



General Certificate of Education  
Advanced Level Examination  
June 2013

# General Studies (Specification A)

# GENA4

Unit 4 A2 Science and Society

Wednesday 12 June 2013 9.00 am to 11.00 am

**For this paper you must have:**

- a copy of the Pre-release Case Study Source Material (enclosed)
- an AQA 12-page answer book.

**Time allowed**

- 2 hours

**Instructions**

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **Examining Body** for this paper is AQA. The **Paper Reference** is GENA4.
- Answer **all** questions in Section A and **one** question from Section B.
- Use your own words, rather than simply repeating those used in the sources, to show your understanding of the points being made.

**Information**

- The maximum mark for this paper is 70 (45 for Section A and 25 for Section B).
- This paper consists of two sections.  
**Section A** contains four compulsory questions based on the pre-release Case Study Source Material provided earlier and the new source provided in this examination paper (a new copy of the pre-release material is provided as an insert to this question paper).  
**Section B** contains four alternative essay questions based on Science and Society.
- Write your answers in continuous prose as if you are addressing the intelligent general reader. You will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.
- Where appropriate, use examples to illustrate your answer.

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**Section A**

Answer **Questions 1 to 4** using pre-release **Sources A to E** and new **Source F** provided below.

There is a total of 45 marks for this section.

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**Source F**

**Green taxes make up 20% of household energy bills, campaigners warn**



Image: EAEM, [www.eaem.co.uk](http://www.eaem.co.uk)

Families are being forced to pay an average £200 a year in taxes on their energy bills to fund Britain's investment in wind and solar power. Campaigners last night demanded greater transparency from energy companies over the levies, and accused the government of hiding behind suppliers to raise revenues by the back door.

The call comes amid mounting pressure on energy companies for a fresh inquiry into price rises after the latest round of price increases led to accusations of profiteering. Dr Benny Peiser, director of the Global Warming Policy Foundation, said the rising price of fuel was partly caused by Britain's "stubborn but wrong-headed commitment to renewable energy".

He said: "So-called green stealth taxes are already adding 15–20% to the average domestic power bill and even more to business users." According to Dr Peiser, British households spend £608 a year on gas and another £424 on electricity on average. Green taxes make up between £154 and £206 of that bill.

"That, of course, suits the Government down to the ground. If it raised the huge sums required to encourage renewable energy and limit carbon emissions through general taxation, it would make the Government very unpopular. But by doing it through electricity and gas bills, the Government has cleverly ensured that it's the power companies that take the blame," said Peiser.

Under the Climate Change Act, the Government is legally bound to cut Britain's CO<sub>2</sub> emissions by 34% by 2020 and 50% by 2025. To meet its targets the government is encouraging the building of 10 000 wind turbines. It also wants power companies to spend £7 billion to install smart meters in homes.

Politicians yesterday called on the Government to force energy companies to declare the prices they pay for gas and electricity, so that customers can then compare these with what they are being charged. They also called for the industry to be referred to the Competition Commission.

Tim Yeo, Conservative MP and Chair of the Commons' Energy and Climate Change Committee, said: "If energy companies want to win back trust, they should make it clear what they have paid. Until we have that transparency, the public will remain suspicious that prices go up rather quickly and come down rather slowly."

Source: Adapted from MURRAY WARDROP, 'Green taxes make up 20% of household bills, campaigners warn', *The Telegraph*, 9 June 2011

- 0 1** Using the data and other information in **Source A (Figures 1–7) only**, examine progress in the use of renewable energy sources in the United Kingdom in recent years. (11 marks)
- 0 2** In the light of evidence in **Source B** and **Source C**, consider how far the views of local individuals should be considered if their opposition to turbines and pylons threatens the essential development of wind power in the UK. (12 marks)
- 0 3** Using evidence from **Source D**, and your own knowledge, consider whether you would support or oppose the move to set UK energy targets as far ahead as 2027. (11 marks)
- 0 4** Compare and contrast the arguments for and against the renewable energy referred to in **Source E** and **Source F**. (11 marks)

**Turn over for Section B**

**Turn over ▶**

## Section B

Answer **one** question from this section.

There are 25 marks for each question.

Where appropriate, use examples to illustrate your answer.

### EITHER

**0** | **5**

Examine the following information about youth unemployment.

| Three-month period | Unemployed 16–24 year olds | Youth unemployment rate for 16–24 year olds |
|--------------------|----------------------------|---|
| May–July 2004      | 580 000                    | 12.2%                                       |
| May–July 2011      | 933 000                    | 20.8%                                       |
| July–Sept 2011     | 1 020 000                  | 21.9%                                       |

## YOUTH UNEMPLOYMENT

Who do you think is most to blame for the high number of young people being out of work?



Source: Adapted from TOBY HELM, 'Why we're proud to be British', *The Observer*, 8 January 2012, Guardian News & Media Limited 2012  
Graphic: British Future report

To what extent do the poll results shown above reflect your own views on the main causes of youth unemployment?

Discuss what measures could be taken to reduce the high level of youth unemployment in the United Kingdom.

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**OR**

**0 6**

'It is important that as many sports as possible make full use of available technology to settle disputes about decisions made while events take place.'

Examine the extent to which different sports currently use technology in an effort to settle disputes about decisions made by referees and umpires.

Discuss the factors that might make some sports authorities cautious about the use and spread of technology to settle disputes about decisions.

**OR**

**0 7**

'Science and religion cannot co-exist easily or even at all.'

Examine the practices and beliefs on which science and religion are based.

Discuss the arguments for and against the assertion that 'science and religion cannot co-exist easily or even at all'.

**OR**

**0 8**

'The £16bn High Speed 2 rail project linking London and Birmingham, and eventually extending to northern England, will bring many advantages and is crucial to further development of both the rail network and the British economy.'

Examine the advantages of the High Speed 2 development, which is Britain's biggest public project in peacetime.

Discuss the case made by critics of the project.

**END OF QUESTIONS**

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