

Adopt Best Safety Practices & Prevent Cable Damages



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better



STOP CABLE DAMAGES

BEWARE
BEFORE
YOU DIG!


living

Alone we can do little,
Together we can do much






Beware before you dig, you may put your life at risk




There may be power cables below, & you may not even know



Take all safety measures to protect our cable, help us to keep our supply reliable



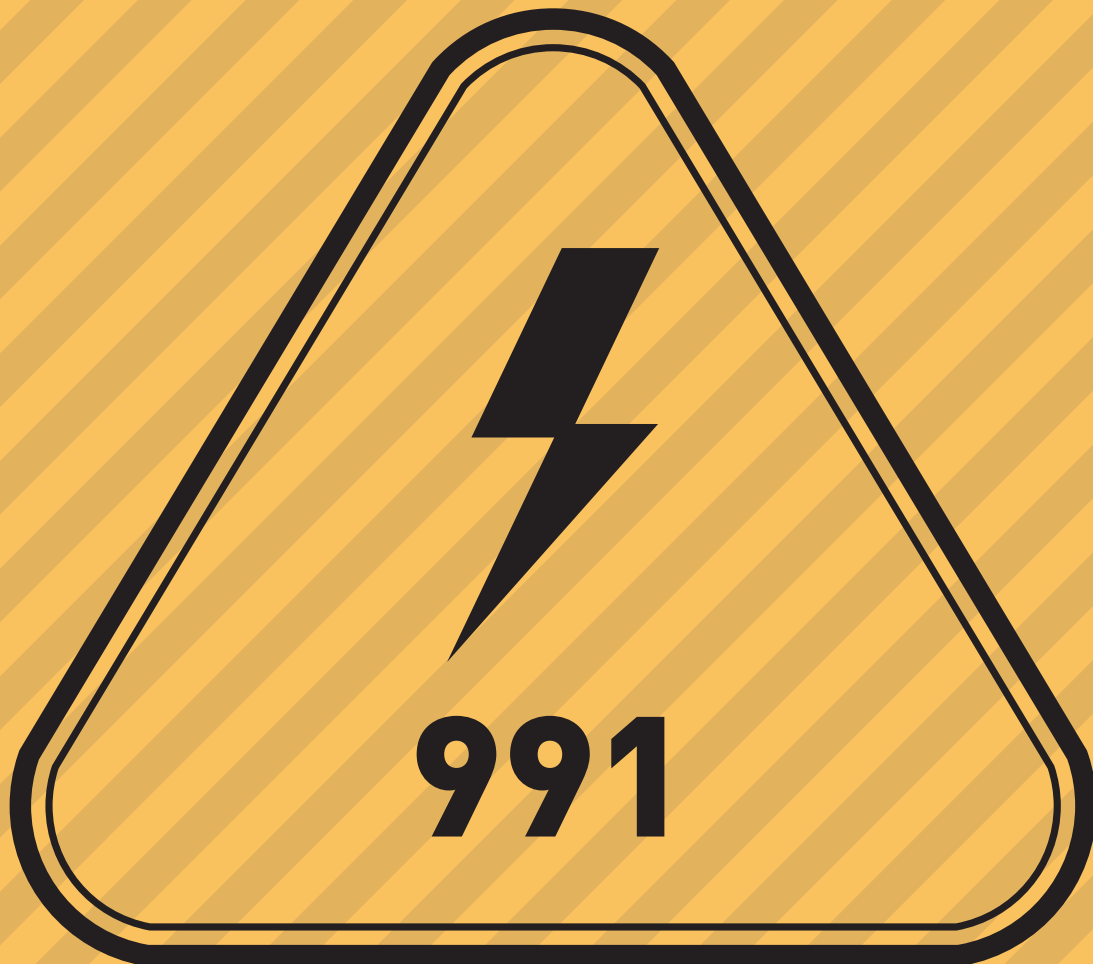
If you are found guilty, you will have to pay a penalty



In case of emergency call kahramaa call centre.
Service is available 24^{x7}

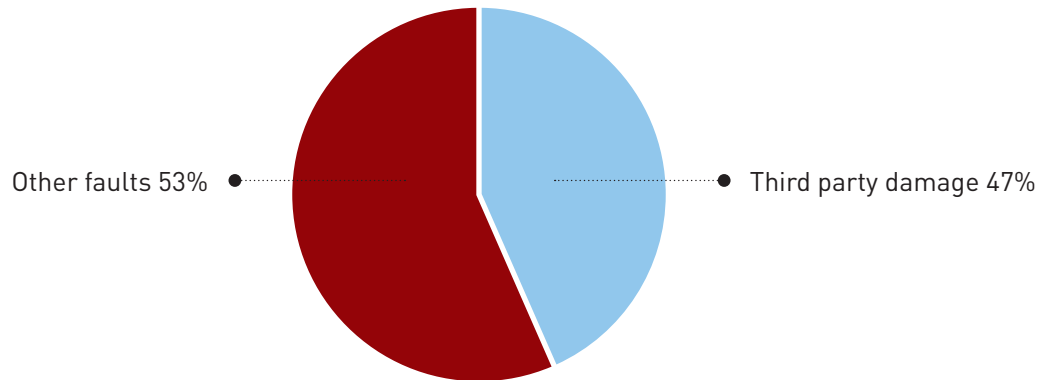
STOP CABLE DAMAGES

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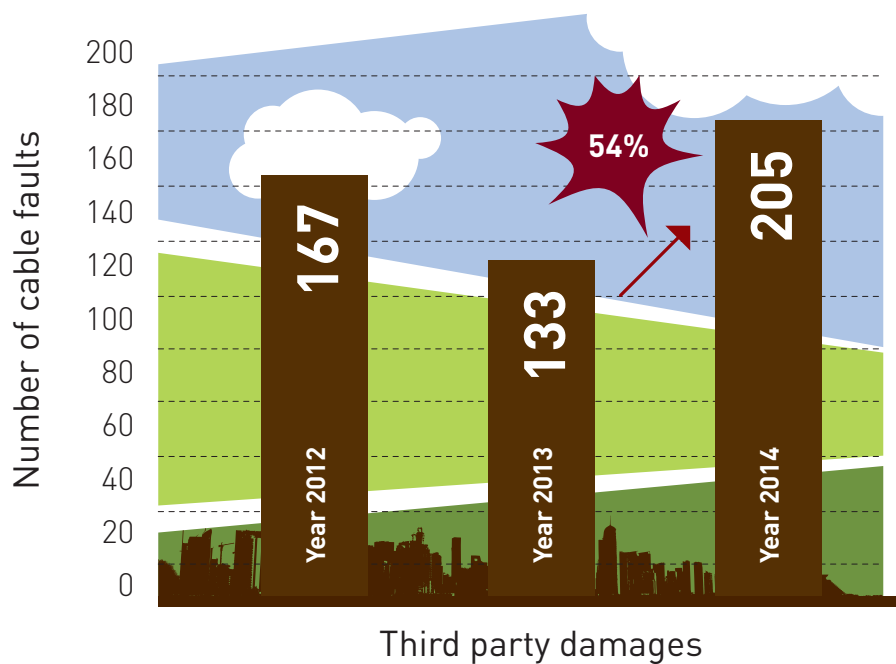
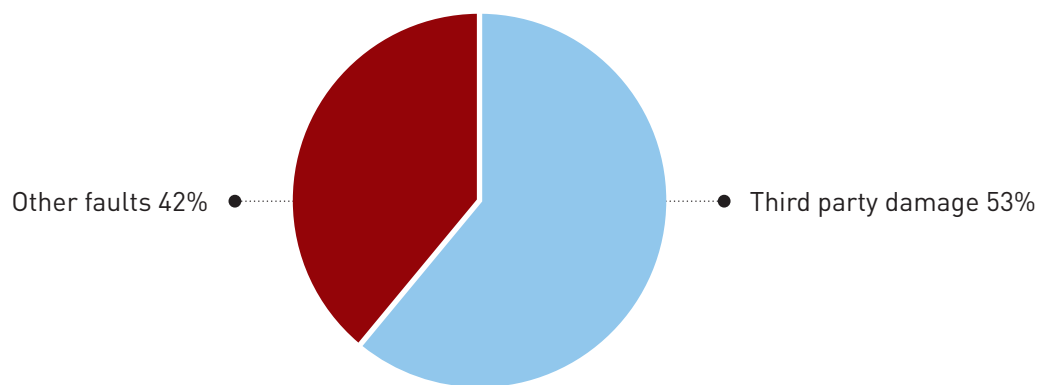


ALWAYS REMEMBER THIS
NUMBER

Total 11KV cable faults-year 2013



Total 11KV cable faults-year 2014



- **133 faults** in the year 2013
- **205 faults** in the year 2014
- Fatal & Non Fatal accidents
- More than **350 hours** of loss of essential electric supply
- Over **1 million** riyals revenue loss
- Damage to public & private property



Cable faults due to external damage results in

Fatal & Non fatal accidents
Endangering human life



STOP CABLE DAMAGES

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Loss of essential electric supply
Damage to public property
Unwanted voltage fluctuations to industries





CABLE DAMAGES DUE TO

- Road works
- Large infrastructure projects
- Utility works

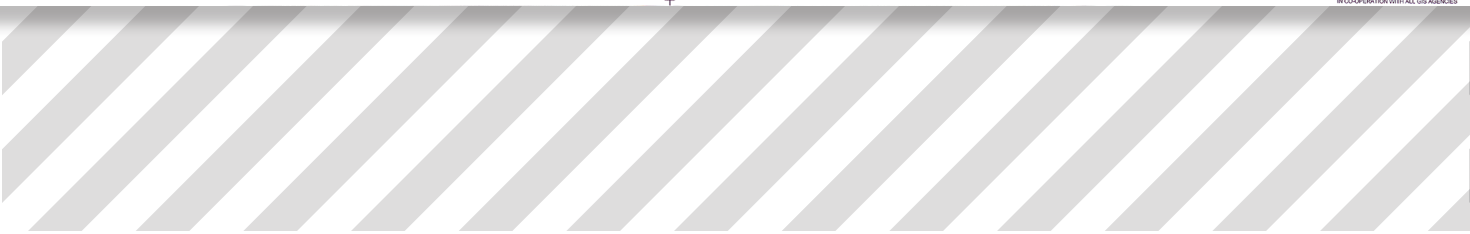


Things you need to know before starting excavation, digging

If you are digging or disturbing the earth you should take care to avoid damaging underground services. Underground electrical cable can be particularly hazardous because they often look like pipes & it is impossible to tell if they are live just by looking at them.

Before scheduling the work

- Apply for RO permit (Road Opening permit) & obtain approval from all concerned authorities.
- Comply with the conditions mentioned in the RO.



- Before commencing work at site, approach cable unit of maintenance section for Service Information Sheet **SIS**. Comply with the conditions before obtaining **SIS** approval.
- **RO permit** and **SIS** are time bound and hence have to be renewed periodically.
- Carry out hazard identification and risk assessment.
- Determine control measures to mitigate the hazard/risk.

Service Information Sheet SIS

KAHRA MAA المؤسسة العامة للكهرباء والماء
Qatar General Electricity & Water Corporation

Electricity Distribution Department
ED Maint. Section – Cable Unit (CLU)
Ref. No. Service Information Sheet

Section A: To be filled by Applicant.
Notification Date:
Ashghal RO2 Date: RO2 Valid Until:/...../.....

Client:
Name : Signature: Stamp:
Tel. :

Contractor:
Name :
Signature:
Tel/Fax :
Stamp:

Consultant:
Name :
Signature:
Tel/Fax :
Stamp:

Site Supervisor:
Name : Signature: Tel. :

Place of Work:
Area: Zone No.: St. No.: Sheet number:

Nature of Work:
.....

Section B: To filled by Cable Unit Engineer Engineer:
Circuits affected:
.....

Restrictions/Conditions
.....

☐ Work Approved ☐ Work Not Approved

CLU Engineer Name: Signature:

Approval Date: Valid Until:
Renewal date: Valid Until:

Important Notes: -Page no 2 (Terms & conditions) is a part of this document. -If work is not completed within the approval period, contractor has to apply for renewal.

1

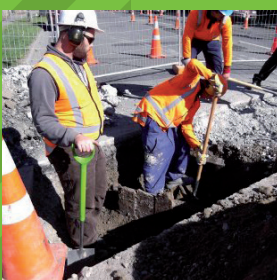
Terms & Conditions

- 1- Applicant has to submit Necessary documents to prove that he is officially assigned to the work applied for.
- 2-Records showing pin number, sheet number and project plan is required
- 3-Persons used for heavy machines excavation (jack hammers, drilling machines, boring machines) must be licensed by KM. A copy of driving license must be submitted.
- 4-Contractor must apply for SIS document 10 work days before starting excavation works.
- 5-CLU will arrange for random site visits but contractor may contact CLU Engineer any time for any advice.
- 6-Contractor must:
 - a-Use cable detector equipment
 - b-Make trial holes (manually) to ascertain cable position as instructed and detailed by CLU Engineer.
 - c- Assign one Engineer/Forman to be available at site (as long as work is going on) to make sure that CLU Engineer's instructions are followed.
- 7-Cranes and any machinery of height more than 5 meters are not allowed within 6 meters, both sides of 11 kV OH Lines and 4 meter height of machinery and 6 meters on both sides for 415 v OH Lines.
- 8-Contractor is fully responsible for any damages to KM Installations.
- 9-If any installation was damaged by the contractor, totally or partially, contractor has to report immediately to KM call center (Tel. 991). And he has to pay the repair cost (as per the claim raised) in Customer Service Department , D Ring road, on account no.....
CLU will arrange for necessary repairs and final cost of repairs will be adjusted by Damage Claim Committee.
- 10- This Service Information Sheet shall be revalidated if the work is not completed, and on completion of work it must be notified to CLU Engineer with as built drawings.
- 11- Validity of this document ends when RO2 is expired & must be renewed with a new application to complete the excavation works.
- 12- Others:

CLU Engineer signature:

Date:/...../.....

WHAT TO DO AT SITE



- Have cable record drawings in hand at site, know how to read them and check them before starting work. Ensure that the record drawings are updated one.
- Look around for anything in the vicinity that would have electrical services such as electrical sub-stations, street poles, house connection.
- Always use a cable detector tool to survey the entire site before commencing work. Mark the cable locations. Put danger signboards along the route of cable.
- Once a locating device has been used to determine cable positions and routes, excavation may take place, with trial holes using suitable hand tools.



- Use spade and shovels with insulated handles instead of pickaxe.
- Excavate alongside the service rather than directly above it. Final exposure of the service by horizontal digging is recommended, as the force applied to hand tools can be controlled more effectively.
- If you come across warning tile of Kahramaa STOP using mechanical earth excavators. Use manual tools to proceed further. Notify Kahramaa Distribution dept if cable is not shown in the record drawing.
- If the trench depth is more than 1.5 mtrs deep, then adequate protection like shoring, shielding or sloping shall be done to prevent the trench from caving in.
- If the excavation work is an emergency, and plans and other information cannot be found, the work should be carried out as though there are live buried services in the area.
- Make sure everyone at site is aware of the existence of cables and risk involved.



WHAT NOT TO DO AT SITE



- Never allow anyone to approach near a suspected damaged cable or joint.
 - Do not handle or attempt to move a cable or joint.
 - Never assume that cable will run in straight line.
 - Do not use mechanical excavators within the vicinity of cables.
 - Never leave a cable or joint in hanging position in an excavated open trench.
- Protect the cables/joints with adequate protection.



If cable is damaged

- Call Kahramaa **Call Centre 991** and notify of the damage.
- Call the Emergency services at **999** if anyone is injured. Anyone who has received electrical shock should go to the hospital.
- Always treat the cables as live even if there is no spark. Cables can be re-energised anytime without warning.
- Do not allow anyone to touch the cable or anything that is stuck to the cable.
- Cordon off the area and keep everyone away from the area of damage.



Kahramaa Call Centre 991

Cable Support Methodology

- Once the cables are exposed, cover the cable by a split duct or protective sleeve.
- Support the pipe with the cable by a nylon rope which shall be tied to a timber or 'I' beam placed on the ground.

In case of exposed joints,

- Cover the joint by a wooden box filled with dune sand.
- The joint in the box then shall be rested on a wooden or steel platform to avoid mechanical strain on the joint.
- Properly support cable joints

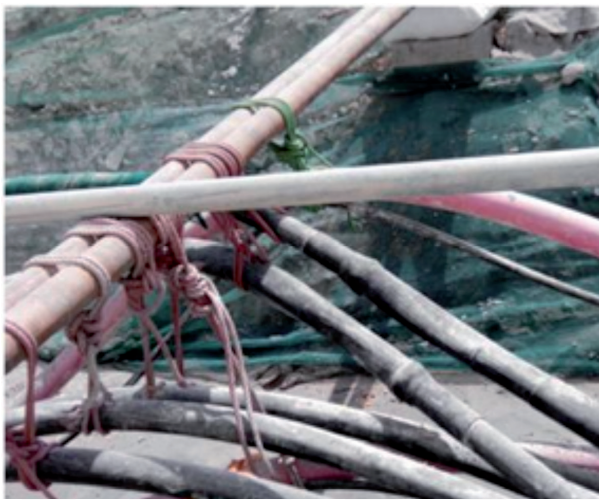


Place Danger signboard along the route of cable



Bad Practices

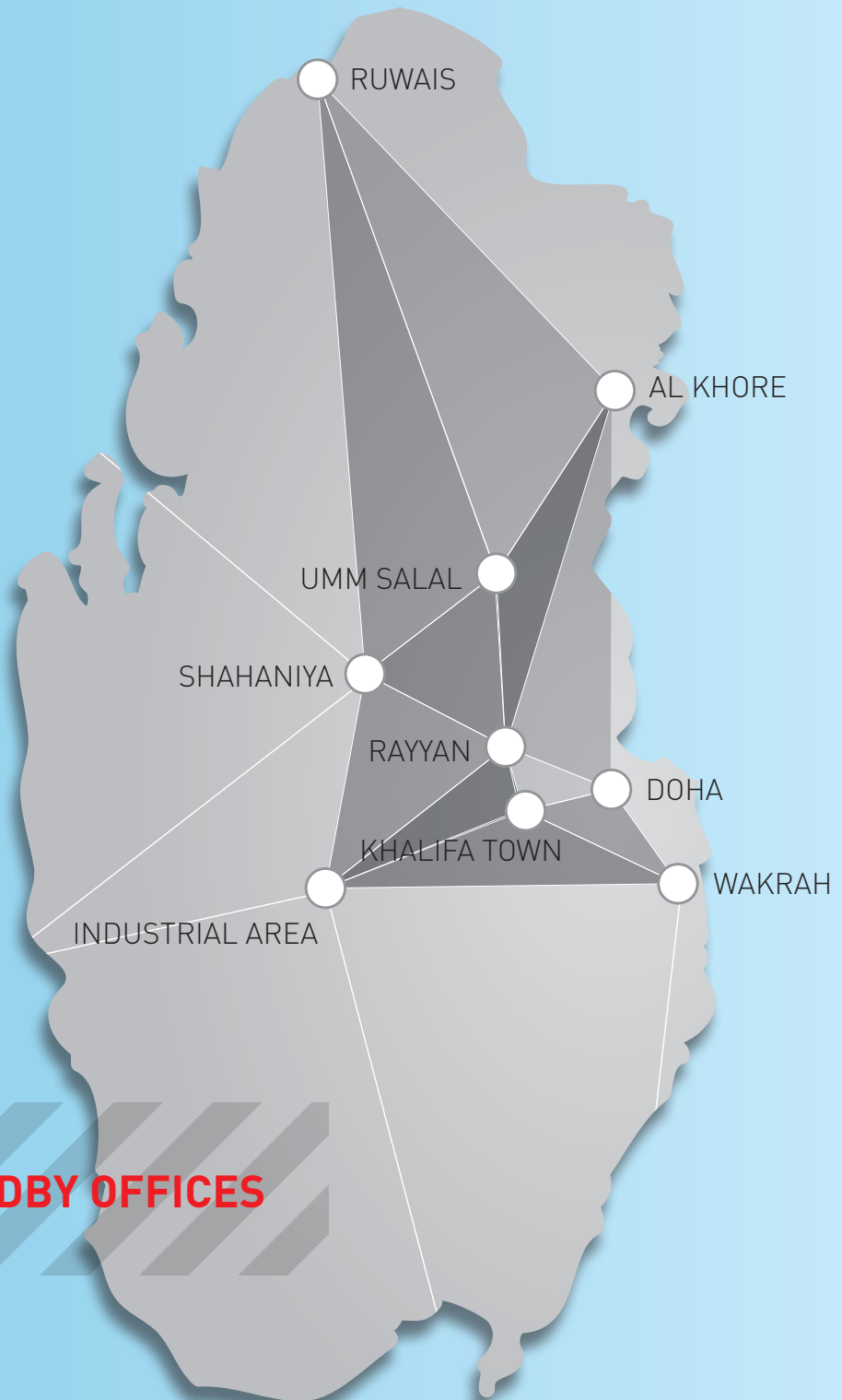
If cables & joints are not supported properly; then it will put the joint under mechanical stress and cause flash



Cables and joints inadequately supported.

STOP CABLE DAMAGES

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BEFORE
YOU DIG!**



STANDBY OFFICES

**Electricity Network Affairs - Directorate
Electricity Distribution Department / 2015**

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km.qa

 @Kahramaa

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