



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

Sustainable energy and carbon mitigation

At NUI Galway, we recognise the grave threat that climate change poses to our health and our planet's future and the urgent need for society to transition to a low carbon future. We know that addressing a challenge as big as climate change requires a truly collaborative, society-wide approach. We are committed to playing our part in reducing our emissions and acting as an exemplar of best practice to lead a wider transition. Over the next five years, we will continue to show leadership and vision, setting ourselves ambitious targets in the area of sustainable energy and carbon mitigation.

We will aggressively pursue reducing energy consumption in new and refurbished buildings and procuring energy saving equipment and technologies. We will diversify energy supply by investing in renewable energy sources and reinvesting energy cost savings in new sustainability technologies and engagement with building occupants as agents for making our buildings more energy efficient. We are committed to more comprehensive sustainability reporting and will lead the way in measuring and reporting carbon footprint. We aim to deliver on these commitments by promoting the concept of energy efficiency and carbon mitigation at all levels in the organisation from students and academics to administration staff and contractors.

National University of Ireland Galway have set a strategic goal to reduce Primary Energy Consumption by 50% in 2030 and generate onsite Renewable Electricity by 20% on the same date.

We therefore set an ambitious target to install 500kw on Photovoltaics (PV) Panels on campus to generate electricity, to date we have installed 300Kw of panels generating 280kw daily.

The installation of PV Panels and Battery storage will allow us meet the targets set out in the strategic plan and reduce are carbon print in line with Government targets.

BENEFITS

1. Installing PV Panels allow NUI Galway generate electricity from a renewable resource and reduces purchasing of electricity from the network. On-site renewable generation reduces CO2 carbon footprint and helps reduce grid dependency.
2. Installation of Renewable technology allows students and researchers on campus carry out research and development of new systems. Knowledge base sharing with local community groups to see the benefits of the PV installation on their buildings. PV Systems installed are digitally metered and monitored by the Energy team.
3. Solar Energy has the least negative impact on the environment compared to any other energy source. It does not produce greenhouse gases and does not pollute the water. Solar PV can be installed on most of the campus roofs maximising the resource.

BARRIERS

1. Cost of PV installation versus Payback is high, new technology and uptake of panels will reduce the costs in the next number of years.
2. 2. Planning conditions by local authority and government, whilst restrictions are in place the government are currently reviewing this as part of the Climate Action Plan 2019.
3. 3. Technical barriers, upgrade of technology and development of infrastructure allows for the roll out of new systems, invertor technology is developing and fear of installing to early and not getting latest technology.

SDG Accord Reporting 2021 CASE STUDY

View of PV Installation on Arts Sceince Building at NUI Galway



View of PV installation installed on Human Biology Building at NUI Galway Campus



CONCLUSIONS

The Irish Government set out in the Climate Action Plan and subsequently NUI Galway have set the same targets of onsite renewables by 2030.

NUI Galway have set ambitious targets to develop on site renewable technology, Wind turbines are not possible due to site restrictions therefore PV is the number 1 technical solution to achieve the targets. Our experience of installing 300kw PV has been positive fit for NUI Galway. Site selection for a further 200kw has been agreed and we are actively looking at site for a PV Farm close to campus.

The installation has allowed students and researchers benefit from knowledge gaining of a live PV installation's and the parameters required to operate a PV system. Community groups have benefited from site visit and information shared has allowed them procure PV for sports hall and community hall.

It is proposed to design and implement an ambitious programme of active engagement among the entire campus community which focuses on energy reduction in our buildings and utilises the campus as a living lab for sustainability. We will use PV installation in one of our latest upgrades for domestic house to showcase to colleagues the benefits of PV.