

Modified Enlarged 18pt

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Monday 18 May 2020 – Morning

A Level Economics

H460/01 Microeconomics

Resource Booklet



A bright future in Uganda

Headmaster Samuel Mukisa is one of millions of people in Uganda who are plugging into the global solar-power boom. As his students study, a single rooftop solar panel generates power. It is a solar storage system which costs Mukisa a daily rate of 5 15 cents. The average Ugandan earns as little as \$1.50 (£1.14) a day. He pays his bill each fortnight and will do so for another year. When the payment plan is completed, Mukisa intends to upgrade to a second 10 solar panel, so another class of students can shine.

For the 600m Africans living without access to power, fuel poverty is a socio-economic barrier. The World Bank estimates that if sub-Saharan Africa's economies had dependable electricity, GDP growth 15 across the region could be up to 2% per annum higher than current rates.

Uganda, with a population of 42m, has one of the youngest populations on average in the world, with 7 out of 10 people under the age of 25. Incomes in 20 the country have increased by 26% in the last two years. The service sector has grown from 32% of the economy in 1990 to 55% in 2018, with a 15% expansion in the last two years. Today, it is estimated that 44% of Ugandans use the Internet, 70% have a 25 mobile phone and 6% use social media. The growing demand for energy in Uganda is clear. Nevertheless, away from large cities, many individuals still operate in a barter economy. Rural agriculture based areas are still very common. However, their contribution to 30 GDP is now only 24% of the total, down from 56% in 1990; a further reflection of the developing nature of the economy.

35 The energy supply market in Uganda, as in many
 40 African countries, is highly localised, with only
 15% of its citizens living in homes connected to the
 country's energy network. The rest have to rely on
 arranging their own supply, increasingly using solar
 power. This is very different to the UK, where most
 of the population are customers of one of the large
 national energy suppliers (see Fig. 1).

FIG. 1 – UK energy suppliers' market share, 2018 (%)

Energy supplier	% market share 2018
British Gas	20
SSE	14
E.On	13
EDF	11
Scottish Power	10
npower	9
First Utility	3
OVO	3
Utilita	2
Bulb	2
Utility Warehouse	2
Green Star	1
Others	10

Source: OFGEM

Uganda is at the centre of the solar energy revolution in Africa. For development organisations, including the United Nations, and socially minded investors, the opportunities are exciting. Street lights, topped
45 with solar panels, charge up through the bright daylight hours and illuminate the streets each night. For a growing number of energy companies, the huge number of people without reliable power represents the opportunity to access a growing market.

50 Local start-up firms have appeared quickly, many with the backing of international companies. In 2018, one multinational energy firm, Shell, invested in three start-ups, SolarNow, SteamaCo and Husk
55 Power Systems. These three have raised a total of \$30m from Shell and other investors. Shell's charity foundation also backs a UK-based firm, BBOXX. BBOXX has expanded rapidly, providing clean energy solutions and pay-as-you-go solar power. It aims to have provided home solar power systems to
60 20m people in Africa by 2020.

If Shell hopes to gain a control in the market it will need to compete against a former rival. The French firm, Engie, has taken the most decisive step into Africa's home solar market, with the acquisition of
65 Ugandan-based Fenix International. Fenix supplies power to around 250 000 homes in Uganda, through the solar kits it sells in partnership with a mobile network provider.

70 The popularity of the Fenix home energy system means that the company is growing. It plans to expand into other countries, to reach millions more people. "We intend to be in multiple markets across eastern, southern and western Africa," said Chief Executive, Lyndsay Handler. "It's still amazing to me

- 75 that so many people in Uganda do not have access to power. We provide a decentralised, affordable home system that can completely transform lives. An opportunity to rethink the way that we can achieve universal access to energy,” she said.
- 80 “Beyond wanting to have an impact, we have always wanted to prove to the world that you can have a positive impact and deliver commercial returns. There’s an underlying drive to show that this is not just charity. You can build commercial
- 85 returns in Africa. We want to be part of a story that encourages others to see Africa as a commercial market. There are entrepreneurial people, with ideas and opportunities. They need investment, not just handouts,” she said.
- 90 One Fenix customer for the past three years is Ritah Namatovu. She is now able to work at night to support her four grandchildren, thanks to her solar energy kit. Namatovu’s only concern is that the solar panel might one day be stolen from her roof.
- 95 “The solar panel is an asset I now own. There are no blackouts. These panels look so small, but they are powerful,” she said.

BLANK PAGE

BLANK PAGE



Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.