



Art of reading electricity bill



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Approximately 20 years experience in marketing, trading, supply, erection, commissioning as well as AMC in "Reactive Power Management & Power Quality" products & services.

Now a days, life without mobile, electricity and own vehicle is simply impossible. These have added to the basic needs for survival along with food, shelter and clothing. The availability of electricity has become a need 24 x 7. Problems like the yawning gap between the demand and supply of electricity, the deteriorating quality of electricity seem colossal in the 21st century.

Today's problems and the challenges of the future are becoming more and more serious.

TOD Tariff, Power Factor Penalty/Incentive, Harmonics and Notices from MSEDCL are becoming serious problems.

Energy Audits, Solar Energy, Saving Electricity, Harmonics seem surreal in these changing times.

Surprisingly, knowing the contents of electricity bill though not easy is not that difficult. If we can get familiar with the developing technology like new applications in the mobile easily, then why can't we understand the details of the electricity bill in the same way?

"I simply do not understand the electricity bill. I see the total amount of the bill, compare it with the bills of the previous months and make the payment." is what many people say.

Mentioning about MSEDCL, Load Shedding, and Inflation in electricity, Electronic Meters makes people angry.

LT Residential Single Phase and Three Phase Consumers having a bill amount in thousands whereas Non-Residential, Commercial and Industrial having a bill in lakhs make the payment with the same mentality.

With the sole aim of educating the consumers, we have made an endeavour by publishing the following books

- 1) **Art of Reading Electricity Bill (LT)**
- 2) **Art of Reading Electricity Bill (HT)**
- 3) **Vidyut Deyak Vachane - Ek Kala (LT)**
- 4) **Vidyut Deyak Vachane - Ek Kala (Residential and Non-Residential Commercial)**

Since 2000, MSEDCL converted into Generation, Transmission & Distribution Company. Distribution Company MSEDCL introduced TOD Tariff (Availability Based Tariff) first for HT and then for LT consumers. TOD Tariff may soon be introduced for Residential Consumers. Along with this, Power Factor Penalty and Incentive was also introduced. Hence Improvement of Power Factor and the contribution in the bill have become serious issues for both HT Consumers as well as LT Consumers.

Generally Tariff classification is based on applicability of consumers.

LT I consumers are further classified as Residential, Non Residential & Commercial. This is also called Single part tariff as it is applicable for kWh billing only.

LT II / LT V consumers are further classified as Commercial / Industrial. Again there are three categories like A, B & C based on contract demand. This is also called Two part tariff as it is applicable for kVA + kWh billing.

HT consumers are categorised into Commercial / Industrial type. This is also called Two part tariff as it is applicable for kVA + kWh billing.

Looking into applicability of attractive Power Factor Incentives, various HT as well as LT consumers are improving monthly Billed Power Factor by following methods:

- 1) **Individual Compensation**
- 2) **Group Compensation**
- 3) **Centralized Compensation**

Instead of Lag /Lead Power Factor at load end, Import / Export of Reactive Power from load end is of prime importance these days. Electricity Board meters are very smart considering the same terms related to the Reactive Power.

Different methods of calculations of Average Power Factor and Billed Power Factor are very interesting. Understanding different time zones with Study and monitoring of zone wise Demand as well as kWh consumption is also interesting.

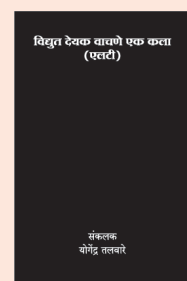
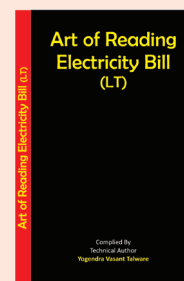
Based on individual consumption and billing pattern, further reduction in billing amount ranging from 10% to 40% is easily possible for L.T. consumers. Payback period is not more than six months.

Further reduction in billing amount ranging from 5% to 10% is easily possible for H.T. consumers. Payback period is not more than twelve months.

In short instead of targeting Detailed Energy Audits, Power Quality Audits one should first target reduction in the Electricity Bill by understanding the bill and Tariff. Only by changing the time of usage of electricity, savings in the bill are possible especially in case of fully automated process and loads.

We have hundreds of satisfied electricity consumers who attended our workshops and referred our books for understanding their Electricity Bill and Tariff. These customers are fully satisfied by our service and are grateful.

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