



NEPRA
Functions and Activities
Briefing
to USEA

ایمان اتحاد نظم



Mission Statement

To develop and pursue a Regulatory Framework, which ensures the provision of safe, reliable, efficient and affordable electric power to the electricity consumers of Pakistan; shall facilitate the transition from a protected monopoly service structure to a competitive environment where several power sector entities function in an efficiency oriented or market driven environment and shall maintain a balance between the interests of the consumers and service providers in unison with the broad economic and social policy objectives of the Government of Pakistan.

ESTABLISHMENT OF NEPRA

- In order to reform the Pakistan power sector a strategic plan for restructuring, reforming and privatization of WAPDA was developed by Government of Pakistan in 1992. The strategic plan was approved by the Council of Common Interests (CCI) in 1993.
- The strategic plan recommended corporatisation and privatization of WAPDA into separate Generation and Distribution Companies.
- The Prime Minister directed the implementation of the strategic plan for WAPDA as approved by the CCI through P.M's directive dated 24-10-1998. The directive of the P.M included the following.
- **Develop the outline of a competitive, modern and dynamic power sector, which meets the requirements of the consumers in the cheapest and the most efficient manner. Ensure that the restructuring and reform of WAPDA's Power Wing leads to such a vision.**



ESTABLISHMENT OF NEPRA

The strategic Plan included the creation of an Independent regulatory Authority to provide a level playing field to all the stakeholders and to assure prospective investors that an independent agency would be objectively deciding on regulatory matters of power sector without extraneous influence.

NEPRA was established by the Government of Pakistan in January 1995 through a Presidential Ordinance.

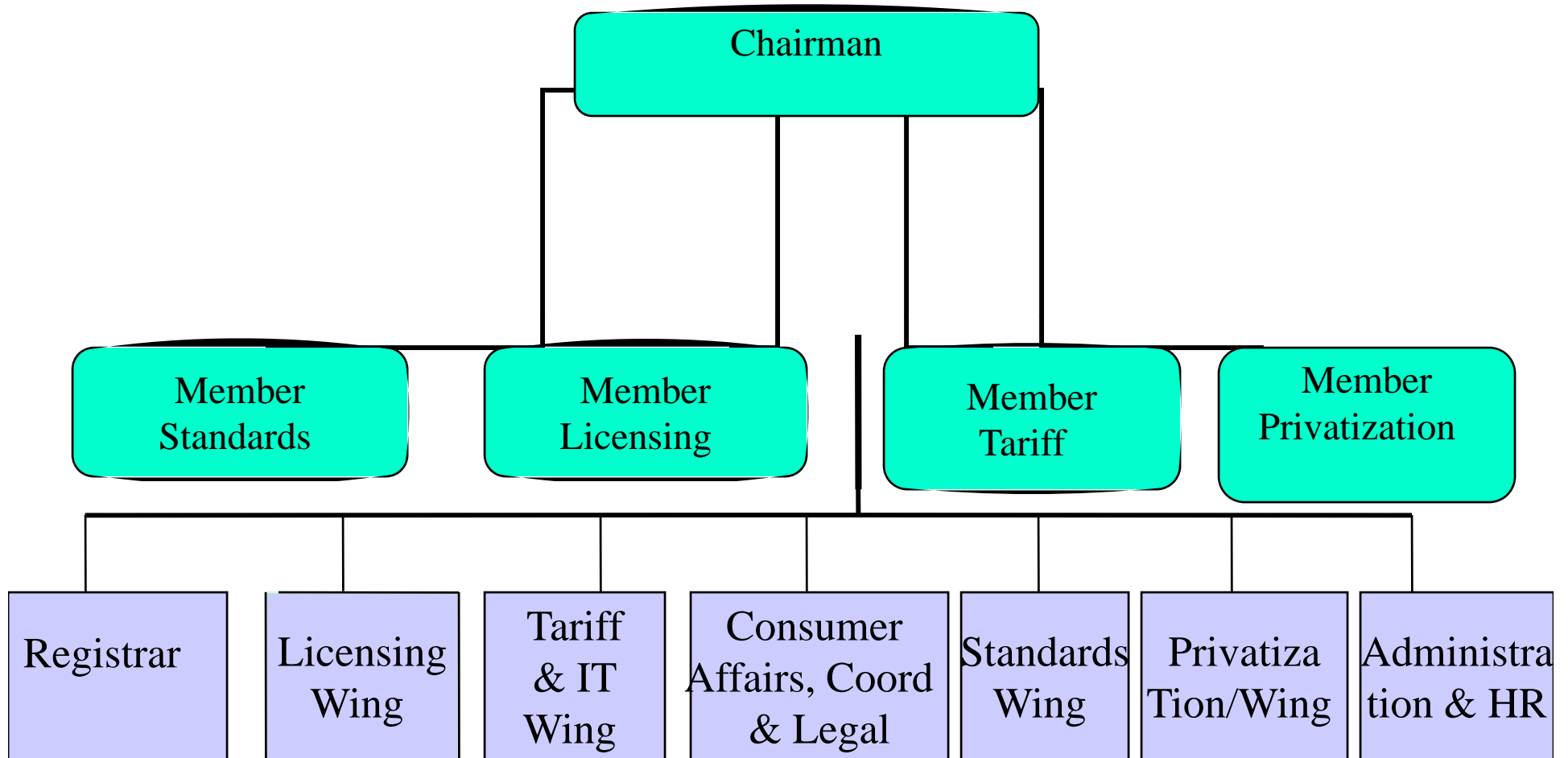
NEPRA was formally notified through promulgation of the Regulation of generation, Transmission and Distribution of Electric Power, as Act No. XL of 1997 on 13th December 1997.



Constitution of the Authority

- The Authority comprises of a Chairman, appointed by the Federal Government, and four members also appointed by the Federal Government on the recommendations of the Four Provincial Governments.
- The Chairman and the members are appointed for a tenure of four years and are eligible for a similar term provided that a member other than the Chairman shall not be appointed if he has already attained the age of sixty five years.
(Section 3 of the NEPRA Act)

Organogram of NEPRA



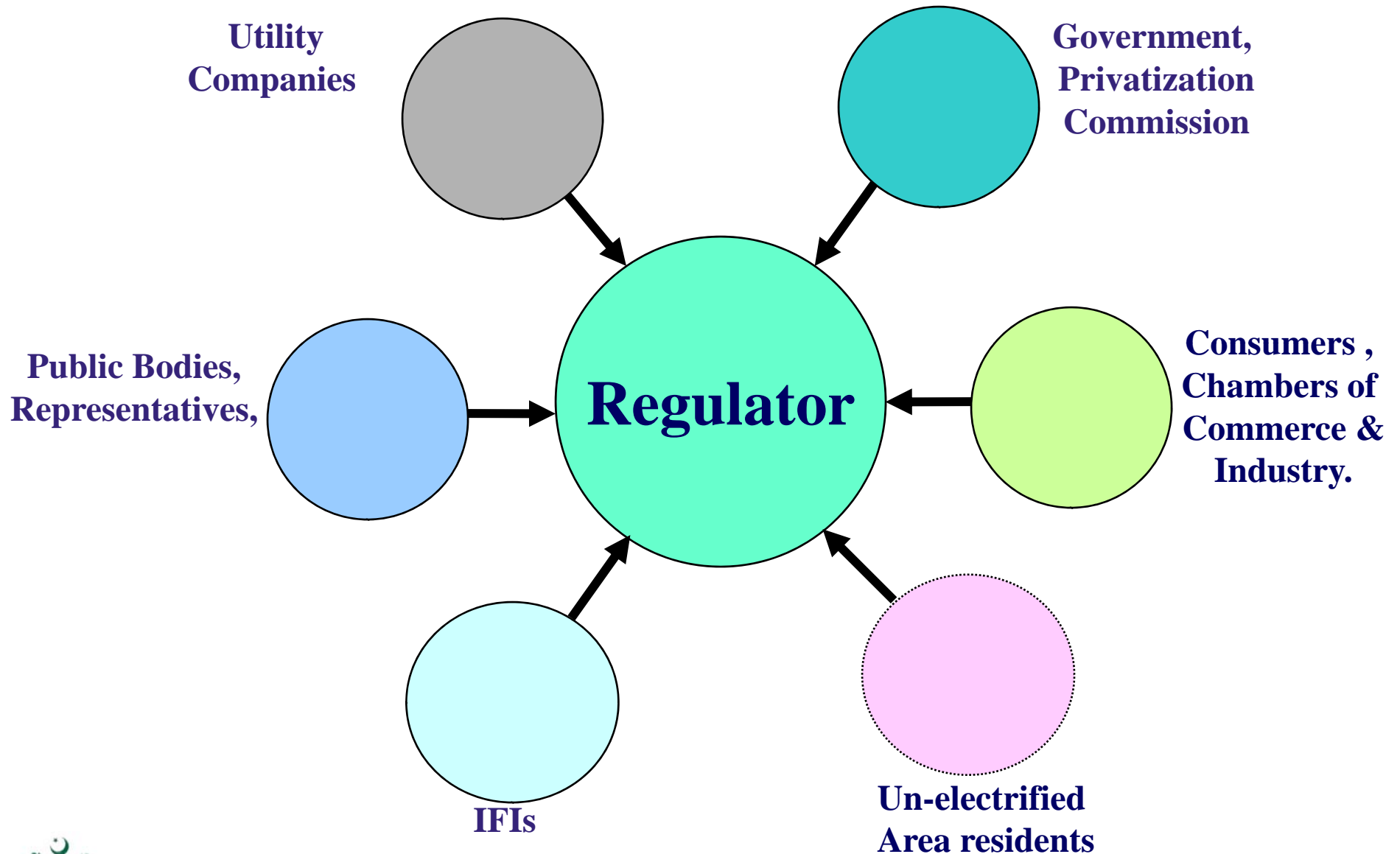
Powers and functions of NEPRA under the Act

- a) Grant licenses to Generation, Transmission or Distribution services.
- b) Determine tariff, rates, charges and other terms and conditions.
- c) Prescribe and enforce performance and investment standards.
- d) Prescribe fees and fines.
- e) Ensure continuous, efficient and affordable supply of electric power services to the consumers.

Act/Rules/Procedures (Framed by NEPRA)

- Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997). Enacted by Parliament in December 1997.
- Tariff Standards and Procedure Rules, 1998.
- Licensing, Application & Modification Procedure Regulations 1999,
- Licensing (Distribution) Rules, 1999.
- Licensing (Generation) Rules, 2000.
- Fees and Fines Rules, 2002.
- Consumer Eligibility Criteria (Regulations), 2003.
- Resolution of Disputes between IPPs & other Licensees, 2003
- Performance Standards Distribution Rules 2005
- Performance Standards Transmission Rules 2005
- Interim Power Procurement (Procedure & Standards) regulations 2005
- Grid Code, Distribution code 2005
- Consumer Service Manual 2007

Players in the Power Sector



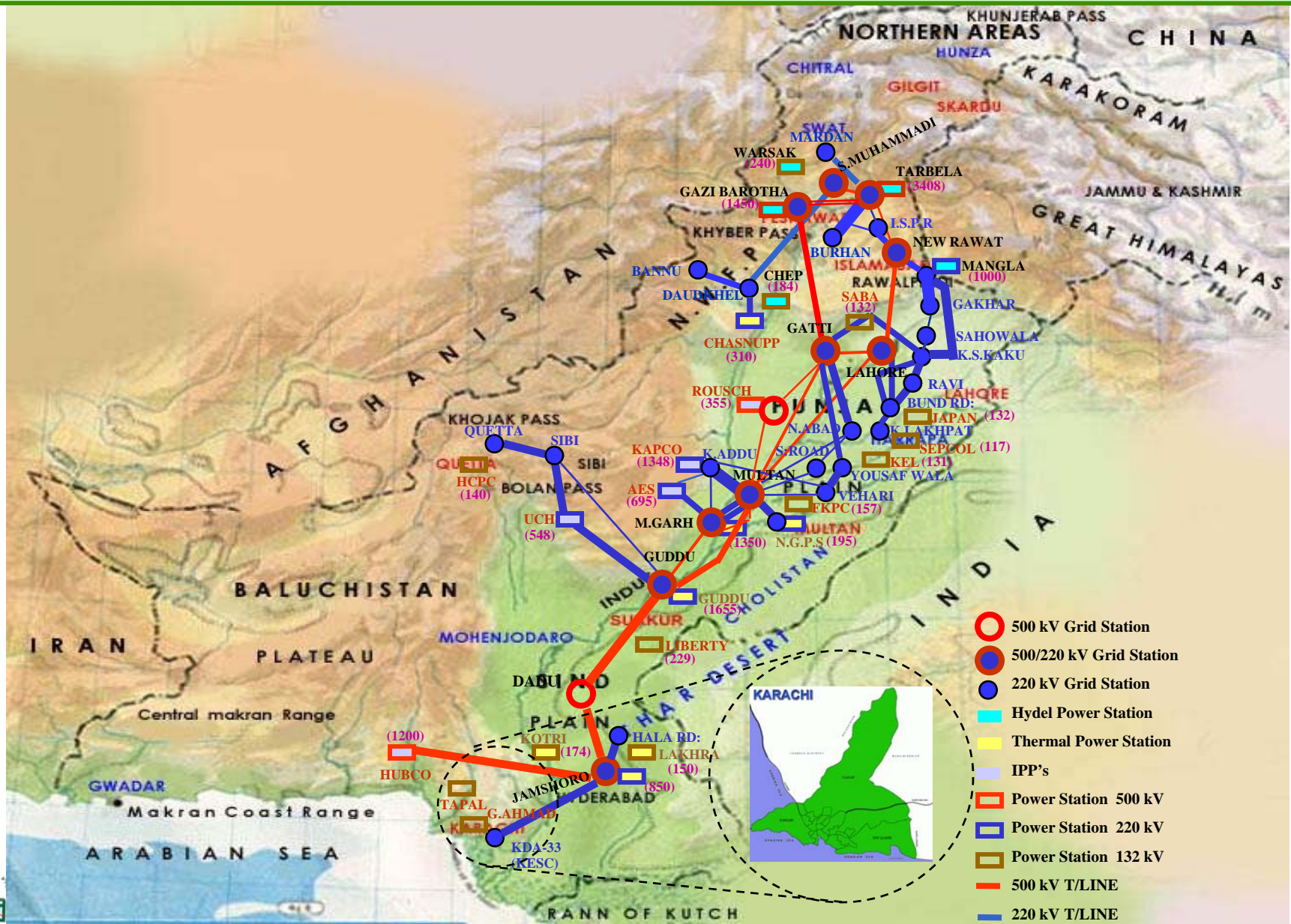
Present Status

- a) Formation of Rules, Regulations, Procedures
- b) Grant Licenses
- c) Tariff-----MYT(KESC, FESCO), IPPs , GENCOs, Wind.
- d) Upfront tariff.----- For Thermal & Wind IPPs
- e) Standards ---- Monitoring of Standards
- f) Consumer Interests.– Complaints-Hearings
- g) Tribunals
- h) Exchange Programs.

SAFIR, SARI, USAID, World Bank, USEA,
PURC, NARUC, Ofgem, TERI/CERC,
South Africa, China

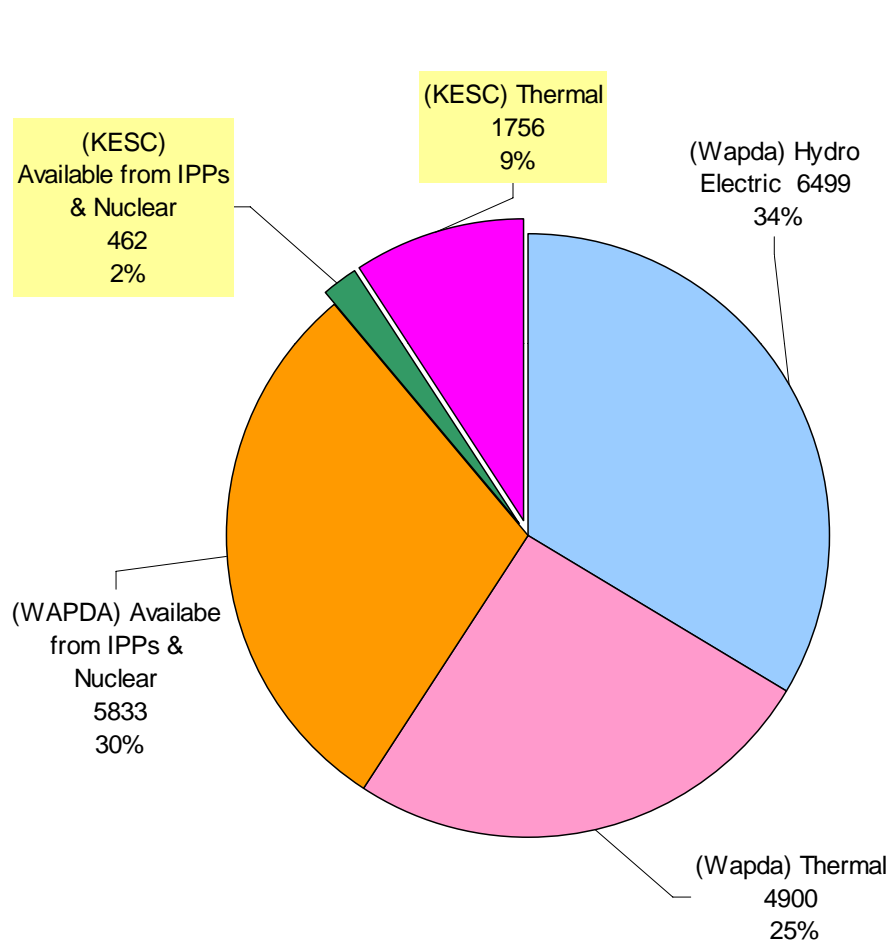


PAKISTAN Power System

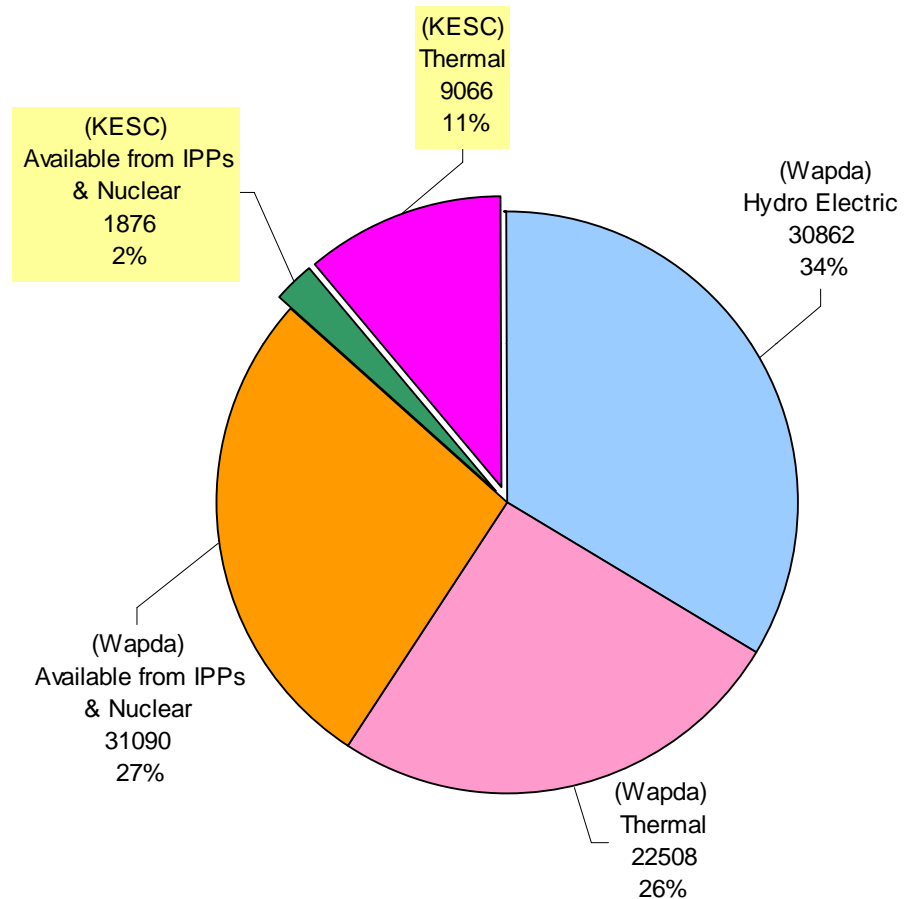


Overall Country System Installed Capacity and Units generated (FY – 2005-06)

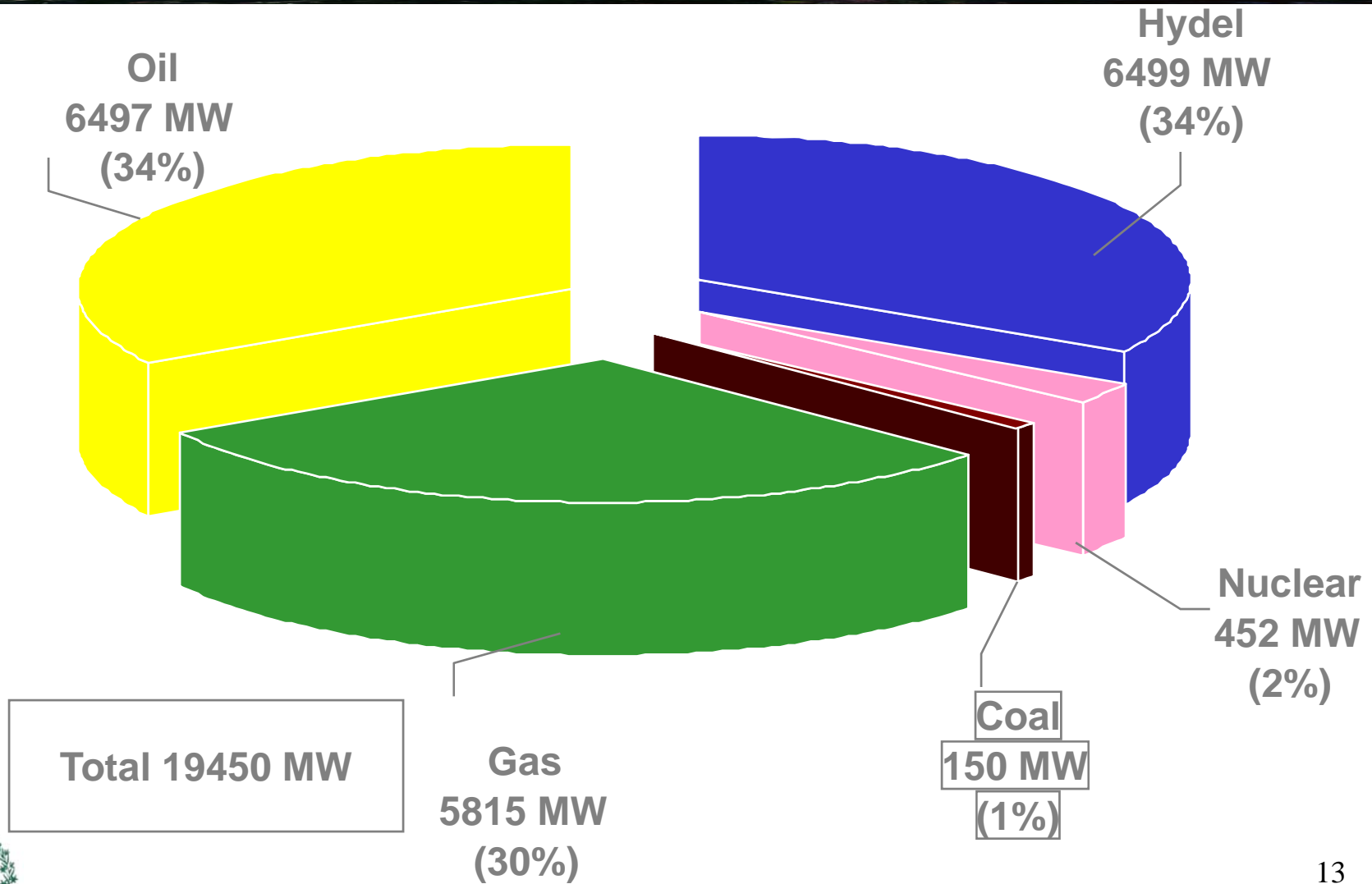
Installed Capacity (19450 MW)



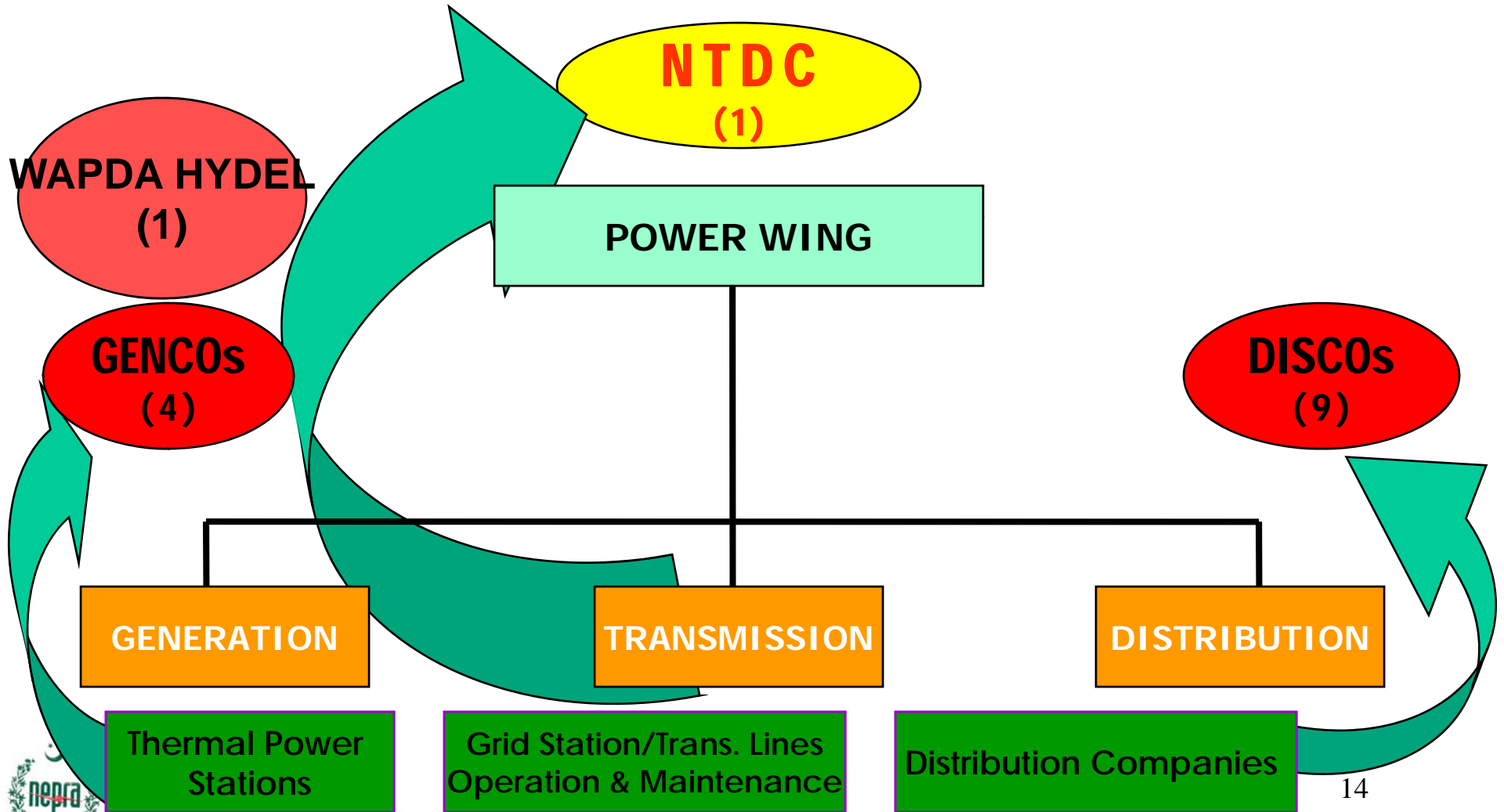
Generation (93629 GWh)



HYDEL THERMAL MIX



WAPDA's RESTRUCTURING



Generation Business in Pakistan

- a) Ex WAPDA GENCOS--- 4 Nos All Licensed
- b) WAPDA Hydel ----- 1 Comprehensive License
- c) IPPs Pursuant to 1994 P.P ---- 16 Nos all Licensed
- d) IPPs Pursuant to 2002 P.P----- 5 Nos all Licensed (COD not yet)
- e) KESC generation ----- Licensed
- f) SPP-----35 Nos all Licensed
- g) Distributed generation----- 7 Nos all Licensed
- h) Wind Energy -----4Nos (3 Licensed)



Transmission Business in Pakistan

a) NTDC-----
Licensed

a) KESC
Transmission-----
License in
Process



POWER

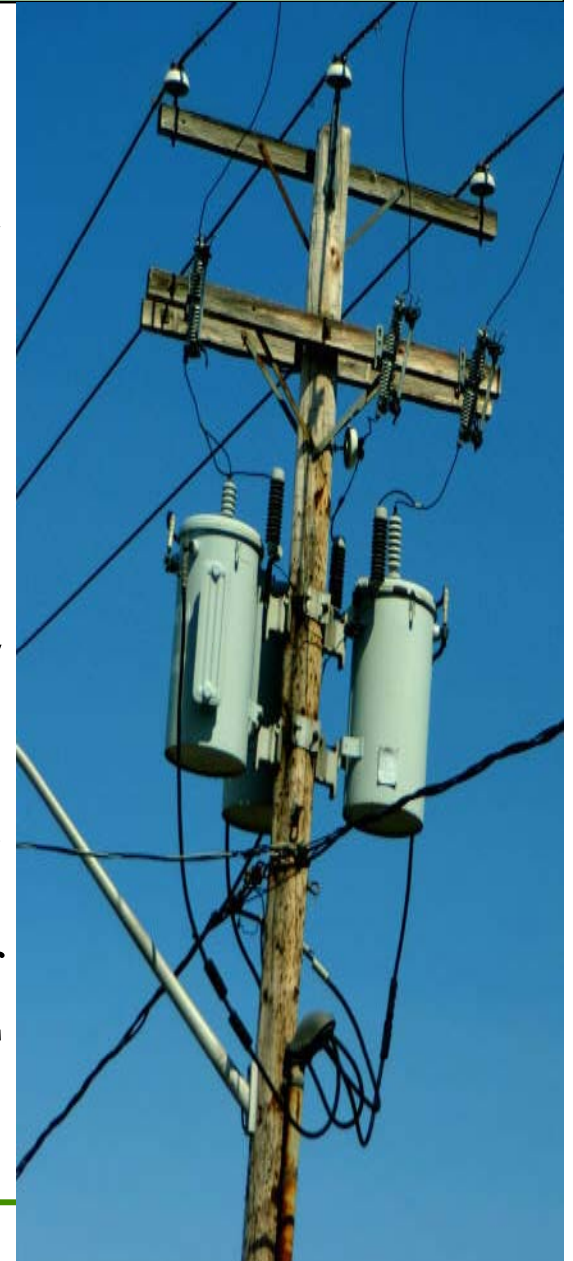
Distribution Business in Pakistan

- a) DISCOs----- 8 Nos all Licensed with Individual tariffs.
 - a) PPP
 - b) Distribution Margin
 - c) Average Sale Rate
 - d) Consumer end tariff
- b) KESC-----KESC Distribution License
 - a) PPP--- KESC own Generation, NTDC, IPPs
 - b) Distribution Margin
 - c) Average Sale Rate
 - d) Consumer End Tariff
- c) SPPs-----34 Nos Out of this only 9 Nos qualify for the grant of a distribution license.
 - a) Licence granted.
 - b) Consumer End Tariffs notified



Distribution Business in Pakistan

- a) BPC operative at the time of Distt Lice-----
All Such cases being identified and notices being issued. 1st hearing of its kind held in May 2007 for grant of distribution License to Bahria Town Housing Colony (an Inset H/S within the geographical boundaries of IESCO).
 - a) Separate distribution License Prepared
 - b) Will have a separate tariff
 - c) Will be required to meet all Standards/ Codes
- b) Policy on the Eligibility Criteria for such INSET entities being developed.
 - a) This will include the Principle of Eligibility for such INSET applications.



Corporatization/Privatization of Distribution Companies

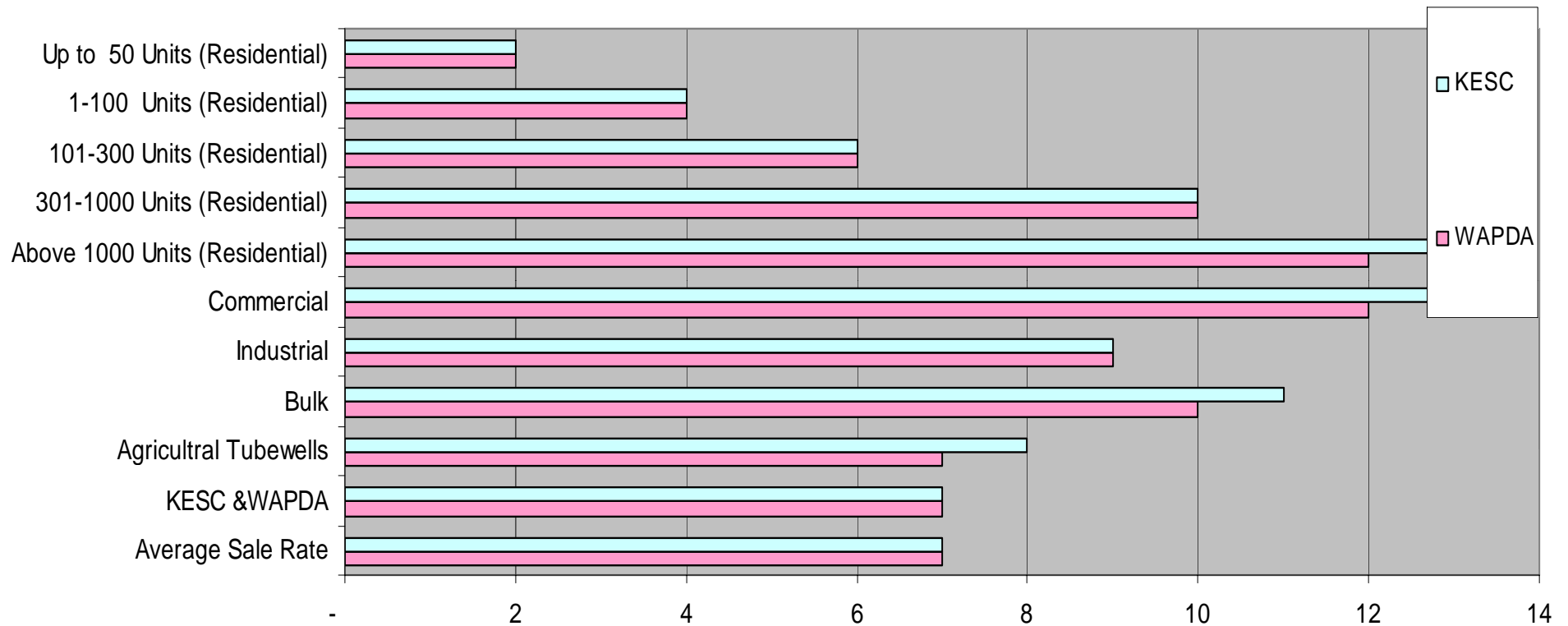
- Originally WAPDA and KESC two virtually integrated companies feeding about 15M and 2Million consumers respectively.
- Through the Strategic Plan WAPDA Corporatized into Eight Distribution Companies
- Vertically KESC Integrated KESC un bundled into KESC Generation transmission and Distribution with Separate Licensees but under the same management.
- REASONS
 - High Losses DISCOs 26%(all combined- Ranging from 10% to 36%) KESC 40%
 - In efficiencies
 - Bad Management
 - Poor Consumer Response
 - A lot of subsidy to be paid by the Government annually to run these entities

Post Privatized DISCOs/KESC

- WAPDA Corporatized into EIGHT Discos (Distribution Companies)
 - One Disco (FESCO) offered for privatization
 - Individual Tariffs for each Disco notified in 2007 after three years of delay
 - With tariffs notified each Disco financially independent
 - Can now plan their own development plans and sign loan agreements.
 - Have the power to sign bi-lateral with any GENCO for meeting its excess capacity
- KESC
- Privatized in 2005 (taken over by the new management)
 - KESC Distribution separate licensed
 - Has its own Consumer end tariff
 - The total tariff including Generation plus Transmission and Distribution is a Multi Year Tariff for a control period of Seven Years.
 - The salient features of the MYT are
 - » Control Period 7 years
 - » As per the mechanism KESC DISCO break even after three years with losses down from 40% to 25%
 - » Forth year onward KESC Disco will earn profit
 - » Privatized KESC will invest around US\$ 500M in KESC Distribution only
 - » Any un notified amount above Consumer end tariff will be paid by the Govt as subsidy



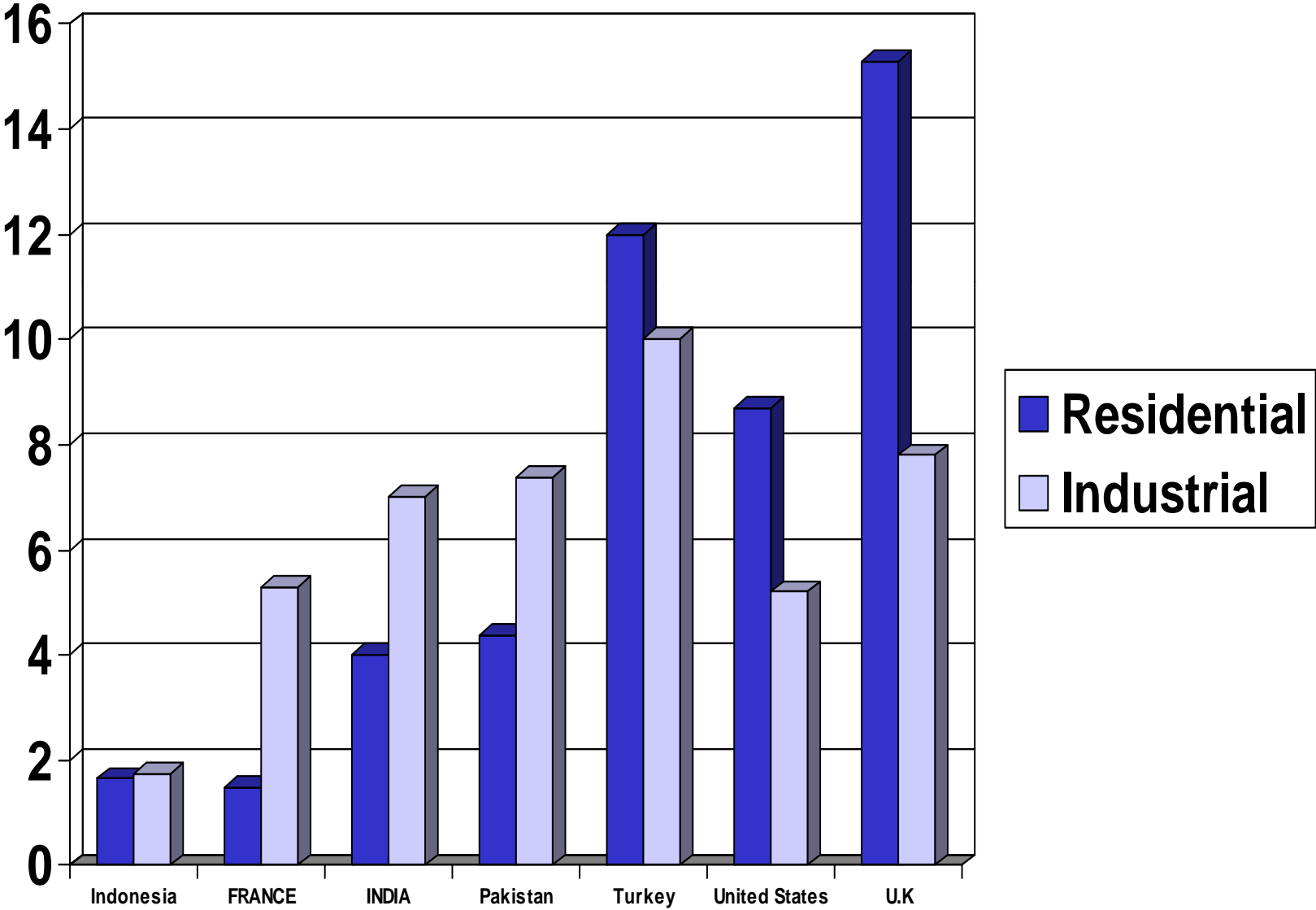
Consumer Class Wise Rates Cents/kWh (Previous)



	Average Sale Rate	KESC & WAPDA	Agricultural Tubewells	Bulk	Industrial	Commercial	Above 1000 Units (Residential)	301-1000 Units (Residential)	101-300 Units (Residential)	1-100 Units (Residential)	Up to 50 Units (Residential)
KESC	7	7	8	11	9	13	13	10	6	4	2
WAPDA	7	7	7	10	9	12	12	10	6	4	2

ELECTRICITY TARIFF COMPARISON

US cents/KWh



LOSSES DISCOs/KESC

Total Consumers Served 17.5Million

S/No	DISCO	Losses 2000--%	Losses 2005
1	PESCO	22	28
2	IESCO	9.5	10.4
3	GEPCO	12.7	11
4	LESCO	10.5	10.2
5	FESCO	13.7	12.8
6	MEPCO	34	20
7	HESCO	39	39.5
8	QESCO	22	15.3
9	KESC	36	34




Year Wise Progress (TARIFF)

Year	Determination (WAPDA/KESC/GENCOS/NTDC/DISCO s)	Others	Total
1998	04	----	07
1999	04	----	04
2000	02	01	03
2001	13	----	13
2002	06	01	07
2003	09	01	08
2004	29	03	33
2005	47	04	24
2006	25	01	05
2007	31	15	46
Total	170	26	196 ₂₄

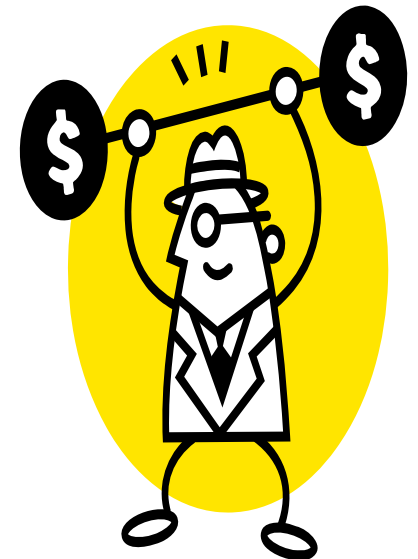


Year Wise Progress (LICENCING)

Year	SPPs	DISCOs	NTDC	GENCOs & KESC	CHAS NUPP/kannup	IPPs/ Wind	WAPD A HYDEL	TOTAL
2000	----	----	----	----	----	----	----	----
2001	09	01	----	----	----	----	----	10
2002	05	07	01	04	----	----	----	17
2003	----	01	----	----	01	12	----	14
2004	13	----	----	----	----	04	01	18
2005	04	-----	----	01	01	03	----	09
2006						07		07
2007						4		4
 Total	31	09	01	05	02	30	01	79 ²⁵

Safeguarding interests of Consumers

- Unrestricted self Generation & Bilateral Contracts.
- Affordable tariff for all categories.
- Life line consumers
- Redressal of Complaints:
 - i) Utility services obligation
 - ii) Provincial offices of inspection established by the Provinces
 - iii) Consumer Affair Division at NEPRA attended/rectified over 1800 Nos complaints since inception.
 - iv) Court of Law
- Representation through Consumer/human rights
- Education/Information through media/website.



Complaints Handling

Year	Complaints Recieved	Complaints Addressed through Provincial Offices of Inspection/DISCOs	Complaints redressed through NEPRA Consumer Affairs Division under Complaint Redressal mechanism/ POI
2001	76	76	Complaints Redressed through DISCOs
2002	187	151	36
2003	237	172	65- Attock Cement Vs KESC
2004	354	238	116- Iftexhar Ahmed Vs IESCO, PWD H/s Vs IESCO, D.s Textile Mills Vs LESCO c
2005	1098	851	217- PACE Lahore, Civilian Coop H/s
2006	548	355	193- Tayyab textile mills Vs FESCO, HDIP Vs IESCO, Saima trade towers Vs KESC KESC Vs NTDC
2007	357	241	95-

All the four Provinces have since established Provincial Offices of Inspection and are functioning pursuant to Sec 38 of the NEPRA Act



Consumption Pattern (2005-06)

Units billed 67603 GWh Losses 24.9%

- Total Number of Consumers including KESC-17.24 M

Catagory	Ex-WAPDA Nos Million	KESC Nos Million	Total	% of Consumer	% of Consumption
Domestic	12.74	1.35	14.09M	83%	45.4%
Commercial	2.42	.40	2.82M	15%	7%
Industrial	0.21	0.02	0.23M	1.5%	29.3%
Bulk & others	0.004	0.001	0.005M	.5%	17.3%
Total	15.42M	1.82M	17.24M	100%	

Projected Shortages

Electricity Growth rate assumed to be 9%

Year	Installed Capacity	Peak demand	Surplus/deficit
2005	19226/16000	14000	3000
2006	19226/16000	15200	800
2007	19226/16000	16500	(500)
2008	19500/16400	18000	(1600)
2009	19500+	19500	(2100)
2030		60000+	

Pricing Mechanism

- a) Generation---- New IPPs--- Cost Plus return on Equity,
- Tariff Comprises of CPP&EPP with Provision of adjustments for currency fluctuations and inflation.
 - Existing IPPs governed under 1994 P.P. Not determined by NEPRA.
- b) Transmission--- Cost plus debt service plus Return on Equity.(Only transmission charge for transporting Electricity)
- Cost (CPP Plus EPP) PLUS T. Charge transferred to Discos passed on the prescribed formula.
 - Charging of CPP----- on the basis of Max demand recorded by a DSICO during the month
 - Charging of EPP----- as per price per unit delivered of the basket rate
- c) Discos Tariff --- Distribution Margin----cost plus return on assets (weighted average cost of capital).
- Consumer end tariff is determined on the basis of CPP,EPP charged to a DISCO plus distribution margin with the provision of Cross subsidization within the various consumer classes.

Future Potential on indigenous resources

No	Fuel/tech	Expected Potential
1	Hydel	41000MW
2	Coal	20000MW
3	Renewable	10000MW
4	Nuclear	8800MW
5	Mini/Micro hydel	700MW

Thank you