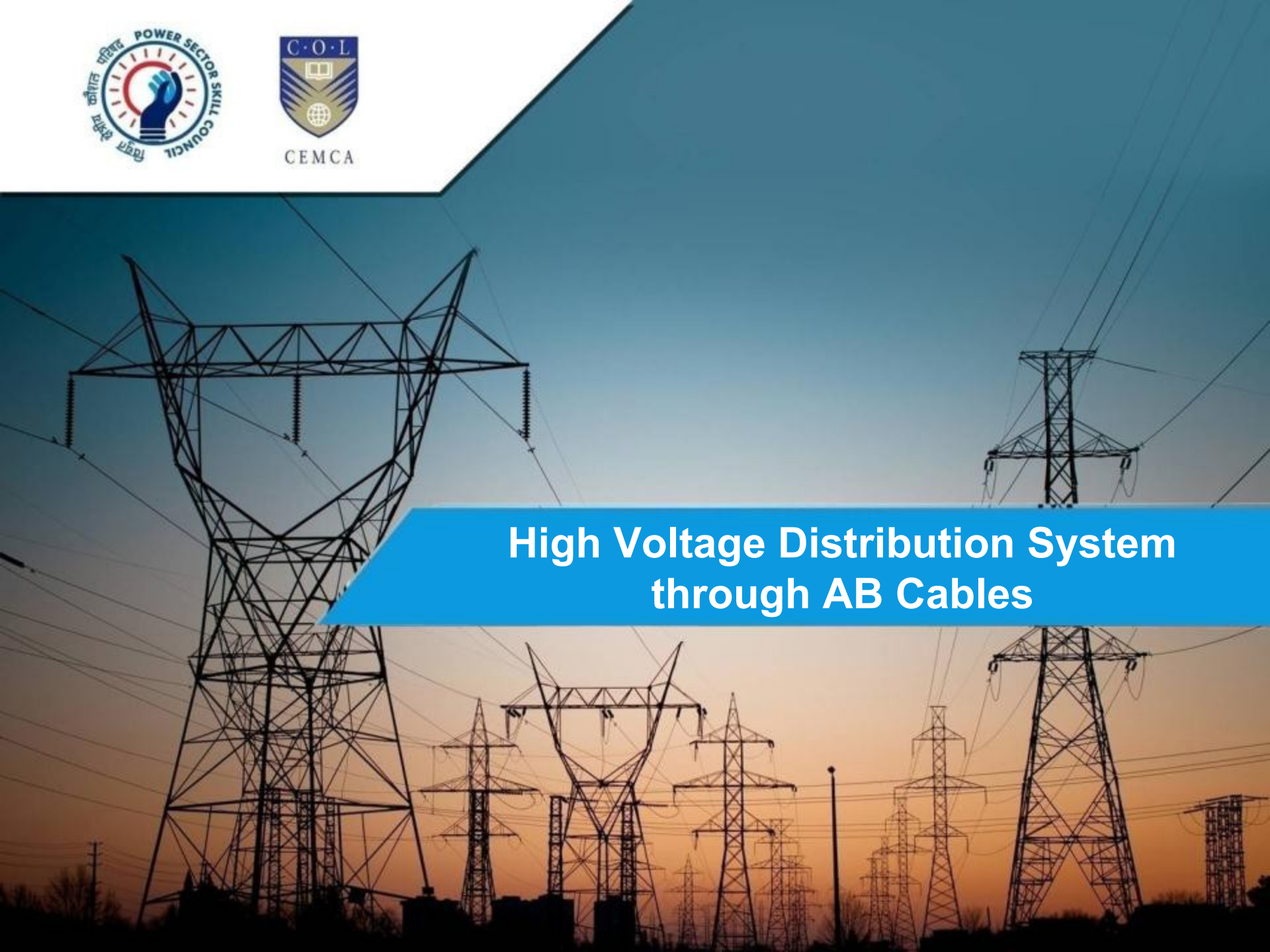




# High Voltage Distribution System through AB Cables



# Learning Objective

By the end of this session, you will be able to:

- Explain the installation and important components of a High Voltage Distribution System



# Open House Discussion

- What do you mean by HVDS?
- Where can we use HVDS?



The benefits of a HVDS system are:

It has high reliability as there are no bare conductors

Number of faults is small compared to bare conductor lines

Technical losses are low

No theft is possible at 11000-voltage lines



# Provision of Electricity Supply From HVDS



**High Voltage Distribution System**



**HVDS in Front of Houses**

From each HVDS transformer, service connections can be given to at least 5 houses.

# Provision of Electricity Supply From HVDS



Single Phase HT Line



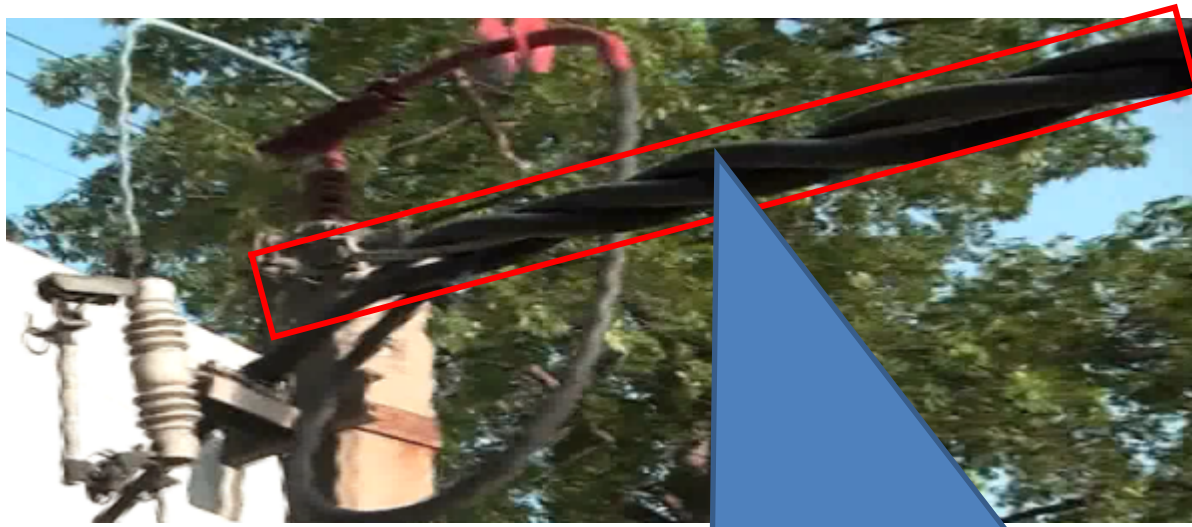
Lightning Arrester



DD Fuse

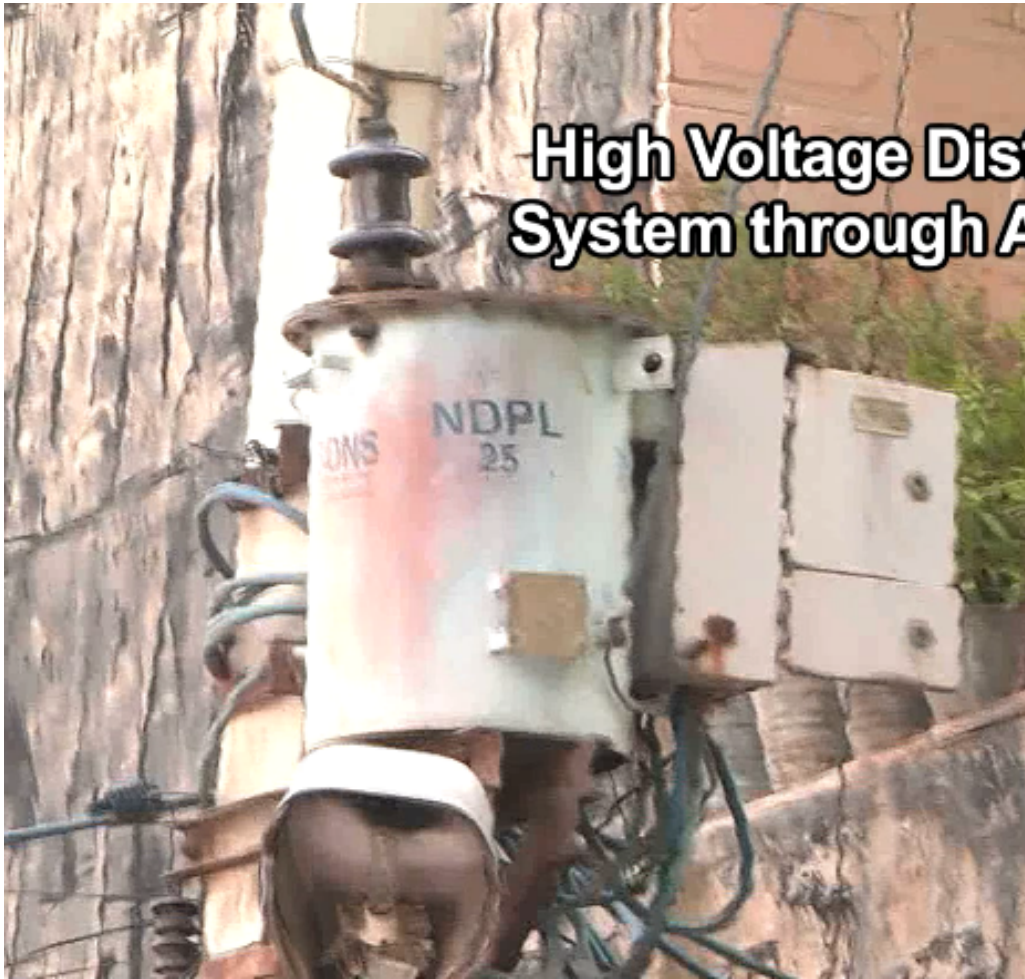
HVDS system provides consumers proper voltage.

# High Voltage Distribution System



**11,000 volts electricity distribution voltage is supplied through the Aerial Bunch Cable**

# High Voltage Distribution System



The distribution transformer is installed at the doorstep of the consumer for stepping down voltage to the usable level.



# High Voltage Distribution System

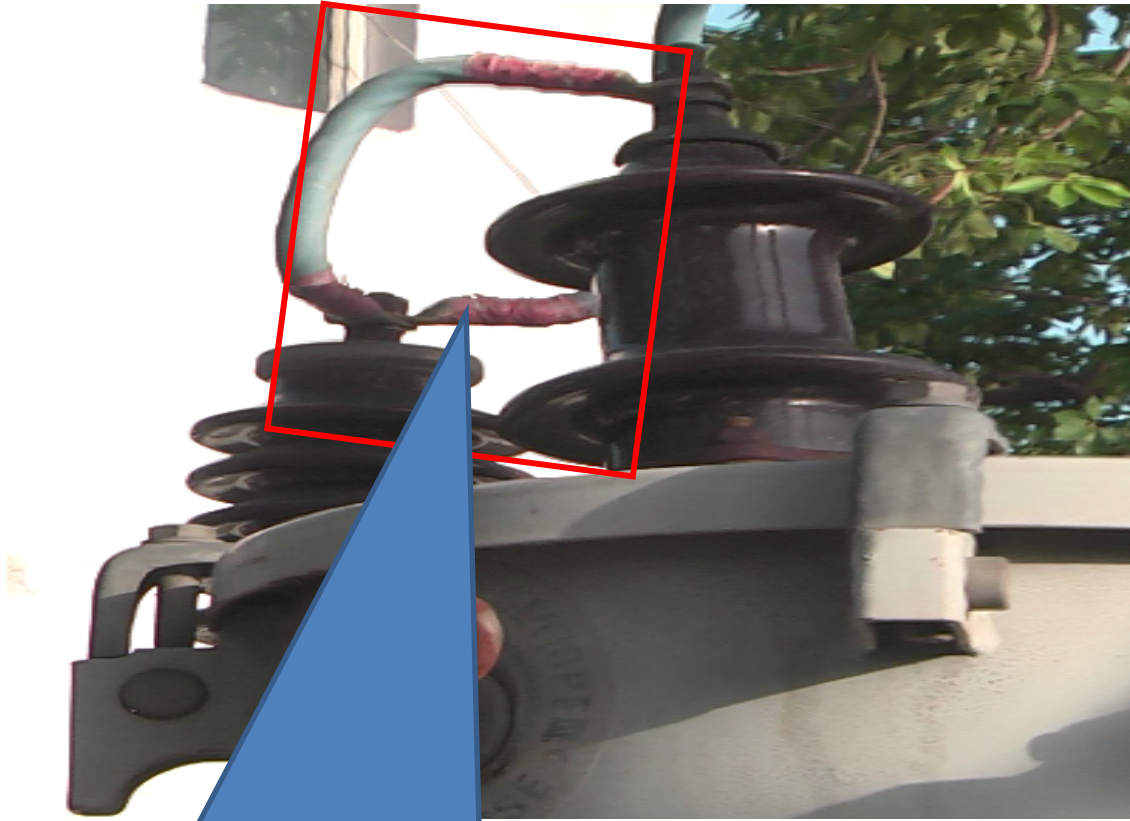


Single Phase HT AB Cable



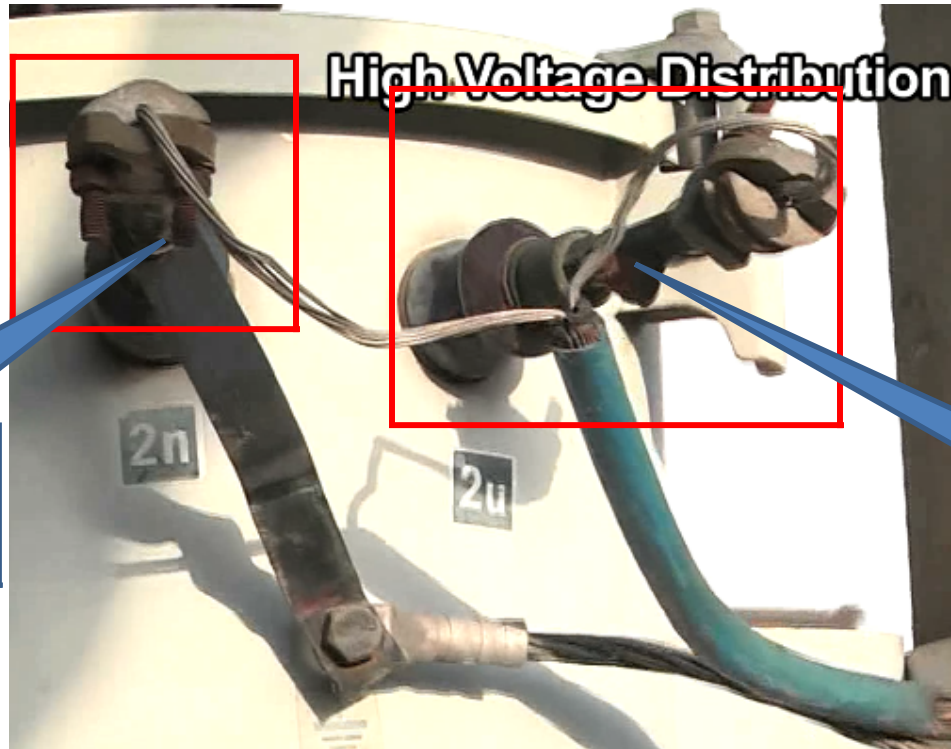
Lightning Arrester

# High Voltage Distribution System



Terminal point is connected through a DD fuse and distribution transformer's bushing and Lightning Arrester (LA)

# High Voltage Distribution System



Neutral Terminal

Phase Terminal

Two Terminals of Transformer

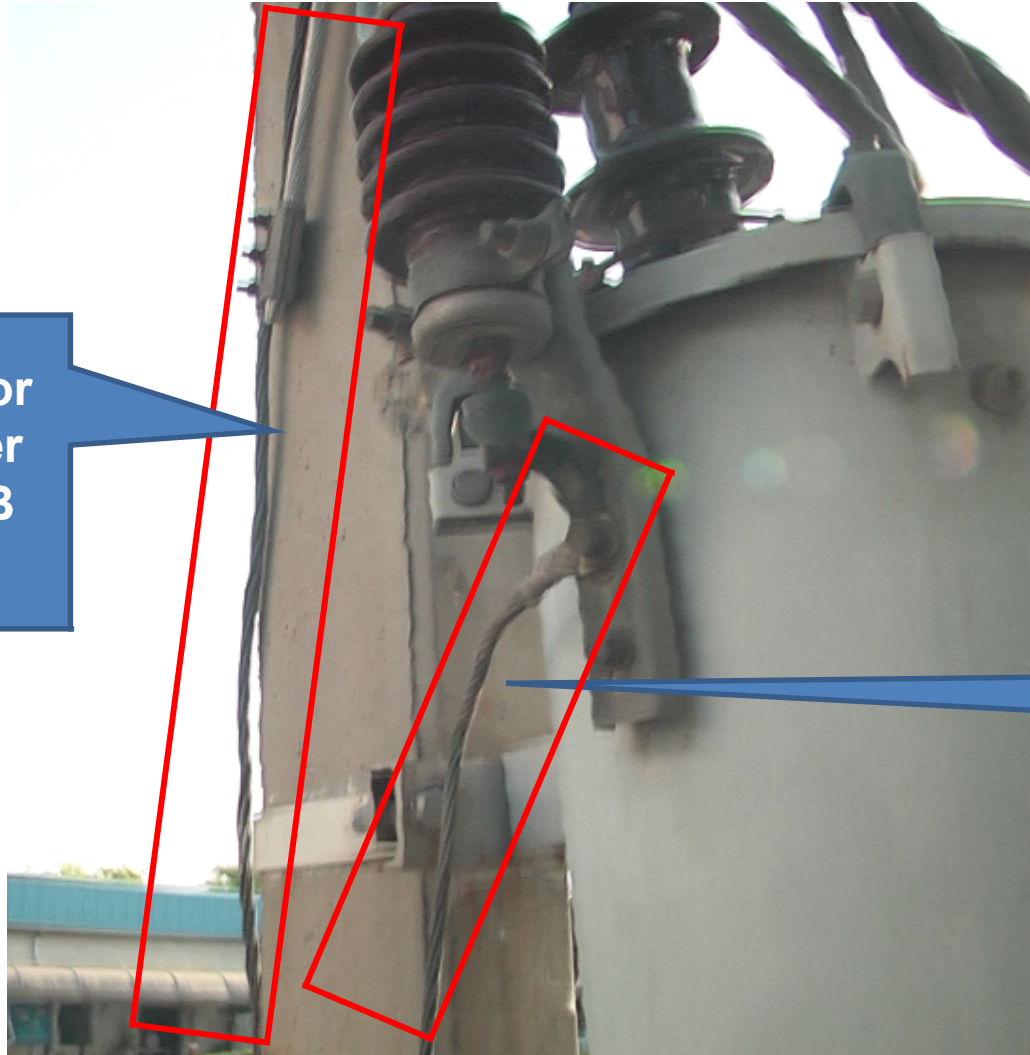
Neutral has an earthing connection.

# High Voltage Distribution System



The connection, which goes from the phase terminal to the consumer's meter through the distribution box, is connected to the Distribution Board.

# High Voltage Distribution System



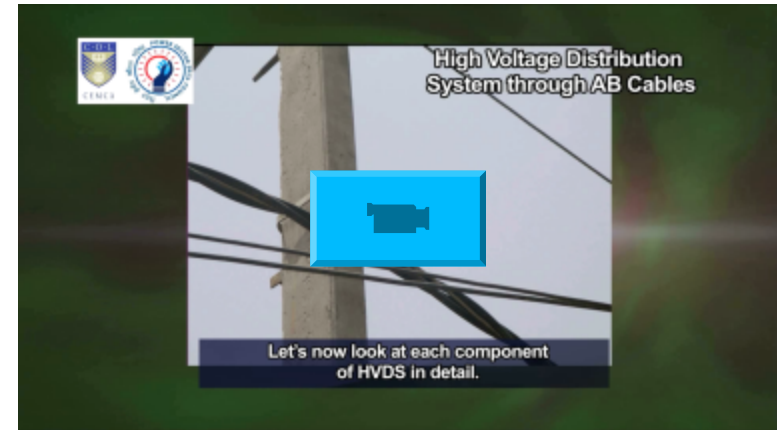
Earthing for messenger wire of AB cable

LA earthing

# High Voltage Distribution System



All earthing cables go into the earthing pit



**Suspension Clamp**

**Installed on the messenger of Low Voltage ABC. It is used when there are small angle deviations between poles.**

# Components of High Voltage Distribution System



**Anchoring Clamp**

**Installed on the messenger wire of HV ABC  
and for the dead end application.**



# Components of High Voltage Distribution System



Earthing in HVDS

## Key Learning Outcomes

- HVDS is the short form of High Voltage Distribution System
- Each HVDS transformer can provide service connections to at least five houses
- Distribution transformer is installed at the doorstep of the consumer for stepping down the voltage to a usable level
- The components of HVDS include:
  - Suspension clamp
  - Anchoring clamp

