

Question 27 (4 marks)

There are two areas in which energy savings can be made by the use of superconductors. 4
These are:

- electricity generation and transmission;
- transportation.

Discuss how energy savings can be achieved in each of these two areas.

energy could be saved in electricity generation and transmission through the use of superconductors because superconductors have no resistance they would eliminate line loss thus saving energy.

Superconductors used in transportation can reduce the energy need in vehicles like trains. The maglev train is a train that levitates above the tracks, this would reduce the energy loss due to friction with the tracks and also with the energy requirements needed to propel the train.