Carbon Management Report

November 2022

Engineering Services | Corporate Services

Griffith UNIVERSITY
Queensland, Australia

Executive Summary

The annual Carbon Performance report reflects on our progress in managing the carbon footprint of the University, with a focus on the major sources of operational carbon emissions: electricity, waste and air travel. It notes our targets, outlines our carbon emissions for the year ended 30 June 2022 and compares our performance to the baseline, the previous year and the higher education sector TEFMA benchmarks.

Overall, the total carbon emissions for the 2021/22 year were 52,343.1 tonnes of carbon dioxide equivalent (t $CO_{2\text{-}e}$). 2021/22 emissions were 38% below the 2010/11 baseline and 2.3% lower than the prior year. As expected with the lifting of pandemic border restrictions mid-year, there was a threefold increase in airline travel compared to the previous year but this remained only 14% of the 2010/11 baseline. Electricity emissions reduced by 8.5% from 2019/20 levels, due to a combination of a reduction in the market carbon emissions factor as renewable sources increase and a small reduction in electricity consumption.

Performance of scope 1, 2, and 3 emissions for 2021/22 can be summarised as follows:

- Scope 1 emissions relate to the direct consumption of fossil fuels. Scope 1 accounts for 12.1% of the total carbon emissions for the year. 2021/22 scope 1 emissions were 1,104 tonnes of $CO_{2\text{-}e}$, very similar to 2020/21 and a 48% decrease on 2010/11.
- Scope 2 emissions are the emissions associated with the consumption of electricity generated off campus. These account for 75% of the total Carbon footprint for the year. 2021/22 scope 2 emissions were 39,042 tonnes of $CO_{2\text{-}e}$, 8% decrease on 2020/21and 26% below 2010/11 levels. Contributions to the reduction in Scope 2 emissions included:
    - ongoing reduction in campus activity due to reduced student load, working from home and building closures
    - Decommissioning old chiller plant including replacement of Nathan's Central Chiller Plant (N45) with the Chiller Plant West (N80) and removing the G38 chiller plant (providing chilled water from existing plant at G22)
    - Building tuning and controls improvements including upgrading Queensland conservatorium controls and improving mould reduction programmes
    - Reduction in the market-based grid emissions factor applied to our power consumption
- Scope 3 emissions, the emissions as a direct consequence of the University's goods or services e.g. waste, paper, flights and distribution losses from the electricity counted under Scope 2. These form the remaining 23% of our emissions with total 2021/22 emissions being 12,207.4 tonnes $CO_{2\text{-}e}$, a 23% increase on 2020/21 and a 60% decrease on 2010/11. The main increases were flights, tenant electricity emissions and IT equipment related emissions.

Since 2010/11 the University has successfully mitigated the additional emissions that come with student load, staff and campus expansion. The 2021/22 emissions levels show a 38% reduction on the baseline continuing to reflect these efforts and the reduction in activities due to the pandemic to some extent.

The final section of the report focuses on actions to reduce our emissions and sets out our pathway to achieve the current strategic goal of halving 2010 net emissions by 2030 and net zero emissions by 2050, noting that acceleration of these targets toward net zero by 2029 is being actively considered by the Net Zero Emissions sprint team 2.0.

Introduction

In 2012 the University developed its first Carbon Management Plan, as part of its broader commitment to sustainability. This plan was updated in 2016 to align with the University's objectives and targets with the government's revised commitment to reduce carbon pollution. The strategic plan 2020- 25 aligned Griffith with the 2019 Intergovernmental Panel on Climate Change recommendations to halve carbon emissions from 2010 levels by 2030 and reducing them to zero by 2050. Acceleration of this target to reflect current research findings is under review.

This report provides an update of our progress on reducing emissions and compares our overall emissions with the higher education sector.

Our carbon footprint

The boundary for the Griffith carbon footprint was set in 2008/9 based on the Greenhouse Gas (GHG) methodology and we continue to report on that basis. Our carbon calculations and submissions for both the statutory National Greenhouse Emissions Reporting Scheme and our GHG reporting are prepared by Pangolin Associates. This allows us to compare performance over the long term.

Table 1: Griffith Carbon Footprint - Emissions t $CO_{2\text{-}e}$ from Baseline 2010/11 to present

Year	Scope 1	Scope 2	Scope 3	Total
2021/22	1,104.3	39,031.5	12,207.4	52,343.1
2020/21	1,008.3	42,629.8	9,896.3	53,534.5
2019/20	1,592.5	48,499.1	23,214.6	73,306.2
2018/19	2,627.8	52,775.1	31,148.9	86,551.8
2017/18	2,588.9	53,880.1	24,585.2	81,054.2
2016/17	1,739.8	55,624	29,020.9	86,384.7
2015/16	2,274.7	55,440.4	31,835.4	89,550.5
2014/15	1,813.4	53,840.2	32,318.2	87,971.8
2013/14	2,124.8	52,604.7	36,459.6	91,189.1
2012/13	2,637.1	52,281.1	35,912.2	90,830.4
2011/12	2,115.7	55,431.1	31,456.9	89,003.6
2010/11	2,114.6	52,694.3	30,535.5	85,344.4

Categories of carbon emissions

Scope 1
Emissions on our campuses, or associated with the University's business, generated through the combustion of fossil fuels in University owned vehicles, natural gas and LPG use as well as synthetic gases e.g. refrigerant gas leakage.

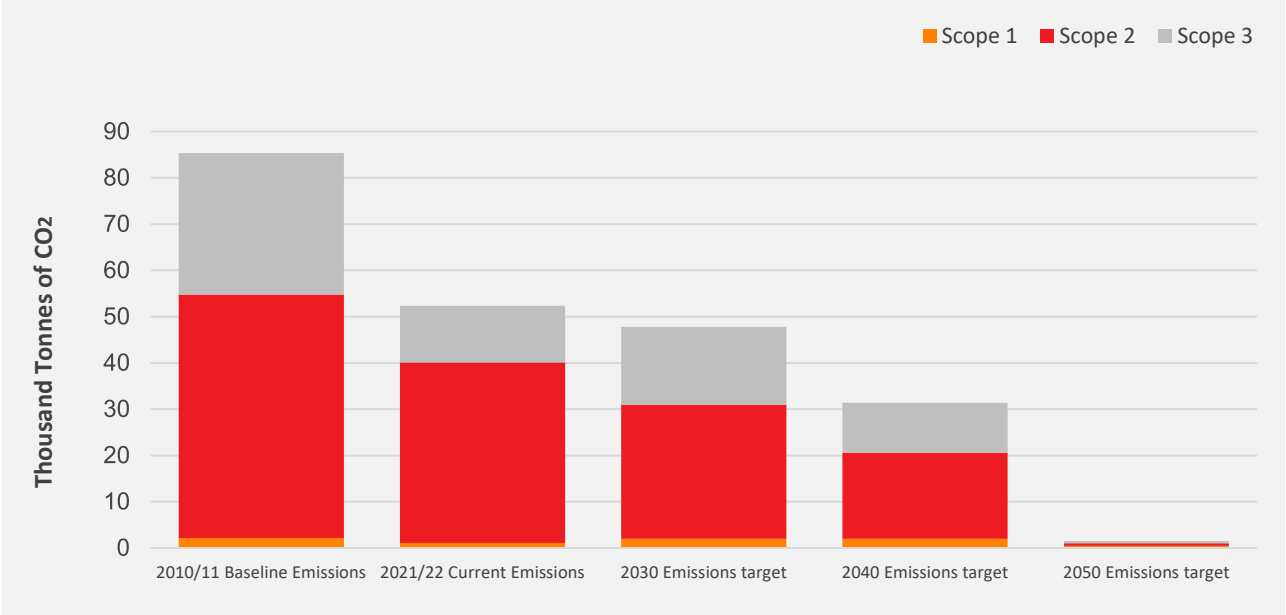
Scope 2
Emissions associated with the use of electricity imported from the grid or from a third-party supplier of energy in the form of heat or electricity.

Scope 3
Emissions as a direct consequence of the use of goods or services provided to the University to enable it to conduct its business. Sources include waste disposal, cleaning services, food and beverage services, IT and other equipment, paper and flights transmission and distribution losses from electricity. This is a partial consideration of scope 3, omitting for example working from home and employee commuting emissions. Inclusion of all categories is being considered.

Our carbon emissions target

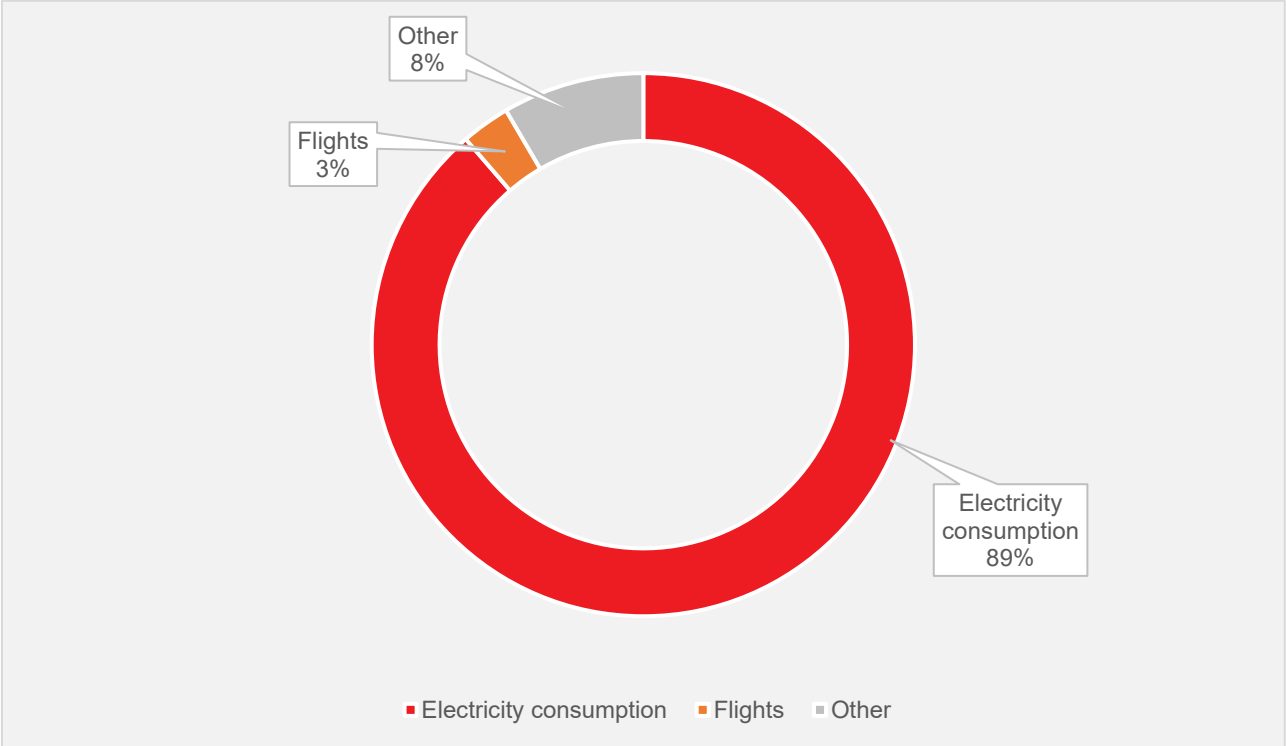
The University Strategy 2020 – 2025 “Creating a future for all” commits to developing an action plan to align Griffith with the recommendations of the Intergovernmental Panel on Climate Change by halving carbon emissions by 2030 from 2010 levels and reducing them to net zero by 2050. The Net Zero Carbon Emissions Report outlines the plan and was endorsed by Council in December 2019.

Comparison of 2010/11 baseline emissions, current emissions and targets to meet the IPCC targets



For the 2021/22 year, the carbon emissions breakdown by source is as follows

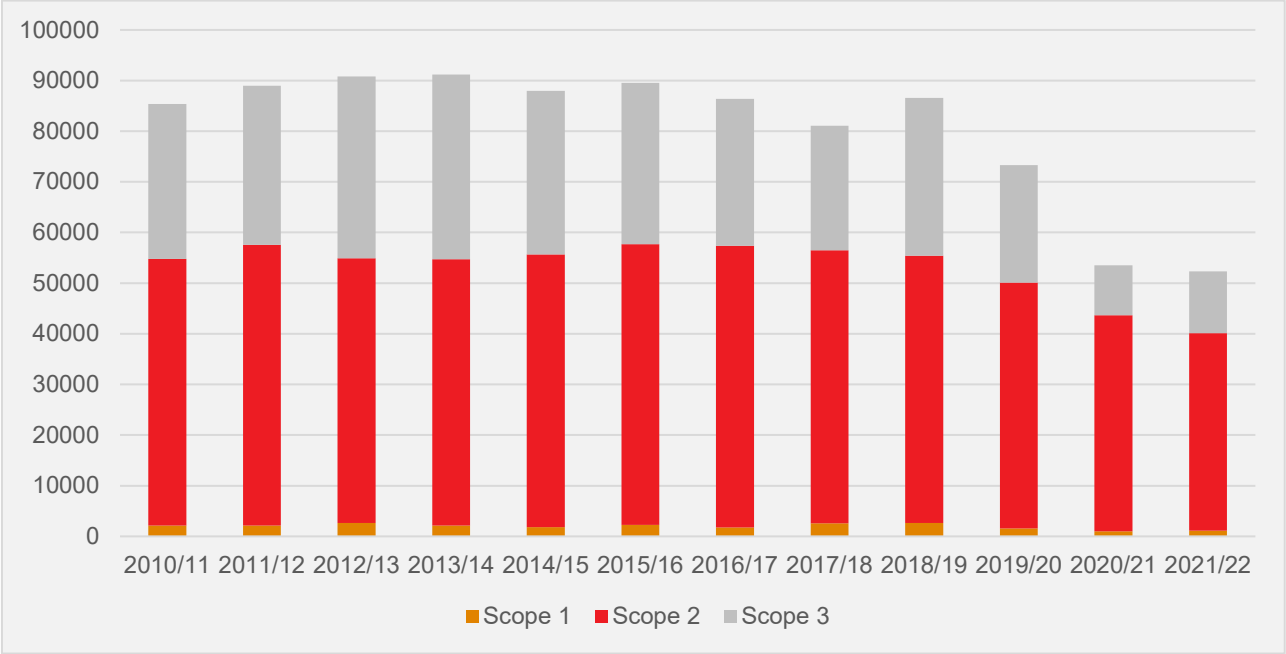
2021/22 carbon emissions breakdown



The above breakdown remains distorted by the low proportion of aviation related emissions resulting from pandemic restrictions. Flight emissions will increase next year reducing the proportion of electricity related emissions.

This report illustrates how Griffith compares against the sector on a scope 1 and 2 emissions, and electricity consumption basis; reviews scope 1, 2 and 3 emissions and projects to reduce each, and forecasts our 2030 emissions based on implementing further initiatives.

Scope 1, 2 and 3 emissions by year



2021/22 progress

Overall, the total carbon emissions for the 2021/22 year are 38.7% below the 2010/11 baseline.

Comparing against the 2010/11 baseline:

- Scope 1 'direct emissions' are 48% lower due to reduced fuel consumption for vehicles and reduced replacement of refrigerant in aged chiller plant.
- Scope 2 'electricity (indirect) emissions' are 26% lower due to the progress with on-going energy efficiency projects and the reduced campus activity across all campuses.
- Scope 3 'other indirect emissions' are 60% lower with reduced flights, paper, waste, cleaning and food related emissions.

Comparing against the previous year (2020/21):

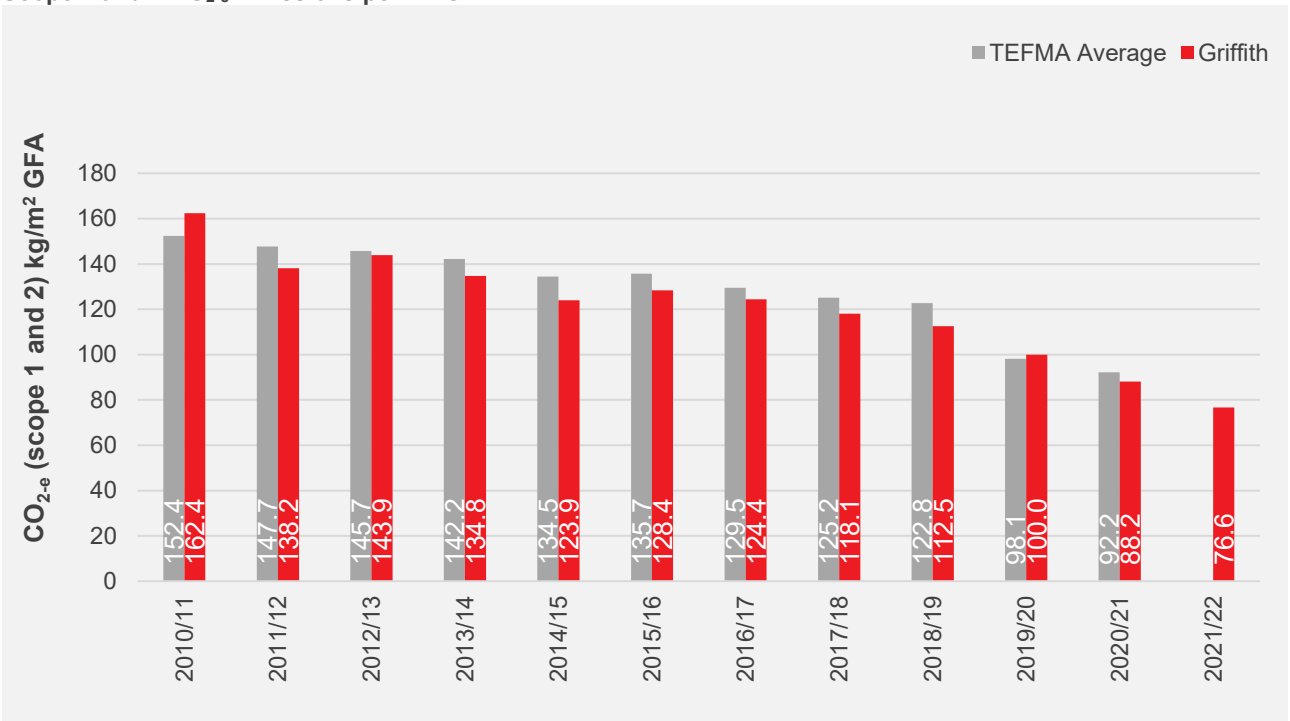
- Scope 1 'direct emissions' are1% higher than the previous year.
- Scope 2 'electricity (indirect) emissions' are 8% lower. The main contributions have been the chiller replacements and ongoing work in energy efficiency, particularly around lower occupancy spaces.
- Scope 3 'other indirect emissions' are 23% higher. The main increases were flights, tenant electricity emissions and IT equipment related emissions. Flight activity has begun to resume after the lifting of pandemic border restrictions but remains substantially below pre- Covid levels.

TEFMA benchmark data

The TEFMA Benchmark data provides the Higher Education sector with information for comparing an institution's performance against the sector on a range of metrics. The sector average for Scope 1 and 2 Green House Gas emissions per square metre of gross floor area continues to decline as the sector continues to invest in new buildings built to modern energy efficiency standards, solar power generation and other renewable sources of energy. The University performance mirrors that trend.

TEFMA does not provide benchmark data on scope 3 emissions.

Scope 1 and 2 CO_{2-e} Emissions per m^2 GFA



Note: [1]TEFMA excludes residences GFA. [2] 2022 TEFMA average value not yet available. [3]Comparison relates to campus net consumption only.

Scope 1 emissions

Scope 1 emissions were 2.1 % of our total emissions for 2021/22. These include:

- Natural gas consumption for boilers, hot water heating and cooking
- Transport fuels i.e. fuel for fleet cars and other university vehicles
- Stationary fuels - for fixed equipment e.g. generators
- Synthetic gases e.g. refrigerant for cold rooms, air conditioning units, chillers

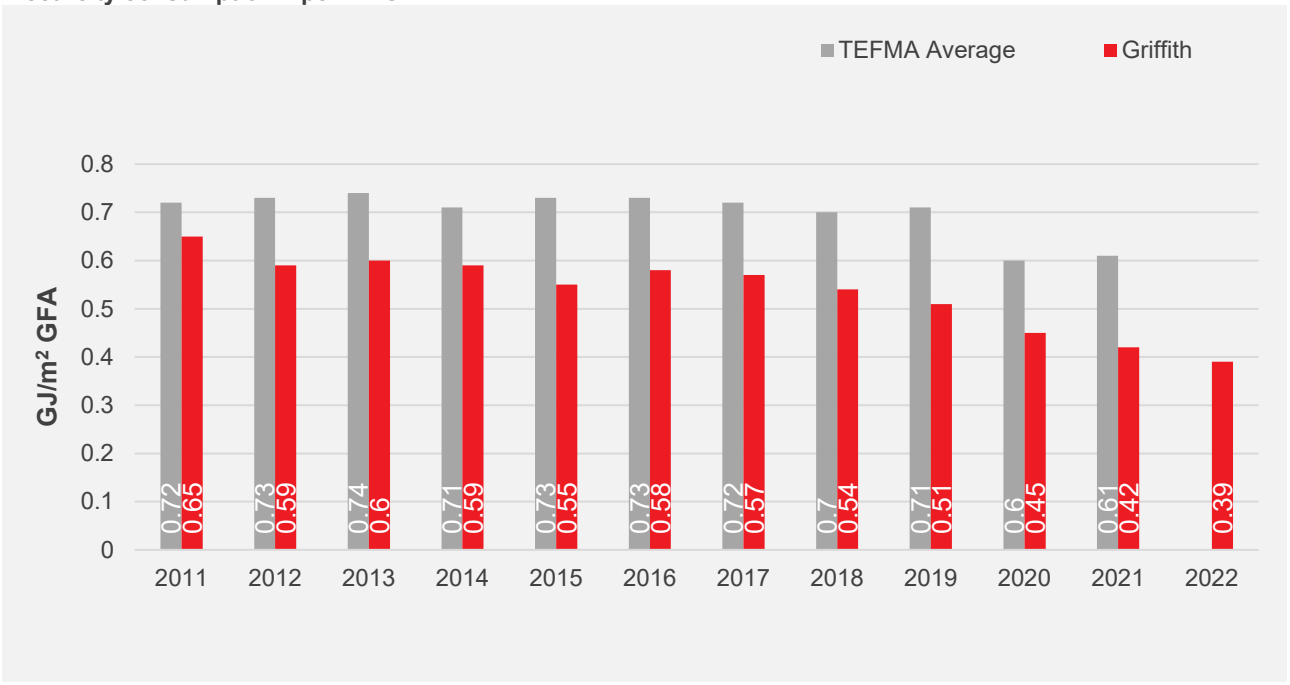
Savings are being made progressively as the car fleet shifts from petrol to hybrid and electric vehicles to reach 50% hybrid 50% battery electric vehicles by 2025. Refrigerant gases are another opportunity for reductions, as we replace aged chillers which are prone to leaks. This year sees the decommissioning of all chillers running on R123. This hydrochlorofluorocarbon (HCFC) known as freon was introduced to replace R11, but whilst it has a very low ozone depleting potential, its chlorine content results in a relatively high global warming potential.

Scope 2 emissions - Our energy footprint

The largest part of our carbon footprint is the Scope 2 indirect emissions associated with the generation of electricity consumed on campus. To meet our carbon target, we will need to focus on reducing our electricity consumption and sourcing a higher proportion of renewable power.

The University's electricity consumption per m^2 GFA is lower than the sector average as shown in the graph below for the years to 2020. Continued reductions are expected as a result of low activity on campus due to the pandemic impacts across the sector and sector investments in energy efficiency, green power and renewable generation (both on and off site).

Electricity consumption – per m² GFA

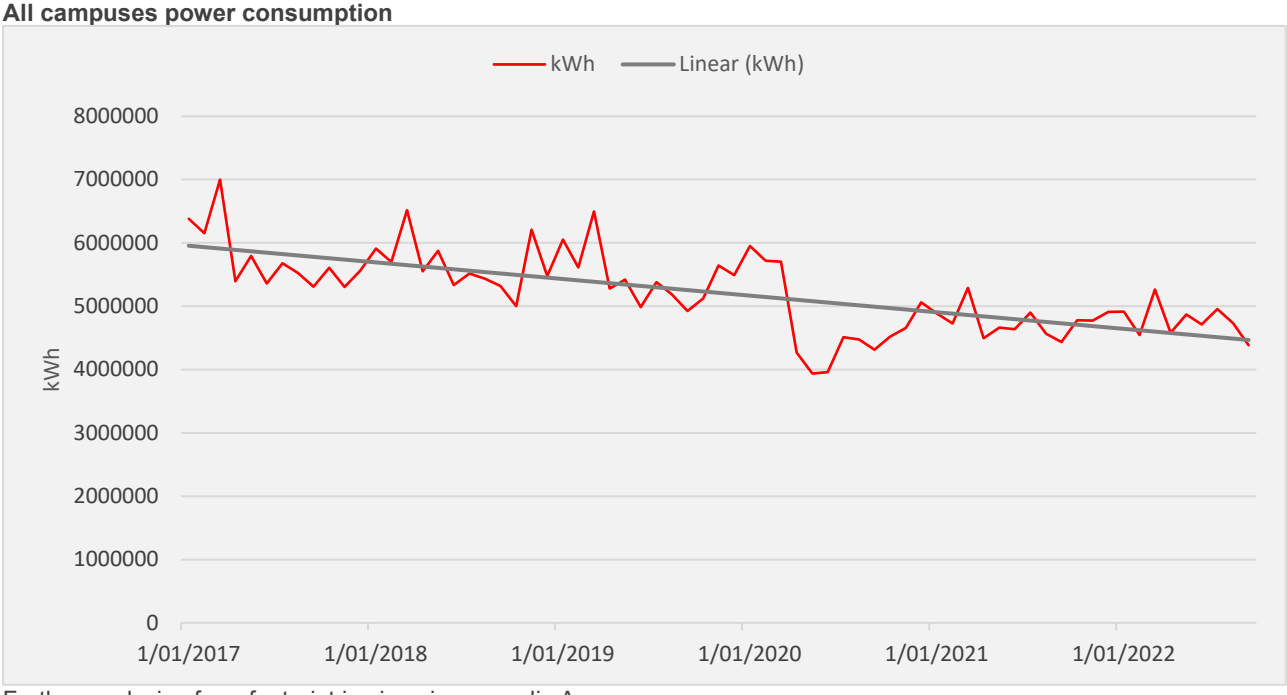


Note: [1]TEFMA excludes residences GFA. [2]2022 TEFMA average value not yet available.

Since the baseline year, our scope 2 off site electricity emissions were calculated using the location based method. This uses a factor for conversion from kwh consumed to carbon emissions based on the consumer's location, by state, which is published each year by the Clean Energy Regulator (CER) reflecting the changing mix of electricity generation assets. Last year, we moved to reporting on the market based method. This option is now included in the Greenhouse Gas Protocol methodology and offers us a simple way to account for the reduced carbon associated with our commitment to the off-site renewable generation from the Columboola Solar Farm. The difference in the electricity emissions for this year is approximately 8.75% better than if calculated on the location based method, reflecting the difference between the location based NGER factor of 0.80 vs the Market based methodology of 0.73. This difference is 7.2% of the total carbon emissions.

As electricity consumption remains the greatest part of our carbon footprint, the Engineering team have analysed the detailed consumption across all campuses to confirm a decline in power consumption over the last 5 years.

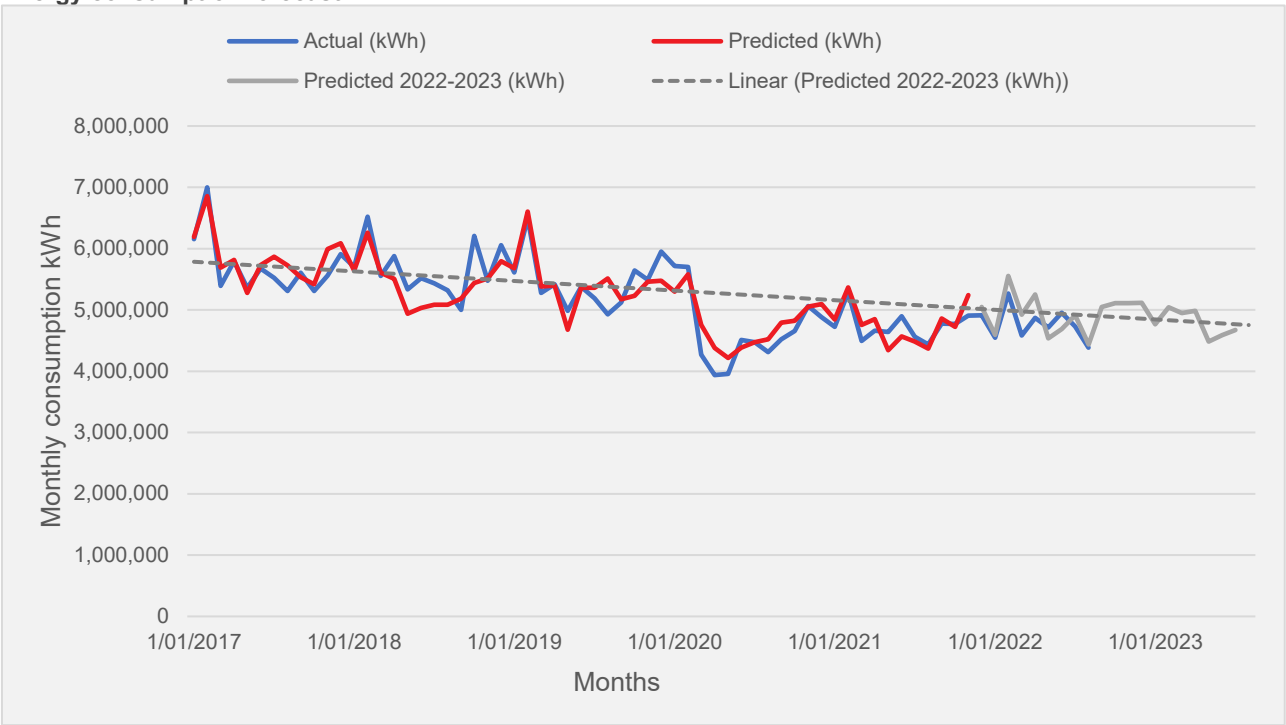
All campuses power consumption



Further analysis of our footprint is given in appendix A

By utilising 2017-2022 consumption data, Engineering has built a statistical model based on occupancy, the weather and gross floor area (GFA) to help predict energy consumption moving forward. The model was utilised to forecast the energy consumption for the upcoming financial year which is depicted in the graph below.

Energy consumption forecast



This suggests that the University's overall energy consumption will continue to decline compared to previous years assuming weather and occupancy remain similar. With the planned installation of roof top solar, overall energy consumption and carbon footprint will decrease further.

Energy efficiency projects

Over the 2021/22 period, the following projects were completed:

- The new Chiller Plant (N80) that replaced the Chiller Plant (N45) serving the main part of the Nathan Campus. N80 Chiller Plant commissioning completed in January 2022.
- The decommissioning of S07 Chiller Plant and interconnection of S07 chilled water system to adjacent S02 Chiller Plant. Project completion date is March 2021.
- The interconnection of The Link building (G07) chilled water system to Chiller Plant (G22) after G38 Chiller Plant decommissioning. The project completed in August 2021.
- S01 Building Management System (BMS) upgrade with the installation of latest technology controllers and implementation of new controls methodology to increase plant efficiency and reduce mould. This project is an ongoing project.

These projects are described in more detail on the following pages. Projects in progress and planned for future years are described in the final part of this report.

New chiller plant west (N80)

The N80 Chiller Plant commissioned in January 2022 replaces the N45 Chiller Plant. The N45 Chiller Plant reached its end of service life, was becoming unreliable and costly to maintain. Some key benefits of N80 plant are:

- New chillers sized to suit Nathan Campus refrigeration load especially during the colder months. This allows equal operation hours of the chillers and peripheral assets, minimising wear and tear and prolonging their asset lifespan
- Future proofing Nathan Campus air-conditioning consumption for the coming redevelopment projects by allowing space for an additional chiller[1];
- Replacement of N45 Chillers with Hydrofluorocarbon refrigerant with N80 Low Global Warming Potential (GWP) refrigerant (reducing our potential Scope 1 emissions associated with servicing)

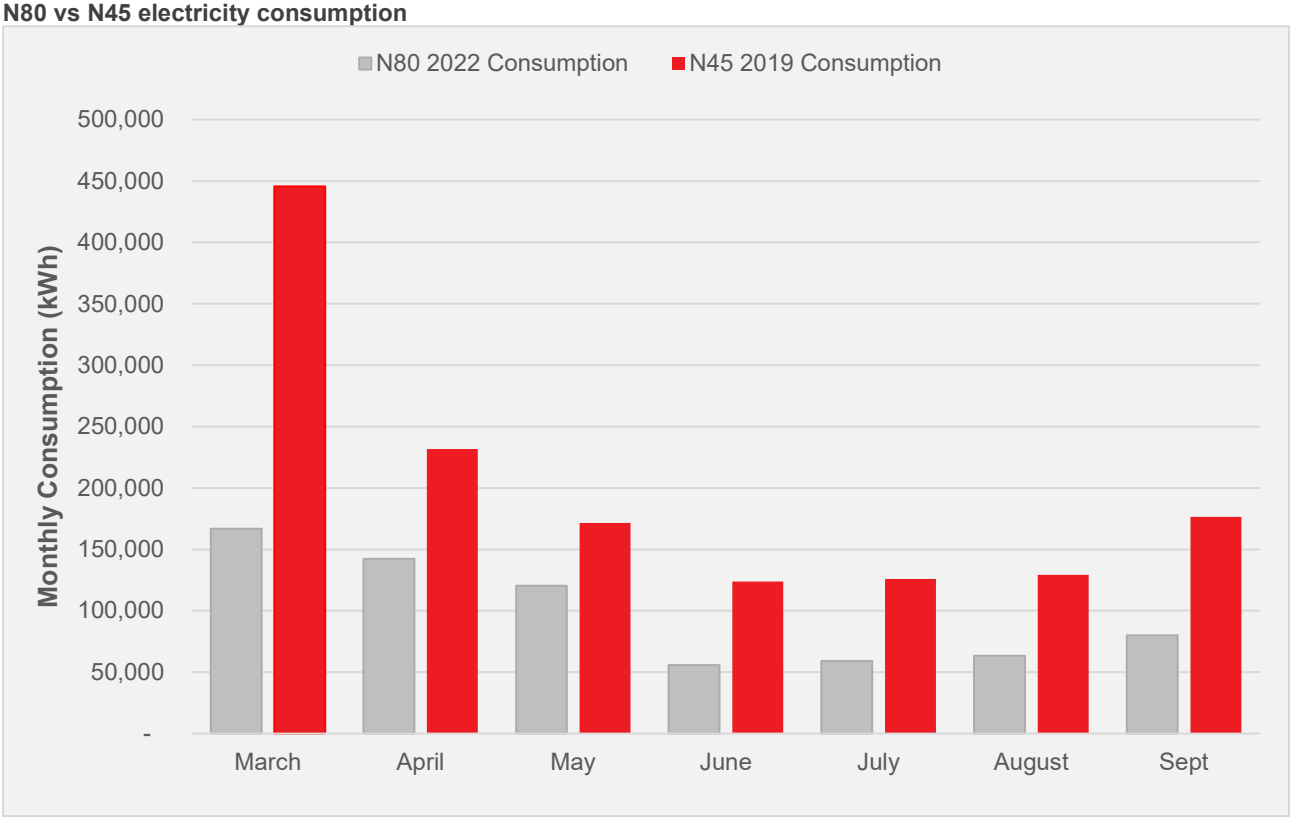
The resultant energy savings shown in Table 2 below and power consumption for 7 months in the following graph. N45 Chiller Plant 2019 power consumption is compared with 2022 N80 power consumption. N45 2019 data was taken as the baseline as it gives a true utilisation rate prior to the COVID pandemic and building shutdowns. A clear difference in energy consumption is noted during the warmer month of March with N80 consuming 63% less energy than N45 plant and for the remaining months consuming 47% less energy on average.

Table 2: N80 - Project Energy Savings and Return on Investment

Power savings (kWh)[2] to date	716,844.09
tCO2-e reduction to date[3]	666.66

1. There is space allocated in N80 for an additional chiller for future N82 Building and Science Research building, which will increase the total plant capacity
2. Power savings calculated from Mar to Sept in 2019 versus 2022.
3. Carbon emissions factors as per published NGERs figures Scope 2 0.80 and Scope 3 0.13

N80 vs N45 electricity consumption



Graduate Centre (S07) chiller decommission and interconnection to the Webb Centre (S02) plant

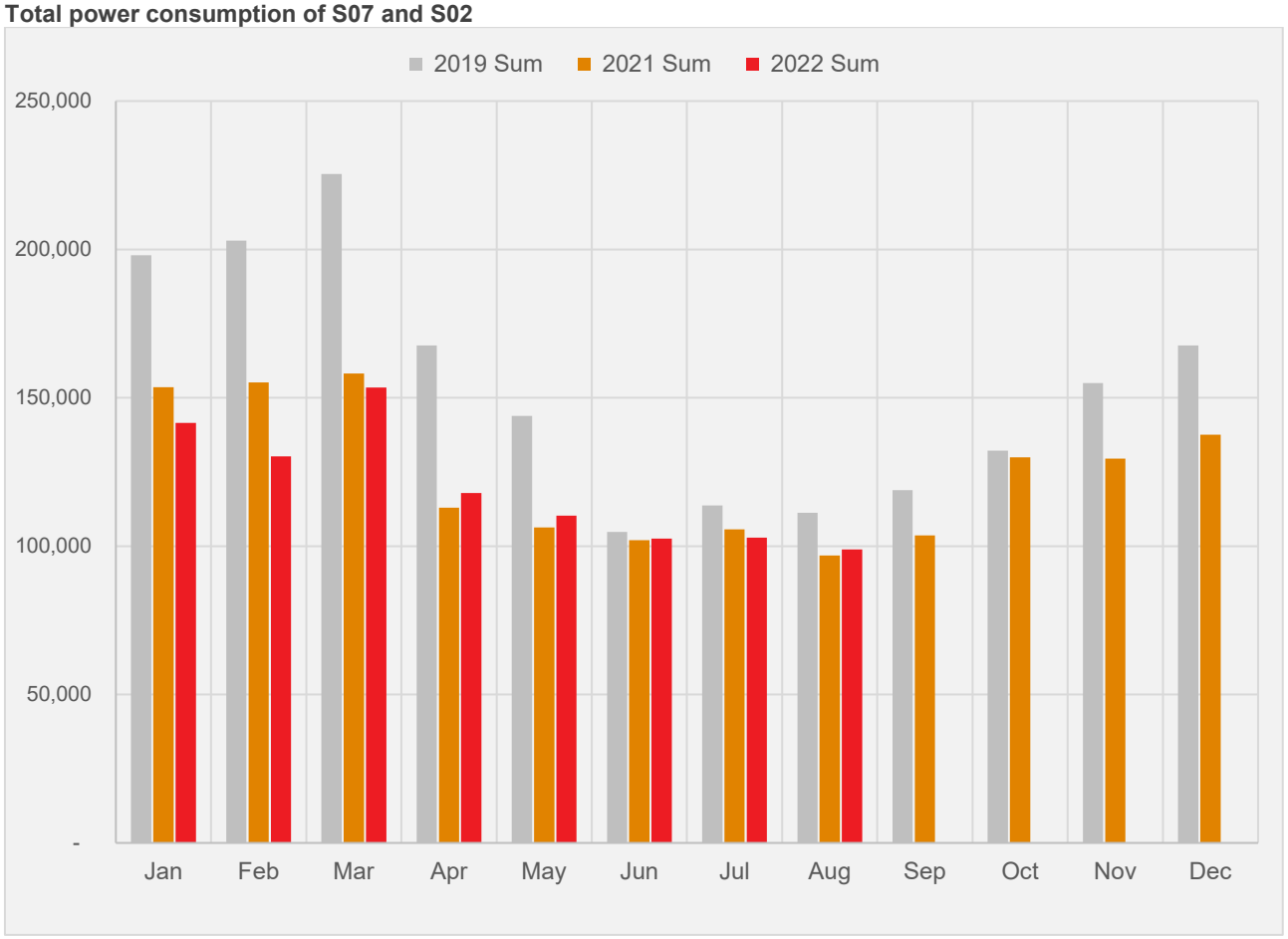
The S07 Chiller Plant produced chilled water for air conditioning systems in Graduate Centre (S07) and Ship Inn (S06). There were several major failures of the S07 Chiller Plant as this plant reached the end of its useful asset life. This plant was demolished, and the chilled water system connected to the adjacent Webb Centre (S02) Chiller Plant. This project completed in March 2021. This allows the S02 plant to run more efficiently as it carries a higher load

The annual power savings are calculated by comparing the total building power consumption of S02 and S07 in March 2018 - February 2019 period against the same period after project completion in March 2021 – February 2022. Refer Table 3 below.

Table 3: S07 interconnection – Project energy savings and return on investment

Total cost of works	$307,209.00
Annual power savings	352,964.20
Annual $tCO_{2\text{-}e}$ reduction	328.26
Project spending per annual $tCO_{2\text{-}e}$ saved	$18,203.30
Annual electrical bill savings	$49,414.99
Return on investment:	6.22

Total power consumption of S07 and S02



G38 chiller decommissioning and interconnection to G22

G38 Chiller Plant supplied chilled water to part of the air conditioning systems to The Link building (G07) and had reached end of life. G38 was decommissioned in August 2021 and G07 chilled water services connected to G22 Chiller Plant via new underground mains. One of the two chillers that make up the G22 plant is at end of life and will be replaced in 2023 as part of the capital management plan, offering a further opportunity to decrease G22 Plant power consumption next year.

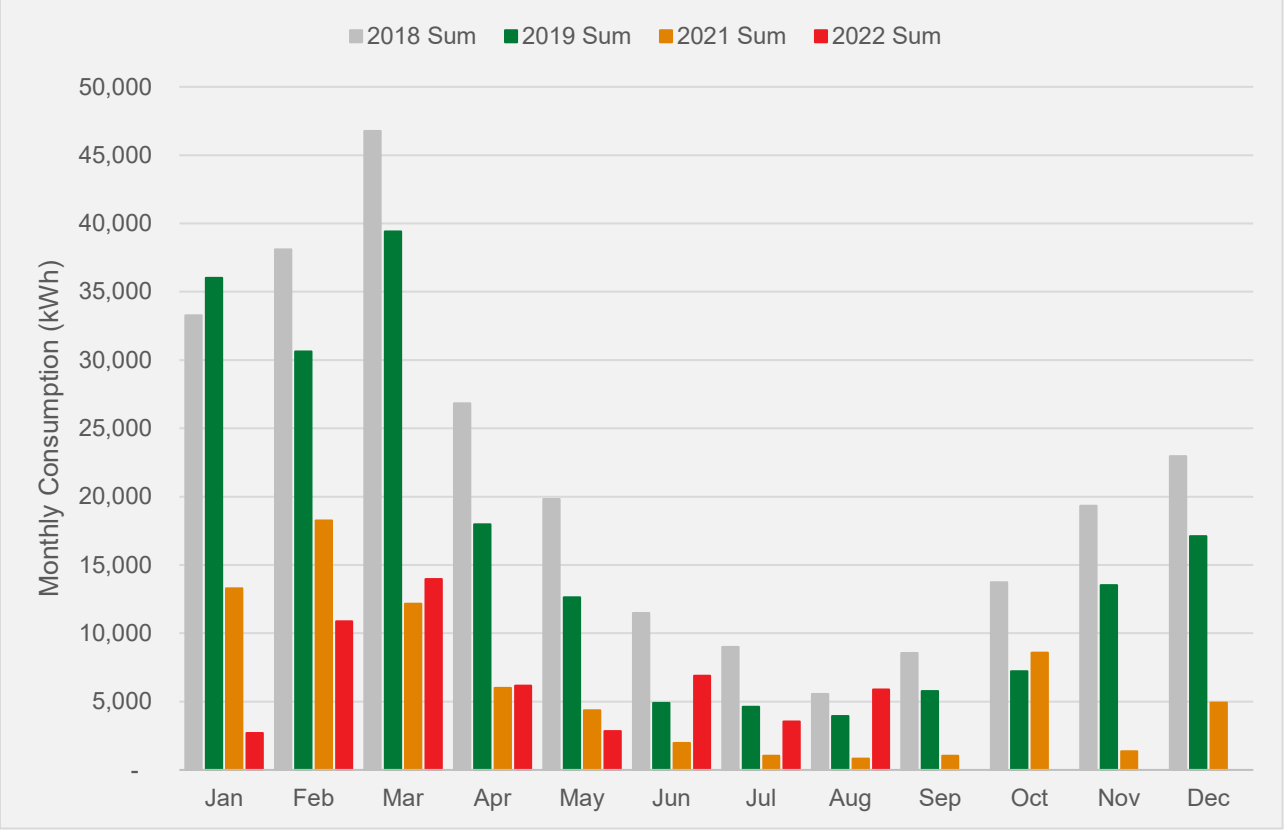
Like the above S02-S07 Project, the annual power savings was calculated by comparing the aggregate building power consumption (G38 plus G22) in August 2018 – July 2019 against the same period after project completion August 2021 – July 2022. The result is approximately 70% less energy consumed. This may be partly due to reduced activity in the Lecture theatres (G03 and G17) also supplied by the same plant.

Table 4 below outlines the energy savings made.

Table 4: G22 Interconnection - Project Energy Savings and Return on Investment

Total cost of works	$336,004.00
Annual power savings	152,604.22
Annual $tCO_{2\text{-}e}$ reduction	141.92
Project spending per annual $tCO_{2\text{-}e}$ saved	$18,203.30
Annual electrical bill savings	$21,364.59
Return on investment:	15.73

Aggregate power consumption of G38 and G22



Queensland Conservatorium (S01) Building Management System upgrade

The Queensland Conservatorium (S01) Building Management System (BMS) controllers were installed in 1995 and Griffith University moved into this building in 1996. The control system was outdated and operating poorly. Key features of the upgrade are:

- Introduction of moisture control by the air conditioning system to reduce mould outbreaks
- Optimise operation of air preconditioning system
- Adding occupancy control to prevent the air conditioning system cooling unoccupied spaces by integration with the room booking system. This had an additional benefit for the main chiller plant as it now turns off overnight when the building is not occupied offering excellent savings
- Update of setpoints to match the university's standard cooling and heating setpoints to reduce energy consumption

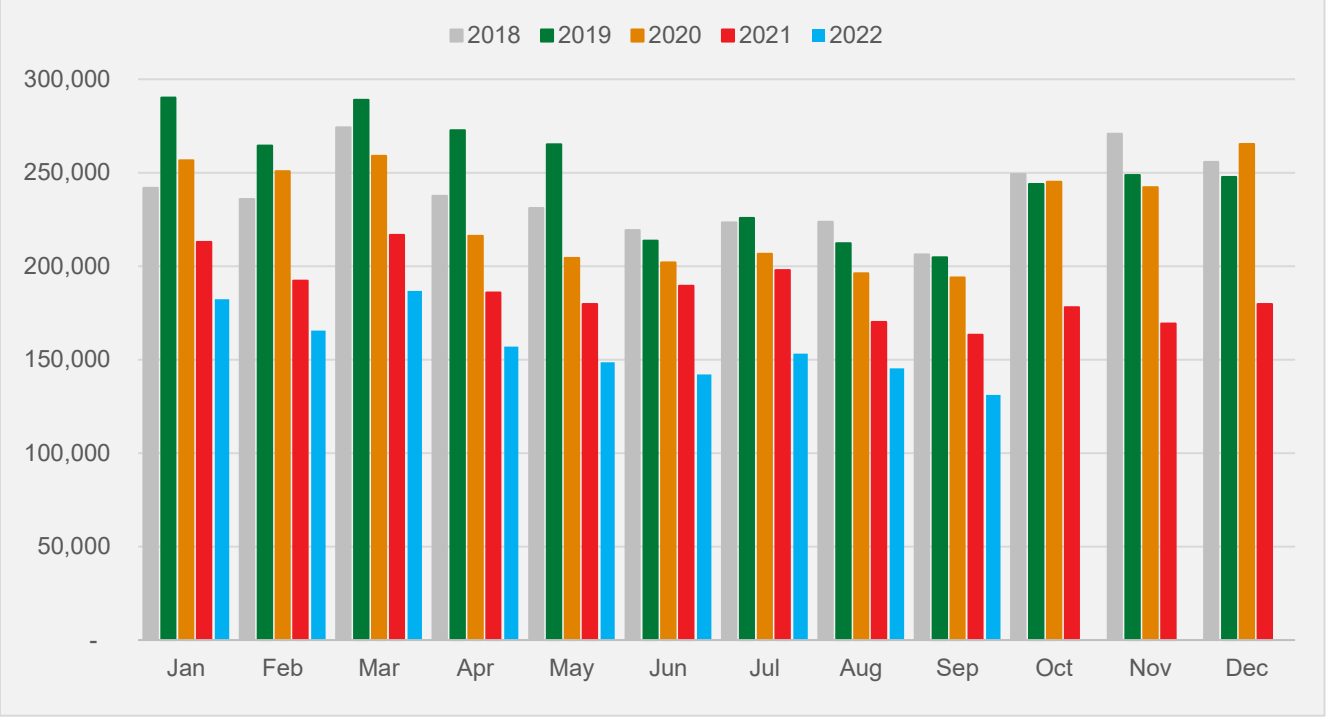
Table 5 below details the savings made from the project.

The S01 Chiller Upgrade project cost is also included into the S01 Controller Upgrade project that was reported in 2021 Carbon Report as the Chiller plant is a major power consumer. S01 annual power savings are compared between October 2021[*2] - September 2022 and October 2018 - September 2019 with net consumption of 3,014,014 kWh and 1,939,196 kWh respectively.

January to March are usually the high demand months for the air conditioning system as the hot humid weather typical for late summer combines with the high campus activity associated with the start of the Academic year (end of Trimester 3 and starting of Trimester 1). During this period, S01 consumed 36% less energy on average (2022 January to March vs 2019 January to March). A reduction in complaints/facilities assist requests and mould cleaning requests has also been noted.

Table 5: S01 BMS Upgrade Project Energy Savings and Return on Investment

Total cost of works	$2,364,936.39[*1]
Annual power savings	1,074,818
Annual $tCO_{2\text{-}e}$ reduction	999.58
Project spending per annual $tCO_{2\text{-}e}$ saved	$18,203.30
Annual electrical bill savings	$150,474.52
Return on investment:	15.72

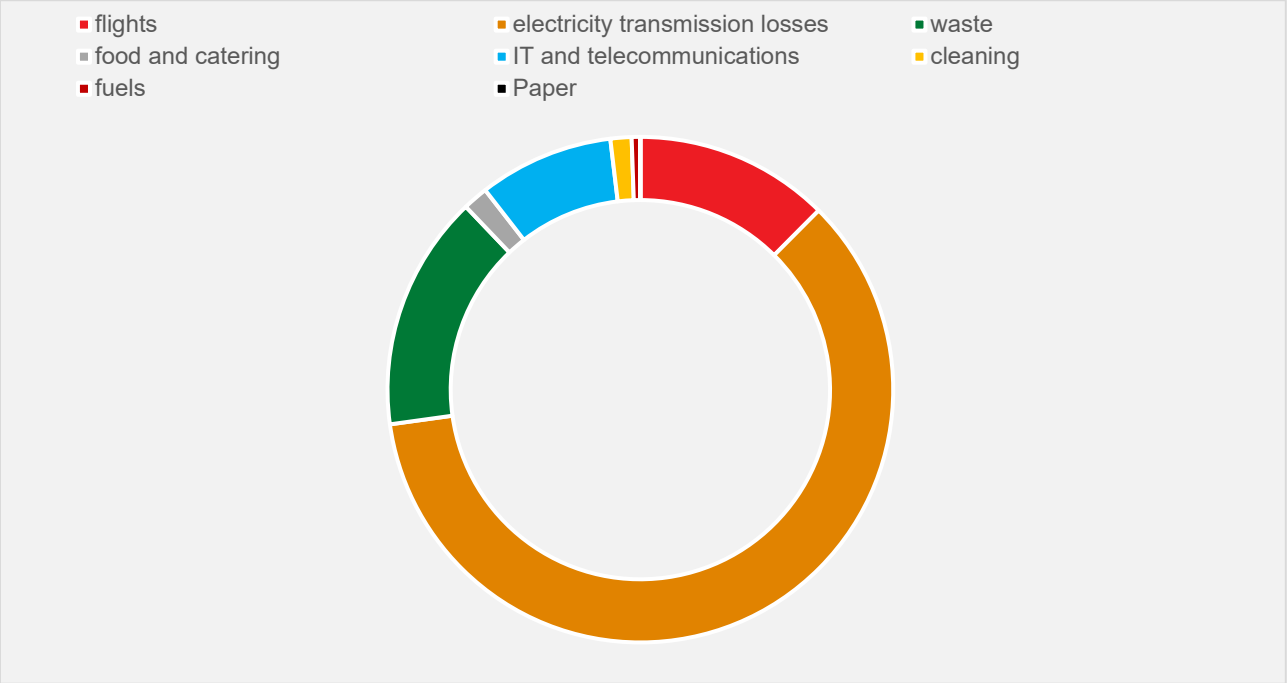


*1 Project costs include the S01 Chiller Upgrade Project that was completed around in Feb 2021 - project budget $1,818,000
*2 On October 2021 was the completion date of first stage of the controller upgrade

Scope 3 emissions

The University has monitored Scope 3 emissions from 2010/11 onwards and reported on progress on managing waste and flight related emissions as they have significant potential for improvement. The breakdown of Scope 3 emissions for 2021/22 is as follows:

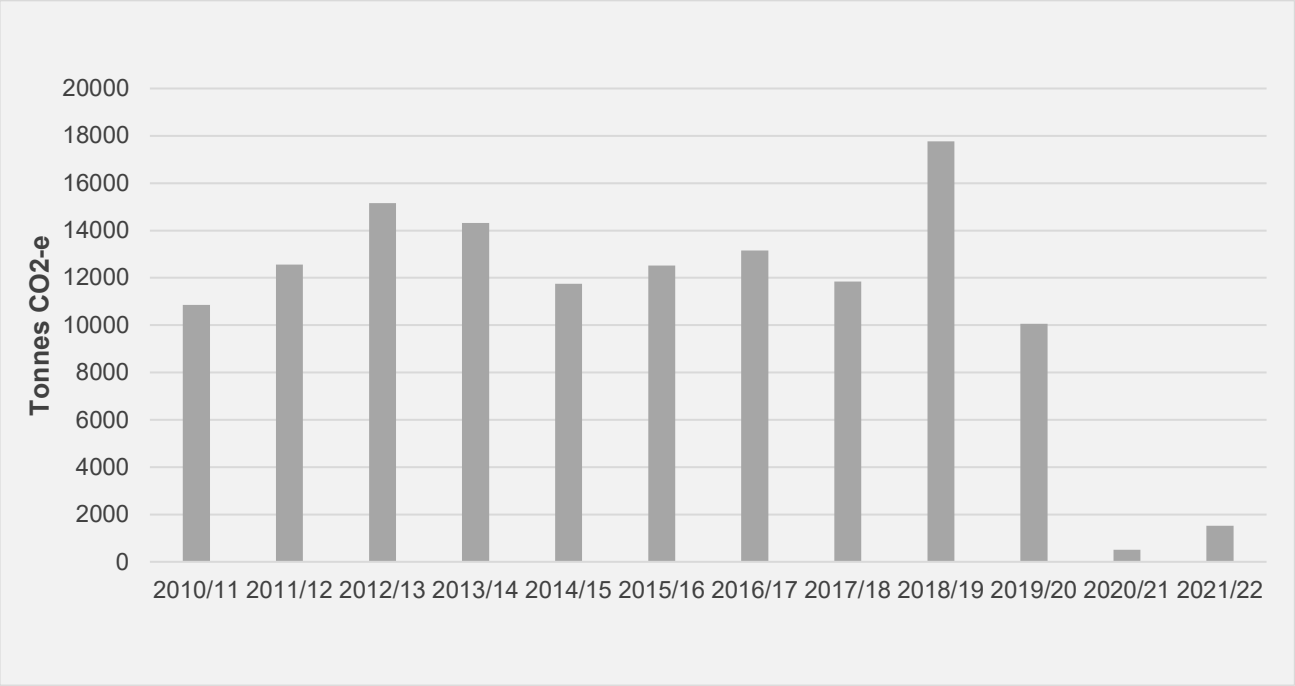
2021/22 Scope 3 emissions



Managing our flights

In the 2021/22 reporting year, our total passenger kilometres were 7,693,192 equating to 1521 $tCO_{2\text{-}e}$. This is a result of international and state border closures due to the pandemic persisting until mid-year.

Carbon emissions from business air travel from baseline year until present

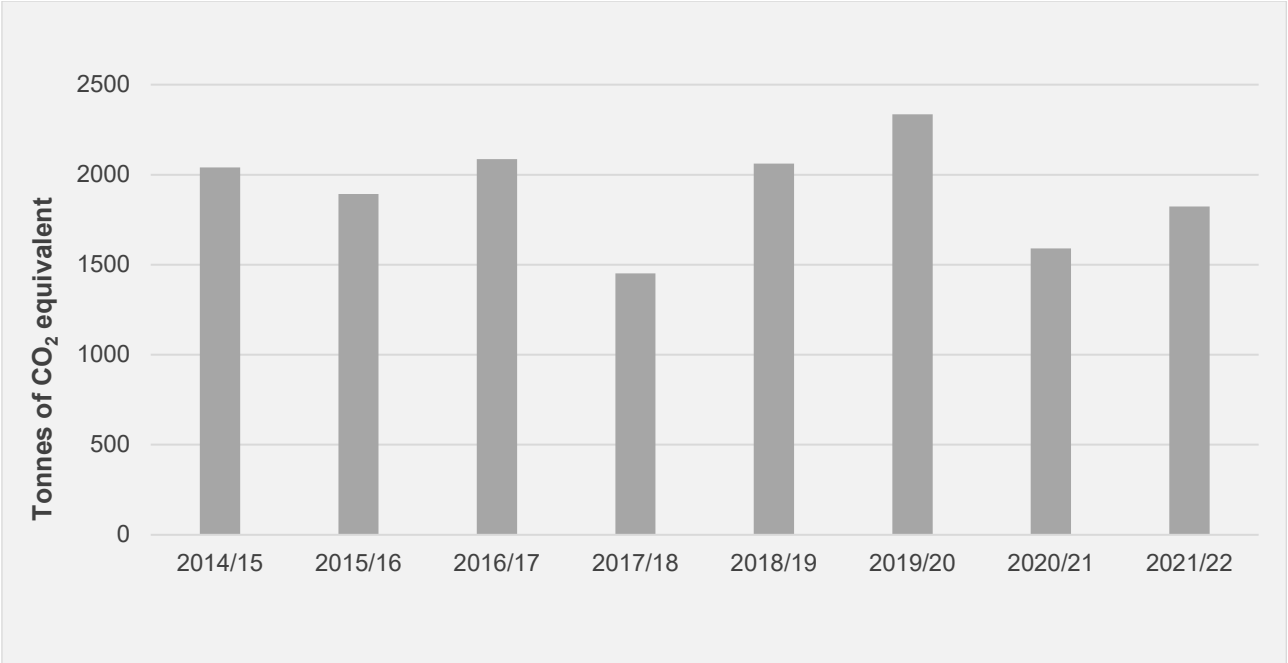


The breakdown of the business air travel data is given in appendix B. Some elements are choosing to purchase offsets to mitigate these emissions including the Griffith MBA programme and the Centre for Quantum Dynamics. The total MBA offset for 2019/20 was 158.3 tonnes with 2.9 tonnes as flights and the CQD offset was 14 tonnes for 2021. A methodology for including

these initiatives into our University level reporting will be developed for next year's report.

Managing our waste

Annual carbon emissions from landfill waste



The increase in 2019/20, was a result of the changed methodology for the new waste contract. The waste was previously weighed but is now based on an average bin weight. The increase in emissions this year over last year is a result of returning to campus. New initiatives for waste handling are being developed for implementation and in the meantime, we continue to actively monitor our waste handling performance.

The TEFMA benchmark data is for landfill and recyclable waste combined. As the data on recyclable waste is considered unreliable, a comparison to TEFMA benchmark data is not presented here.

Pathway to 2030 target

The Net Zero Emissions report written in 2019 outlined the University's approach to meeting the recommendations of the Intergovernmental Panel on Climate Change, for inclusion in the Vice Chancellor's Strategic Plan 2020-2025: Creating a future for all. The report outlined three key strategies for reducing our carbon footprint:

- avoiding emissions
- reducing emissions
- generating and purchasing clean energy

The report set out a pathway to the 2030 target, which includes the following key levers:

- high efficiency chiller replacements for replacements planned for end of life assets including the Nathan central chiller facility (N45)
- Carbon storage and sequestration in forests
- Energy efficiency measures including review of building and server room temperature set points, fitting VSD drives to mechanical equipment where applicable, occupancy sensors etc
- Off site renewables – purchase of 50% renewable power - our new electricity sourcing agreement commenced late 2020. The arrangement includes a 50% renewable portion (together with the associated certificates) from a new solar farm which is now expected to start producing in late 2022.

- On site renewables – investment of $13.8 m in roof top solar generation and other onsite renewable measures.
- Reduction in air travel of 25% on 2010 baseline year by 2030
- Reduction in paper use, waste, behavioural change programme
- Migration to electric car fleet or other low carbon transport options
- Water cooled chiller plant at the Gold Coast Campus.

As the largest contributions to our carbon footprint, the first initiatives focus on reduction in energy consumption and flight related emissions as follows:

Flights

The University community will work together to target a reduction in air travel of 25% on 2010 baseline year by 2030 by looking at initiatives such as investing in digital technology to enable virtual meetings and conferences, to incentivise travel reduction and to review University policy relating to international collaboration. A new role within the Sustainability office has been created to drive these initiatives including consideration of offsets.

Electricity

The scope 2 electricity emissions remain the greatest part of our emissions. Energy reduction projects in progress and planned for next year are as follows:

- Replacement of one chiller at each of G21, G22 and G29 plants. The design documentation was completed in 2022 and the tender documents for the installation have been issued for pricing.
- Replacement of all Chillers at Logan – the design team has been appointed and the works will be tendered and constructed in 2023 (subject to confirmation of lead times)
- On site renewables – Installation of the roof top photovoltaic panels will commence in late 2022 at Logan for completion and energising in 2023 followed by Gold Coast and Nathan campus installations.
- Energy efficiency initiatives – the project will continue into 2023, reviewing temperature set points, installing variable speed drives, occupancy sensors, improving scheduling of air conditioning and other energy efficiency projects. The impacts of the room booking system integration with air conditioning scheduling will be measured throughout the year.

Our forecast electricity consumption to 2030 shown in the graph below includes the following key milestones:

2023 Replacement of all Chillers at Logan

2023 Decommissioning and demolition of Environment 1 (N13)

2023 Roll out of Roof top solar

2024 Opening of Technical Annexe (N81)

2025 T1 open City campus (15- 20,000 m^2; 100% renewable power)

2025 Practical completion of Arrivals Building (N82) (second half of the year)

2025 Nathan Health and Wellbeing centre opens (second half of the year)

2026 Completion of exit from Mount Gravatt (first half of the year)

2027 Opening of ADaPT building at Gold Coast

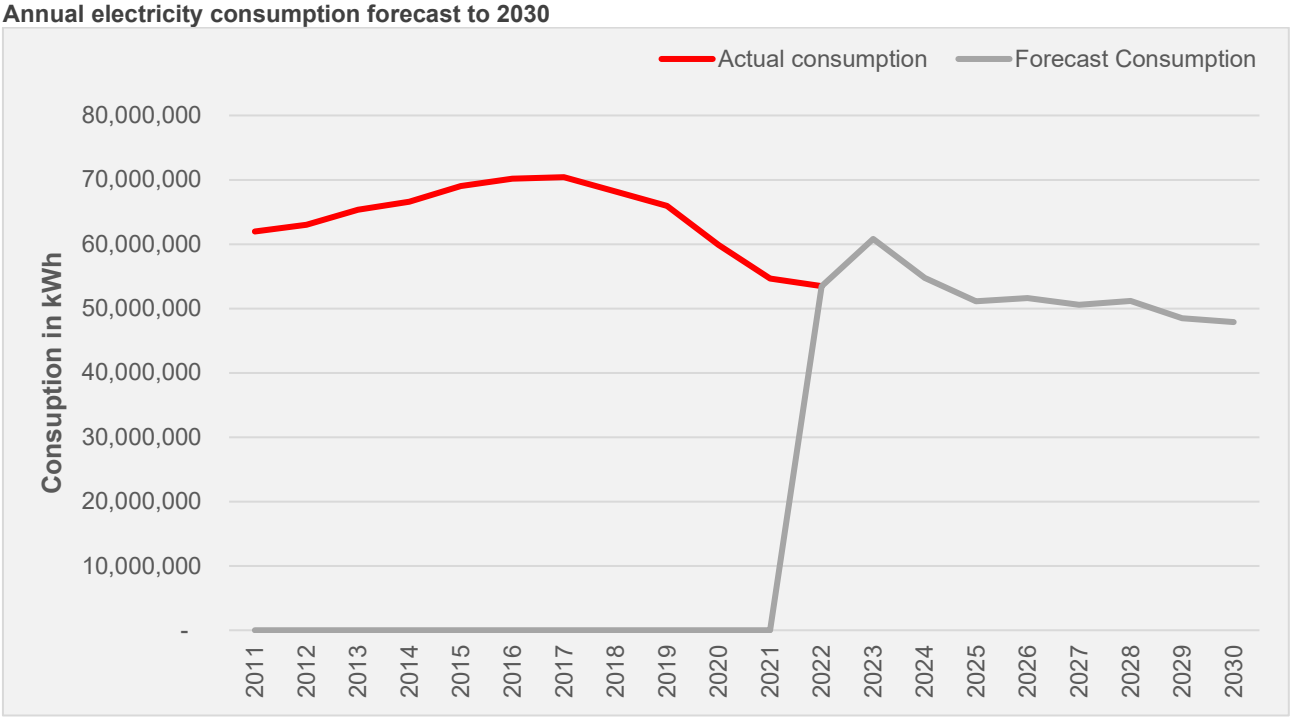
2029 100% renewable power target

2029 Completion of water-cooled chiller plant at the Gold Coast

2029 New Science Research facility opens at Nathan

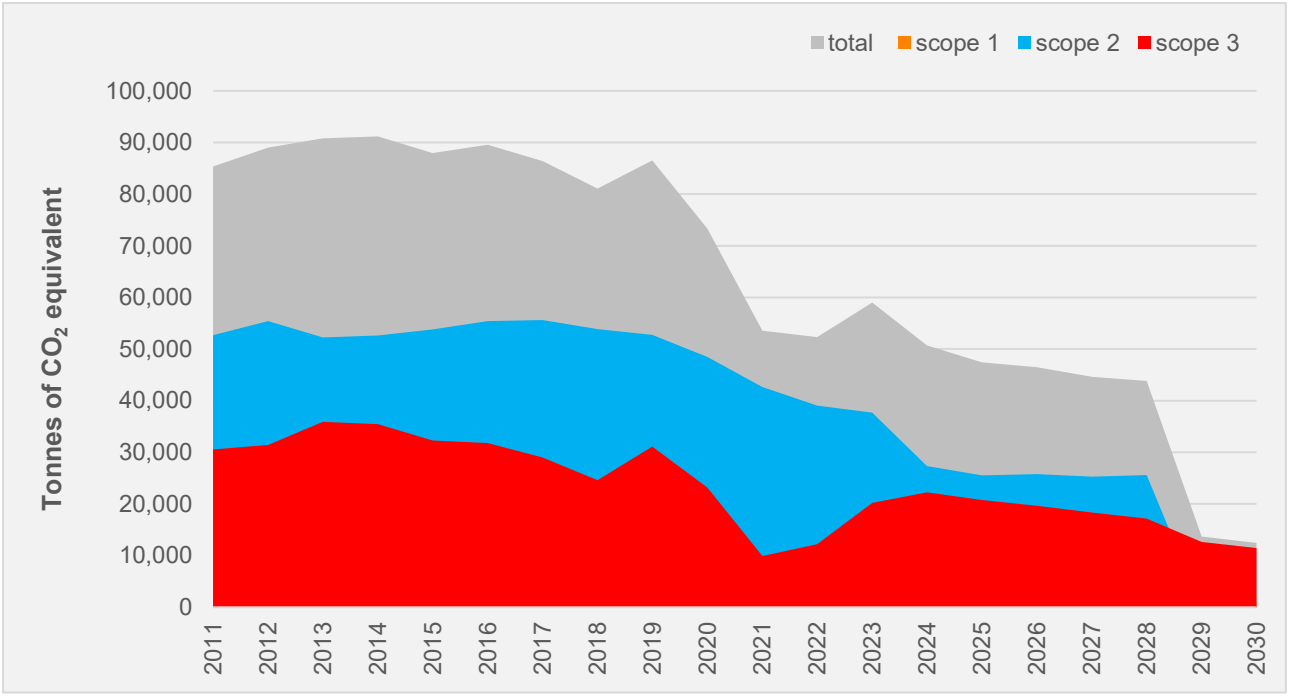
Together with the progressive rollout of replacement chillers across all campuses, energy efficiency projects and rooftop solar (2022 – 2025):

Annual electricity consumption forecast to 2030



The carbon emissions associated with our electricity consumption will include the benefits of the 50% renewable energy from late 2022. Our forecast emissions are as follows:

Annual carbon emissions to 2030

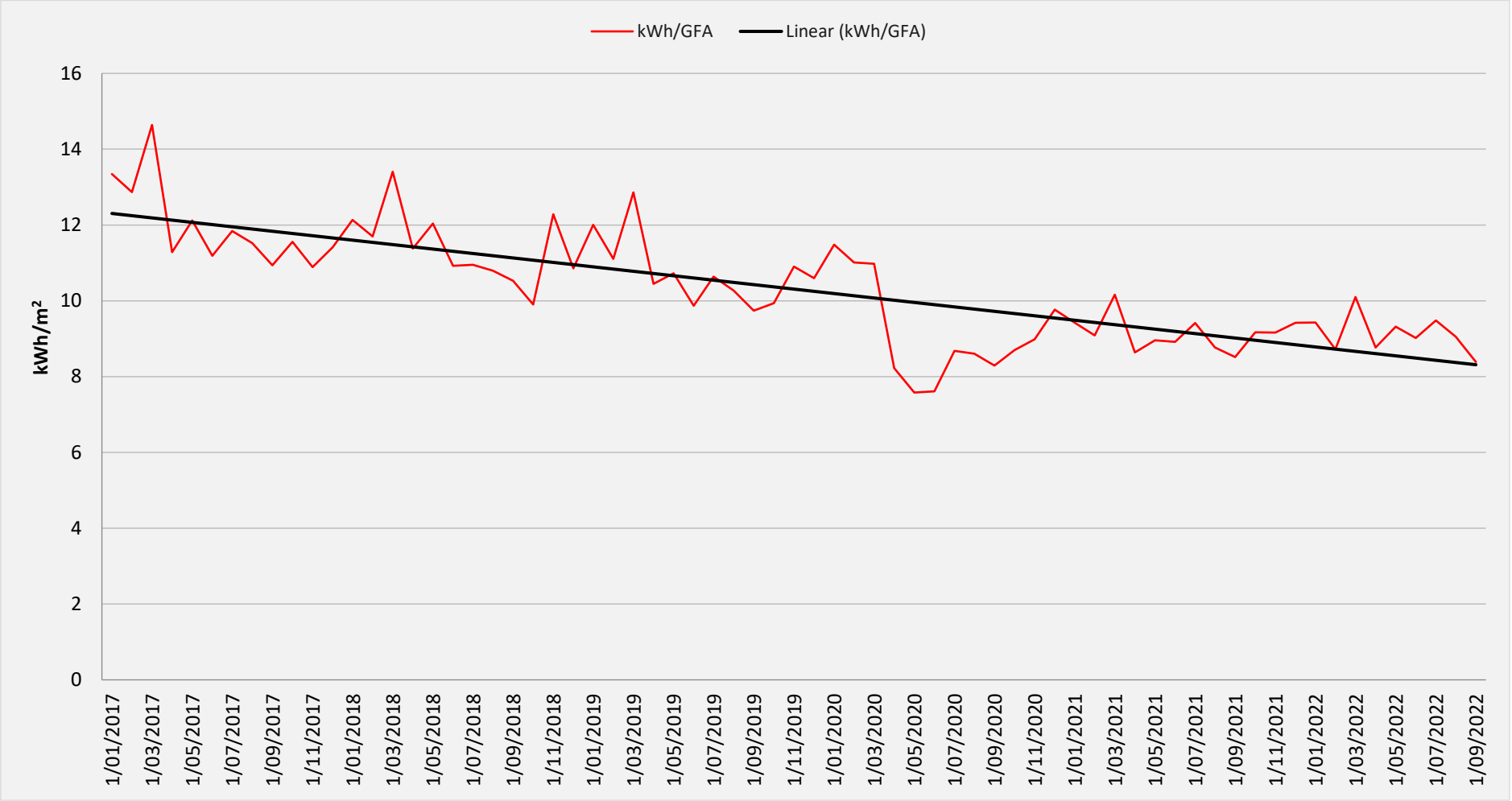


The forecast for electricity consumption and emissions for 2022/23 are based on:

- activity levels on campus similar to 2018/19
- 50% renewable portion from the electricity sourcing agreement (from December 2022).
- Flights are estimated at 12,000 $tCO_{2\text{-}e}$ (15% above the 2010 baseline). Whilst the first quarter activity remains relatively low, international travel is becoming more frequent and it is likely that pre -pandemic levels will resume in the next few months.

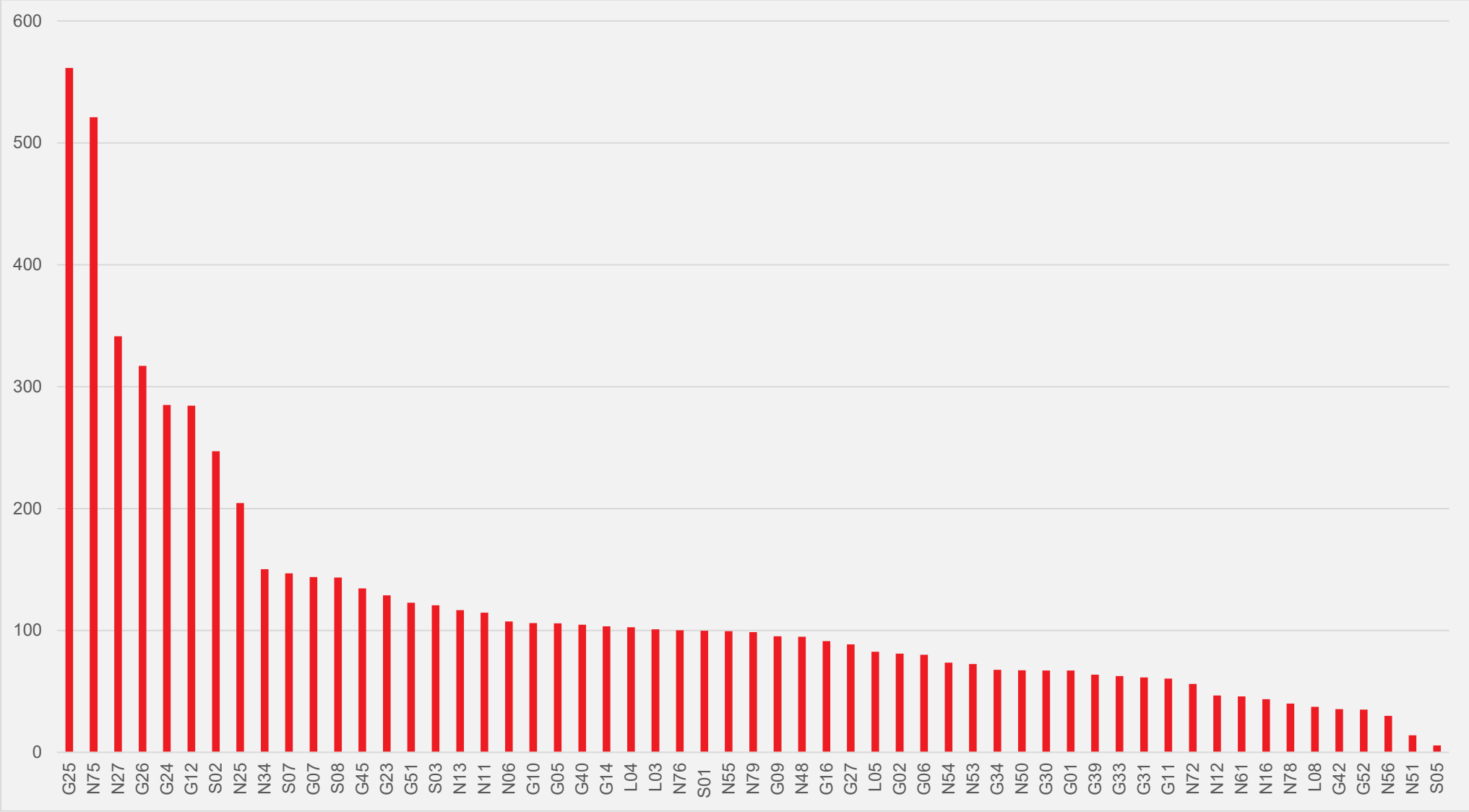
Appendix A: Power

The graph below shows the decline of monthly energy consumption per m^2 GFA across all campuses.



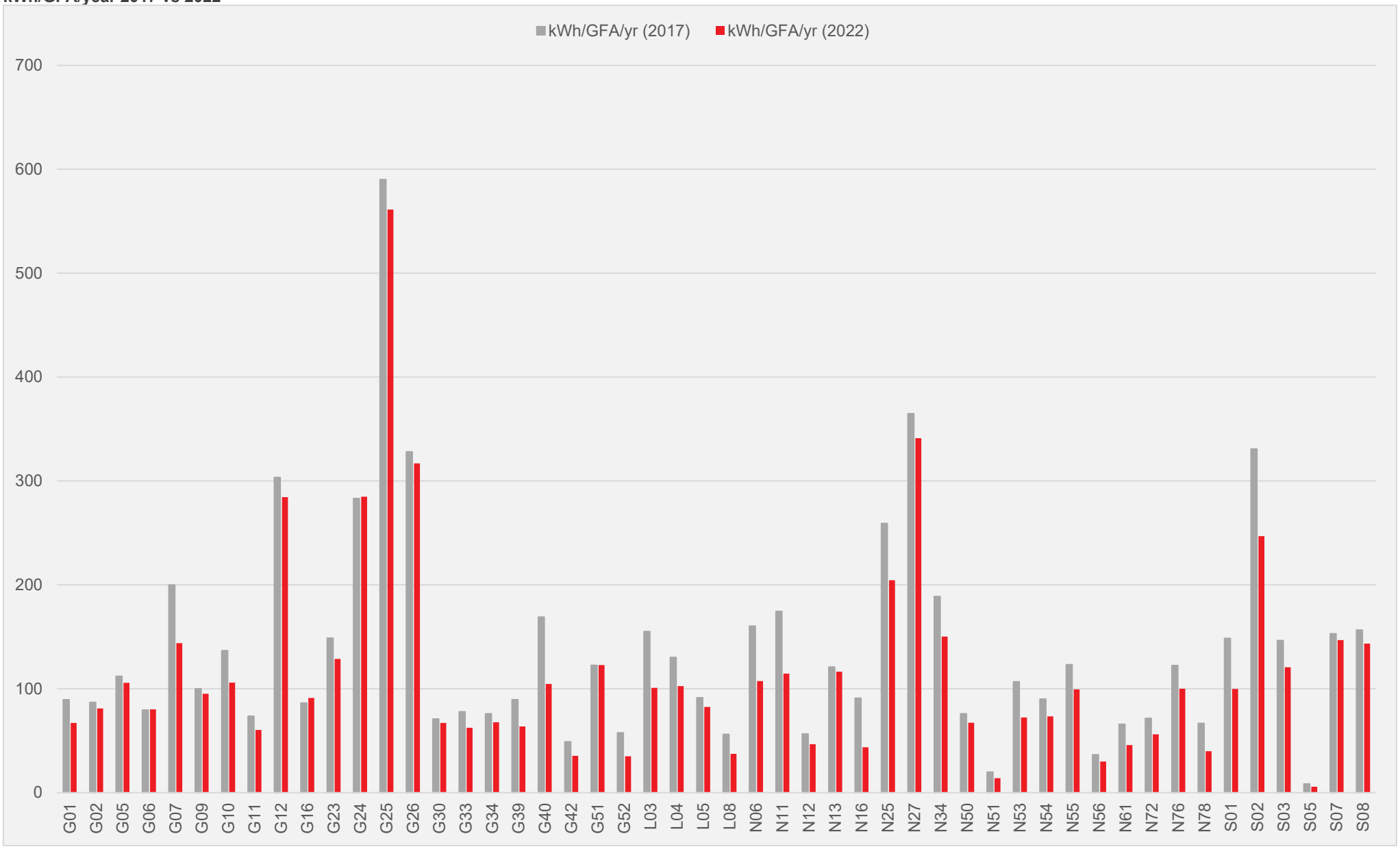
The Bar chart below shows the yearly consumption per m^2 GFA for different buildings across GU in decreasing order of consumption.

kWh/GFA/yr for each building for Sep 2021-2022



The bar chart below shows the difference between the annual consumption per m^2 GFA in 2017 and 2022 across various GU buildings. An overall trend can be observed as buildings are consuming less energy in 2022 due to various energy efficiency measures implemented.

kWh/GFA/year 2017 vs 2022



The table below shows the top and bottom 20 buildings with regards to consumption.

Top 20	kwh/yr/GFA	Bottom 20	kwh/yr/GFA
Glycomics 2 (G25)	561.31	Bray Centre (N54)	73.55
Griffith Institute for Drug Discovery 2 (N75)	521.06	Willett Centre (N53)	72.36
Griffith Institute for Drug Discovery 1 (N27)	341.26	Leneen Forde Chancellery (G34)	67.65
Glycomics 1 (G26)	317.00	Business 1 (N50)	67.22
Science 1 (G24)	284.95	Arts and Education 1 (G30)	67.07
Science 2 (G12)	284.46	Academic 1(G01)	67.06
Webb Centre (S02)	246.95	Science, Engineering and Architecture (G39)	63.67
Science 1 (N25)	204.55	Student Centre (G33)	62.50
Science 2 (N34)	150.22	Arts and Education 2 (G31)	61.38
Griffith South Bank Graduate Centre (S07)	146.85	Learning Commons (G11)	60.46
The Link (G07)	143.84	Glyn Davis Building (N72)	56.10
Griffith Film School (S08)	143.43	Sewell (N12)	46.62
Aquatic Centre (G45)	134.55	Law (N61)	45.79
Multimedia (G23)	128.82	Macrossan (N16)	43.65
Smart Water Research Centre (G51)	122.78	Sir Samuel Griffith Centre (N78)	39.92
Grey Street Studios (S03)	120.69	Academic 2 (L08)	37.29
Environment 2 (N13)	116.55	Griffith Business School (G42)	35.39
The Hub (N11)	114.55	International Building (G52)	35.09
Patience Thoms (N06)	107.33	Languages (N56)	29.97
Library (Graham Jones Centre)G10	105.97	University Store (N51)	13.91