Cambridge Assessment International Education

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BUSINESS **9609/32**

Paper 3 Case Study **February/March 2020**

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INFORMATION

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Fujin Energy (FE)

FE's core business is manufacturing wind turbines for generating electricity (see Appendix 1). FE sells the turbines to companies that generate and supply electricity. FE also has maintenance contracts to service wind turbines and this provides 40% of FE's total revenue.

FE is based in country M and has operations in Europe, Asia and South America. FE operates four factories that manufacture the wind turbines. FE uses a carefully chosen group of suppliers of components and materials to ensure quality.

In 2017, FE entered the household market for wind turbines in Europe without much planning and did not make significant changes to its promotion strategy. For the household market FE manufactures small wind turbines that can be fitted on roofs or in gardens. These are manufactured in FE's European factory and sold through retailers.

A growing market

At the recent annual general meeting (AGM), Tuuli Saito, Chief Executive Officer (CEO) of FE, finished her speech to shareholders stating that: '55% of new electricity generating capacity in developed countries is from wind and this is increasing. Fujin Energy's commitment to delivering cost-effective energy solutions and quality products has seen our business grow. We are now the fourth largest manufacturer of wind turbines globally. Our focus on quality by controlling the manufacturing process is central to our success. Our strategic decisions will also continue to be guided by our commitment to deliver industry leading shareholder value.'

Production capacity

FE's sales volume of large wind turbines has been increasing annually at an average of 7%. FE's operations are now approaching full capacity. For example, in 2019 the South American factory was operating at 90% capacity. Tuuli is worried that FE will be unable to meet customer orders for 2021 on time. She has asked the factory's operations manager to consider how to respond to this problem. He favours outsourcing the production of the towers to CT, a company based in South America.

This outsourcing would release factory resources to allow FE to increase production of the completed wind turbines. The operations manager has had preliminary discussions with CT and they would be able to deliver towers within four months of signing a contract.

The alternative to outsourcing is to expand FE's factory in South America but this would take a year to complete. The current capacity of the factory is 450 wind turbines per year and forecasts production for 2020 is 425 units. Table 1 provides selected data regarding the two options.

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Table 1: Selected data for the two ways of increasing capacity

	Factory expansion	Outsourcing
Capital o ts ($m)	200	–
Inc eas in non-u rrent liabilities ($m)	150	–
Additional annual a pac ty of wind turbines	225	150
Alloa ted fix d o ts s per tower at full a pac ty ($m)	0.02	–
Variable cos per tower ($m)	0.33	0.37
Average additional trans ort o ts per tower ($m)	–	0.01

Marketing

Dan, the Mark ting Direc or, was ree ntly interv ewed by indus ry magaz ne *Global Wind Power*. He c edited FE's s e s to a o mbination of fac ors 'Wind energy has beo me one of the mos eo nomia lly o mpetitiv forms of generating elec ric ty. FE inv ts s ov r $100m in researb and dev lopment (R&D) to inc eas turbine effic eny . FE has als implemented an effec iv bus nes to-bus nes model of mark ting. This allows us to b arge a pri e premium of 25% ov r our o mpetitors Traditional s ure s of elec ric ty generation hav als beo me more ex ens iv due to a rbon tax s and o ts increas s '

FE has sales offi e s in eab region and has a s gnifia nt pres ne at international trade fairs and ex ibitions Adv rtis ng is limited to sp ec alis magaz nes Trade promotions fou s on prov ding finan e deals to help bus nes s purb as the wind turbines Dan believ s that the FE brand has benefited from the ongoing sp ons rs ip of a famous round-the-world s iling rac .

How r, dep ite FE's reputation in the indus ry, sales of sm all wind turbines aimed at the hous hold mark t hav failed to meet targets

The external environment

In o untry M, gov rnment s bs dies hav been paid to elec ric ty o mpanies that produ renewable energy, inc uding wind power. Tuuli believes that thes s bs dies will end by 2022. This b ange in gov rnment poli y is als occ rring in many other o untries in whib FE operates

The Board of Direc ors is o nsidering how to rep ond to inc eas ng interes rates in many o untries FE's b ief eo nomis is predic ing that interes rates will inc eas from 4% to 6% in o untry M within the nex 12 months

Financial performance

Tuuli was appointed CEO in 2014 at a time when FE was s ruggling to inc eas mark t sh are and profits She is part of a team inc uding Finan e Direc or, Mari a Connor, that inc eas d FE's profitability through o ts c tting. Mari a fo s on financ al data to re o mmend dec is ons to the Board of Direc ors She ex ec s her finan e managers to anal data at an operational lev l to identify problems Information on FE's financ al performan e is sh own in Tables 2 and 3.

Table 2: Extract from income statement (year ending 31 December 2019)

	$m
Revenue	4200
Cost of sales	3400
Expenses	400

Table 3: Extract from statement of financial position (at 31 December 2019)

	$m
Non-current assets	1146
Inventories	2000
Trade receivables	1200
Overdraft	370
Trade payables	2211
Tax payables	20
Loans	800
Share capital	45
Retained earnings	900

Skilled engineers needed

FE's employees are highly skilled in either the manufacture or servicing of wind turbines. In many countries there are skills shortages, so FE has to train employees, which takes three to five years, depending on their role. As FE's service contract business has expanded the workload of engineers has increased. Salaries for engineers have increased rapidly. Engineers work long hours to meet FE's service commitments. FE's labour turnover has increased in recent years.

Strategic options

Tuuli believes that FE needs to be a dynamic business adaptable to rapidly changing market conditions. She frequently suggests opportunities for FE. Following a thorough strategic analysis of the business, the Board of Directors has identified two strategic options for growth.

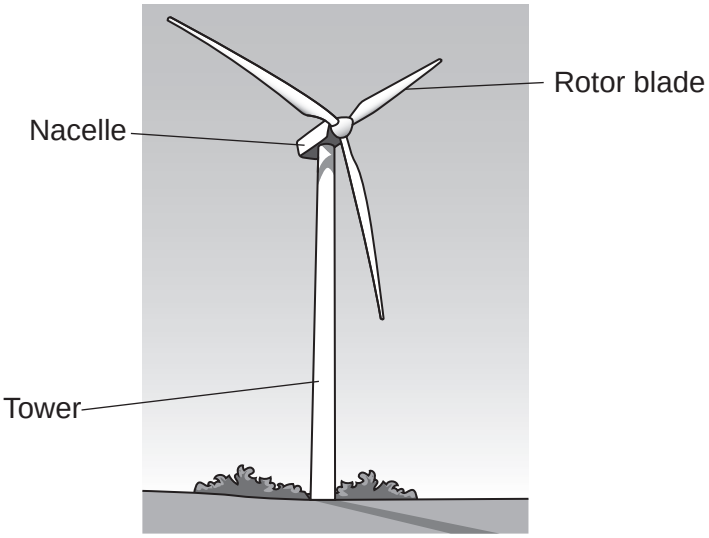
Option A: Build a new factory in country P. This would create hundreds of new jobs and give FE the potential to gain substantial market shares in country P. The market is forecast to double in size by 2026.

Option B: Takeover of a battery manufacturer. Southvolt manufactures lithium ion batteries. As wind power is unreliable, electricity storage is increasingly important to increase the reliability of the supply of renewable energy to meet customers' needs.

A project team has researched these options using strategic choice techniques and submitted a report to the Board of Directors. Extracts from the report are shown in Appendices 2 and 3.

The Board of Directors is meeting next week to decide which option to approve. Based on the decision tree analysis, Tuuli has decided to recommend option A to the board.

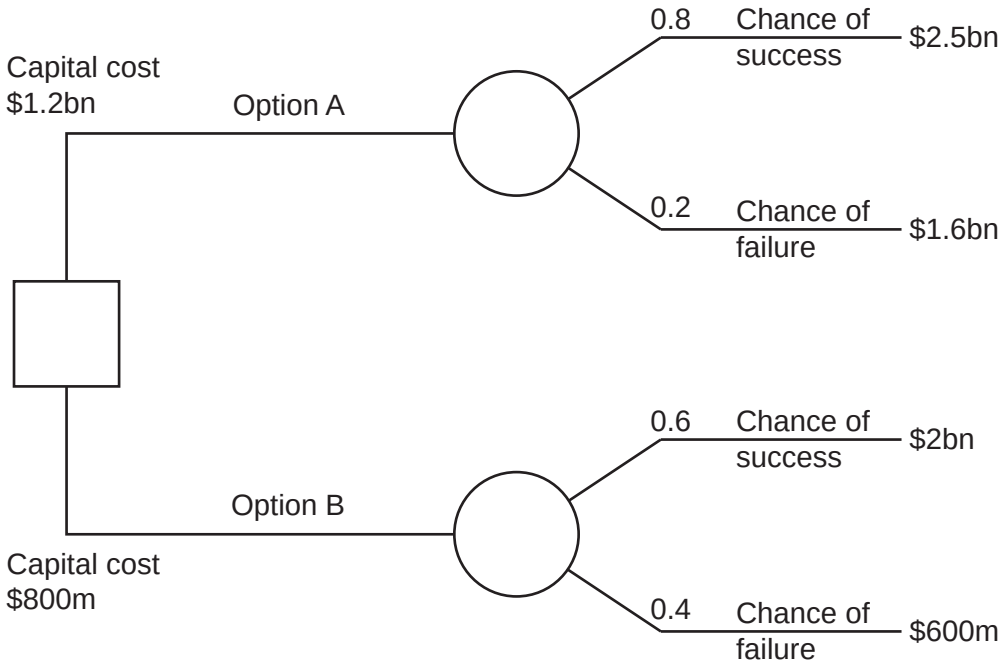
Appendix 1: The main features of a wind turbine



Appendix 2: Information for the two options

	Option A: New factory	Option B: Take over
Estimated annual rate of return (ARR)	12%	8%
Key driving factor	Forecasts growth in country P's renewable energy sector	Competitive advantage when bidding for electricity company contracts
Key constraining factor	Costs	R&D required to improve battery technology

Appendix 3: Decision tree for the two options



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