

Power and Efficiency

Q1.(2019)

B ✓

Q2.(2020)

B

Q3.(2020)

A

Q4.(2021)

A

Q5.a(2022)

FIRST CHECK THE ANSWER ON ANSWER LINE If answer = 0.12 (kWh) award 4 marks	4		
Power saved = 15 (W) or 15/1000 (kW) or 0.015 (kW) ✓		1.2	
(Energy =) power × time ✓		1.2	ALLOW symbol equation / equation in any form
(Energy =) 0.015 × 8 ✓		2.1	
(Energy =) 0.12 (kWh) ✓		2.1	ECF for no or incorrect conversion of 15 W, so any power of ten difference e.g. 120 = 3 marks (no conversion 15 x 8) 12 = 3 marks (incorrect conversion 1.5 x 8) ECF for incorrect power saved e.g. when power saved is taken as 10(W) rather than 15(W) ECF for time converted into minutes or seconds

Q5.b(2022)

Any two from:	2	2 × 1.2	
To find how much energy appliance(s) uses ✓			ALLOW electricity or power for energy
To find energy use at different times / to find energy use per day ✓			ALLOW electricity or power for energy
To find cost (of energy) ✓			ALLOW idea of budgeting
To (try to) decrease usage of energy (at home) ✓			ALLOW to save energy
(May help) conserve (non-renewable) energy resources ✓			ALLOW named examples of (non-renewable) energy resources
No need for person to come to home to read the meter (so saving fuel in car) ✓			
Idea that it will not help because some people ignore the smart meters ✓			