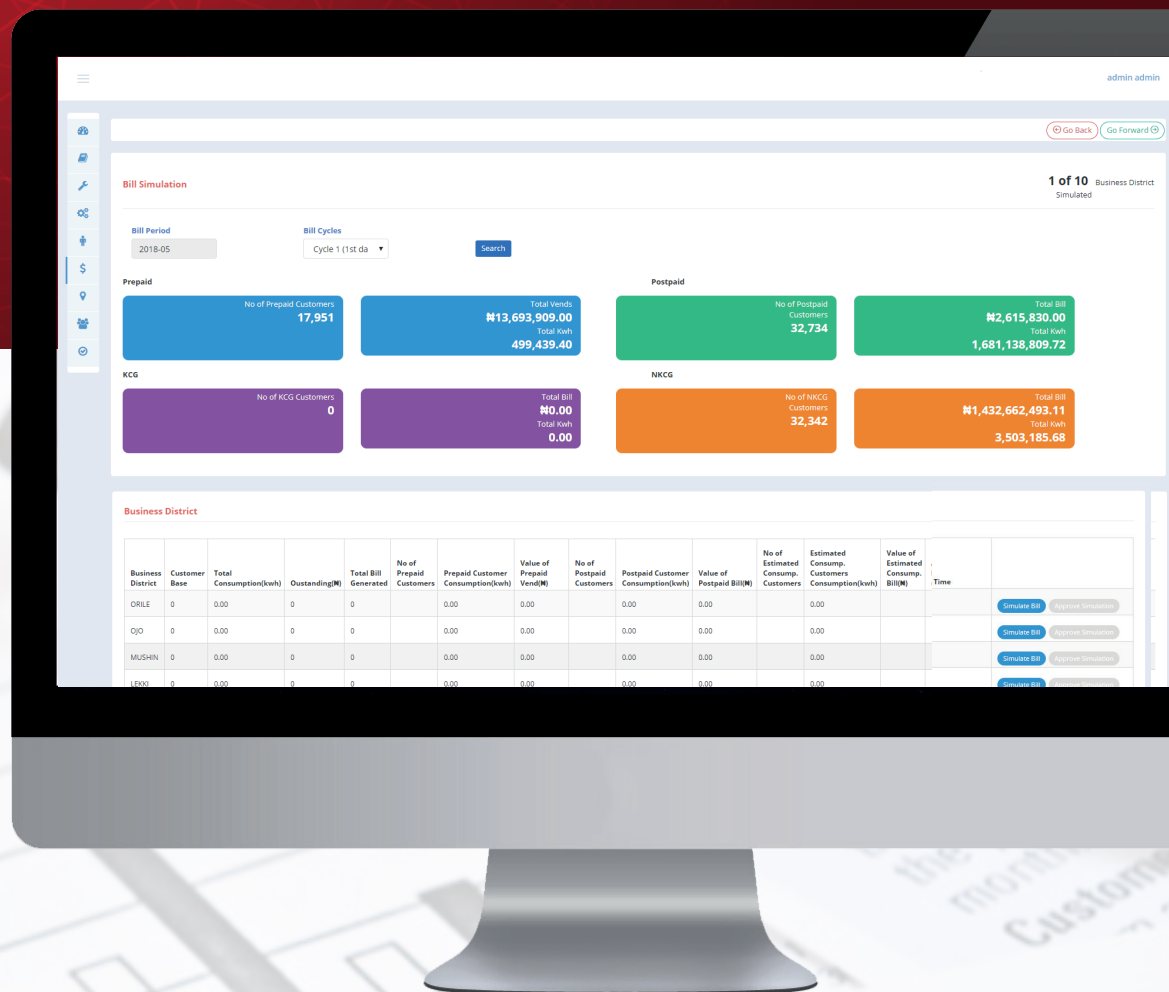


Automate Billing Lifecycle Processes

The key to Efficient Billing for Metered
and Unmetered Customers.

10 Steps to Improving your Revenue



- ✓ Increase Billing Efficiency
- ✓ Increase Collections Efficiency
- ✓ Reduce ATC & C Losses
- ✓ Bill 1 million customers in minutes with CICOD.
- ✓ Bill Quicker and start collecting earlier.

CICODTM 1.0
Business Support Systems
Fully Intergrated Modules with the option to choose!

CROWNTMinteractive

Overview

Over the years, there has been increasing customer complaints on Bill Shock due to extremely high estimated billing. These high bills have led to an increase in unrecoverable accounts receivables for the Electricity Distribution Companies.

Whilst all customers cannot be metered at the same time, the automation of an appropriate Estimated Billing Methodology may provide the transparency and comfort that the industry needs to ensure that customers are not being taken for granted.

Billing must be seen holistically as a service with the aim of improving and assuring revenue. This means that the distribution companies must be able to bill efficiently and timely for all the energy distributed; the DISCO must also be able to effectively collect money for all the energy it has billed.

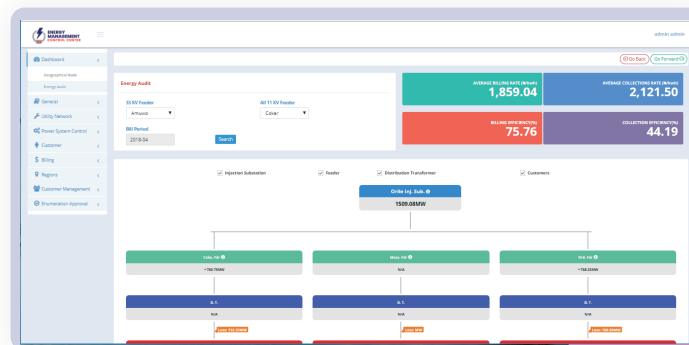
This therefore means that the most effective and efficient Billing Lifecycle Process must include the automation of Energy Audit through to Dunning & Delinquency Management.

Step 1 Energy Audit

The combination of an ailing distribution network and an environment of increased energy theft signifies great losses that must be curtailed in every possible way.

The CICOD Energy Audit Module pulls load profile and consumption data from CICOD/The Disco's AMI/AMR platform at the various nodes to compare and deduce which nodes (Injection Substation, Feeder, Distribution Transformers & Customer Meters) the losses are occurring from.

The consumption comparison at the various node levels determine the cause of action to take and provide input data for more accurate estimated billing where necessary.

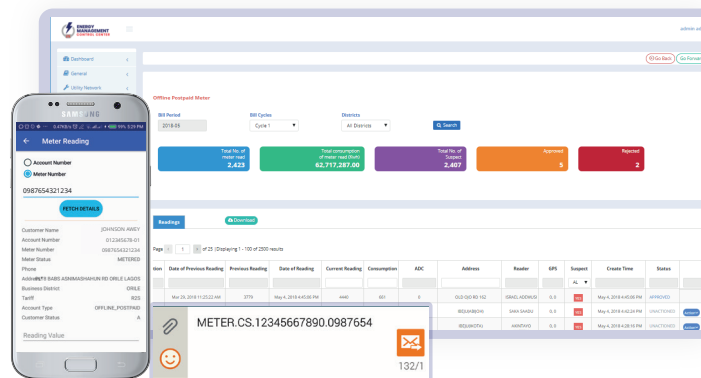


Step 2 Postpaid Meter Reading

Where meters are not online, it is important that a semi-automated process of meter reading submissions is cultivated through the use of Mobile Applications and SMS Commands.

The Workforce Mobile application allows the field staff submit meter readings along with images and GPS location from customer's premises. The SMS Commands allow the field staff submit readings remotely where they have connectivity issues.

CICOD gives the ability to view and approve the meter readings submitted before being used for billing. Suspect readings are also flagged for verification and further approval, otherwise customers will be billed on estimate.



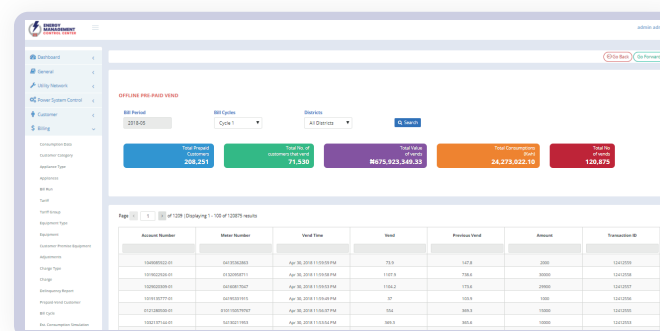
Step 3 Prepaid Vends

Pre-paid vends constitute a significant part of the consumption measurement depending on the volume of prepaid customers on the network. It is important to exempt these measurements from the total node measurement along with the postpaid consumption readings to know how much consumption may be considered as estimated consumption or technical loss.

These vends also give a clear indication and comparison of what the expected vends are against the actual vends and if they are suspect based on the consumption patterns.

CICOD application allows the user view all Pre-Paid Vends for a bill cycle and also provides summaries of the total consumption distributed per cycle.

This information is also used to calculate customer response for pre-paid transactions per billing cycle.



Step 4 Customer Load Profile

Where customers have faulty meters or are currently unmetered, their load profile (load inventory) along with a utilization factor becomes part of the formula to help provide for a more accurate estimated billing.

Updating the customer's load profile may be a proactive measure during customer enumeration or a reactive measure when the customer contests an estimated bill.

For customers on estimation whose load inventory have been calculated and their load profile updated on the CICOD application, the estimated bill is calculated based on their exact load profile.

Meter	Consumption	Appliance Type	Count	Consumption (Watts)	Total: 830
Iron	750	Iron	1	750	change count delete
Electric Bulb	40	Electric Bulb	2	80	change count delete

Step 5 Estimated Consumption Simulation

The estimated consumption simulation feature gives the ability to simulate consumption for unmetered customers based on key metrics such as power availability on the feeder, the customer's load profile, utilization factor and the Customer's tariff class.

The simulation excludes all customers with approved meter readings and all prepaid meter customers.

Injection Substation	Node Consumption	Prepaid Consumption	Metered Consumption	Estimated Consumption	Applied Estimated Consumption	Simulated By	Last Simulated Time	Approved By	Approved Time	Simulation Duration
WaterFront	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation
VDC	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation
Trade Fair	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation
Tinian	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation
Tegashu	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation

Step 6 Estimated Consumption Variance Management

The pre-requisite for the Variance Management is that the Feeders and Distribution Transformers (DTs) are metered. Where the feeders are metered without the DTs being metered, the estimated consumption per customer on the node shall be less accurate.

The Variance Management feature enables users ensure that the accumulation of customer consumption including the allowable technical loss does not exceed the consumption measurement of the immediate metered higher node. A high variance on a node where customers load profiles already exist may imply energy theft around the node.

Injection Substation	Feeder	Meter Number	Feeder Availability	No. of Customers	Estimated Consumption	Applied Estimated Consumption	Simulated By	Last Simulated Time	Approved By	Approved Time	Simulation Duration
WaterFront	Smith	7333100	2.00	1,071	1,026,000.00	24,900.00	admin	2018-05-28 11:05:00	admin	2018-05-28 11:05:00	Refresh Export Simulation
VDC	Smith	401030	2.00	750	221,750.00	14,400.00	admin	2018-05-28 11:05:00	admin	2018-05-28 11:05:00	Refresh Export Simulation
Trade Fair	Smith	401030	2.00	251	2,841,200.00	7,714.16	admin	2018-05-28 11:05:00	admin	2018-05-28 11:05:00	Refresh Export Simulation
Tinian	Smith	401030	2.00	401	2,114,000.00	14,400.00	admin	2018-05-28 11:05:00	admin	2018-05-28 11:05:00	Refresh Export Simulation
Tegashu	Smith	7333100	2.00	102	521,840.00	5,400.00	admin	2018-05-28 11:05:00	admin	2018-05-28 11:05:00	Refresh Export Simulation

Step 7 Approved Mediation Data

All consumption data for meters read and the consumption estimates for unmetered customers are then approved and made ready for rating (billing simulation).

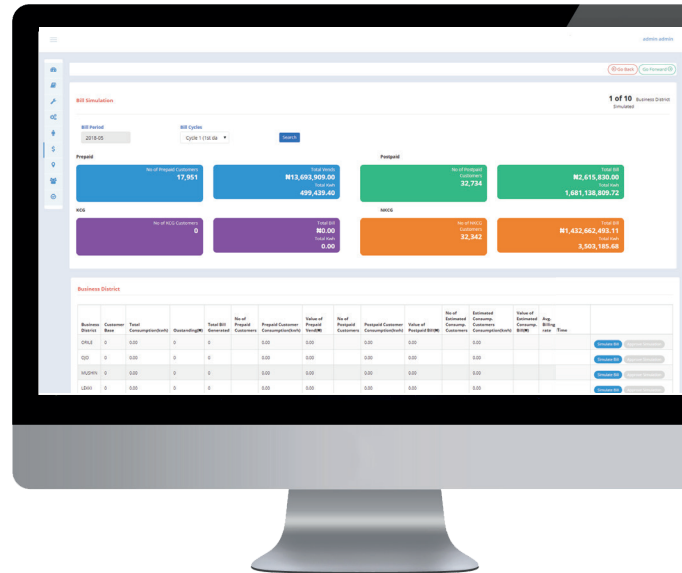
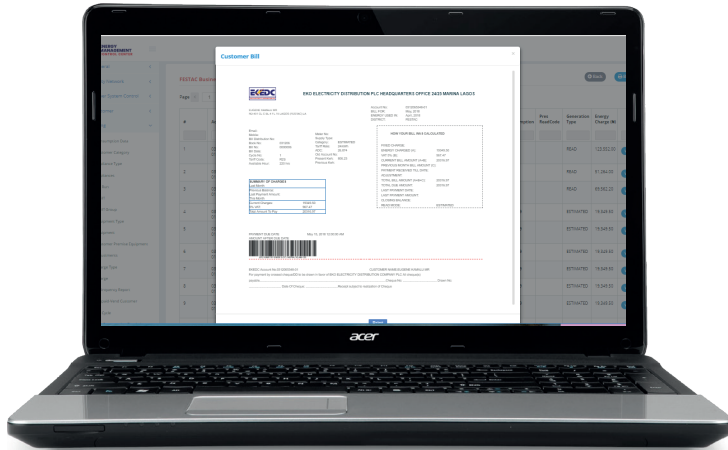
At this point, the billing efficiency is deduced and the effect on collections can be justified and more predictable.

Injection Substation	Node Consumption	Prepaid Consumption	Metered Consumption	Estimated Consumption	Applied Estimated Consumption	Simulated By	Last Simulated Time	Approved By	Approved Time	Simulation Duration
WaterFront	0.00	0.00	0.00	28,970.00	0.00	admin	2018-05-28 11:05:00	admin	2018-05-28 11:05:00	Refresh Export Simulation
VDC	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation
Trade Fair	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation
Tinian	0.00	0.00	0.00	0.00	0.00	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	NOT SIMULATED	Refresh Export Simulation

Step 8 Bill Simulation

Once mediation data is received into the billing engine, the system allows for the simulation of bills according to the grouped geographic locations (Districts).

Bills can then be simulated and verified within minutes. Users may spot check bills by viewing them in presentation mode before approving simulated the bills.



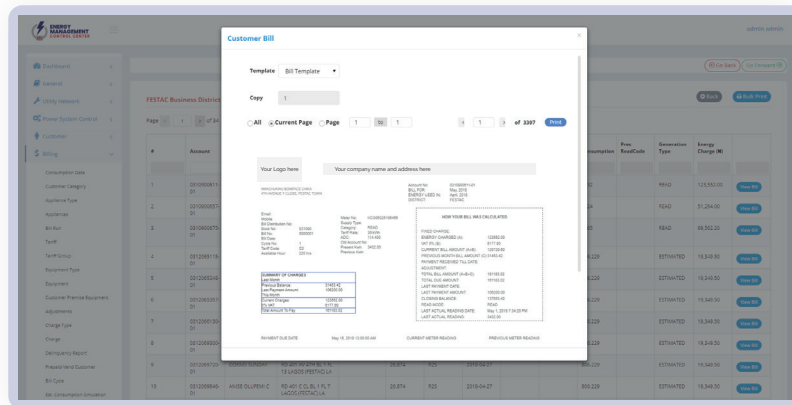
Step 9 Print Single or Bulk Bill / Distribute

Bills may be printed or electronically distributed via email or SMS.

The system allows for centralized billing and decentralized printing.

This means that operators can print their allocated approved bills from any authorized location through authorized access.

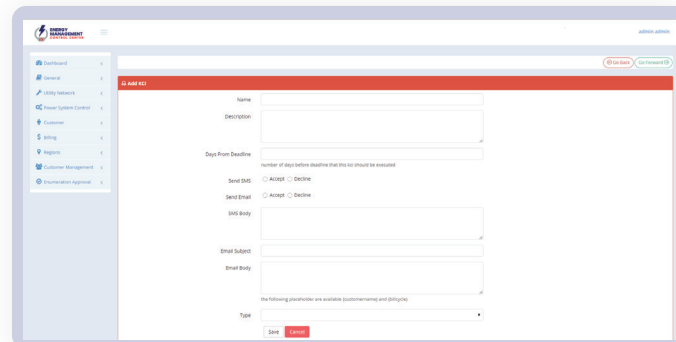
Where customers opt for the electronic bill distribution, it guarantees that bills will reach them. This avoids the arguments and suspicion that the bills were not distributed. The electronic bills may also be embedded with links to encourage immediate bill payment.



Step 10 Dunning & Delinquency Management

The main goal of efficient and effective billing is to see that the bills get paid on time and with limited dispute.

Dunning provides the capability to setup multiple payment request reminders based on some preset criteria. Where payment is not received based on the preset criteria, it triggers the various steps according to the allowed debt recovery process.



ABOUT US

Crown Interactive is a software company dedicated to the provision of innovative business support systems to customer centric organizations.

As a world class indigenous software company our technology road map for the power sector is influenced by the regulatory requirements of NERC and the unique challenges of the Nigerian Electricity Supply Industry (NESI).

ADDRESS

45B Admiralty Road, Lekki scheme 1,
Lagos, Nigeria.

EMAIL

info@crownteractive.com

PHONE

+234 (1) 454 1977.
+234 805 134 4205

WEBSITE

www.crownteractive.com