

ANN

POWER-OPS SECURITY NIGERIA
VIRTUAL AGORA
"Fighting Electricity Theft with GIS Cloud"

July 22nd 2020



In collaboration with



AGORA NEXUS



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In collaboration with



Power-Ops Security Nigeria - Virtual Agora

"Fighting Electricity Theft with GIS Cloud"

Wed 22nd of July 12.00-13.30 (BST)

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Session Leader:

Uche Anyalewechi, Manager GIS Projects,
Enugu Electricity Distribution Company



Electricity Theft in Nigerian Power Distribution



Exploring Current Landscape



- Population vs. Customer vs. Billed Customer Percentage
- Low customer population with high estimated bill = very high churn rate, very high energy theft and very high ATC & C losses
- Franchise Area Breakdown with comparison to Turkey / Croatia / Ghana
- Techniques of energy theft



GIS Revolution Target



- Importance of NERC Consumer Indexing
- Review of electricity theft at EEDC



Challenges:



- Old & incorrect billing database
- Outdated information about assets
- Illegal connection locations unknown



FOOD FOR THOUGHT FROM DISCUSSION /TOPICS COVERED



Consequences:



- ❑ Electricity theft
- ❑ Frequent unplanned power outages
- ❑ High (ATC& C) losses

Solution:



Asset Registration

- Conduct data collection of their entire electrical network system.



- ❑ Transmission, injection & distribution substations
- ❑ Transformers
- ❑ High tension and low-tension poles



Customer Enumeration

- ❑ Enumerate the electricity consumers associated with each transformer in their network



Additionally we reviewed:



- The identification of variables that need to be considered to transfer customer to billed status
- Visual example of DSS map of building level geocoding - Showing an indirect consumer
- Importance of guidance by a regulator to ensure everyone is moving in the same direction



Benefits Breakdown:



- Expansion of customer base
- Increase in revenue base
- Energy accounting of auditing
- Mitigation of energy theft



FOOD FOR THOUGHT FROM DISCUSSION / TOPICS COVERED



Questions posed



- Is the demonstrated mapping a case study example of real mapping?

- Have you concluded customer enumeration?

- Do building footprints translate to consumers?



- How long does it take to gather information & data?

- Is implementation cost friendly?

- What is the implementation lead time?



- How to deal with internal resistance to approval?

- What plan do you have to ensure better quality of service and ensure that poorer communities have access to electricity?



- How do you create a base map and assets map for informal communities?

To learn more or for additional information please contact phil.manny@agoranexus.com



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