

ENERGY METERS – SECTOR OVERVIEW



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TYPES OF METERS & TECHNOLOGY

Standard Meters measures electricity, gas, water, by mechanical, electromechanical, with no built-in remote-reading communication capability. | Analog & Mechanical

Digital Meters or static meters are highly accurate and have various security features, like reverse current and earth load tampering protection.

Smart Meters

AMR: Provides consumption reading and intimates information like outage notification, demand reset, tamper information and interval data logging.

AMI: Two-way communications | Meter transmits information to the utility and the utility can also send information to the meter. Meter can collect and store interval data, remotely connect and disconnect service to the meter, send data, receive commands, and interface with other devices, such as in-home displays, smart thermostats and appliances, home area networks, and advanced control systems.

Communication Technologies | Smart Meters

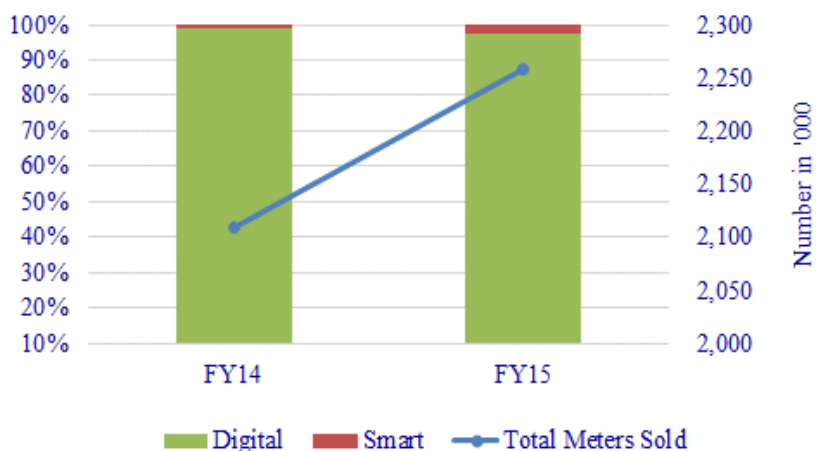
- Fixed wireless network
- Cellular / radio communication
- Power line communication (PLC)

Why Smart Meters are Future

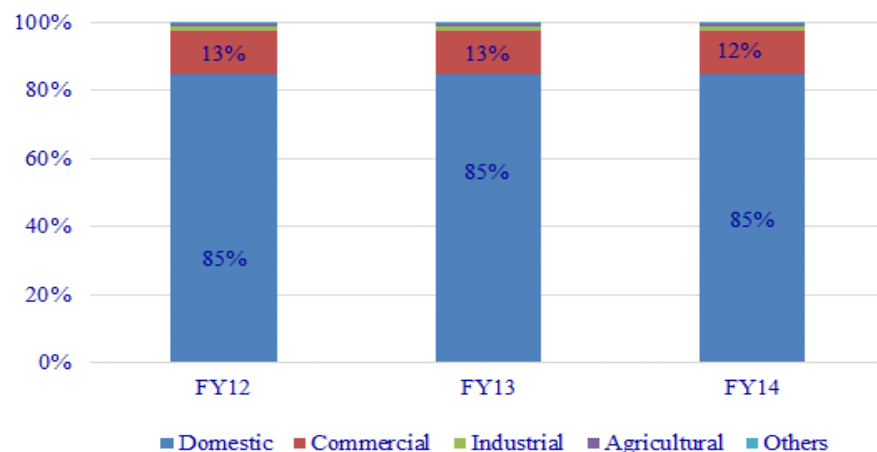
- Streamlines meter reading process
- Improve operational efficiency
- Reduce costs

Industry | Demand

Meter | Sales Mix



Metering Demand | Electricity Connections Mix



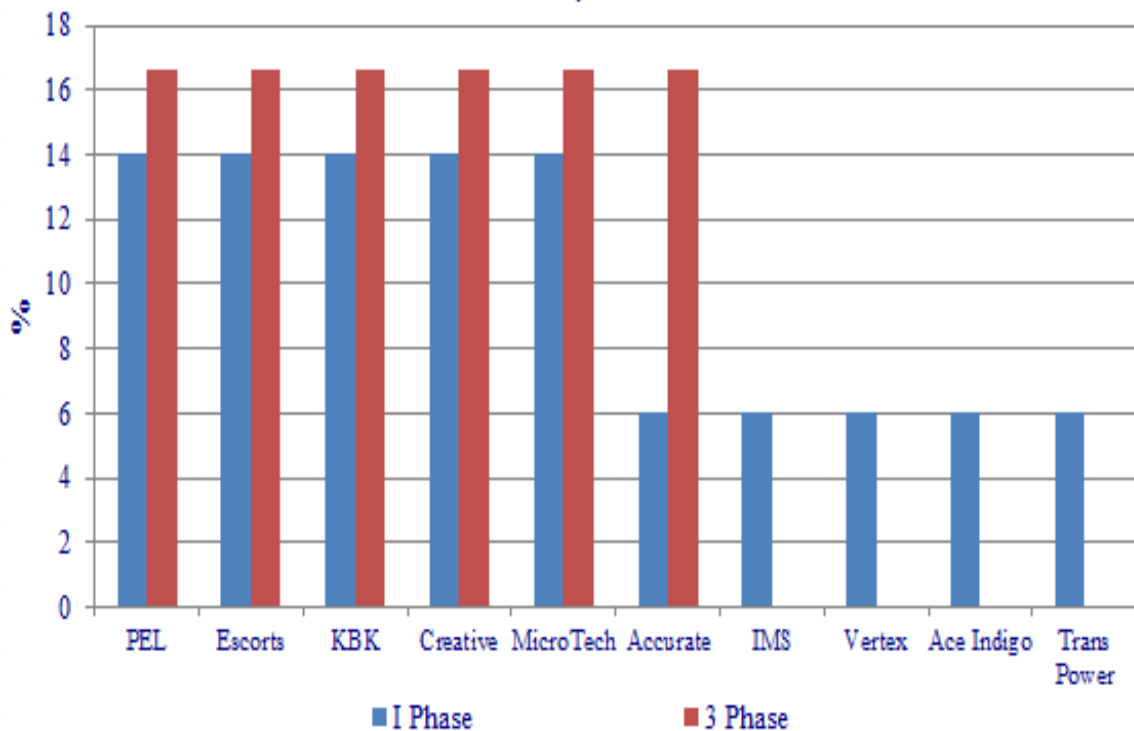
	Number of Connections						Grid Stations	Feeders
	Domestic	Commercial	Industrial	Agricultural	Others	Total		
FY14	20,972,698	3,073,239	325,752	312,988	14,523	24,699,200	905	8,759
Growth	3%	2%	3%	3%	1%	3%	2%	5%
FY13	20,373,680	3,003,141	317,311	303,731	14,346	24,012,209	883	8,373
Growth	4%	2%	3%	5%	3%	4%	2%	4%
FY12	19,637,543	2,939,214	306,930	288,823	13,967	23,186,477	864	8,040
Growth	4%	2%	5%	2%	-4%	3%	1%	4%

Future Outlook | Demand Potential

- Growing Connections
- Replacement of analog meters
- Government focus to develop power infrastructure to reduce T&D Losses & theft
- Foreign funded projects | ADB & USAID

Industry | Supply

Digital Meter | Market Share *



*Industry sources

Local Energy Meters Manufacturers:

- Smart meters: 3 Players
[currently dominated by MicroTech Industries]
- Digital meters:
 - 1-Phase: 10 Players
 - 3-Phase: 6 Players

Smart Meters

90% market share with MicroTech Industries (Pvt.) Limited

Bibliography

- State of Industry Report 2014 - <http://www.nepra.org.pk/industryreports.htm>
- Industry Sources

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