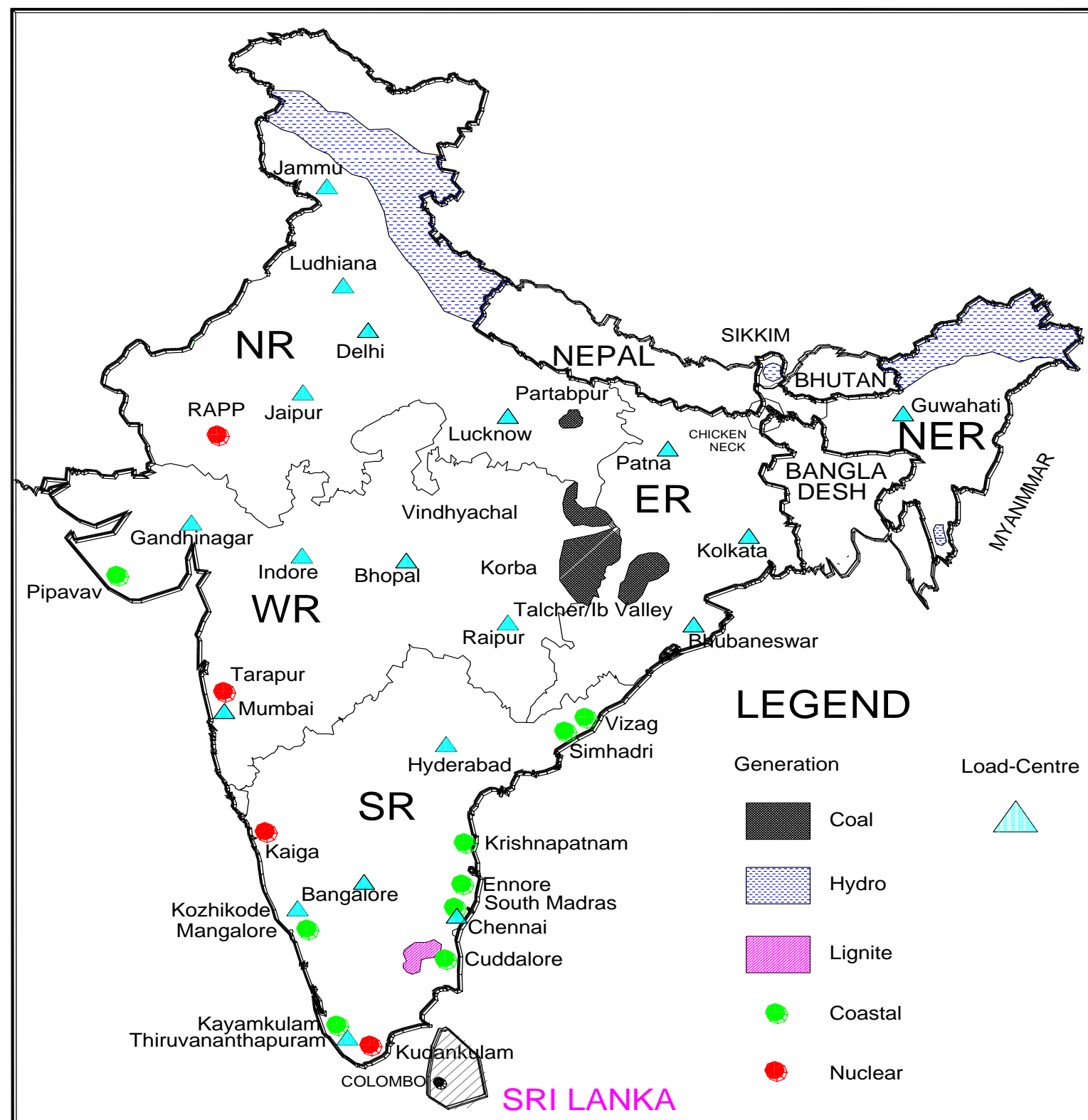
# Structure of Power System







# Energy Resource Map Of India



- Hydro potential in North east and upper part of Northern Region
- Coal reserves mainly in Eastern Region
- Distribution of energy resources and consumption centres are extremely unbalanced
- Necessitate power transfer over long distances



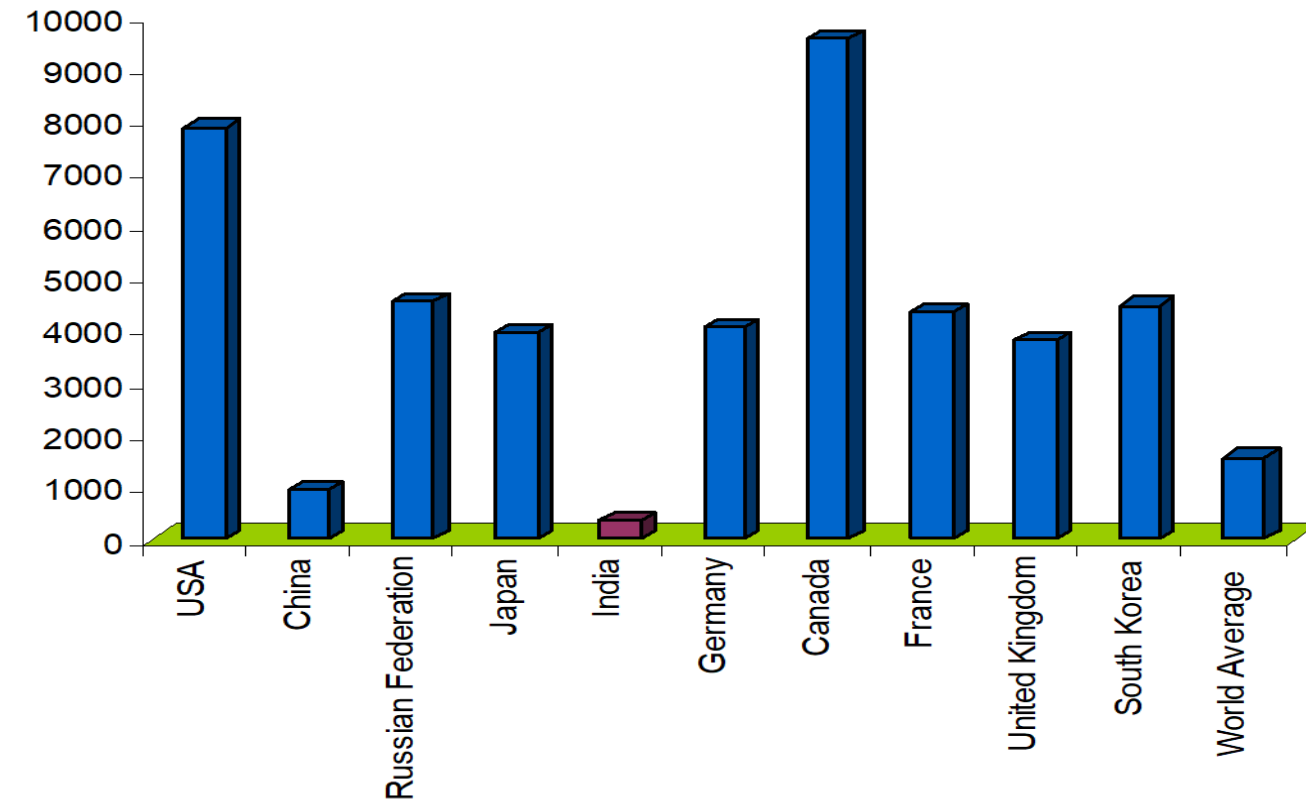
# Current Scenario in India



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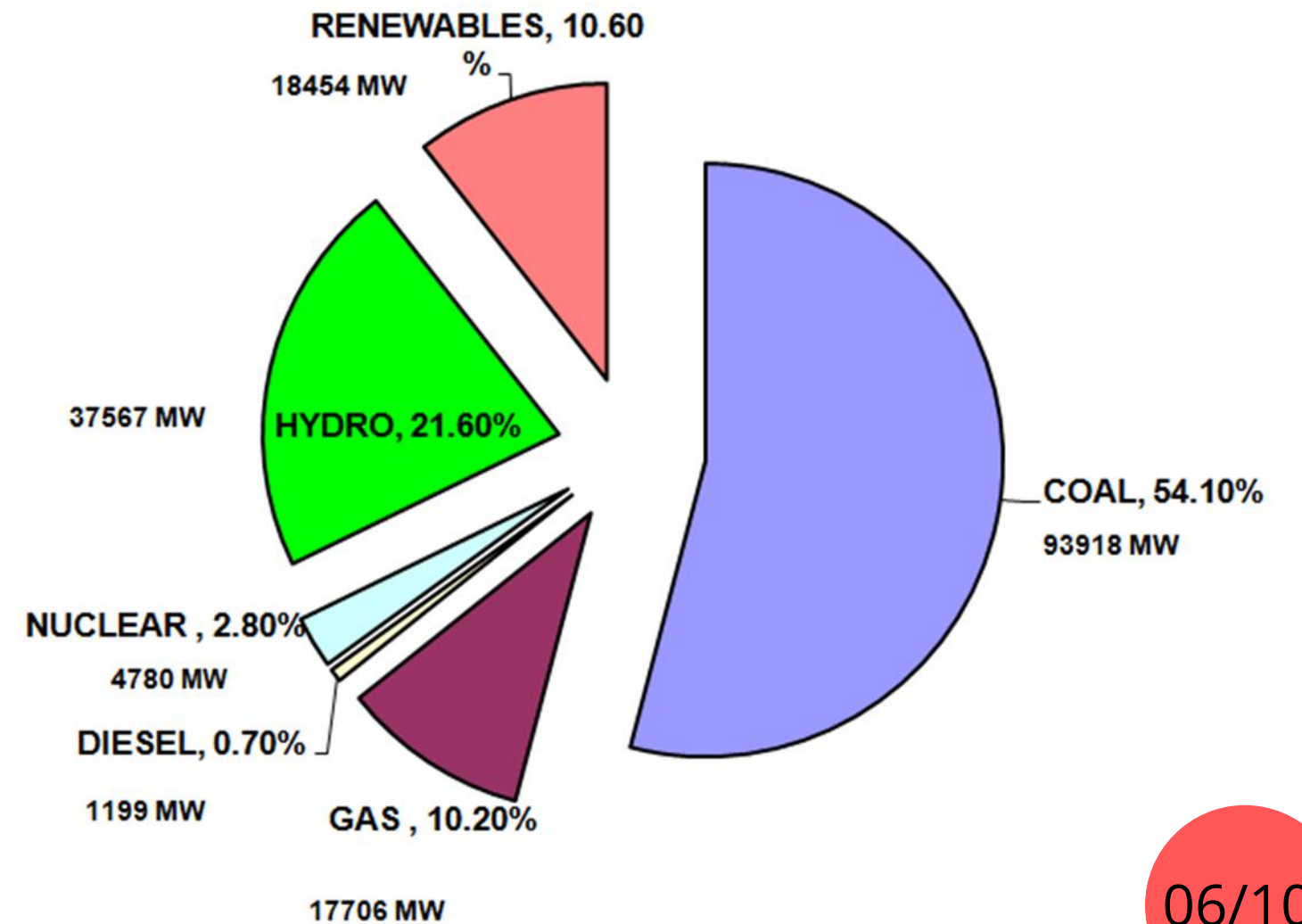
Power Installed Capacity	: 1,73,635 MW
Energy Generation ( <i>p.a.</i> )	: 788355 MU
Supply Demand Gap	: 9.8 % Peak
	: 8.5% Average

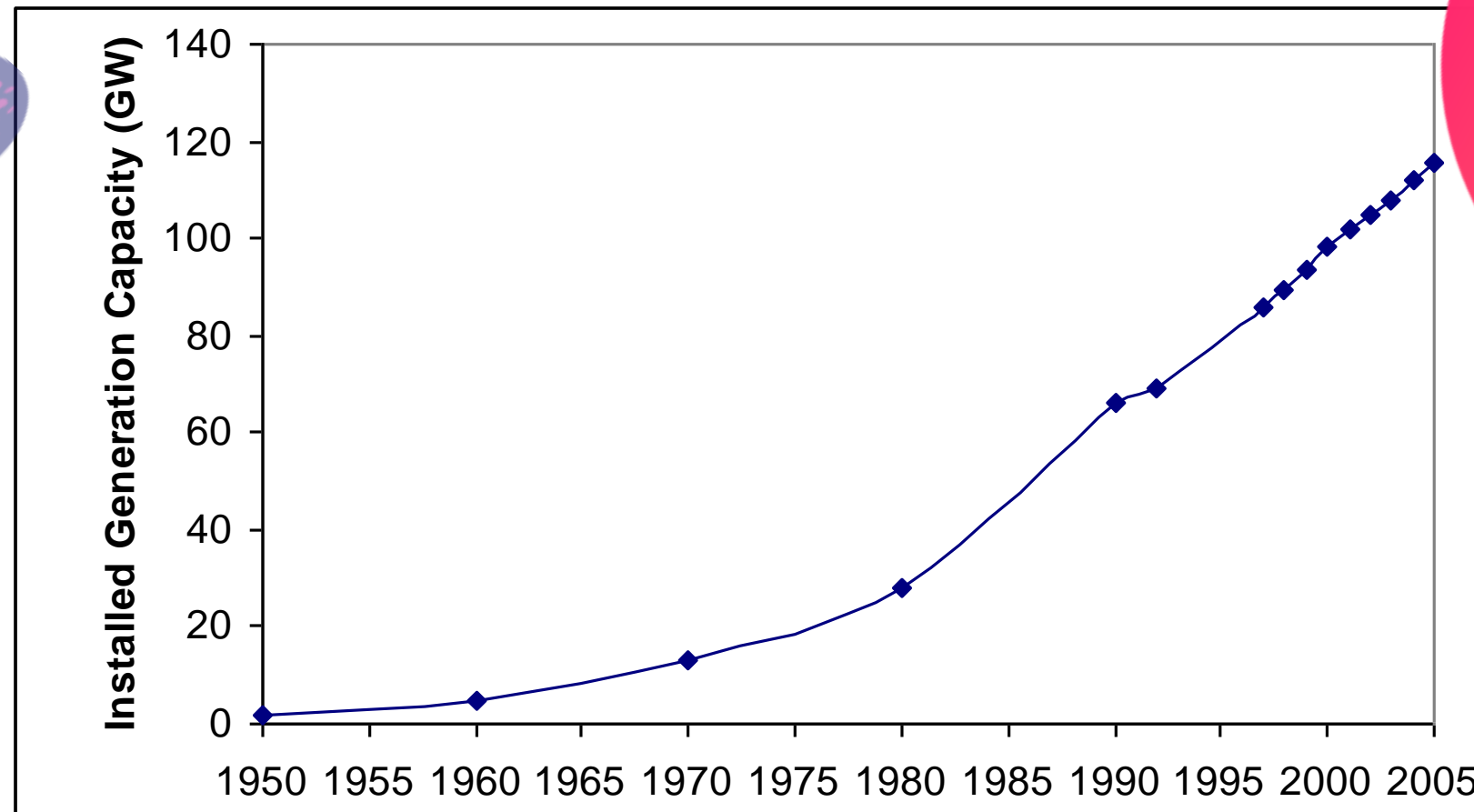




# Per Capita Energy Consumption

ALL INDIA INSTALLED GENERATION CAPACITY





# Electricity Demand Projections

Year	Total Electricity Required ( Billion kWhr)		Installed Capacity (MW)	
	GDP Growth Rate			
	7%	8%	7%	8%
2011-12	1031	1097	206757	219992
2016-17	1377	1524	276143	305623
2021-22	1838	2118	368592	424744
2026-27	2397	2866	480694	574748
2031-32	3127	3880	627088	778095



# Power System Planning Tools

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- Load Flow Analysis
- Fault Analysis (or) Short Circuit Analysis
- Stability Analysis
- System Protection and relay coordination





# SUMMARY

Power scenario in India



# ASSESSMENT

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Dear student,

Quiz is posted in your Google class room

Allotted time for quiz is 5 min

No of Questions is 10





**KEEP  
LEARNING..  
Thank u**

SEE YOU IN NEXT CLASS