



Advantages and disadvantages of underground cable over transmission line



Advantages of Underground Cable

- The possibility of breaking of cable is reduced.
- The maintenance cost of underground cable is very low because of less chances of fault occurrence.
- The inductance of the cable is low whereas the capacitance is comparatively high because of low space between cables.

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- The sheath of cable absorbs surge energy therefore its effect is negligible.
 - No interference with communication lines if it is placed at 90 degree with respect to communication line cable.
 - There is less interruption of supply because the cable is not affected by severe weather, lightning conditions.


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 - There is no sag problem as well as not affected by wind, ice and higher temperature.





Disadvantages of Underground Cable

- The laying of underground cable is more costly as compared to transmission line.
- As the transmission line voltage increases, the cost of cable increases.
- Once the route of cable is fixed, it is not very easy to extend from intermediate point of cable.

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- Location of fault finding is not very easy.
 - The cable draws high charging current because it has high capacitance due to less spacing between them.
 - Tapping as well as joining of cable is difficult.





Questions

- Give reason : The capacitance of cable is high as compared to transmission line
- How to reduce communication interference by placing cable?
- Give reason : The cable draw high charging current as compared to transmission line conductor of same capacity.