Integration of SDGs in

☐ Institutional governance/strategic level
☐ SDGs in research
☒ SDGs in campus operations
☐ SDGs in curriculum development
☐ SDGs in student engagement activities
☐ SDGs into community activities
☐ SDGs at a whole-institution level

Focus on

☐ Goal 1 - No poverty
☐ Goal 2 - Zero hunger
☐ Goal 3 - Good health and wellbeing
☐ Goal 4 - Quality education
☐ Goal 5 - Gender equality
☐ Goal 6 - Clean water and sanitation
☒ Goal 7 - Affordable and clean energy
☐ Goal 8 - Decent work and economic growth
☐ Goal 9 - Industry, innovation and infrastructure
☐ Goal 10 - Reduced inequalities
☐ Goal 11 - Sustainable cities and communities
☐ Goal 12 - Responsible consumption and production
☒ Goal 13 - Climate action
☐ Goal 14 - Life below water
☐ Goal 15 - Life on land
☐ Goal 16 - Peace, justice and strong institutions
☐ Goal 17 - Partnerships for the goals

Summary

After extensive consultation with staff and students, Cranfield University committed to a Net Zero Carbon by 2030 target in 2020. The main route to achieving the necessary reductions in scope 1 and 2 emissions was identified as reducing the reliance on natural gas. In 2020 the University imported gas for the generation of over 50% of its electricity and over 90% of its heat.

A successful bid was made to the UK Government Public Sector Decarbonisation Scheme and in 2020/21 the following measures were implemented: LED installations saving 230 kW of lighting demand; 434 kW of solar photovoltaic arrays; 900 kW of repurposed batteries; 1,000 kW air source heat pump; Building Energy Management System upgrades in 40 buildings; improvements to the district heating system to make it more compatible with low temperature heat sources; and the addition of two more buildings onto the district heating.

Overall, this will result in a 15% saving in the current scope 1 and 2 emissions and set up the energy infrastructure for further savings in the future. Further funding has also been secured to decarbonise two aircraft hangars- ensuring that the airport which is an integral part of the University, is also on a path towards Net Zero Carbon by 2030.

Outline the benefits of integrating this theme:

1. Setting out our vision for Net Zero Carbon has been very timely with gas prices doubling over the last year and is set to double again. Transitioning away from fossil fuels to renewables and the implementation of energy efficiency measures is the least costly path for future energy needs.

2. The research and learning which the University undertakes is heavily biased towards carbon saving and climate action. It is important to also implement these improvements in our own estate.

3. Staff and students are actively involved in helping to identify suitable energy projects and to save energy in their everyday activities.

Conclusions and recommendations

The setting of a Net Zero Carbon was well supported by staff and students. In-house planning and expertise meant that we were ready when funding opportunities arose to implement some key measures to make good progress. It is important to continue to plan and identify opportunities as there are many routes to achieving Net Zero Carbon and the optimum option will change with circumstance.

Outline the barriers or challenges encountered in integrating this theme and how you overcame these:

1. Capital cost was and is a big barrier. The availability of public funding has been very helpful.

2. Looking to the future and the expansion of activities on the site, the imperative to move to clean energy sources is increasing. We are currently addressing this through discussions with key stakeholders and identifying joint working and potential partnerships.

Above: The Solar Farm Array is located airfield side of the campus and produces over 5% of the campus's electricity