



Health
Hunter New England
Local Health District

SUSTAINABLE HEALTHCARE

Together Towards Zero **2030**

Dr Ramsey Awad

**Executive Director Infrastructure, Planning &
Sustainability**

our green vision



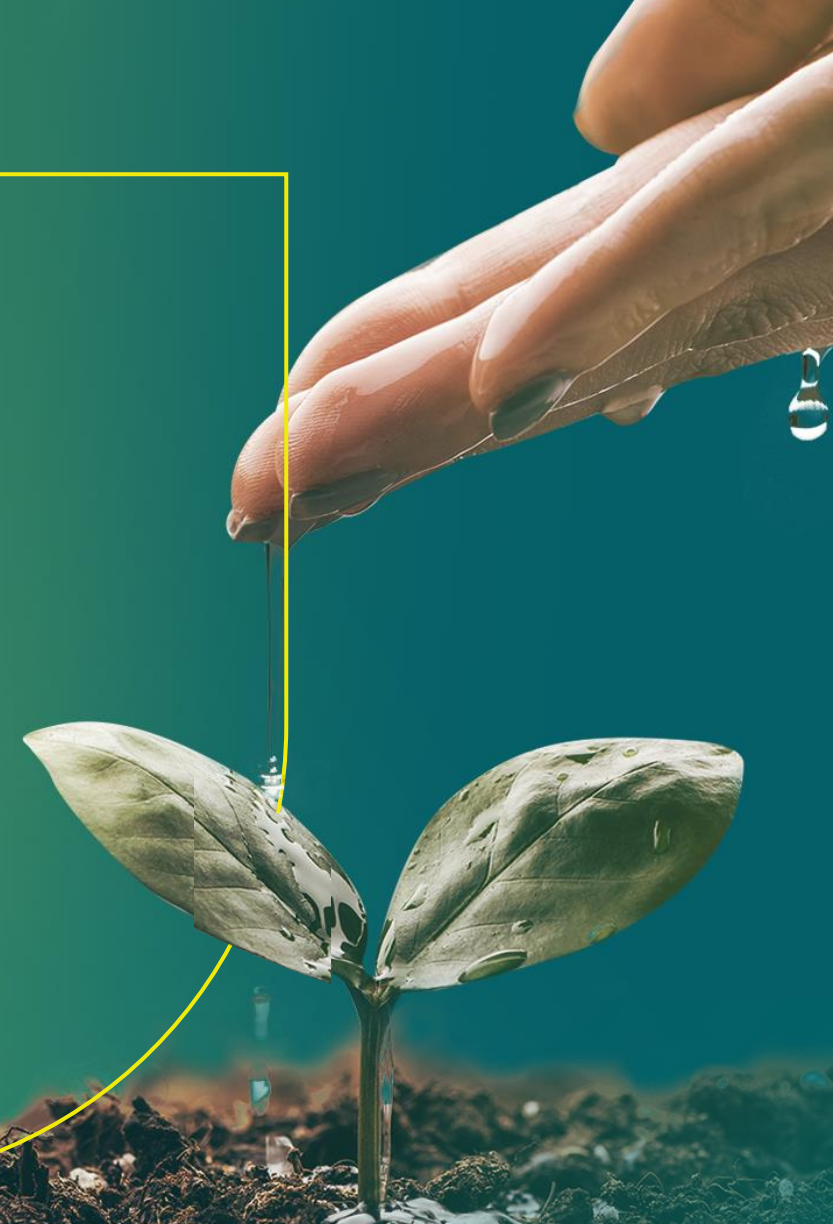
Being carbon and waste neutral by 2030.



Reduce our environmental impact while continuing to focus on Excellence - every patient, every time.



Display public leadership and drive change in the market.



why a **green vision?**

25%

of all human disease and death in the world is attributed to environmental factors and for children, the rate is 36%

Australian communities are feeling the impact of Climate Change as experienced with our extreme weather events

The provision of healthcare in Australia produces 7% of Australia's total CO2e emissions

Because the health of our patients is at risk Planetary Health is now part of our core business

We need to be able to say that as an organisation -

**We do
no harm**

our goals

Acknowledge and advocate the connection between human health and the environment.



Eliminate our contribution to the burden of disease and work towards reducing our environmental impact while being fiscally responsible.



Adopt Aboriginal stewardship values for our environment and Caring for Country.



Engage and empower our staff and community to participate in this journey of sustainability transformation.

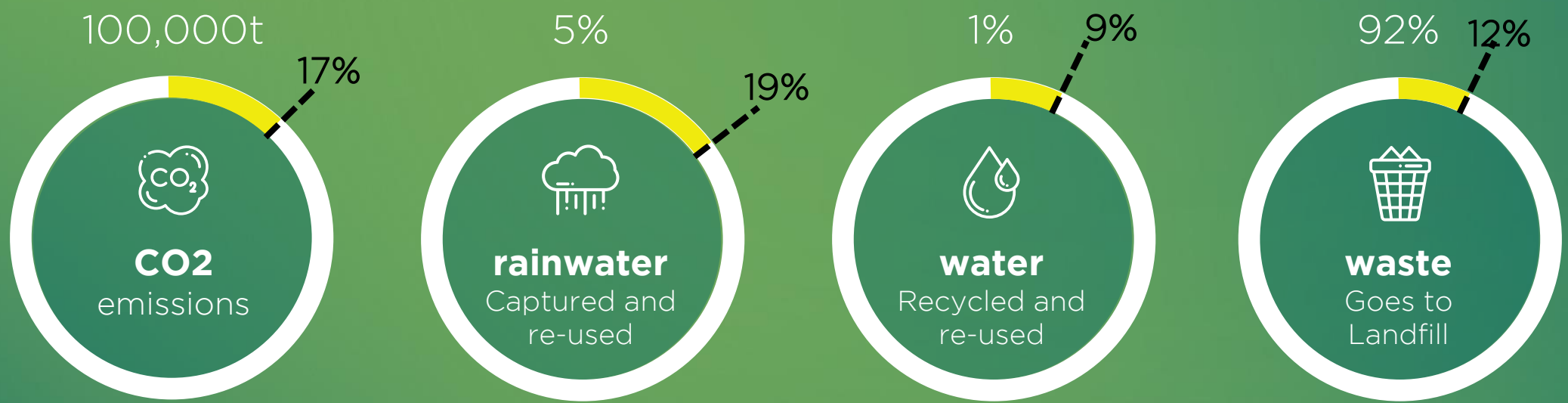


Contribute to leading a movement of sustainability.



our targets

2020



2030

0t

100%

50%

0%

2021
Target

10%
Decrease

10%
Increase

10%
Increase

10%
Decrease



our
approach



Present a Case
for Change



Establish
Goals



Set Performance
measures and
Targets



Collect and
Report Data



Establish
Governance



Reward and
Promote
Excellence



Establish
Communities
of Interest



Manage and
Share Knowledge



Provide Leadership
Resourcing and
Innovation

Energy



1

Waste



2

Water



3



6



Infrastructure

5



Procurement

4



Transport

our **focus**

our energy

01

Install solar panels on all HNE Health Facilities

02

LED and sensory lighting upgrades at all HNE Health Facilities

03

Upgrade chiller systems at all HNE Health Facilities

Current Strategies

04

Work with Government and Private stakeholders to explore and evaluate renewable energy opportunities

05

Upgrade to low energy efficient electrical equipment

06

Reduce unnecessary energy usage through staff education (turn the lights off)



- Overview
- Electricity
- Water
- Waste
- Fleet Vehicles
- Natural Gas
- Paper
- Flights
- Accommodation

- Projects
- Savings
- Our Targets
- Site Info

Electricity

54
Total Sites

Sector

All

Site

All



2019



Total Consumption
96,928,143 kWh



Total Emissions
82,912.33 t CO2e



Total Change from 2018
###

2020



Total Consumption
96,363,161 kWh



Total Emissions
74,832.08 t CO2e



Total Change from 2019
-9.87%

Baseline Year

2021



Total Consumption
93,991,138 kWh



Total Emissions
67,703.88 t CO2e



Total Change from 2020
-9.26%

John Hunter Hospital Solar installation



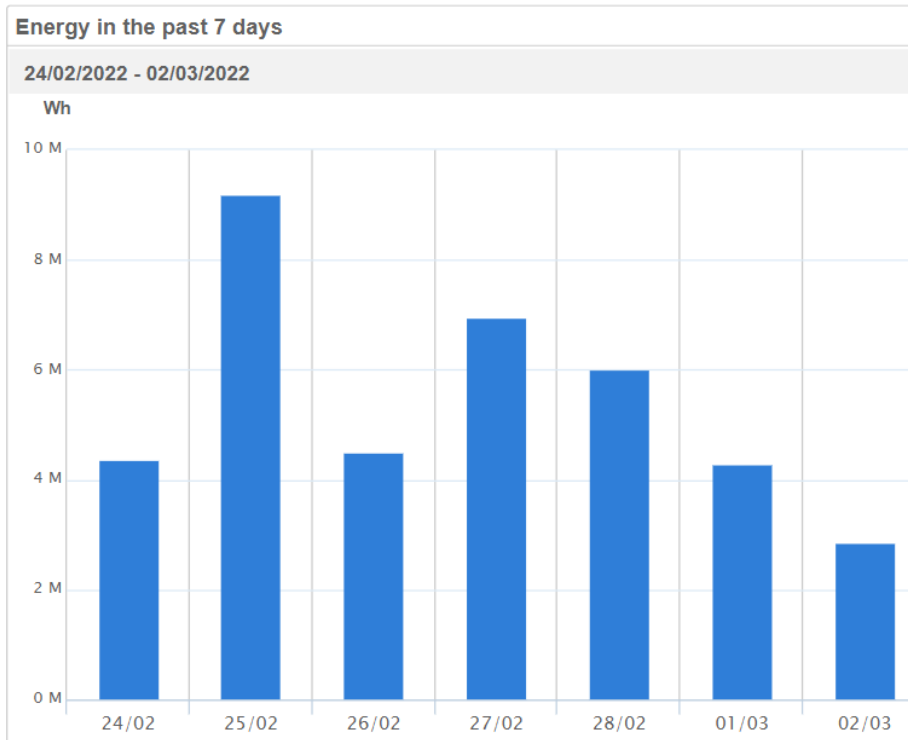
Largest solar panel system on any hospital in the world



System Performance

Current Power	Energy today	Energy this month	Lifetime energy
969.36 kW	2.86 MWh	7.15 MWh	1.35 GWh

Power and Energy



Environmental Benefits

CO2 Emission Saved
527,981.56 kg

Equivalent Trees Planted
15,758.63



our waste **Strategies**

01

Implementation of recycling streams

- IV Bag
- Baby Bottles
- Needle caps
- Kinguard
- Copper and Metal
- Batteries

02

Review and update Procurement policies and Waste Management procedures

03

Discussion with HealthShare Management, aligning policies and procedures with Hunter New England Health Sustainability Strategy

04

Embedded recycling initiatives into retail vendors

our water

01

Establish infrastructure to capture and reuse rain water across all HNE Health facilities

02

Capture and reuse reverse osmosis water across all 11 Renal Dialysis units

03

Reduce water waste through leak detection and repair

Current
Strategies

04

Implementation of low-flow fixtures

05

Reduce and reuse water loss in cooling systems

06

Review water-intensive hospital equipment (Sterilisation, Food, Laundry)





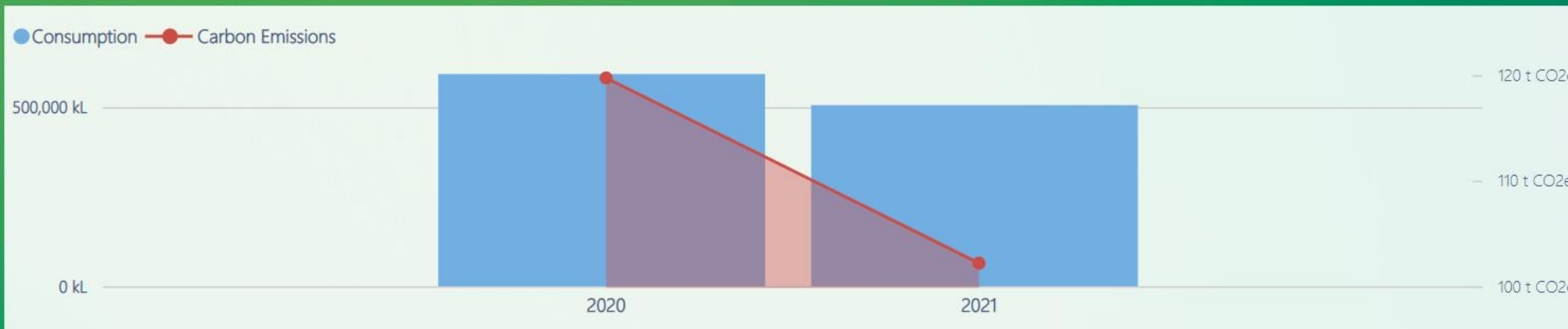
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Water

54 Total Sites

Sector: All

Site: All



2020

Total Consumption
592,769 kL

Total Emissions
119.74 t CO2e

Total Change from 2019
###

2021

Total Consumption
505,870 kL

Total Emissions
102.19 t CO2e

Total Change from 2020
-14.66%

Baseline Year



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Site Info

54 Total Sites

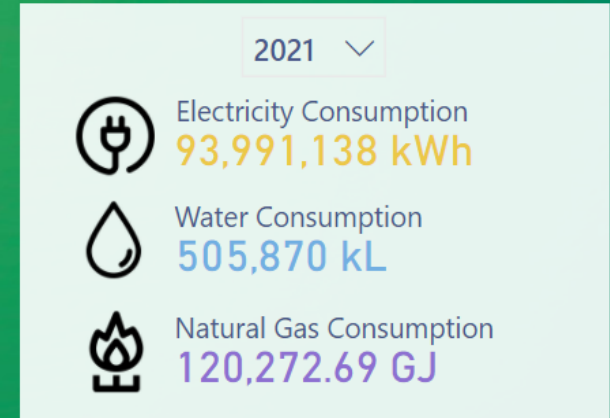
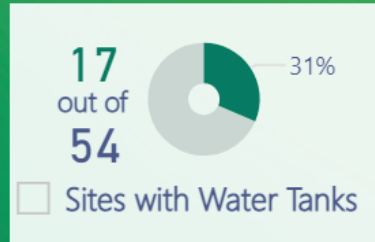
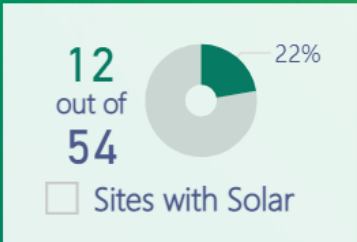
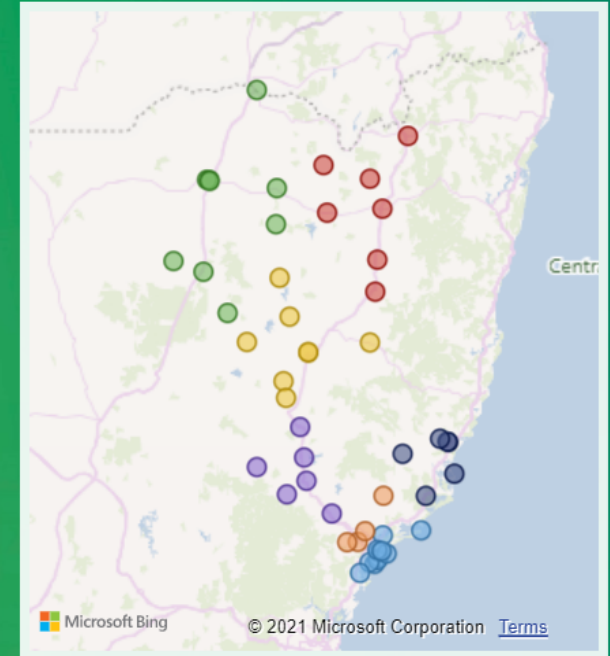
Sector

All

Site

All

Site Name	Solar	Solar Size	Water Tank	Capacity	LED
Emmaville Multi-Purpose Service (Vegetable Creek)	✗		✓	447,000 L	✓
Narrabri District Hospital	✗		✓	150,000 L	✗
Walcha Community Health Centre	✓	99 kWp	✓	148,000 L	✗
Wallsend District Hospital	✓	248 kWp	✓	57,000 L	✓
Belmont Hospital	✓		✓	56,000 L	✓
Wansey Dialysis Centre	✗		✓	40,000 L	✓
Wilson Memorial Hospital (Murrurundi)	✓	15 kWp	✓	40,000 L	✓
John Hunter Hospital and Rankin Park Hospital	✓	2,400 kWp	✓	30,000 L	✓
Gloucester Soldiers Memorial Hospital	✗		✓	26,000 L	✓
Inverell District Hospital	✗		✓	20,000 L	✓
Tomaree Community Hospital (Nelson Bay)	✗		✓	20,000 L	✓
Werris Creek Community Hospital	✓	100 kWp	✓	20,000 L	✗
Warialda District Hospital	✓		✓	19,000 L	✗
Bingara District Hospital	✓	99 kWp	✓	15,000 L	✓
Manilla District Hospital	✓		✓	10,000 L	✓
Moss Vale Hospital (Tirimbak Street)	✗		✓	10,000 L	✗



our transport

01

Move HNE Health fleet vehicles to hybrid electric

02

Implement ride to work strategy across all major Hospitals

03

Implement e-charging stations across HNE facilities

Current
Strategies

04

Implement car pooling strategies

05

Reduce staff business travel through the use of technology advancements including telehealth

06

Sustainable Travel – Identify and encourage the use of “Green” accommodation and flight providers



Fleet Vehicles

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1575
Total Vehicles

0% Electric

0.8% Hybrids

Litres Used
1,275,123.13 L

Carbon Emissions
2,721.06 t CO2e

Total Change from 2018
###



1506
Total Vehicles

0% Electric

4.2% Hybrids

Litres Used
1,055,970.15 L

Carbon Emissions
2,264.62 t CO2e

Total Change from 2019
-16.77%



1400
Total Vehicles

0% Electric

8.0% Hybrids

Litres Used
951,858.38 L

Carbon Emissions
2,040.03 t CO2e

Total Change from 2020
-9.92%



our procurement



Our Target

Through its procurement HNE Health will set clear signals to the market in favour of sustainability, innovation, and the promotion of cleaner and more socially responsible products and services. HNE Health will base its choice of goods and services on:

- economic considerations;
- environmental considerations; and
- social considerations.



Our Measure

HNE Health will become ISO 20400 compliant by 2030.

ISO 20400: provides guidance to organisations, on integrating sustainability within procurement.



our infrastructure



Our Target

Minimise the negative environmental impact of all new HNE Health building projects through sustainable building practices and sustainable design.






Our Measure

All new HNE Health buildings will meet a minimum 5 green star rating.

We are building a **Movement**



-  An EOI was issued to all HNE Health staff to become Sustainability Champions.
-  27 Sustainability Action Groups have been established
-  Here are some of their Projects



Plastic recycling
Repurposing of 100kg of theatre plastics weekly



Kinguard recycling
Diverting up to 20 tonnes p.a from landfill



Baby bottle recycling
Removing over 100,000 baby bottle from landfill p.a



Reselling of medical equipment
9m3 of e-waste generating \$100,000 of revenue








Reduction in high carbon anesthetics
saving 10 tonnes of CO2 emissions p.a



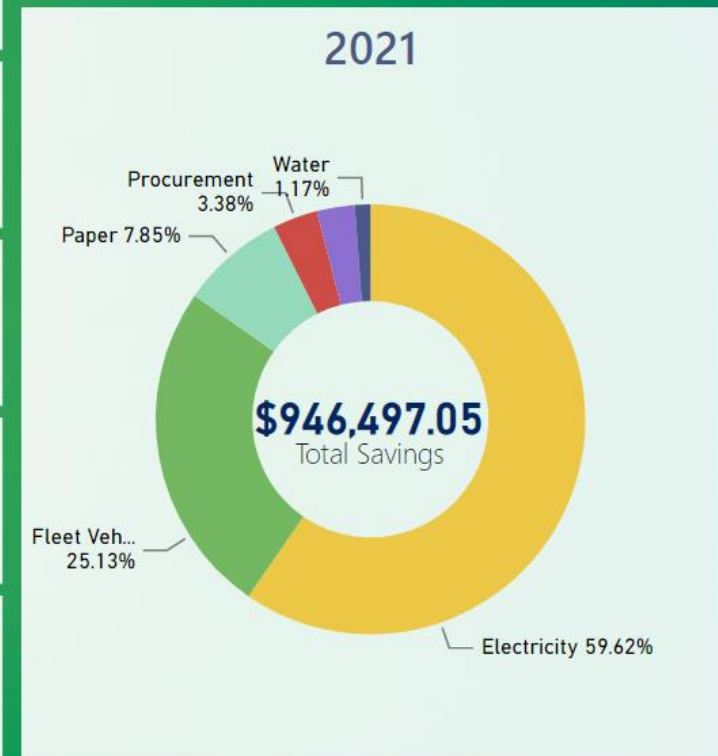
Savings

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 Electricity	Change from Baseline -6,922.07 t CO2e	Savings from Baseline \$564,266.47
 Water	Change from Baseline -17.55 t CO2e	Savings from Baseline \$11,104.46
 Fleet Vehicles	Change from Baseline -224.58 t CO2e	Savings from Baseline \$237,855.85
 Natural Gas	Change from Baseline -35.92 t CO2e	Savings from Baseline \$26,998.13
 Paper	Change from Baseline -59.08 t CO2e	Savings from Baseline \$74,312.14
 Procurement		Savings from Baseline \$31,960.00

Data Year	Baseline Year
2021	2020





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SUSTAINABLE

HEALTHCARE

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