



Renewable Energy Management and Finance

Group Exercise 1

Background

An off campus University development situated in a rural setting in the North of England consists of office space (1), accommodation (2) and associated car parking. The office space is approximately 25,000 m² in size and there are 50 apartments to house staff, students and visitors.

The buildings are approximately 20 years old of brick and block construction. Double glazing is in place due to a recent refurbishment. And all of the buildings have gas fired central heating provided by gas from the grid. In addition, power and lighting is provided by grid connected electricity.

The annual electricity use is approximately 3,500,000 kWh

The annual gas use is approximately 4,500,000 kWh

The total annual cost for gas and electricity is approximately **£1,250,000**

The site is situated next to a working farm and is surrounded by land that is laying fallow and used for large scale crop production.

Requirements

The University wants to become carbon neutral and consider how to significantly reduce their energy spend and reliance on grid connected gas and electricity. As part of an overarching strategy one consideration is that of renewable energy solutions. There is a small budget of £50,000 available to help part fund projects.

Your task

For 20 - 30 mins, please work in groups and please consider:

- The approach you could develop to achieving the aims of the University
- How you may go about assessing the options
- What the key financial considerations are

Then take 5 - 10 minutes to report back to the group.