SCIENCE OF THE SNOWY SCHEME with Kirsten Banks

Engineering Activity 9

9

GOING UNDERGROUND

Multiple choice questions

1 Where are Kirsten and Cameron?	2 How far underground is this power station?	3 How much power is generated at Tumut 1 Power	
CIRCLE ANSWER Guthega Power Station Blue Mountains Power Station Tumut 1 Power Station	CIRCLE ANSWER 3,000 metres 366 metres 30 metres	Station? CIRCLE ANSWER 3,030 megawatts approx 330 megawatts approx 30 megawatts approx	
Why build underground? Use the word bank below to complete the description two low Tumut 1 energy surface tunnel stable water			
Power Station is situated between dams in the Snowy Mountains. To generate as much as possible out of the, the power station was positioned as as it could be. The rock was loose and unstable. This			

in and construct the power station on geological fact contributed to the decision to

bed rock.



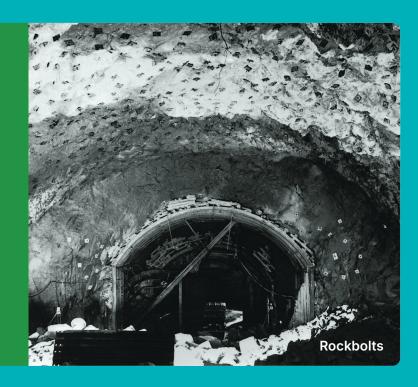
Multiple choice questions | Tumut 1 Power Station

1	2	3
How many generators?	Situated near which town?	Generates enough power for approximately how many
CIRCLE ANSWER	CIRCLE ANSWER	homes?
45	Cabramurra	300
4	Canberra	
14	Tumut	30 30,000
5	6	7
5		/
How is Tumut 1 Power Station connected to the surface?	Tumut 1 Power Station is situated between how many dams?	What colour are the generators?
CIRCLE ANSWER		
Tunnel	Three	Blue
Tubes	Two	Green
Track	Four	Orange

Did you know?

Rock bolting

During construction of the Snowy Scheme, Snowy workers of the time further developed the technique of rock bolting. This provided a safer and cheaper alternative to concrete-lining for supporting rock in tunnel walls. Rock drill designs and drilling techniques also influenced the design of the modern-day masonry drill bit.



Design your own interconnected tunnel system

Hint - label your map either side view or top view

Use the symbols in the legend to create your map



UNDERGROUND POWER STATION

- TUNNELS



Top view (TV) The top view is projected on the horizontal plane - a birds eye view

Side view (SV) The side view is projected on the profile plane

WATER STORAGE

My map of an interconnected tunnel system



