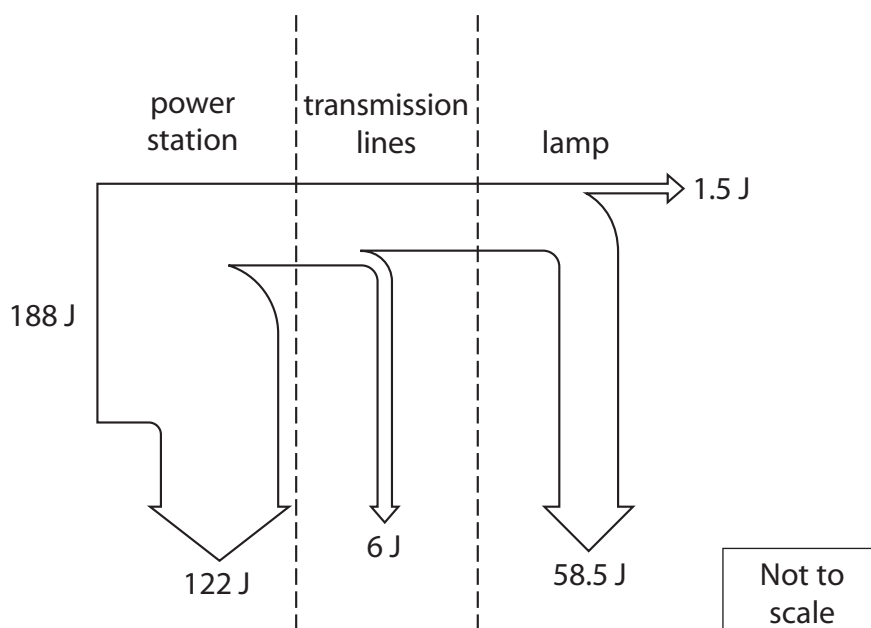


- (d) A power station needs an input of 188 J each second to operate a single 60 W lamp in a house.

The Sankey diagram shows what happens to the input energy at each stage.



- (i) Which of these is the main form of energy wasted in the lamp?

(1)

- ☐ **A** sound
- ☐ **B** thermal
- ☐ **C** electrical
- ☐ **D** light

- (ii) State the relationship between efficiency, useful energy output and total energy input.

(1)

- (iii) Calculate the overall efficiency from power station input to lamp.

(2)

efficiency =

(Total for Question 5 = 10 marks)

