

# X234/13/01

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NATIONAL  
QUALIFICATIONS  
2012

WEDNESDAY, 30 MAY  
1.00 PM – 3.45 PM

BUSINESS  
MANAGEMENT  
ADVANCED HIGHER

100 marks are allocated to this paper.

Candidates should spend 15 minutes reading the case study material and the questions.

Answer **all** questions in Section One (50 marks).

Answer **two** questions in Section Two (50 marks).

**Note:** The questions are printed on a separate sheet inserted inside the front cover of this paper.



## **AGGREKO plc**

### ***Background information***

The headquarters of Aggreko plc are in Glasgow. It provides equipment and services to organisations that require power generation on a short-term basis. Examples include events such as the Glastonbury Festival in 2009 and the Winter Olympic Games at Vancouver, Canada in 2010. It also provides short term temperature control services (eg air conditioning). Aggreko makes its own generating equipment and has manufacturing facilities in Dumbarton and elsewhere in the West of Scotland.

In 2010, it had 3,600 permanent employees and served customers in more than 100 countries through a network of 144 service centres located in 34 different countries.

It operates in a niche market because it is only concerned with power generation and temperature control, except in North America where it also supplies oil-free compressed air equipment. It is, however, much larger than any other company operating in this market.

Aggreko's strategy is "to deliver long-term value to shareholders, excellent service to customers and rewarding careers to our employees by being the leading global provider of temporary power and temperature control".

The energy rental market, including temporary supply, is relatively new and Aggreko has played a big part in developing it. It became a public limited company in 1997. One way of illustrating its considerable success is that it is now one of the top 100 companies in the FTSE index of share prices.

### ***Aggreko's two business models***

It has 2 business models which allow it to deal with 2 related but distinct situations.

#### ***Local Business***

This involves renting equipment to customers who run the equipment themselves. About 25% of the business is responding very quickly, perhaps within hours, to an emergency such as a breakdown. Other rentals are for temporary events such as the FIFA World Cup in South Africa in 2010 where the lead time is longer. The average contract is worth £3,000, although they range from £200 to over £1m.

#### ***International Power Projects (IPP)***

This involves selling power to customers by providing temporary power plants which Aggreko, rather than the customer, owns and operates. About 70% of revenue comes from power utilities in developing countries where existing power infrastructure may be unable to cope with demand. Other contracts are with oil and mining companies, armed forces and governments. Typically, contracts last for 6 – 9 months but they are often extended. They can range in value from £1m to over £10m a year.

The IPP model tends to apply in areas of the world where there are limited opportunities for rental services provided under the Local Business model. It has become increasingly important as a source of revenue for Aggreko.

The models operate together. For example, Aggreko manages its generators in a common global pool so that they can be used in local business or international projects, depending on customer demand.

Exhibit 1 gives examples of rental and power contracts which Aggreko has undertaken.

### ***Competitive advantage***

Aggreko's business depends on responding quickly to changing situations, often emergencies, anywhere in the world and on delivering high quality service to its customers. To enable it to do this, it has a global presence and is organised and managed in a way which makes it more efficient than its rivals. In addition, it has a specialist, expert work force.

Overall, Aggreko believes it offers a superior service to its rivals. For example, in 2010, it delivered a contract in Kenya in 8 weeks, which was quicker than any other company could achieve.

Exhibit 2 explains the features which Aggreko believes give it a competitive advantage.

### ***Organisation and management: efficiency***

Aggreko aims to be extremely efficient in the way it runs its business. It uses a 'hub and spoke' system for its service centres. The hubs are larger than the spokes and carry out administrative and call handling services. They hold larger items of equipment and service and repair them. The spokes are points from which equipment can be delivered to customers. Hubs and spokes are grouped into areas with a manager who has responsibility for revenues, profitability and use of capital.

Aggreko has also gained efficiencies through technology. It has implemented a single global IT system for managing the business and has developed a low cost multi-fuel system for its generators. As a result, they have a capital cost which is about a third of conventional power plants.

### ***Growth and development***

Aggreko prefers to grow organically by increasing its fleet of equipment and expanding its service centres. Between 2007 and 2010, for example, it opened or upgraded 27 service centres (almost 20% of the total) in 18 different countries.

In 2010, Aggreko announced plans to build a new £20m manufacturing facility at Dumbarton. The company's existing factory in Dumbarton had become too small and it had been forced to spread manufacture across several sites. The new plant will increase output and enable Aggreko to concentrate the design and manufacture of its generating equipment in one place.

Aggreko does occasionally make acquisitions if it thinks they add value. However, it carefully assesses the risk of all acquisitions to try to prevent risks like paying too much and failing to integrate the acquired company properly. Between 2004 and 2010, it took over 3 small companies and one large one, GE Energy Rentals, a subsidiary of a much bigger US company, General Electric. This acquisition helped Aggreko to expand in South America through additional service centres.

### ***Culture and values***

Aggreko is proud of its customer focused, 'can-do' culture which it describes in 3 words: performance, passion, pace. This culture has developed over the years to match the company's reactive, expert approach. It reflects the fact that Aggreko is a service business where employees often work on short term projects which are constantly changing and where customers depend on them to keep things going.

The culture is underpinned by 3 values:

- commitment – the quality, motivation, energy and enthusiasm of people make the difference between being good and being great.
- flexibility and efficiency – the business by its nature involves many short-term transactions with tight timescales, which means that the company has to be able to meet unexpected and unplanned demands from customers.
- expertise – the company has to mobilise people rapidly and so has to be well organised, safe and methodical, which also means it must have a deep knowledge of equipment, customers and processes.

Aggreko believes that employees must be properly trained if they are to keep to these values and for its culture to be maintained. Most employees undergo a combination of specific skill development through training courses and on-the-job learning, both of which pay close attention to environmental and safety matters. Aggreko also has some specialist training initiatives for particular groups of employees, such as:

- a management education programme for 130 managers to develop them for future management roles.
- in-depth training in continuous improvement techniques for 80 employees to support an operational excellence programme it introduced in 2009.

### ***Future growth***

Aggreko devotes considerable effort to ensuring that its success can continue. It makes careful forecasts of future demand and, on the basis of these, believes that it will continue to grow in the future. However, it acknowledges that there are risks which it could face, particularly in international projects. So far these risks have not been significant.

Exhibit 3 gives some information on future growth prospects and possible risks.

Exhibit 4 gives information on Aggreko's performance.

[The above information is taken from Aggreko plc Annual Reports 2005 – 2009 and the interim report for 2010. Additional information came from the company website at [www.aggreko.co.uk](http://www.aggreko.co.uk).]

**NB** Unless stated otherwise, the above, and the accompanying exhibits, are current at 1 November 2010 and refer to the situation at that date.

## **Exhibit 1: Examples of Aggreko's Contracts**

### ***Local Business***

- providing additional cooling to an oil refinery during the summer to maintain production levels.
- supplying power generation services for major events such as the American football Superbowl, and the inauguration of US Presidents.
- providing power and air conditioning equipment – enough for 600 medium sized homes – for the Red Bull Air Race in New York, as well as 8 miles of cabling to connect up the equipment.
- supplying power for 3 days for the Eurovision song contest in 2010; Aggreko generators provided power for the lighting, video and rigging as well as additional power for air conditioning and for broadcast crews, media facilities, sound etc.
- maintaining power after natural disasters such as the hurricane in New Orleans in 2005 and other catastrophes such as the Gulf of Mexico oil spill in 2010.
- supplying air conditioning at Schipol Airport, Amsterdam when major renovation meant that the existing air conditioning system had to be shut down. Aggreko provided 3 chillers and 2 air conditioners plus a diesel generator to power them and auxiliary equipment.

### ***International Power Projects***

- power generation in Kenya where drought meant that the country's hydro generation system could not operate at full capacity. The contract began in 2006 and has been renewed on several occasions. By 2010 the system had begun to recover and much less of Aggreko's equipment was needed.
- in 2010, drought conditions in Africa enabled Aggreko to strike deals in Uganda and Rwanda to relieve power shortages. In Uganda it assembled a temporary power station in a few weeks.
- 3 year contract started in 2010 with the Bangladesh Power Development Board (BPDB) to relieve power shortages caused by increased domestic and industrial demand for electricity to which BPDB could not respond quickly.

**[Turn over**

## Exhibit 2: Distinguishing Features of Aggreko's Business

Aggreko believes that its business has several distinguishing features which give it a competitive advantage. They fall into a number of categories:

Global	<ul style="list-style-type: none"><li>operates globally and can respond to events anywhere in the world.</li><li>144 service centres in 34 countries.</li><li>each centre can draw on resources from across the company.</li></ul>
Large and small	<ul style="list-style-type: none"><li>can handle all types of situation from supplying a single chiller to deal with a weekend emergency to multi-million pound electricity supply projects.</li></ul>
Expertise	<ul style="list-style-type: none"><li>its narrow product range means that employees are experts.</li></ul>
Equipment	<ul style="list-style-type: none"><li>designs and manufactures its own equipment.</li><li>has a larger fleet of equipment than any of its competitors.</li><li>builds and maintains its equipment to the highest standards.</li><li>designs equipment which is flexible eg can operate at +50 degrees centigrade in the desert and at -40 degrees centigrade on an oil rig in the Russian Arctic.</li><li>gains economies of scale in buying components because of its share of world output.</li></ul>
Technology	<ul style="list-style-type: none"><li>has developed a highly efficient power generating capability which uses a variety of fuels and is one third cheaper than conventional power plants.</li><li>technology comes in small blocks and is highly mobile (it can be transported by road for example): it can be configured in any number of ways.</li></ul>

### **Exhibit 3: Future Growth of Aggreko**

Aggreko believes that its future growth prospects differ between the 2 main areas of its business:

#### ***Local Business***

Growth in local business is built around maintaining efficiency, supplying products worldwide and increasing the number of service centres.

This part of the business depends on:

- economic growth – increased growth increases the demand for energy; rapid increases in demand can encourage companies to rent rather than buy so that they can focus resources on output rather than owning capital equipment like generators.
- the willingness of businesses to rent rather than buy: businesses could choose to buy their own equipment from another firm and sell it after use rather than rent from Aggreko.
- number of events – this can be influenced by a wish to hold events such as Glastonbury.
- natural forces eg floods, hurricanes.

#### ***International Power Projects***

For this business model, Aggreko aims to grow as fast as is prudent by gaining the operating efficiencies and competitive advantage that come from being the largest global operator.

The main factors determining growth in this part of the business are increased demand for power in a country and the fact that some countries have not invested enough in new generating capacity. This results in power cuts, and people require power to be restored and future cuts to be prevented.

Demand can shift rapidly between continents. In 2004 Aggreko's biggest markets were South America and Sri Lanka. By 2009 the market in Africa, which had previously been very small, was greater than South America and Sri Lanka combined.

#### ***Possible risks***

International Power Projects are riskier than local business. The risks include:

- non-payment and/or loss of equipment – many of the countries in which Aggreko has contracts are politically unstable. Although Aggreko carries out a risk assessment for each contract, there is a danger that it could make losses of tens of millions of pounds. It believes that its size would enable it to withstand such losses, something which its rivals could not do.
- safety of employees – countries which are politically unstable could also pose dangers for employees who have to work in them. Aggreko also includes this in its risk assessment.
- environmental effects of power generation – increasingly, countries are imposing targets on decarbonisation which could affect Aggreko as its equipment would need to comply with them; it could also be affected by attitudes towards power generation, which may be seen as environmentally damaging.

So far Aggreko has not encountered difficulties with non-payment or loss of equipment. There have been no cases either where employees have been placed in danger.

## Exhibit 4: Performance of Aggreko

### *Some financial and other data:*

	2009	2008	2007	2006	2005
<b>Revenue (£m)</b>					
Local business	544.0	580.4	452.6	372.3	309.0
International Power Projects	479.9	366.2	240.6	168.4	110.7
Total Revenue	1023.9	946.6	693.2	540.7	419.7
<b>Trading Profit (£m)</b>					
Local business	92.9	120.9	81.4	60.4	41.4
International Power Projects	159.6	79.7	51.5	26.3	18.2
Total Trading Profit	252.5	200.6	132.9	86.7	59.6
<b>Capital Expenditure (£m)</b>					
Local business	65.2	128.1	84.1	115.7	49.3
International Power Projects	99.2	147.6	101.4	56.1	30.9
Total Capital Expenditure	164.4	275.7	185.5	171.8	80.2
<b>Return on Average Capital Employed (%) (note 1)</b>	29.0	28.5	26.7	22.1	18.6
<b>Dividend per share (pence)</b>	12.6	10.08	8.06	6.72	6.11

### *Some other performance indicators:*

	2009	2008	2007	2006	2005
<b>Staff turnover (%) (note 2)</b>	12.2	15.1	16.2	14.9	15.2
<b>Net Promoter Score (NPS) (note 3)</b>	60	58	52	50	n/a

A third party, on behalf of Aggreko, carries out a global survey of employees asking them what they think of the company. In 2010, 2,804 responses were received (78% of all employees). Ninety-one percent of respondents said they enjoyed their work while 89% said they were proud to work for Aggreko. When these replies are compared with other companies, Aggreko is in the top 25%.

**Notes:**

- 1 Return on Average Capital Employed is a ratio of profits to capital invested in the business.
- 2 Staff turnover is measured as the number of employees who left Aggreko during the year (except for any employee made redundant) as a percentage of the average number of employees during the year.
- 3 The Net Promoter Score (NPS) is a measure of customer satisfaction derived from questionnaires completed by customers. The score is a ratio and, the higher it is, the greater the number of customers who think that Aggreko do an excellent job. Each customer is sent an e-mail after a contract asking them to complete a questionnaire. Aggreko began calculating this ratio in 2006. The 2010 figure is based on replies from over 2,700 questionnaires.

*[END OF CASE STUDY]*

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## QUESTIONS

*Marks*

**You should spend 15 minutes reading through the case study material on Aggreko plc and the questions.**

### SECTION ONE

**Answer ALL questions.**

- |    |  |             |
|----|--|-------------|
| 1. | Using information from the case study, explain why Aggreko prefers to focus on organic growth.                                 | 6           |
| 2. | Explain how its distinguishing features (see Exhibit 2) have helped Aggreko to meet the needs of its customers.                | 8           |
| 3. | With reference to Exhibit 4 in particular, explore how the performance of Aggreko changed between 2005 and 2009.               | 8           |
| 4. | Explain the benefits to Aggreko of having 2 business models.   | 4           |
| 5. | Justify how Aggreko's culture and values may help it to cope with the constant change that it faces.                           | 8           |
| 6. | Discuss the consequences for Aggreko of being in a niche market.   | 4           |
| 7. | Evaluate the main factors from the case study which may influence the future growth of Aggreko.                                | 8           |
| 8. | Explain the ways in which Aggreko's approach to organisation and management can help it to maintain its competitive advantage. | 4           |
|    |  | <b>(50)</b> |

**[Turn over for SECTION TWO**

## SECTION TWO

Marks

Answer any TWO of the following questions.

*You may illustrate your answers in this section with examples from the case study or from other firms with which you are familiar.*

9. (a) Discuss the effects of globalisation on UK organisations. **13**
- (b) Describe and compare the Systems Theory of Management and the Classical School of Management. **12**  
**(25)**
10. (a) Analyse how UK organisations can make use of the ideas of at least 2 writers on motivation that you have studied. **12**
- (b) Explain how a policy of corporate social responsibility can affect an organisation's functional areas. **13**  
**(25)**
11. (a) Compare the skills and personal qualities required to be an entrepreneur with those required by a manager. **11**
- (b) Discuss the benefits of any 2 of the following to UK business.
- SWOT analysis
  - Structured Decision Making Model
  - Control methods such as Critical Path Analysis
- 14**  
**(25)**
12. (a) Examine how EU policies can affect UK business profitability. **14**
- (b) Style Theory is an example of a leadership theory. Using at least 2 theories of leadership, examine the extent to which each is relevant to managers in the UK today. **11**  
**(25)**

[END OF QUESTION PAPER]

## **ACKNOWLEDGEMENT**

Case Study—Information is taken from Aggreko plc Annual Reports 2005–2009 and the interim report for 2010. Additional information came from the company website at **[www.aggreko.co.uk](http://www.aggreko.co.uk)**. Reproduced by kind permission of Aggreko plc.