



Monitoring and responding to the demand for electricity

In Britain, when you turn on the electricity, it usually works! But who is responsible for making sure that there is always electricity when we want it?

Summary

An engineer responsible for responding to changes in electricity demand discusses the impact of the "TV pickup", a surge in demand for electricity coinciding with the end of popular programmes such as Eastenders. The scale of these surges is unique to Britain with the equivalent of over a million kettles being turned on at the same time. The increased demand can be met by specialised hydro-electric power stations in North Wales and Scotland. Alternatively, electricity is imported from other countries, for example France.

Check you know the keywords

demand, electricity, industry, management, National Grid, power station, supply, transmission, population, resources

What happens when everyone in Britain wants a cup of tea at the same time?

Watch the video

Simon is on duty at the electricity control centre. He can see the whole of Britain on his special map – a map that shows him how much electricity Britain needs.

<http://www.bbc.co.uk/learningzone/clips/7977.html>

- 1) What time is it?
- 2) What are British people doing at this time?
- 3) What TV programme does Simon watch when he is working?
- 4) What will happen when the "credits roll" (=at the end of the TV programme)?
- 5) Do these power surges happen in other countries?
- 6) Snowdonia and Scotland have special power stations: how do they generate their power?
- 7) Across the Channel, which country also helps to send electricity to Britain?
- 8) What number does Simon have to keep to?
- 9) Did the TV programme finish at the correct time?
- 10) What does Simon do when the TV programme finishes?
- 11) There's a sudden problem! The frequency dropped! Why?
- 12) How does Simon solve the problem?



Check your answers

1. It's 7pm.
2. Cookers, heaters, television sets are being switched on.
3. He's watching Eastenders (a soap opera on BBC1).
4. It's important for his work: when the credits roll, nearly 2 million people will turn on their kettles, so Britain needs more electricity!
5. No, they are unique to Britain.
6. They are Hydro-Electric Plants (HEP). They use water for power.
7. France.
8. 50 hertz frequency.
9. No, it was late.
10. Lots of work! He sends instructions, pushes buttons, talks to people!
11. Something went wrong in France, the power from France is not working.
12. He sends more instructions and asks for one more hydro-electric plant to come online.