

REVENUE ASSURANCE THROUGH THE METERING PROCESS

Revenue Assurance:

*Using processes & software solutions to accurately capture revenue.
Detecting errors, and Correcting them before they reach the billing system.*

Revenue Assurance Tracking:

*And if you are not able to correct them before they reach the billing system,
then ensure the information is billed the following month,
and tracked until full payment is made or an arrangement.*

**I.T. Global spend projected to
increase by 6.2%.**

**\$3.7-trillion this year...
Gartner Group**

Revenue Assurance using AMR and Data Analytics

Meters are the heartbeat of the revenue process.

In this brief paper we will look at :

- Why we should get all our meters on line?
- What is the value behind providing half hour profile data?
- How does AMR improve reporting and increase revenue?

AMR: Automated Meter Reading. The reading of meters remotely.

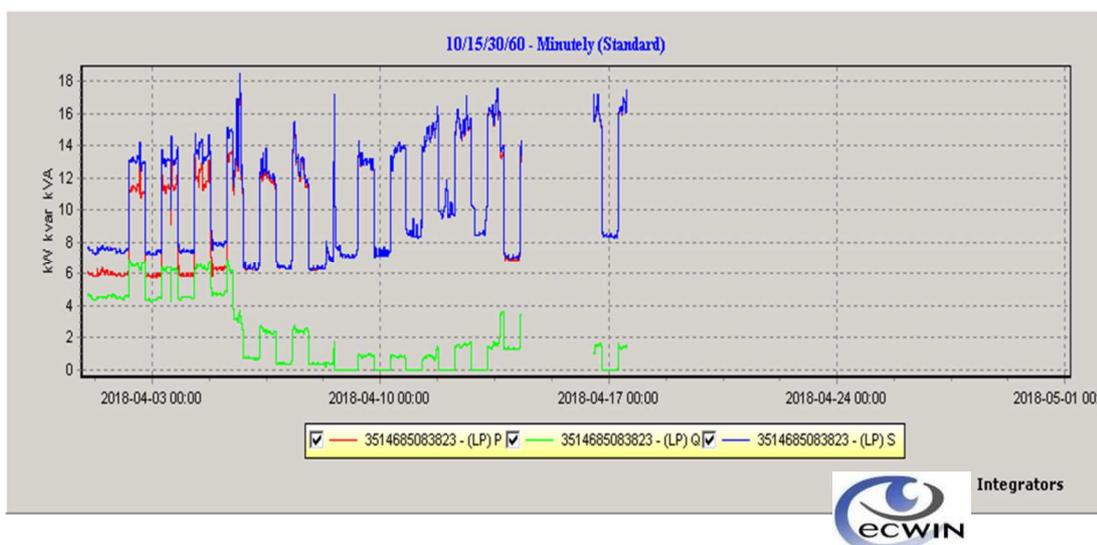


Figure 1. Profile graph from the ecWIN AMR system. From this we can see at least 15 days of missing consumption data.

ID	Description	Int P	No Ch	Exp Rec	04/12	04/13	04/14	04/15	04/16
635	30 VEGKOPPIE STREET HOME OWNER ASSOC MCW - (LP)	30	2	96	96	34	80	96	96
268	ABSA - (LP)	30	2	96	96	96	96	96	96
148	ABSA Kerk Straat - (LP)	30	2	96	96	96	34	0	44
496	ADRINA GEBOU - (LP)	30	2	96	96	96	92	0	44
744	AFRO-HAVEN CC - (LP)	30	2	96	94	96	96	50	70
269	Akker - (LP)	30	2	96	96	96	96	96	96

Figure 2. Data Availability Report. Records in red reflect missing data for that day. Zero consumption is reported daily and inspected. Missing consumption is corrected on the AMR system or forwarded to Finance to bill if the bill run has already taken place.



REVENUE RECOVERY

OPPORTUNITIES ON THE AMR

1. Zero Consumption
2. Missing Voltages
3. Increases and decreases in Consumption
4. Demand Spikes
5. VT failure

FAULTS/TAMPERS IN THE FIELD

Revealed in AMR profile data

1. Incorrect CT Ratio
2. Meters not on the billing system
3. Faulty CT's
4. Polarities swapped
5. Meters not programmed

AMR BRINGS VALUE USING DATA ANALYTICS TO THE CREDIT CONTROL PROCESS:

DISCONNECTIONS: Link the profile data to confirm customers were disconnected. See exact time.

RECONNECTIONS: Link billing with AMR to confirm power on is linked with receipt of payment.

KVA TARIFF CORRECTIONS

With online access to these phasor diagrams Finance can verify if the customer is being billed with the correct kVA.

Even faster—using data analytics the computer can flag all customers whose kVA is incorrectly billed.

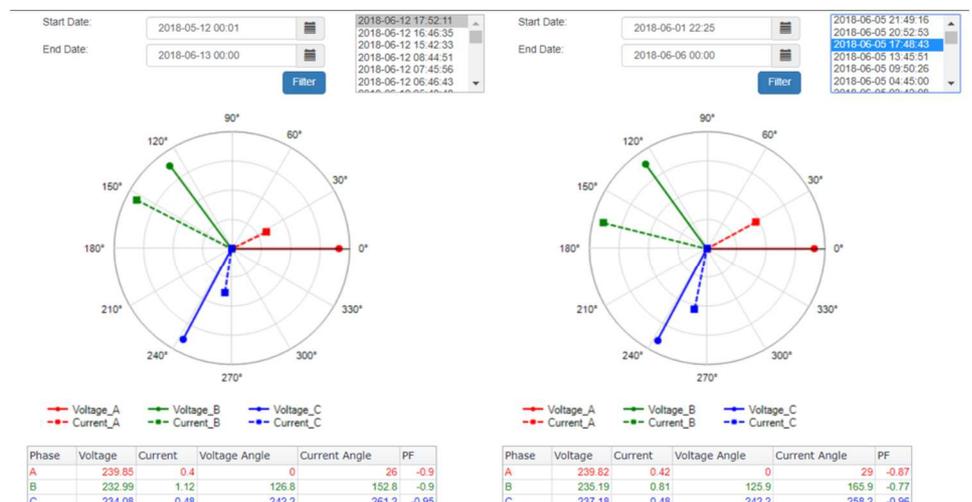
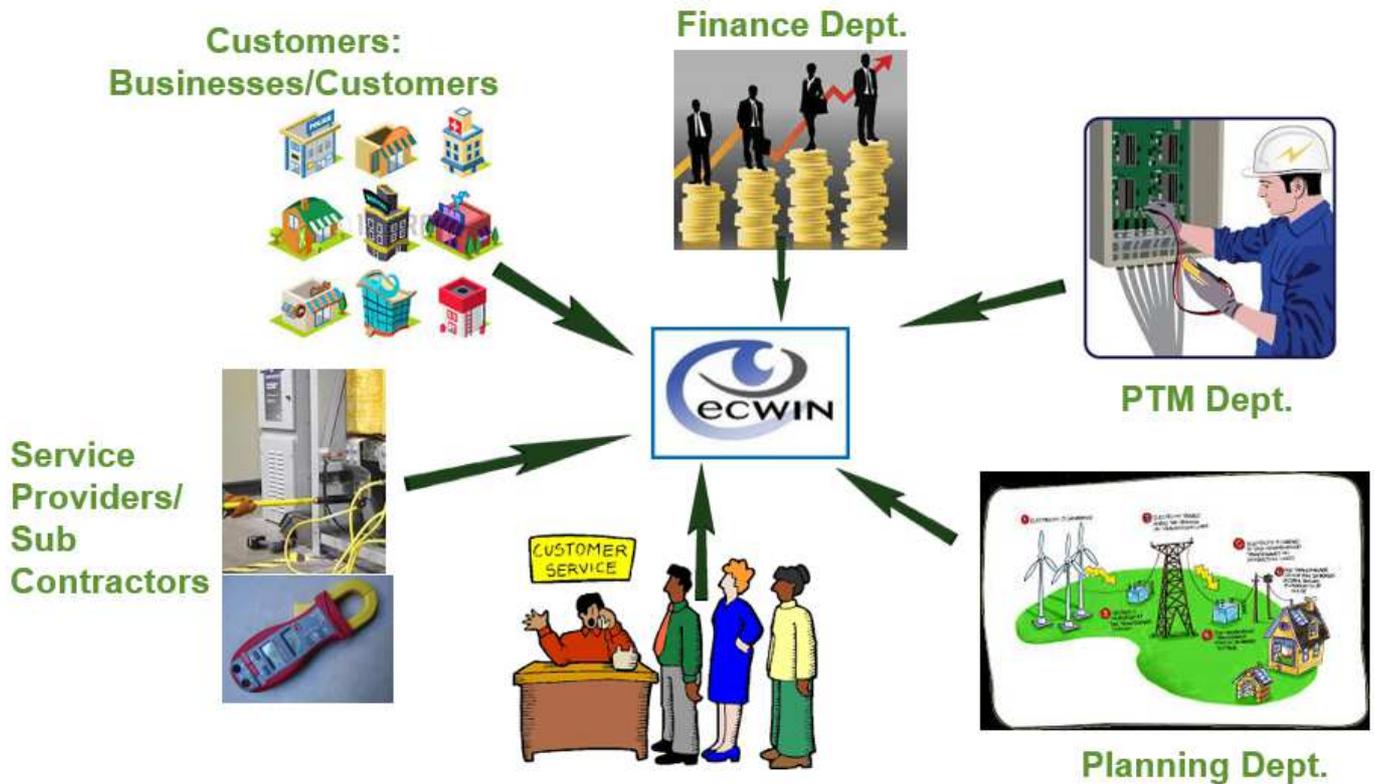


Figure 3. Phasor Diagrams

THE ONLINE PORTAL GIVES CUSTOMERS ACCESS TO THEIR METERING DATA AND ALLOWS THE MUNICIPALITY AND SUB CONTRACTORS/CONSULTANTS TO SHARE METERING INFO



ENERGY BALANCING: A strategic objective in the aid of Revenue Assurance.

1. Meter your Eskom intake points and compare it with the Eskom bill received.
2. Meter all your substations.
3. Use data analytics to predict consumption patterns of Prepaid Metering, AMR, and conventional metering data with substation data. The leads to loss detection.
4. Replace all your meters with meters that are bi-directional and provide half hour consumption data at an affordable price, that can be accessed remotely.

When you can identify where your losses are, you can have a more focused intelligent auditing approach. With the comparison of consumption, billing and GIS data you can ensure entire communities are billed correctly. You will have a higher payment/collections rate with a customer portal that customers can access to view their data and bills. With technical reports, customers can feel confident they have been billed correctly.

Metering is the heartbeat of the revenue stream.

Manage it well and your revenue will flow. Ignore it, and your revenue will spiral downwards.

By Charmain Peter from Integrators of Systems Technology (IST)

For the South African Revenue Protection Association National Convention - August 2018