

Pakistan Power Sector

General Overview

Mian. Muhammad Hamid

Chief Engineer

Peshawar Electric Supply Company (PESCO)

Power Sector - Background

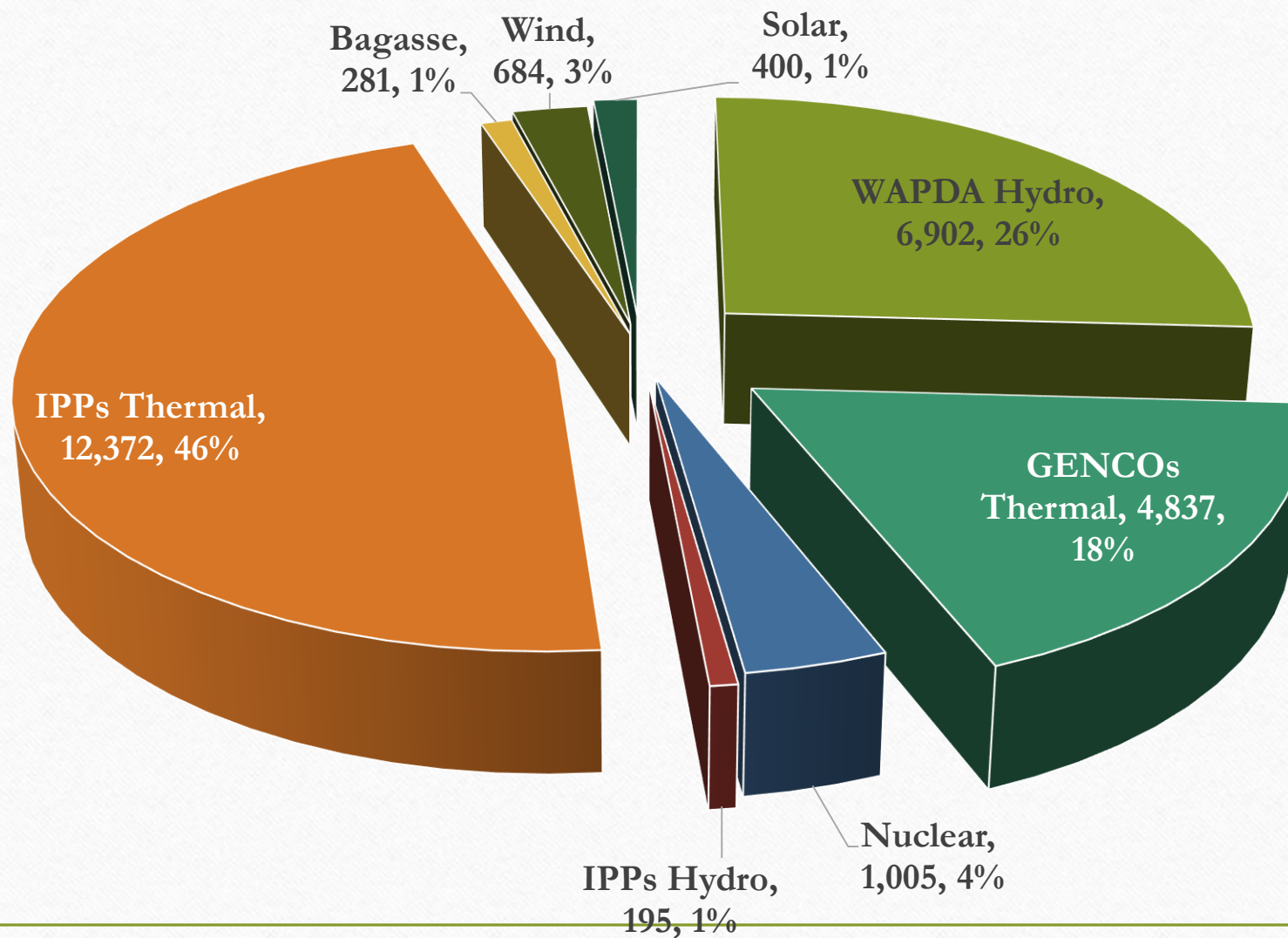
WAPDA was established in 1958 with the following mandate:

- Meet electricity demand of the country (except area of Karachi) by constructing new power plants, transmission lines and distribution system.
- Develop hydro storage projects for meeting irrigation demand of the country and construct hydro power plants.

Existing Installed Generation Capacity as on 30-06-2017

Sr. No.	Description	Installed Capacity (MW)
1.	WAPDA Hydro	6,902
2.	GENCOs Thermal	4,837
3.	Nuclear	1,345
4.	IPPs Hydro	281
5.	IPPs Thermal	12,717
6.	Bagasse	281
7.	Wind	784
8.	Solar	400
	Total	27,266

Existing Installed Capacity

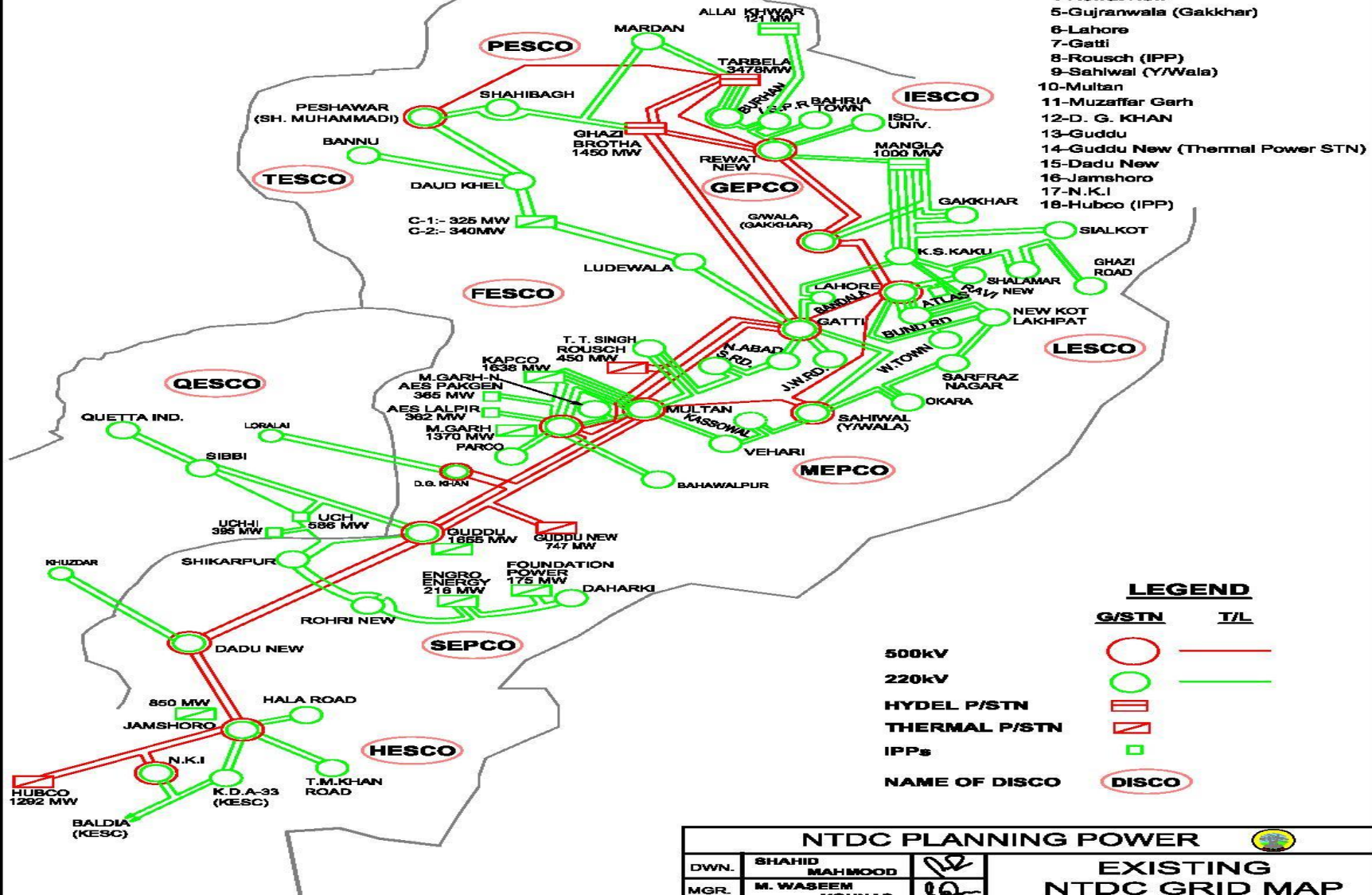


Existing System as of June 2017

■ Power Plants:	76 Nos.
■ 500 kV Grid Stations:	14 Nos.
■ 220 kV Grid Stations:	39 Nos.
■ 500 kV Transmission Lines:	5271 KM
■ 220 kV Transmission Lines:	9686 KM

Existing Transmission Network of NTDC

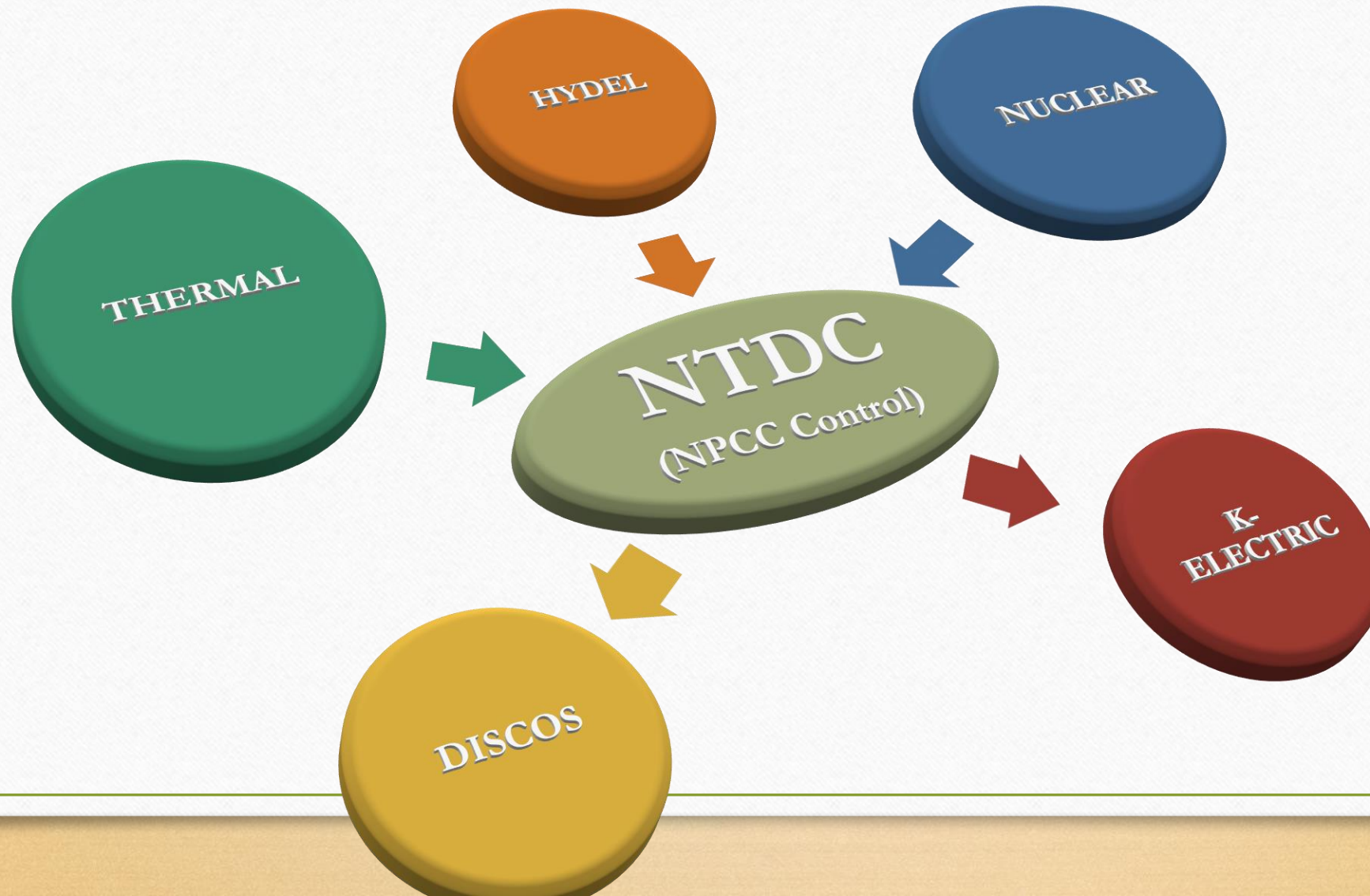
EXISTING NTDC NETWORK



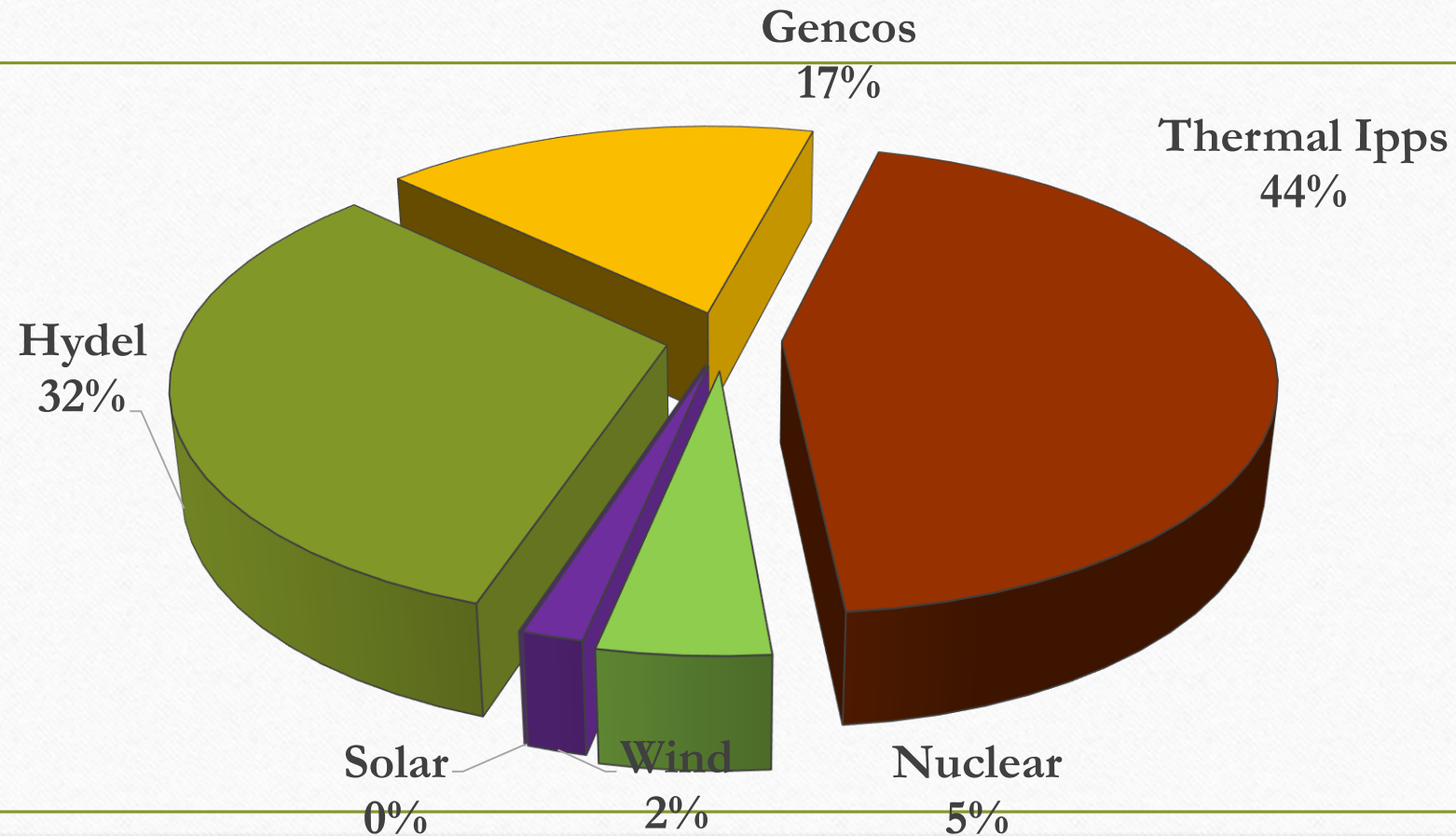
NTDC PLANNING POWER

DWN.	SHAHID MAHMOOD		EXISTING NTDC GRID MAP 500 & 220kV SYSTEM	
MGR.	M. WASEEM YOUNAS			
C.E			DRG NO. GM(PP)014-1	
G.M	R. S. REHAN			
			DATE	22-12-2014

Power System Structure



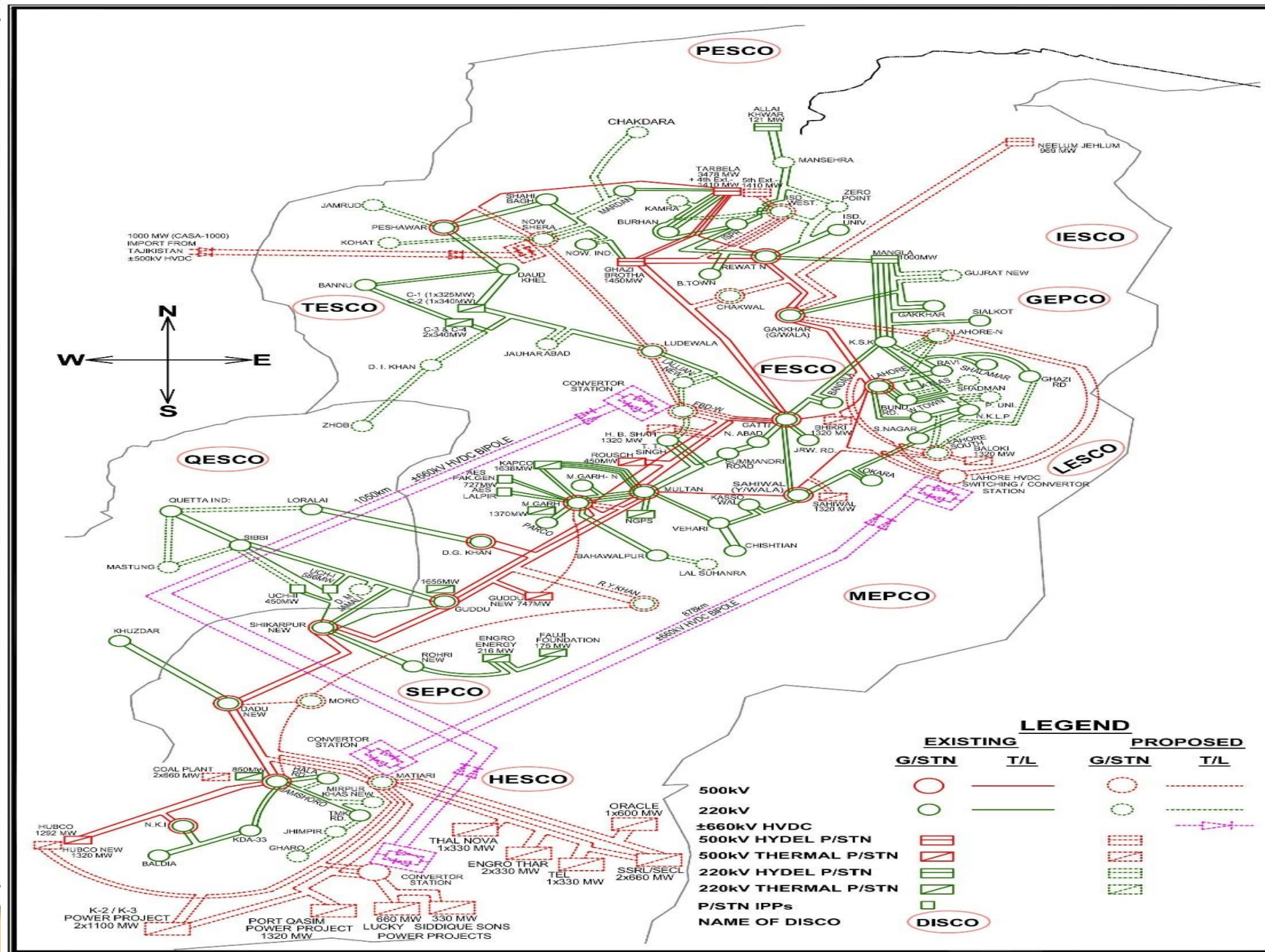
Generation Mix For Peak Generation as on 03-06-2017, 19020 MW



Transmission System Information

	Description	500 kV			220 kV			Generation Addition
		No. of Grid Stations	Capacity (MVA)	T/L (km)	No. of Grid Stations	Capacity (MVA)	T/L (km)	(MW)
	Installed Capacity as of April 2017	16	19,824	5,278	41	26,763	9,199	27,266
	Proposed addition upto: 2017-18	02	4,800	2,049	10	7,110	761	6,112
	2018-19	03	4,950	152	03	10,306	485	2,965
	2019-20	01	1,500	501	04	2,500	573	4,086
	2020-21	01	1,500	131	01	500	44	5,448
	2021-22	-	-	815	03	1,500	73	4,740
	Total	23	32,574	8,926	62	48,679	11,135	50,617

Planned Transmission Network of NTDC (2021-22)



Jim
Kirk
Thank you

