

PRESENTATION  
ON  
POWER SECTOR DEVELOPMENT  
IN  
PAKISTAN

By

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At

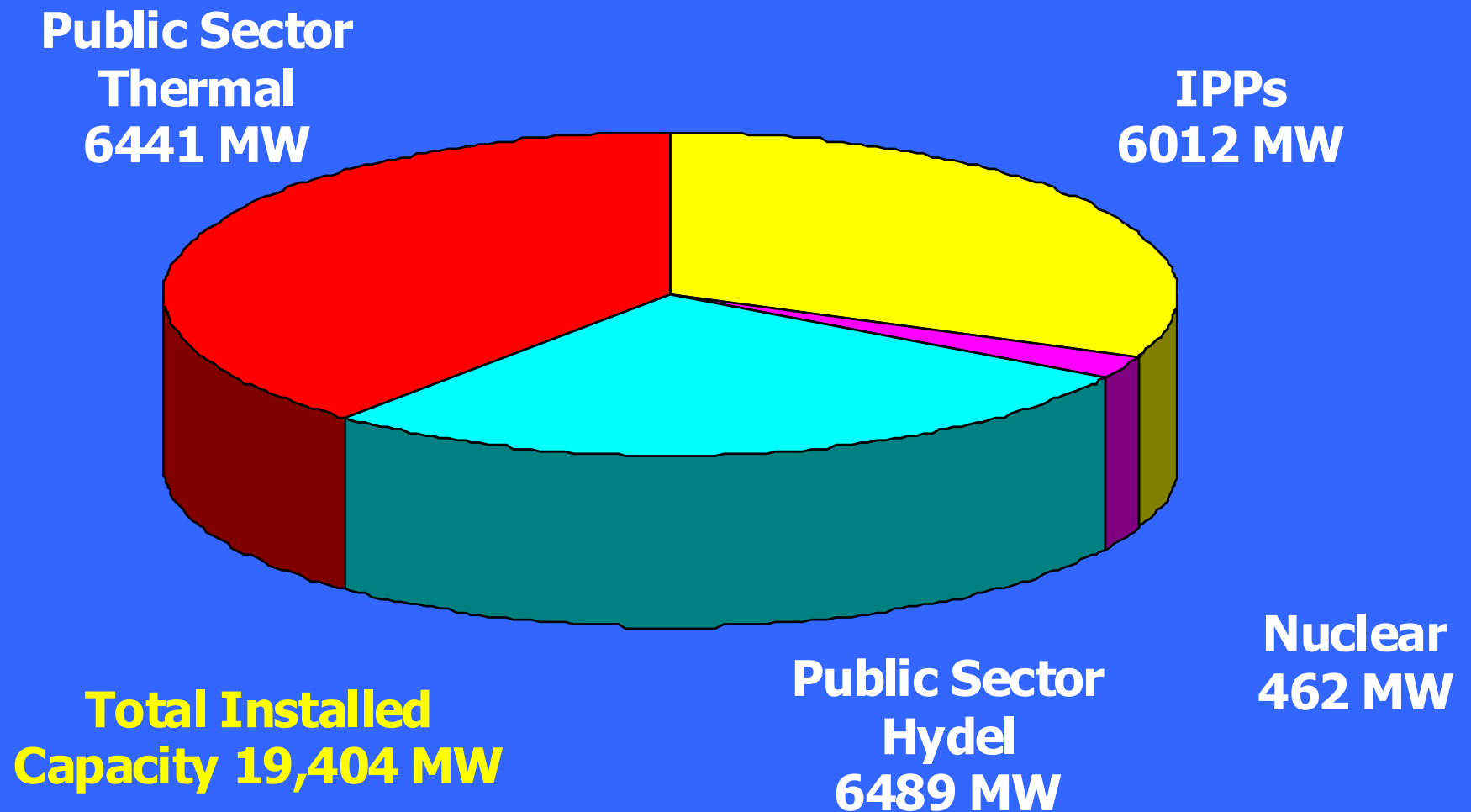
Pakistan Development Forum

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# PAKISTAN POWER SECTOR PROFILE

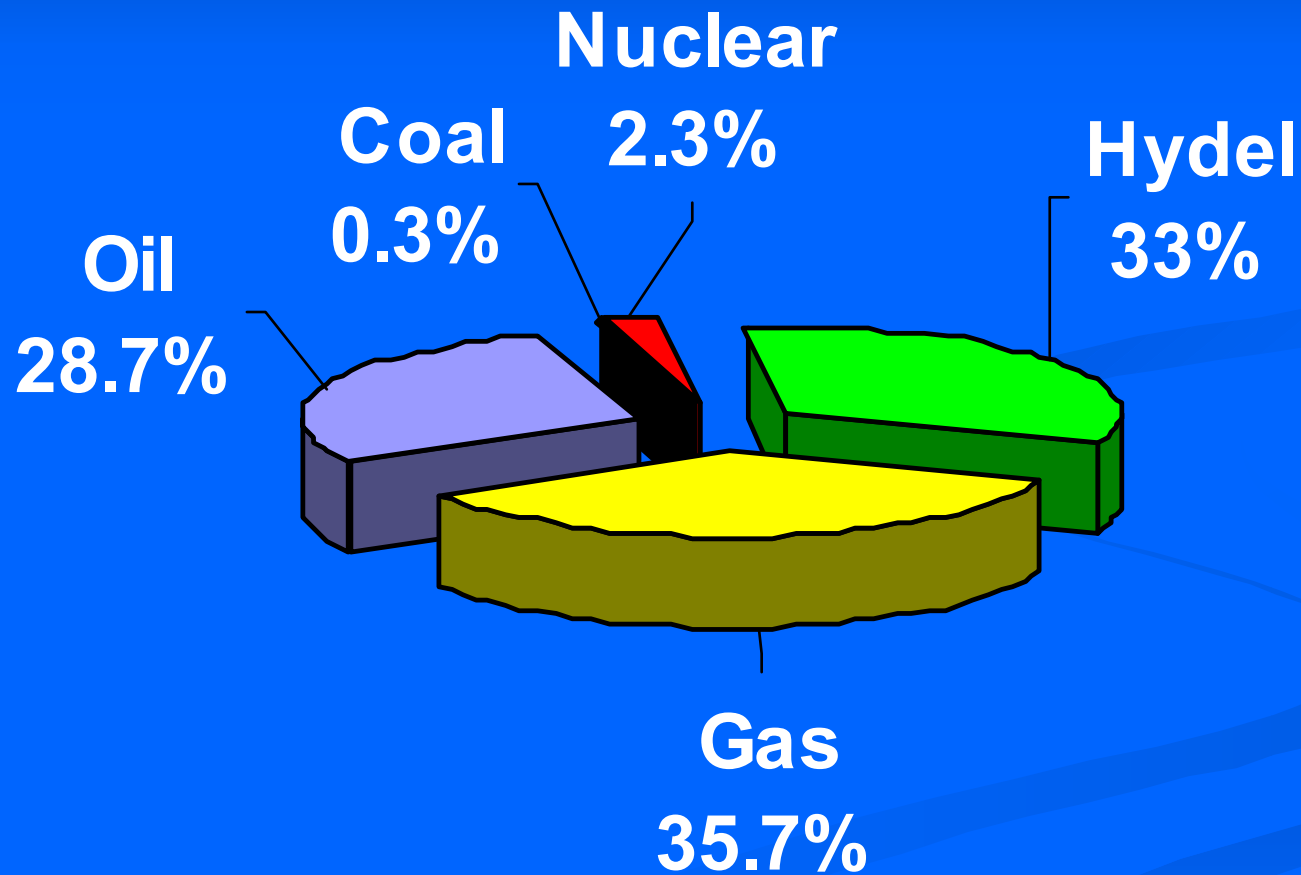
- **TOTAL POWER GENERATION**  
(INSTALLED CAPACITY): **19,404 MW**
- **HYDROPOWER GENERATION**  
(INSTALLED CAPACITY): **6,489 MW**
- **IPPs POWER GENERATION**  
(INSTALLED CAPACITY): **6,042 MW**
- **HIGHEST PEAK** **12,328 MW**
- **ENERGY GENERATED** **75,682 GWh**
- **TOTAL No. OF GRID STATIONS** **690**
- **TOTAL No. OF CONSUMERS** **14.3 millions**
- **ACCESS OF POPULATION TO ELECTRICITY** **62 %**
- **HYDROPOWER POTENTIAL** **41,722 MW**

# POWER SECTOR - INSTALLED CAPACITY



# OVERVIEW OF POWER SECTOR

## GENERATION PATTERN



# POWER DEMAND POSITION

<b>Year</b> (Year ending 30th June)	<b>Firm Supply (MW)</b>	<b>Peak Demand (MW)</b>	<b>Surplus/ (Deficit) (MW)</b>
<b>2003</b>	<b>14,336</b>	<b>12,800</b>	<b>1,536</b>
<b>2004</b>	<b>15,046</b>	<b>13,831</b>	<b>1,215</b>
<b>2005</b>	<b>15,082</b>	<b>14,642</b>	<b>440</b>
<b>2006</b>	<b>15,072</b>	<b>15,483</b>	<b>(411)</b>
<b>2007</b>	<b>15,091</b>	<b>16,548</b>	<b>(1,457)</b>
<b>2008</b>	<b>15,055</b>	<b>17,689</b>	<b>(2,634)</b>
<b>2009</b>	<b>15,055</b>	<b>19,080</b>	<b>(4,025)</b>
<b>2010</b>	<b>15,055</b>	<b>20,584</b>	<b>(5,529)</b>

- By year 2010 additional power required will be 5529 MW.
- The additional power generation will need an investment of about 5 billion dollars for five years (2006-2010).

# ON GOING HYDRO POWER PROJECTS

Name of Project	Installed Capacity (MW)	Cost (Rs Million)	Completion Date
Khan Khawar Hydro Power Project	72	5,363	June 2006
Allai Khawar Hydro Power Project	121	8,578	June 2006
Duber Khawar Hydro Power Project	130	9,754	June 2007
Golen Gol Hydro Power Project	106	7,035	June 2006
Jinnah Barrage Hydro Project	96	13,547	June 2006
<b>Total:</b>	<b>525</b>	<b>44,277</b>	

**Outlay for above stated projects = US \$ 777 Million**

# GHAZI BROTHA POWER HOUSE



# GHAZI BROTHA POWER CHANNEL



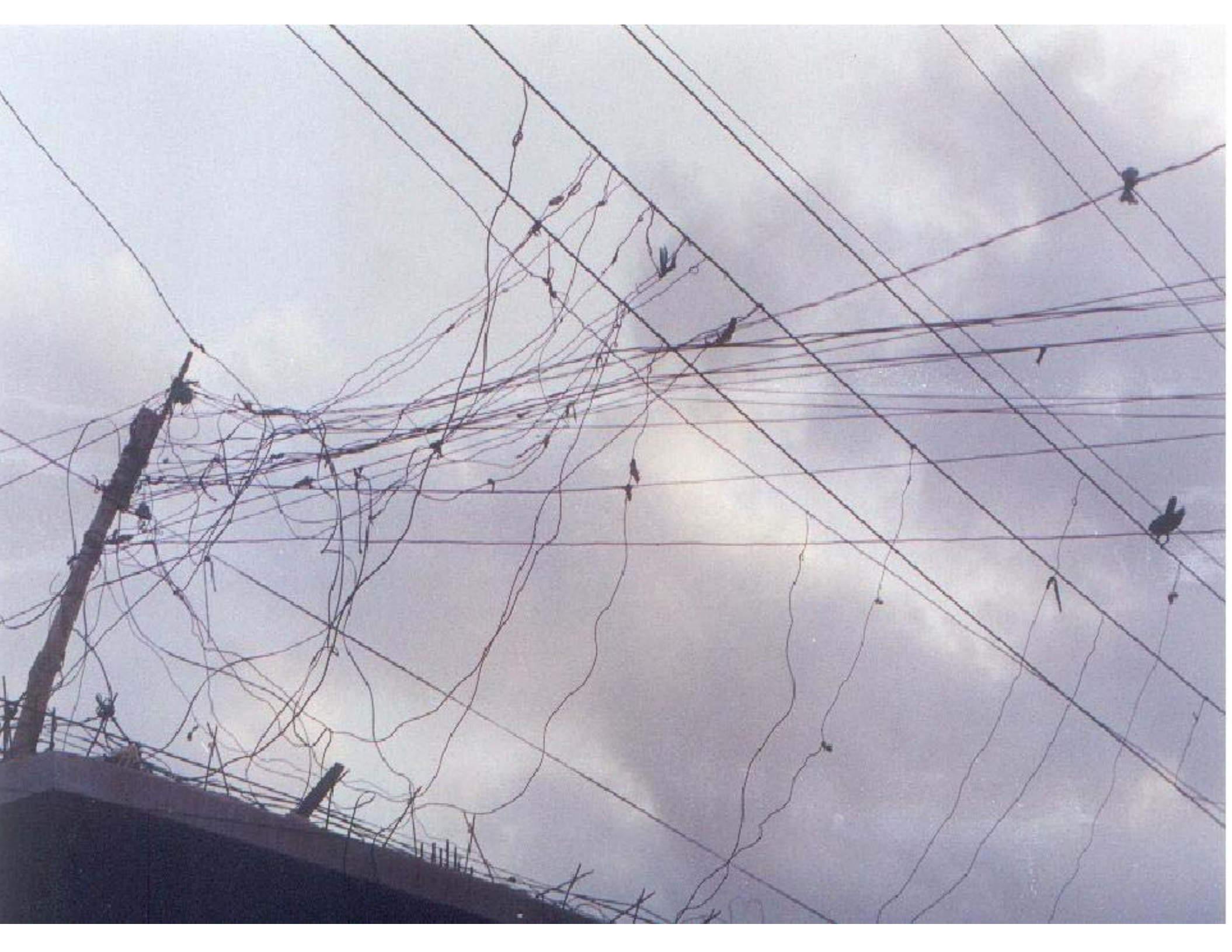
# PROSPECTIVE HYDROPOWER PROJECTS

Name of Project	Installed Capacity (MW)	Cost (Rs Billion)	Status
Neelum Jhelum Hydropower	969	84	PC-I Approved
Kohala Hydropower (AJK)	740	83	F.S. Completed
Dasu Hydropower (N.A)	2712	186	F.S. in Hand
Pattan Hydropower (N.A)	1172	178	-do-
Thakot Hydropower (NA)	1043	154	-do-
Bunji Hydropower (NA)	1500	161	-do-
Chokothi (Jhelum River)	139	10	-do-
Naran (NWFP)	219	16	-do-
Azad Pattan (Jhelum River)	222	16	-do-
Matiltan (NWFP)	84	6	-do-
Taunsa Hydropower	120	11	-do-
<b>Total</b>	<b>8,920</b>	<b>905</b>	

**Outlay for above stated projects = US \$ 16 Billion**

# TRANSMISSION LINE AND GRID PROJECTS

S.No	Name of Project	Project Cost (Rs.in Million)	FEC (US\$ in Million)
1	Up gradation of Load Dispatch System	2895	32
2	500 kV Brotha – Shahi Bagh – Shaikh Muhammadi transmission line	1218	11
3	500 kV HUBCO-KESC Interconnection and Grid Station	3090	30
4	500 kV Grid Station at Sahiwal	2970	30
5	Extension of 500 kV Rawat Grid Station.	946	10
6	220 kV Dadu – Khuzdar D/C transmission line and Grid Station	3810	27
7	Transmission System for Dispersal of Power from Thar Coal Power Project	5512	45
8	500 kV Gakhar – Rawat System	1768	19
9	220 kV Grid Station at Ghazi Road Lahore	1665	14
10	220 kV Muzafargarh – D.G Khan transmission line and Grid Station	1592	12
11	220 kV Grid Station at Chichawatni along with 132kV system expansion	1207	10
12	220 kV Grid Station at Kharian along with 132 kV system expansion	805	7
	<b>Total</b>	<b>27478</b>	<b>247</b>





# VILLAGE ELECTRIFICATION 2004 - 2015

- Total No of Villages 125,000
- Total No of Villages Electrified 78,000
- Total No of Villages to be Electrified 47,000
- Total Investment required Rs 94 billion  
(US\$ 1.5 billion)

# INVESTMENT PROGRAMME 2004-08

<b>WAPDA</b>	(Rs. Billion)
➤ Generation	98
➤ Transmission and Grids	41
➤ Distribution	114
➤ Rural Electrification	<u>29</u>
<b>TOTAL</b>	<b>282</b>

**(US\$ 4.86 Billions)**

## **KESC**

**TOTAL** **13.6**

**(US\$ 0.23 Billions)**

**Grand Total**

**US\$ 5 Billions Approx**