

TANESCO

Tanzanian Electricity Supply Company



We light up your life

Tanesco , Mambo view, 33kv 50kva Transformer installation, 14.06.2017



Live Line Technology

Distribution Transformer protection



Transformer Combi Unit protection

Tanesco , Mambo view, 33kv 50kva Transformer installation, 13.06.2017

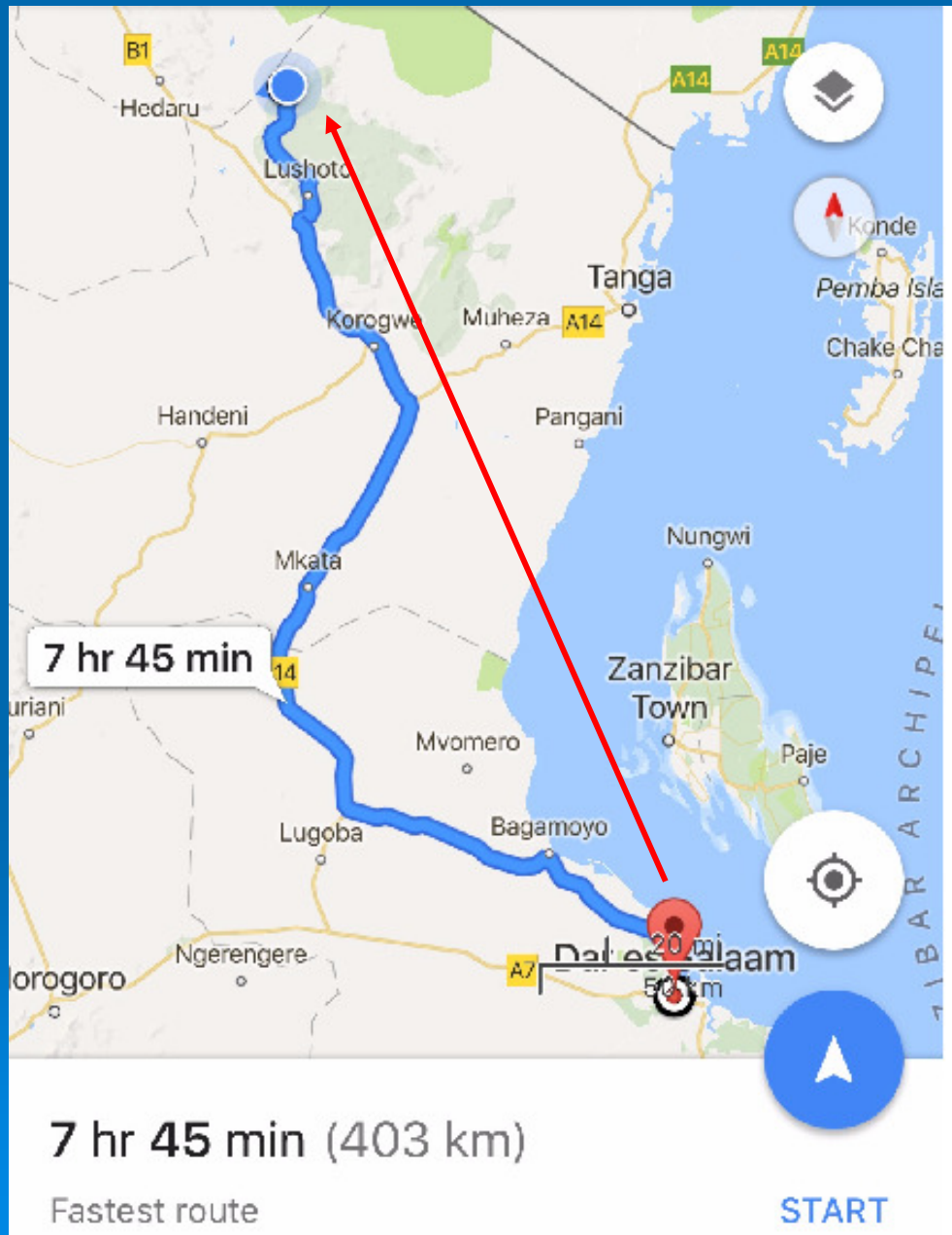
Presented by : - Live Line Technology June 2017

LIVE LINE TECHNOLOGY

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Installation :

Mambo view is a high lightning and rainfall area where transformers are exposed to lightning and surges.

Conventional surge arrester systems are not adequate enough.

Tanesco has identified this installation as a pilot for the Combi unit to eliminate transformer losses.

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All surge arresters blown.

No transformer protection.

Problems with the installation –

- Zero surge protection, at the transformer. (All three surge arresters were blown.)
- Maintenance takes too much time. (not done)
- The Faulty spent surge arresters were very difficult to identify and remove – it took 24 hours to identify. Customer without power for long.

BEFORE

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Problems with the installation –

Surge arresters have been spent/discharged and have disconnected which means transformers are vulnerable to lightning damage.

Tanesco has thousands of transformers without protection at present.

Thousands will be lost to lightning and surges this year.

The Combi unit can be installed in high lightning dense areas to overcome this problem.

BEFORE

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After

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Installation :

- Retrofit is fast
- Remove the old system.
- Remove : old cross-arm, fuses and old surge arresters
- Installation is completed in 2-3 hours.
- The Combi unit takes the place of both the fuse and surge arrester.

INSTALLATION

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Combi unit protection system :

Link stick replacement system.
(fuse & surge)

Replace surge arrester live line.

Replace surge arrester from ground

Safest system.

Quick.

Convenient.

Better customer service.

This latest technology does not rely
on a ladder for maintenance.

No outage) the line required.



AFTER

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ADVANTAGES –

1. The Combi unit saves transformers. they survive 20 -30 years.
2. The Combi unit improves maintenance and protection.
3. The Combi unit is the safest system for personnel. They don't need to climb poles. (they use link sticks for operation)
4. The Combi unit is safest option for transformer.
5. The transformer cannot provide power until a new surge protection device is installed.

AFTER



Combi unit protection system :

1. Surge arrester changed by link stick
(NO OUTAGE required from Substation)
2. Fuse protected by surge arrester. Eliminate fuse blows, eliminate random outages Latest technology, much lower running cost.
3. Fuses changed by link stick
(NO OUTAGE required from Substation)
4. Best customer service. Maintenance only affects customer connected to transformer.
5. Tanesco electricity increases revenue –
Shorter outage duration during maintenance

AFTER

Old system vs Combi unit

Ladder system.

1. Transformers are lost.
2. Unsafe – height & shock
3. Poor customer service.
4. Long outage time.
5. Switching off large areas.
(substation.)



Combi system.

1. Transformers saved.
2. Safer maintenance.
2. Best customer service.
4. Short outage time.
5. Only isolate 1x customer.



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Asante Sana

Thank-you to Tanesco and acting manager of Mambo view reigon, Mr. Ruwaichi Nyenza for the time allocated on the 13.06.2017 for the Combi installation.