



The SDG Accord

The University and College Sector's Collective Response to the Global Goals

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

SDG Accord Reporting 2021 CASE STUDY

Climate Action Framework Principles

In May 2019 Keele was one of the first universities to declare a 'climate emergency' and commit to 'net zero' carbon emissions by 2030. In March 2021 Keele launched the Climate Action Framework Principles to underpin a decade of action to reach net zero carbon through a whole institution approach to education, research, outreach and operations.

Keele's climate action work is built on the foundation of a decade of leading in embedding sustainability in all we do. Keele launched its renewable energy strategy in 2009, building on years of commitment to energy efficiency and carbon reduction. The aims of the strategy were to utilise Keele's unique campus to be self-sufficient in low carbon energy generation and become a 'living lab' for smart energy.

Keele's low carbon vision for the campus led to the ~£15 million Smart Energy Network Demonstrator (SEND), developed with Siemens. SEND is a national demonstrator for research on the dynamic management of energy resources at a small town-scale. Development of the campus into a living lab for climate action also led to the HyDeploy project being launched at Keele in October 2019. This saw the first blending of hydrogen (up to 20% by volume) in a live gas network in the UK. This project is a key step towards enabling national rollout of blended hydrogen.

A new £8.1million campus 'low carbon energy generation park' in partnership with ENGIE is a significant development connecting to SEND and helping deliver Keele's climate action commitments. The park will consist of 1.7MW of wind power, 5.5MW of ground solar PV and a 2MWh battery storage, that will generate 50% of the university's power – saving more than 1541.5 tonnes in carbon emissions each year.

"This level of on-site low carbon energy generation directly coupled to being Europe's largest smart energy network demonstrator will not only deliver a very substantial reduction in our carbon emissions as we strive to become a zero-carbon campus, it will provide an outstanding demonstration of smart and low carbon energy technologies." Professor Mark Ormerod, Deputy Vice-Chancellor and Provost at Keele University

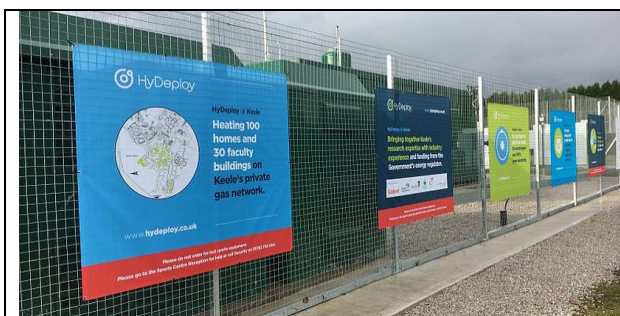
BENEFITS

1. Taking significant steps forward to delivering on our carbon neutral commitments
2. Increased research activity and collaboration between estates and academia
3. Further connections with external collaborators

BARRIERS

1. Securing funding and resources- however by having a long-term vision and working in partnership we have been able to deliver on our commitments.
2. Ensuring both environmental and social sustainability experts are involved in the project – at the start, this was an oversight which we worked to overcome.
3. Enabling students to engage with the project. Involving the Activities and Societies Sabbatical Officer in meetings increased communication and student awareness and some student 'Ambassador' roles were created in partnership with Siemens to widen knowledge of the SEND project. Some modules have used these projects as case studies to explore real climate action challenges. Wider engagement with the student body has been challenging however.

SDG Accord Reporting 2021 CASE STUDY



HyDeploy installation on Keele University campus



Horwood energy centre: Home of the SEND project

CONCLUSIONS

Our climate action has been a long term commitment and our initial smart energy and low carbon vision for the campus has taken years to develop into the now established SEND and renewable energy park projects. The HyDeploy project wasn't one that was foreseen and therefore you never know what exciting projects may develop from others. We've been able to use our campus as a true living laboratory for climate action whilst also improving our operational sustainability.

We need to work with our students to drive change, bring in their voices as critical friends, and engage them in how we collectively tackle the climate emergency. Our students will be the leaders of tomorrow and will live with the impacts of our actions today; empowering them to lead change can support them in this journey.

The climate emergency requires us all to act now, and to work in partnerships to enable large-scale projects that create a sustainable future.