

CGMA AUGUST 2016 EXAM ANSWERS

Variant 1

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SECTION 1

Part 1

From a financial perspective, we are being asked to risk the cost of building this new design of rotor, with no guarantee of any return. Presumably, the cost of building and installing the rotor is significant or the University would have built a full-scale prototype of its own. We are also risking our reputation because we have been asked to make the necessary contact with the owner of a real turbine, which could lead to lost business if the rotor is ineffective or damages the turbine itself. The financial cost may still be a realistic investment compared to the potential upside and we can deal with the client by explaining the potential risks clearly, so these are unlikely to be a major problem.

It may not be to AEN's immediate advantage if the trial is a success because AEN is not involved in the manufacture or sale of turbines. Clients will still need to pay us to design wind farms and we may not be able to charge any more just because there is a new rotor design on the market. It may be possible to patent the University's design and either sell it to a manufacturer or to licence it in return for a royalty. AEN may benefit through association with the new design or be able to win business from other consultancies because of its familiarity with the new design.

The new rotor design might make future investments by landowners less risky. If it is more efficient then revenues will increase and so capacity might increase. Enhancing the efficiency of turbines might make it possible to site wind farms in areas that are presently marginal in terms of suitability. If the design is a significant improvement then existing farms might replace their existing designs and so wind-generated electricity will increase, thereby reducing the demand on conventional generators.

Academic studies are often of interest to the media if the results are interesting and if there is a visual element. News editors might pick up the fact that the findings were positive, creating an opportunity to air footage of wind farms in operation as the backdrop for a piece of good news. This is valuable publicity for the industry. The research published from this study will enable other designers to benefit from the ideas developed by the study's authors. A successful design may also be picked up by the press because the media is generally interested in alternative energy and that could stimulate interest in wind power in general.

Part 2

We need to clarify the terms before we enter into a binding agreement. The wording suggests that we will be entitled to use the intellectual property at a preferential rate in return for our sponsorship, but we need to establish what that means for us because we are

unlikely to start manufacturing turbine rotors. Will this agreement give us a share on any revenues that are obtained from licences to third parties? If we are to be asked to forego any reward unless we actually manufacture the new design then the project will be of less interest to us.

We need to clarify the basis on which the revenues will be shared, perhaps on the basis of hypothetical outcomes. It is probably fair for the University to claim ownership of the creative element of this invention, but we need to be clear as to how our financial support will be valued. Prior to the trial, it is clear that we are taking a significant risk with our investment because all may be lost. If the trial succeeds, it will be easier to play down AEN's financial support because the value of the intellectual property will be enhanced by the trial results.

We need to establish how much of the trial data we will obtain because this could be valuable, regardless of the outcome. If we are to offer our clients designs based on the new technology then we will have to know as much as possible about its effectiveness. We may be able to benefit from the test data even if the design is not a success, perhaps because it may inspire research projects of our own. We also need to be able to keep our client informed about the impact of the test rotor on the efficiency of the turbine.

The nature and timing of the release of information from the trial needs to be clear. The University might be more focussed on publicising the research results than on exploiting potential royalties. We need to seek Professor Grigor's assurance that he won't release detailed data or other commercially sensitive materials in advance of the publication of any academic paper. Again, we might need to pose some hypothetical possibilities at this stage to determine how he will respond to different levels of potential value. Will he insist on publishing if, say, the rotor is a major success?

SECTION 2

Part 1

There are arguments both for and against suppressing the findings.

The fact that this is a failed result will always suggest that we might wish not to be associated with it. We might appear to have made a serious error in testing this design and this could reflect badly on our reputation for technical competence. Failed attempts to solve problems with existing technology might imply that wind power is not a good investment at present and so potential adopters might be deterred from proceeding. Our shareholders might be concerned that we have wasted money.

The arguments in favour of publication are probably stronger.

If we are seen to suppress the findings then we are in danger of drawing far greater attention to them if word slips out. There is a danger that the wind farm owner or one of the research team members will tell someone or make a post on social media and it will be pursued. The academics on the team may be frustrated that they have been denied the opportunity of a publication and so they may be prepared to leak their concerns to the press. AEN will appear self-serving and a bully in that case.

Permitting the results to be published will demonstrate that AEN does not regard the experiment as a major setback or one that it is ashamed of. The publication of the results will give us control over the story that is released and this is likely to affect the manner in which it is reported. The most effective approach would probably be to permit Professor Grigor to write an academic paper and to publish it without making a formal press release. News editors are unlikely to regard this published result as being newsworthy and so it is unlikely that anyone outside of the academic community will ever read it.

The publication could yield some insights that are of interest in a purely academic sense and so the paper might be of interest to academics in this field. The paper might demonstrate AEN's interest in sponsoring good quality research to this audience. Our willingness to stand by the paper even though the results are disappointing might demonstrate our integrity. We might, therefore, make some useful contacts with the academic community and be rewarded with further requests for assistance. We will also be named in a paper that will be read by future generations of students, many of whom will enter our industry and will eventually be in a position to award AEN contracts.

Part 2

AEN's professional staff may be attracted by more than just their salary. The company has an ethos of promoting alternative energy and sponsoring academic research. AEN appears to offer its employees a lifestyle that differs from a typical commercial organisation, attracting staff who have interests in academic research and a desire to promote alternative energy. The engineers may feel that they have been let down by the suppression of these research findings because the project was essentially an academic study rather than a commercial commission from a client. The response to these findings is more consistent with the approach that would have been adopted by an overtly commercial enterprise.

From a motivational point of view, the engineers may feel that they are being blamed for the disappointing results. Their role was in the practical implementation and that is where the project has disappointed. The theoretical design phase and the laboratory findings proved satisfactory and so there were good reasons to believe that the design would work. Suppressing the findings implies that AEN may not be prepared to stand by the work undertaken by its engineers.

The engineers do have clearly defined contracts of employment. AEN is not directly accountable to its employees for decisions that are, essentially, commercial. If publication of the results is regarded as being against AEN's interests then the engineers have no right to

complain that they are being devalued by that decision. AEN provides significant opportunities for personal development and it need not hold itself accountable to its professional staff on every matter that might affect their feelings.

We need to be careful about the risk of setting a dangerous precedent. We are at risk of surrendering AEN's right to create wealth for its shareholders for the sake of motivating professional staff. If the engineers wished to operate in a wholly academic environment then, presumably, they could have applied to work at a university. By choice or personal circumstance, they are working for a profit-making business and they should expect that the Board will focus on profit over the advancement of knowledge. The matter that is debated here does not actually involve the deliberate distortion or misrepresentation of any facts. Any research project is likely to involve failed experiments that are all part of the learning process.

SECTION 3

Part 1

A fair value should focus on the prospect of dividends because AEN is not particularly asset-intensive. Most of the value of the company lies in the intangibles that cannot be valued, such as staff and reputation.

We should consider the company's dividend history. From an objective point of view, we might argue that past dividends would be the basis that would be used by any external valuer. If dividends have grown steadily then we might input that historical rate into the dividend growth model.

The cost of equity will be difficult to determine. It may be possible to identify a quoted company in the same line of business as AEN and use their beta coefficient to determine an appropriate cost of equity. It may be necessary to search further afield, possibly using a consultancy in a different line of business or an entity that is involved with other forms of alternative energy.

One pressing question is the extent to which we should allow for Gita's resignation. She is clearly a long-serving and important member of professional staff. Her departure may lead to colleagues leaving as well. Overall, that might depress AEN's ability to pay future dividends.

Part 2

We need to be careful not to prompt a walkout by placing excessive emphasis on Gita's resignation and the reasons for it. We need to avoid too much direct dialogue with the engineers because we might risk prompting them to think about leaving.

Hopefully, Isabelle and Sat will have a fair understanding of the mood amongst the engineers. Sat, in particular, has worked his way up through the ranks and should be able to talk informally.

We might consider asking the engineers for their views as to whether the study's findings would have any intellectual value as a publication. Their reaction might give us an indication of their mood. We may also defuse the situation if they arrive at the conclusion that the results need not be published for the sake of the cause of sustainability.

We could look back at Gita's personnel file to see whether she is being totally candid with respect to her reasons for departure. If she has been unsuccessful in seeking promotion or has had some other cause for grievance then she might have decided to use the study as an excuse to justify her decision to depart, in which case her views are less likely to signal unrest amongst the engineers.

Part 3

We could focus on the fact that we realised that this would be a very speculative experiment, but that our interest in sustainability meant that it was worth a risk. The fact that AEN had a limited upside in any positive outcome means that the funding was evidence of the company's interest in promoting sustainable energy.

The fact that Professor Grigor is a highly respected academic suggests that AEN has a sound reputation as a potential research sponsor. Our involvement has developed a link to this respected department, which could have long-term benefits for us.

Our involvement gave an AEN client the opportunity to trial new technology at an early stage of development. This is evidence that contact with AEN can enable clients to maximise the potential of their wind farms.

The project could be viewed as an extension of the AEN Research Grant Programme, which is regarded as an integral part of the business. We do not normally fund research in the expectation that we will generate a significant return.

Part 4

AEN's Board is accountable to the shareholders, and is usually responsible for maximising shareholder wealth. The employees who own shares are in a slightly different position from the norm because they also rely on AEN for employment and so they might not be particularly interested in maximising the wealth created by their shares.

The employees could, technically, outvote the directors, which complicates the Board's ability to govern. It might be extremely difficult to apply any real pressure because the Board's 40% could be augmented by persuading a fairly small proportion of the employees to support them.

The Board could find itself facing divisions between employees who own shares and those who do not. For example, share-owning staff may have a different interest in salary negotiations because lower salaries might mean greater dividends.

Overall, the culture of AEN seems to prize employees and aim to nurture their interests. There should be little real risk of outright conflict between the Board and the staff.