THE UNIVERSITY OF NEWCASTLE AUSTRALIA

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“WE RECOGNISE THAT PRIORITISING ENVIRONMENTAL SUSTAINABILITY ISN’T JUST A NICE THING TO DO, IT’S FUNDAMENTAL TO OUR FUTURE”

VICE-CHANCELLOR
PROFESSOR ALEX ZELINSKY AO

THE UNIVERSITY OF NEWCASTLE

NEW SOUTH WALES (NSW)

Moree

Coffs Harbour

Armidale

Tamworth

Port Macquarie

Taree

Muswellbrook

CALLAGHAN

NEWCASTLE CITY

OURIMBAH

Orange

Gosford

THE UNIVERSITY OF NEWCASTLE

37,677 STUDENTS
(Includes full and part time students)

$781.3 MILLION
Annual turnover

2,680 STAFF
(Includes Academic and Professional staff)

275+ BUILDINGS
Over 14 campuses and affiliated centres

THE UNIVERSITY'S ELECTRICITY PROFILE

ELECTRICITY USE*

40GWh

$7 million

EQUIVALENT TO*

90% onsite energy

5,000 households

PROFILE*

48k TONNES[1]

CO2-e Emissions

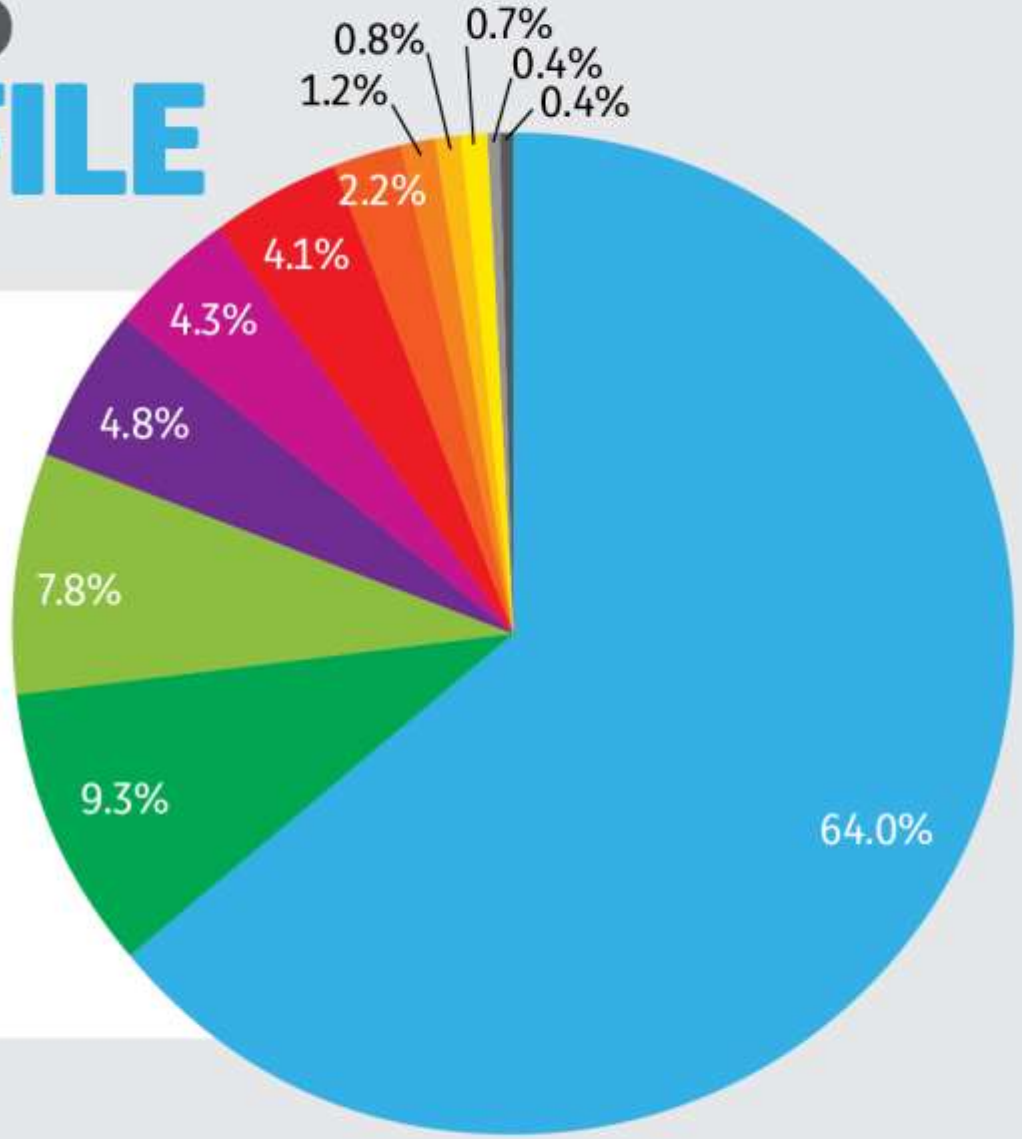
** Per Annum*

[1] National Carbon Offset Standard (NCOS) - (Scope 1, 2 and 3)

THE UNIVERSITY'S ELECTRICITY PROFILE

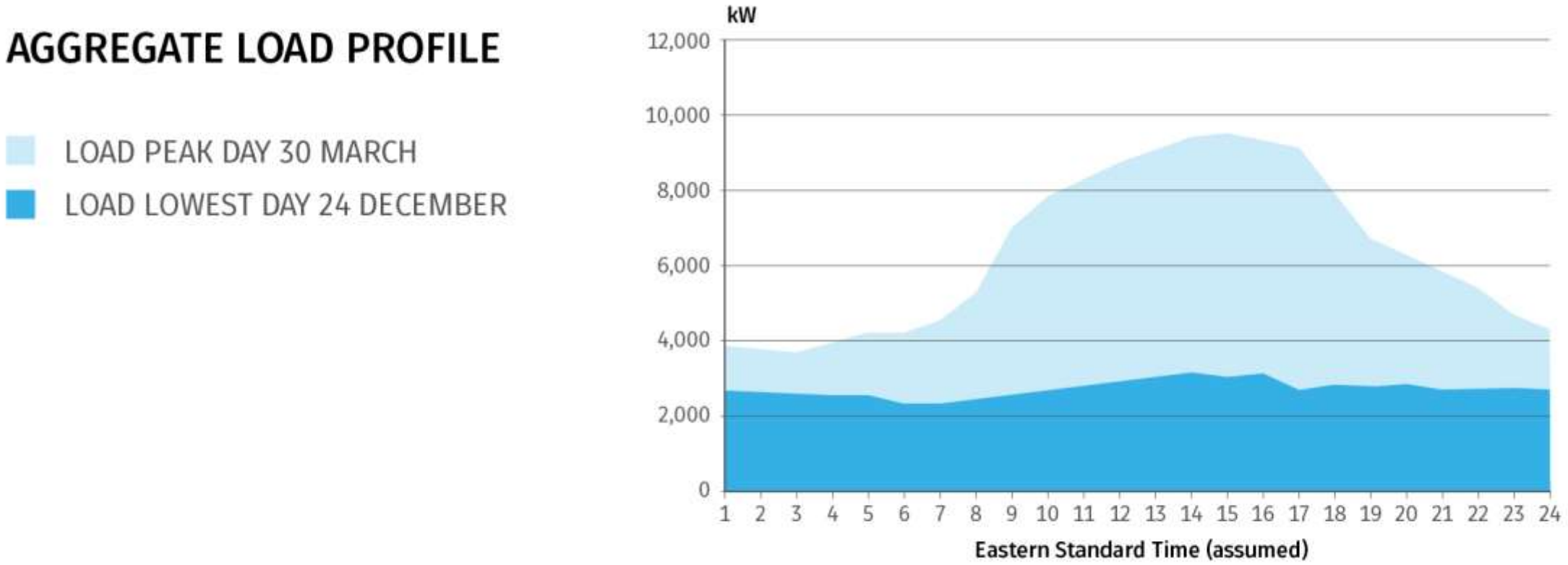
INDICATIVE SPLIT OF ELECTRICITY COST

- CALLAGHAN MAIN METER
- EDWARDS HALL
- OURIMBAH NORTH
- NIER
- NEW SPACE
- OURIMBAH SOUTH
- UNIVERSITY HOUSE
- CONSERVATORIUM
- IDC
- TAMWORTH EDUCATION
- NEWBOLDS
- CASTLEREAGH STREET



THE UNIVERSITY'S ELECTRICITY PROFILE

AGGREGATE LOAD PROFILE



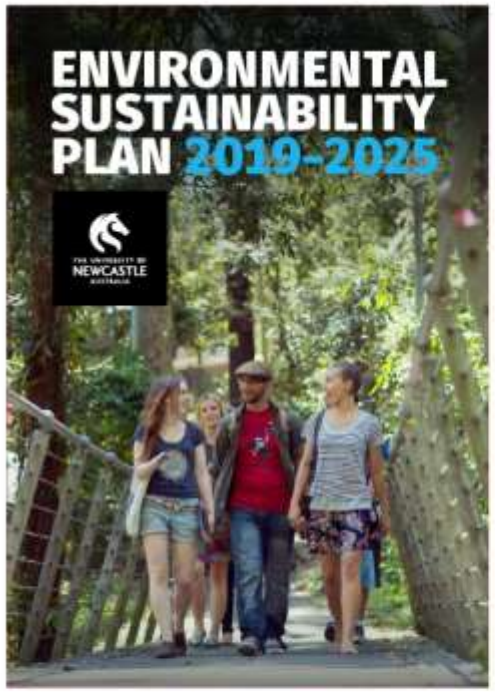
KEY FEEDBACK

> It's important the University focuses on carbon emissions reduction, including setting an appropriate reduction target.
>
> Newcastle University Students Association (NUSA)

> The most important issues are a fossil free divestment strategy for the University's investment portfolio, and a commitment to reducing CO2e emissions through investment in renewable energy.
>
> Newcastle University Students Environment Committee (NUSEC)

> It's critical the University increases environmental sustainability engagement initiatives to encourage better waste management practices.
>
> University Library Champions4Change

KEY DRIVERS



Consultation with staff, students and community members highlighted the following key drivers:

- Renewable energy
- Investment in new renewable energy assets
- Mitigating the impacts of climate change
- Energy security
- Financial sustainability
- New approach to electricity contract

THE PLAN AT A GLANCE

ENERGY AND CARBON

WATER

WASTE AND RECYCLING

BIODIVERSITY & LANDSCAPING

ENVIRONMENTALLY SUSTAINABLE DESIGN

TRANSPORT

INVESTMENTS

PROCUREMENT

ENGAGEMENT

EDUCATION

RESEARCH

GOVERNANCE

COMPLIANCE & REPORTING

SUSTAINABLE DEVELOPMENT GOALS

The Environmental Sustainable Plan was guided by the United Nations' Sustainability Development Goals

KEY INITIATIVES

ENERGY AND CARBON

Deliver 100% renewable electricity across our Newcastle and Central Coast campuses from 1 January 2020.

Achieve carbon neutrality by 2025.

EDUCATION

All students graduating from the University of Newcastle will have exposure to environmental sustainability principles through their degree by 2025.

RESEARCH

Lead partnerships with local, regional and global industries to deliver environmental sustainability research innovation projects with a focus on energy efficiency and renewable energy.

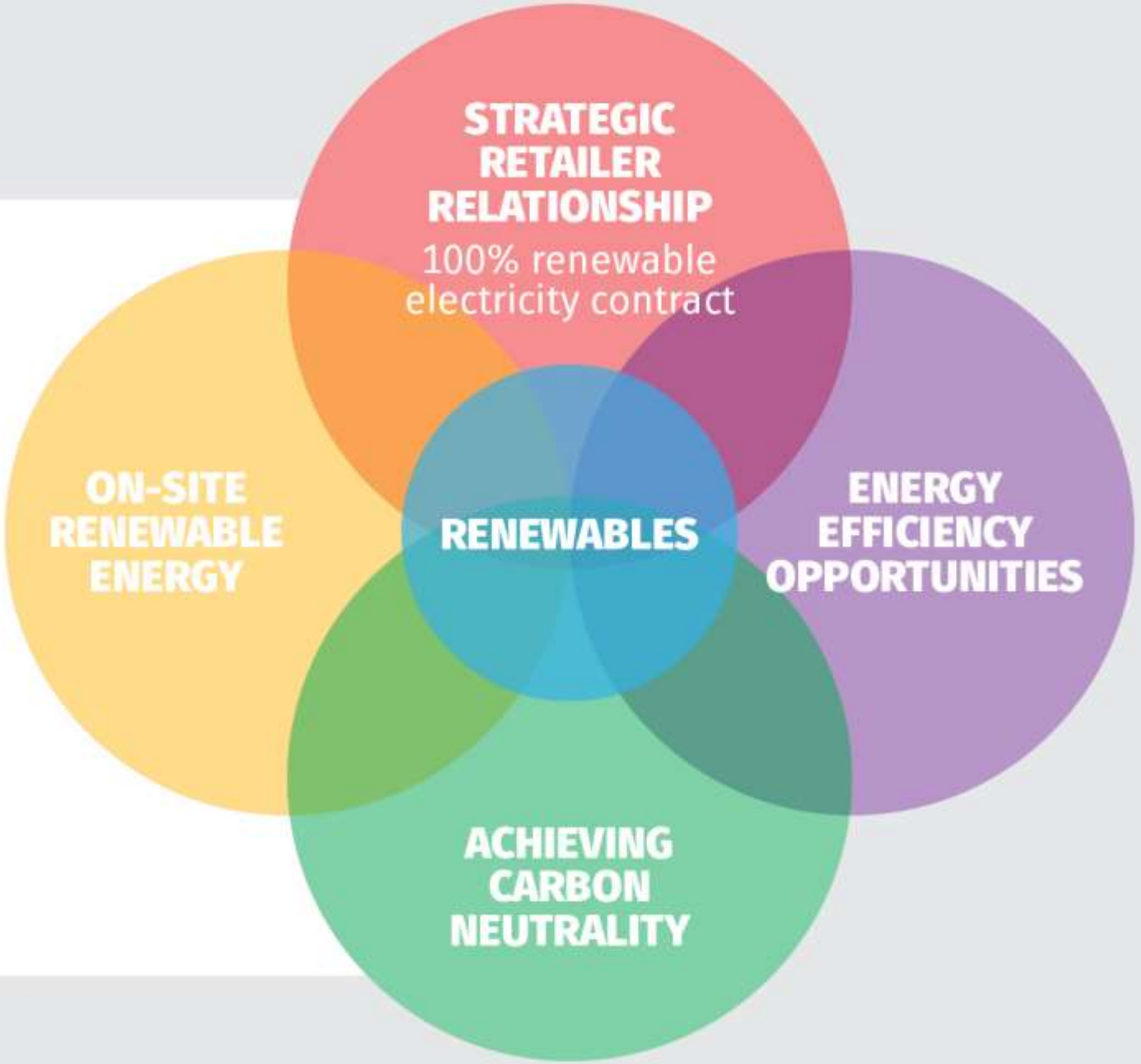
ENVIRONMENTALLY SUSTAINABLE DESIGN

All new buildings will achieve a minimum six-star Green Star 'Design & As Built' by 2025.

KEY STEPS

Energy and Carbon Management (EC&M) Strategy incorporating energy demand, supply and carbon reduction initiatives will significantly reduce energy, cost and resulting CO2-e emissions for the University.

As part of the E&CM Strategy we commenced detailed investigations to achieve a transition to 100% renewable electricity and achieve carbon neutrality.



KEY STEPS

ENERGY AND CARBON MANAGEMENT STRATEGY

Detailed investigation to transition to 100% renewable electricity

8 MONTH PROCUREMENT PROCESS

Overseen by Energy and Carbon Management Project Board

SOLUTIONS ORIENTATED

Competitive Dialogue Process

11 ENERGY RETAILERS ENGAGED

3 ENERGY RETAILERS SHORTLISTED

KEY DELIVERABLES

- $48 million Electricity Supply Agreement over 7 years
- Wind and PV solar energy (daytime electricity load)
- Snowy Hydro (firming electricity)
- 100% of Large Generation Certificates (LGCs) surrendered to the Clean Energy Regulator.

KEY OUTCOMES

DIRECT BENEFITS

75% Decrease in CO2e-emissions

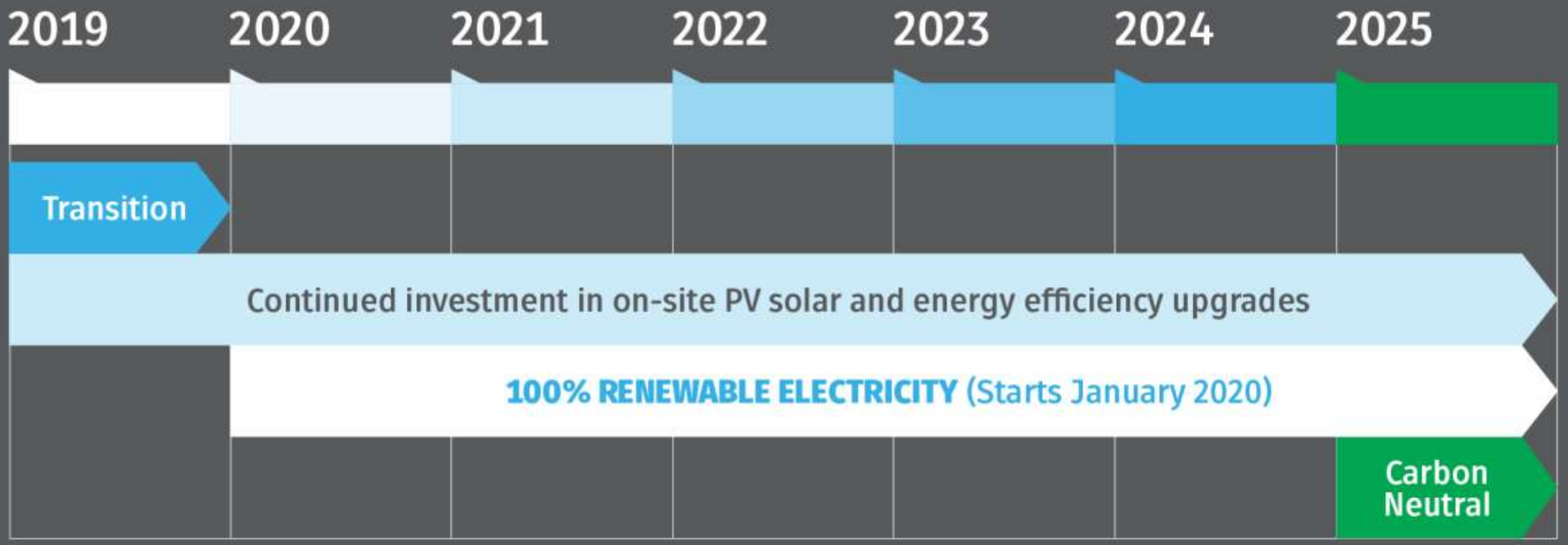
10% Cheaper electricity rate per kWh

Significant savings against long term financial plan

OTHER BENEFITS

- Rapid response to stakeholder feedback
- Influenced national electricity market
- Leading the transition of the Hunter Region to renewables
- Recognised as industry leaders
- Significant media coverage reaching +1.5million people

NEXT STEPS


2019
2020
2021
2022
2023
2024
2025
Transition
Continued investment in on-site PV solar and energy efficiency upgrades
100% RENEWABLE ELECTRICITY (Starts January 2020)
Carbon Neutral

KEY LESSONS

Collaborative approach

+

The right leadership

+

The right investments

+

Industry partners

=

100% RENEWABLE IS 100% DOABLE

Q&A

THANK YOU


THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA