Cambridge International AS & A Level

**Cambridge International Examinations**
Cambridge International Advanced Subsidiary and Advanced Level

**BUSINESS** **9609/31**

Paper 3 Case Study **May/June 2018**

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This Insert contains the case study for use with the Question Paper.
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CAMBRIDGE International Examinations

## Pan-Global Petroleum Company (PGP)

PGP is a large oil and gas business. It operates in over 50 countries and its Head Office is in country X. PGP was set up 60 years ago. It was taken into state ownership in 1995. However, the former Government in country X, which had a very large budget deficit, was replaced with a free market focused Government which privatised the business in 2011. PGP now operates as a public limited company with its shares traded on the Stock Exchange of country X. It operates in all sectors of the oil and gas industry:

- exploration – searching for new reserves of oil and gas (fossil fuels)
- extracting oil and gas, often in dangerous and remote locations
- refining – converting crude oil into fuel
- transportation – shipping oil and gas to refineries and fuel to customers
- retailing – supplying fuel for cars and trucks through its own service stations and selling gas and heating oils to industry and households.

There is also a research and development (R&D) division that researches into new oil products such as special lubricants for jet engines. At present, the R&D division does not use its resources to investigate renewable energy sources such as wind power. PGP directors are considering this as an option as governments have started to subsidise renewable energy. These sources of energy would also help to protect PGP from unforeseen changes in demand for oil and gas products.

PGP's Directors are convinced that privatisation of the business has benefited all stakeholder groups. They want to publicise these benefits as widely as possible. The company's recent social audit included information in Table 1.

**Table 1: Significant changes since PGP's privatisation**

| | State owned PGP 2010 | Privatised PGP 2017 |
|---|---|---|
| Total employees | 97 000 | 82 000 |
| Average pay of employees excluding managers | \$35 000 | \$39 000 |
| Average pay of managers | \$56 000 | \$97 000 |
| Operating profit | \$85m | \$382m |
| Number of suppliers of technical equipment | 34 | 16 |
| Average payment time to suppliers | 3 months | 2 months |
| Number of new oil based products developed | 1 | 4 |
| PGP retail fuel price as percentage of industry average (in country X) | 98% | 103% |

**Road transport outsourcing**

Since the rapid fall in the global oil price after 2014, most oil and gas companies have been cutting costs to try to maintain profitability. PGP has already outsourced some of its human resource management and accounting functions to suppliers in low cost countries. The Operations Director recently suggested using a specialist road transport company to transport all refined fuels in country X. She suggested: 'Our own fleet of trucks needs to be replaced this year. A better option might be to close the road transport department in country X and sell the distribution centre. We could then buy in the distribution service from a large road transport business. According to my estimated data, PGP could make substantial savings if we sell the distribution centre and trucks quickly.' This estimated data is contained within Table 2.

**Table 2: Outsourcing road transport of fuels in country X – costs and other data**

| | |
|---|---|
| Estimated value of existing PGP trucks (purchased in 2013) | $5m |
| Annual depreciation charge for existing trucks | $5m |
| Annual variable costs of operating PGP trucks per litre of fuel transported | $0.10 |
| Estimated value of PGP distribution centre | $8m |
| Annual fixed costs of operating distribution centre | $20m |
| Annual allocation of Head Office administration costs to the distribution centre | $4m |
| Specialist road transport company: cost to PGP per litre of fuel transported | $0.13 |
| Total litres transported annually by PGP | 600m |

**PGP's organisational structure**

Under state ownership, a hierarchical organisational structure with a long chain of command was created. This structure has remained largely unchanged since privatisation. In some functional departments there are eight levels of hierarchy below the director of the department. One of the reasons for this structure was the centralised decision-making and bureaucratic style that existed in the state-owned PGP. Another reason was that whenever PGP expanded – internally or externally – a further level of hierarchy was often added to share out the additional administrative workload. The directors have now agreed to substantial changes in the organisational structure to overcome some of the problems caused by a tall, narrow hierarchy. The most significant of these is a management delayering programme. At least two levels of hierarchy will be removed requiring substantial changes to the role of managers and other employees.

**Sales forecasting**

PGP undertakes sales forecasts, including the use of the moving average method, for all of the markets it sells in. Total demand for most oil and gas products in most national markets is price inelastic. However, demand for these products from individual oil and gas companies is relatively price elastic as it is difficult to differentiate them to create a distinct brand identity. Sales forecasts have to take into account the seasonal demand for some oil and gas products – such as energy for heating – and also cyclical changes in global demand which is influenced by the rate of growth of major world economies. Last year, PGP had excess oil refining capacity and high inventories due to inaccurate sales forecasts. The trend in demand for all types of oil and gas products is influenced by many factors. PGP's Marketing Director is reviewing the sales forecasting methods used by the company.

**Ratio analysis of accounts**

Each year, PGP's Finance Director undertakes a ratio analysis of the end of financial year accounts. He compares the performance of the business with energy industry averages. Some of the ratios used in the latest comparison are given in Table 3. Some stakeholders are concerned about PGP's financial performance and the Finance Director wants to improve these accounting ratios in future. He recognises that this will be difficult at a time when global demand for oil and gas is being affected by a general economic slowdown.

**Table 3: Accounting data used to compare PGP performance with energy industry averages. 31 March 2018**

| | PGP | Industry average |
|---|---|---|
| Gearing ratio % | 40 | 28 |
| Return on Capital Employed % | 9.2 | 14 |
| Price earnings ratio | See **Q4(a)** | 16 |
| Dividend yield % | See **Q4(a)** | 3.5 |
| **Other data for PGP:** | | |
| Share price | $20 | - |
| Earnings per share (of which 40% is to be paid in dividends) | $1.50 | - |

**External growth**

Using revenue as the measure, PGP has doubled in size since privatisation. Most of this growth has occurred through integration. Strategic analysis of PGP has formed the basis for identifying strategic growth options. Most of the takeovers of smaller businesses by PGP since privatisation have achieved the targets set for them. A few takeovers have not achieved their targets, often because of unforeseen external events or the differences in culture of small businesses compared to that of PGP. An updated strategic analysis for PGP is planned by the Board of Directors.

**Strategic choices**

The directors will be discussing two strategic options for further growth of PGP at tomorrow's Board meeting. These are:

*Option A*: Develop a recently discovered oil field

*Option B*: Invest in renewable energy research.

To assist the directors in making this strategic choice, PGP's Chief Executive Officer has prepared a report on these two options. A summary is shown in Appendix 1.

**Appendix 1: Summary of report on the two strategic growth options**

| | Option A<br>Develop oil field | Option B<br>Renewable energy research |
|---|---|---|
| Main risk | Location is in a national park – environmental damage could occur, leading to increased pressure group activity | Further falls in world price of oil might make renewable energy sources uneconomic |
| Main benefit | Other oil companies have not discovered new oil fields for several years | These energy sources will become more competitive as governments increase taxes on non-renewable fossil fuels |
| Decision tree – expected monetary value (over 10 years) | \$53m | \$78m |
| Estimated investment cost | \$24m | \$40m |
| Estimated discounted payback period | 4 years | 6 years |
| Ansoff Matrix analysis | Increases PGP's penetration of oil and gas markets | Diversification away from fossil fuels – although still in the energy market |

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