



DBCRP

Disco Bill & Consumption
Reduction Project

entrack-sb.com

**SB Electronics
Engineering and Control
(Pvt) Ltd**



Introduction

SB Electronics Engineering and Control (Pvt.) Ltd. (SB) started its commercial operations in 2014 as an Energy Services Company providing a broad range of Energy Solutions including design and implementation of Energy Saving Projects, Energy Management, Energy Infrastructure Outsourcing, Energy Supply and Risk Management for Industrial, ICT, and Microgrids Customers. SBEEC is an offshoot of the Syed Bhai Group (registered in 1954) and is a Market Leader in Energy Digitization. The company's Products and Services are based on cutting edge innovative technologies involving Artificial Intelligence, Machine Learning and Data Analytics driven by decades of experience of the Energy retail market with a presence across Pakistan.

Problem Statement

Overbilling is a daunting prospect for energy users all over the globe. DISCOs frequently overbill the customers to an estimated average of 20-30 percent. Other factors that cause overbilling are additional taxes on legacy sites, electricity theft, faulty meters and human errors in meter reading. In order to get a fair account of the energy usage and manage problems like overbilling, it is imperative that one tracks their energy consumption.

Causes of Overbilling

LAHORE ELECTRIC SUPPLY COMPANY - ELECTRICITY CONSUMER BILL

<http://www.lesco.gov.pk>

G.S.T # 030527160291

CUSTOMER ID

ED@

BILL MONTH

READING DATE

ISSUE DATE

1.5%

JUL 14

10 JUL 14

18 JUL 14

REFERENCE No.

TARIFF

LOAD

OLD A/C No.

A-1a(01)

2

WEB GENERATED

NAME & ADDRESS

CONN. DATE

31 AUG 12

FEEDER

TARIQ BLOCK

SUB-DIVISION

GARDEN TOWN

DIVISION

GARDEN TOWN

PREVIOUS

PRESENT

MF

UNITS

TOTAL UNITS CONSUMED

TOTAL COST

ELC. CHRG.

L.A.

PAID

DET.

7658

8371

1

713

713

11114

METER No.

SRVC. RENT

STATUS

DISC. RATE

PRICE

ADJUSTMENT

INCOME TAX

WITH HELD

NJS EQ-SUR

G.S.T. EX-TAX

S-5251917

35

-393.21

71.30

1973

MONTH

UNITS

BILL

PAYMENT

BILL CALCULATION

CURRENT BILL

Jul-13

876

11743

12730

700 x 16.000

ARREARS/AGE

Aug-13

876

9854

9854

13 x 18.000

TARIFF SUBSIDY + GST

Sep-13

624

7149

7149

17.000 x 1.000

PAYABLE WITHIN DUE DATE

Oct-13

460

4730

4730

18.000 x 0.000

L.P. SURCHARGE

Nov-13

105

1929

1929

PAYABLE AFTER DUE DATE

Dec-13

103

762

762

For Electric Supply Failure Contact

Jan-14

77

-340

PAY BILL THROUGH ALFALAH

Feb-14

81

1018

1018

CREDIT CARD DIAL:111-225-111

034770015913/04299232373

Mar-14

99

662

662

For Other Complaints 0800-00-11

Apr-14

117

862

REPORT ELECTRICITY THEFT AT THE

FOLLOWING NUMBER

SDO : 034770011513

May-14

404

6955

6955

XEN : 04299230513/034770011513

Jun-14

801

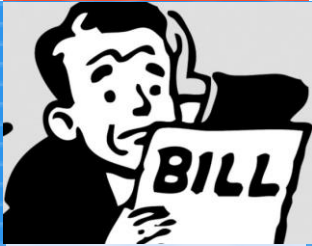
15368

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Toll Free # 0800-84338

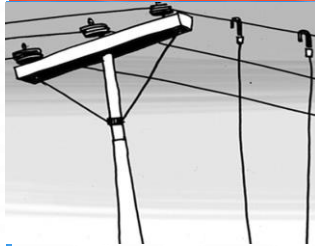
- ➔ Overcharging
- ➔ Additional Taxes
- ➔ Electricity Theft
- ➔ Faulty Meters
- ➔ Human Errors

Overcharging



Increased tariffs and taxes, Overbilling by DISCOs in order to make up for their line distribution losses, and recoveries due to disputes and corrupt practices.

Electricity Theft



In some areas, unauthorized and illegal connections are common and are extended to nearby houses and industries that leads to overbilling.

Faulty Meters



There is a also a possibility of faulty electricity meters (burnt, damaged, inaccurate) which result in incorrect and additional detection billing.

Human Errors



In the manual process, there is always a chance of human error. The meter readers take inaccurate readings which results in overbilling.



Solutions

1- Smart Metering and Monitoring

- DISCO meter readings are noted on field
- Smart Meters are installed on sites to monitor the electricity usage in near real time

2- Theft Identification

- Electricity theft is identified and raised to the O&M team for rectification

3- Faulty Meter Identification

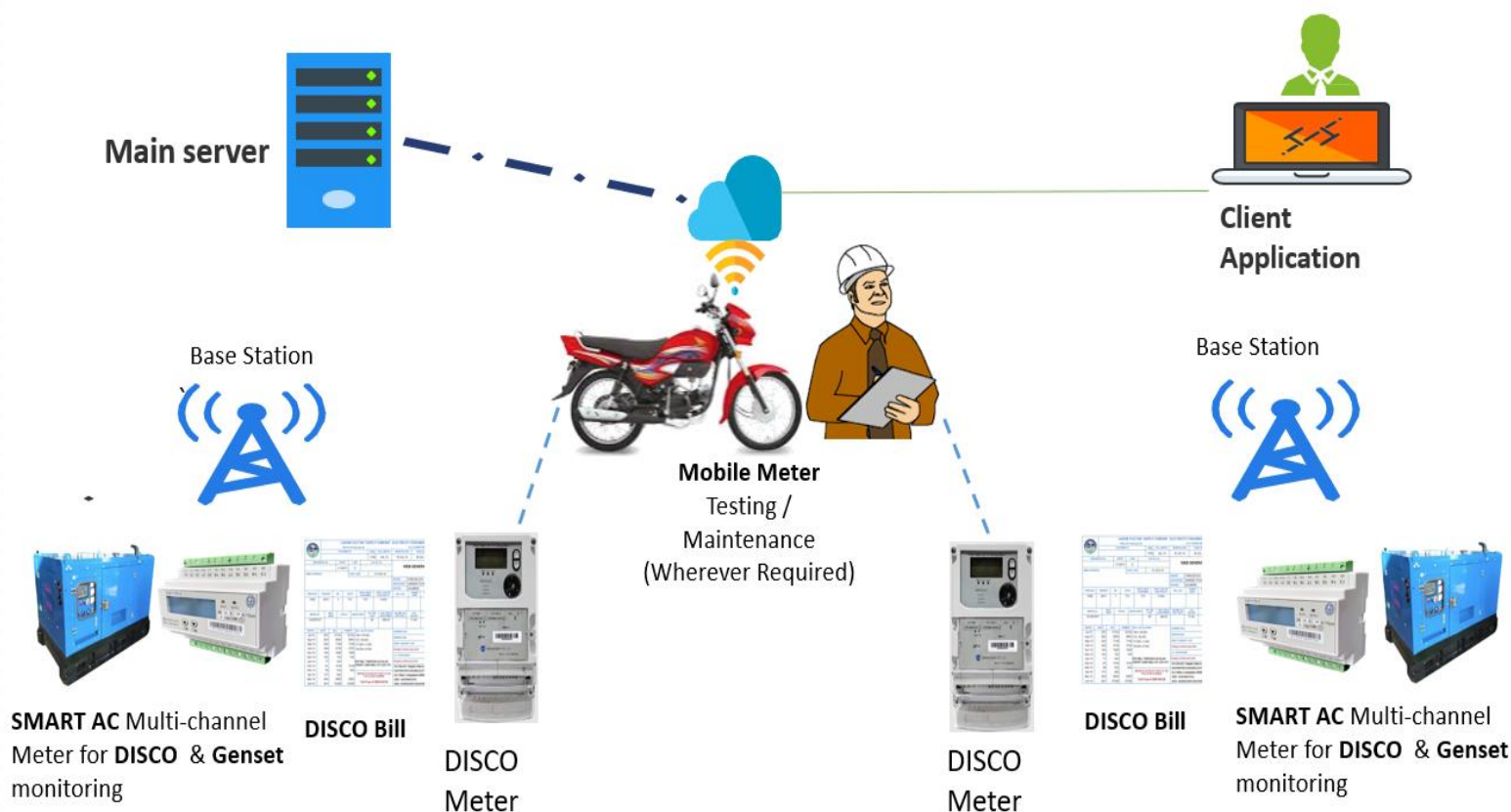
- Ensuring the timely replacement of DISCO meter as per DISCO procedure if damaged or inaccurate
- Ensuring accurate billing based on accurate meter consumption readings

4- Real-time Visibility

- Realtime visibility of electricity usage is provided
- Reports and analytics are provided to optimize the usage of electricity

5- Proactive Billing Management

- Actual meter readings along with units used are shared with the DISCOs to ensure that there is no overbilling
- In case of overbilling, the issue is immediately raised with the DISCOs along with all the proofs for rectification



Procedure

1 Smart Meter Deployment

- Supply, Installation and Commissioning of Smart Meters at BTS-sites

2 DISCO Meter Data Collection

- Disco Meter Data Collection (Pictures, Videos and Meter Reading forms) and analysis

3 DISCO Meter Testing & Replacement

- If DISCO meter is not working accurately, it is tested through our technical team. Replacement is made as per DISCOs procedure to initiate accurate billing based on new accurate DISCO meter consumption readings

4 DISCO Billing

- Ensure Accurate Meter Billing and therefore Loss/Opex reduction on MoM Basis for Project Time Period

5 Web Portal

Web Portal and server integration for Data Monitoring, Reporting, Charting and Live data of Smart Meters Consumption

6 Support

- Support and Maintenance of Smart Meters with Warranty Period and its Data

7 Actionable Reports

- On demand accurate actionable reports of consumption, load shedding, Power Factor, Load etc

Success Stories



Our DBCRP project has been very successful so far. We are currently providing services to telecommunication companies in Pakistan. The names are not mentioned here for the sake of confidentiality.

Telco A

- The project was started 2 years ago
- The solution was deployed initially on 250 sites
- Later it was expanded to 838 sites
- Rollout of 109 sites is in progress, where loss reduction potential is 58% according to our analysis

Savings: PKR 375 Million

29% saving in monthly billing per site



Telco B

- The solution was deployed initially for 32 sites in April 2019
- A deal of deployment of 2000 sites is being finalized

Savings: PKR 14 Million

35% saving in monthly billing per site





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