



**POWERHOUSE
CLIMATE ACTION PLAN
2022-2025**

**POWERHOUSE
CLIMATE ACTION PLAN
2022–2025**

ACKNOWLEDGEMENT

The Powerhouse acknowledges the Traditional Custodians of the ancestral homelands upon which our museums are situated. We respect their Elders, past, present and future and recognise their continuous connection to Country.

We honour the clans, nations, families that have always been connected to our sites, and respect the diverse Aboriginal and Torres Strait Islander peoples that now call these places home.

We recognise Aboriginal connections to our places as a cultural continuum – resilient, resistant, and responsive to emerging and receding industries. Our sites have always been a place of story, ceremony and gathering, it is our responsibility that this continues.

An Acknowledgement of Country is a responsibility, behaviour, and action. It is our intention that the renewal of the Powerhouse be an Acknowledgment of Country in practice.





CONTENTS

Introduction	6
Powerhouse Renewal.....	9
Caring for Country Principles	11
Commitment	15
Directions 2022–2025	17
Path to Net Zero	18
Objectives and Actions	
Infrastructure	21
Programs	24
Operations	29
Beyond 2025	32

Cover: David Moore, Sydney Harbour from 20,000 feet (1992) (detail)
© Lisa, Michael, Matthew and Joshua Moore

Previous spread: Grindstone and mill, stone, Australia, c. 1900. Powerhouse Collection.
Gift of Dr G A Machattie, 1993. Photo: Ryan Hernandez

Left: Boiler House, Powerhouse, 2020. Photo: Katherine Lu



The NSW Government has made a significant commitment to renew the Powerhouse and secure its future for generations to come. The renewal will transform this iconic and much-loved cultural institution, ensuring the Powerhouse remains Australia's leading museum of applied arts and sciences with the development of two world-class cultural destinations, Powerhouse Ultimo and the new flagship Powerhouse Parramatta, alongside Powerhouse Castle Hill and the Sydney Observatory.

As climate change continues to impact our communities, Caring for Country and First Nations' cultural knowledge have become central to the delivery of practical solutions. Embedding First Nations' knowledge, practices and principles into the Powerhouse Climate Action Plan, including through the development of Caring for Country Principles, will ensure an integrated approach to responding to climate change, reflecting the knowledge and priorities of all its stakeholders.

The remarkable ambition of this Climate Action Plan will set the Powerhouse on a path that will surpass the expectations of the NSW Government Resource Efficiency Policy and Net Zero Plan. Its foundation principles developed as an Acknowledgement of Country in practice by First Nations communities demonstrate leadership in Caring for Country, a commitment to a decarbonised future, sustainable operations and partnership with industry.

**The Hon Ben Franklin, MLC
NSW Minister for the Arts**



Taking a leadership position on sustainability and positive climate action is central to the Powerhouse's renewal.

The Powerhouse is an institution that reflects the knowledge, understanding and ingenuity of First Nations peoples to care for Country in ways that are inherently sustainable. This Climate Action Plan – the museum's first – embeds Caring for Country Principles developed by our First Nations communities as its foundation. As we expand, renew, and conserve our sites, we will acknowledge Country through these principles, architectural innovation, future technologies, consideration for material impacts and our future operations.

As Australia's premier museum of excellence and innovation in applied arts and sciences, Powerhouse is uniquely placed to showcase the role technology, engineering, science and design can play in addressing climate change.

By 2025 we will achieve net zero operations, establish the Powerhouse as an international leader in sustainable museum practices, creating a contemporary institution that is resilient, sustainable and a positive contributor to the world.

**Lisa Havilah
Chief Executive, Powerhouse**



POWERHOUSE RENEWAL

The Powerhouse, through its renewal and across its platforms, will redefine museums in the 21st century by renegotiating the terms of engagement with communities; by radically returning to and reckoning with its own legacy as a museum of industry and by fortifying its vital role in the cultural and economic ecosystems of NSW, Australia and internationally.

In 2022 the Powerhouse, one of Australia's oldest and most important cultural institutions, continues the delivery of its renewal program across its five platforms:

POWERHOUSE PARRAMATTA

Building our new flagship in the fastest growing and most culturally diverse communities in Australia.

POWERHOUSE ULTIMO

Transforming the much-loved Powerhouse to deliver international exhibitions within a dynamic creative industries and technology precinct.

POWERHOUSE CASTLE HILL

Expanding Collection storage, creating new public exhibition spaces and establishing world leading collection management capabilities.

SYDNEY OBSERVATORY

Restoring and enhancing this national important heritage icon.

POWERHOUSE DIGITAL

Creating space to tell stories and provide new levels of access to the Powerhouse Collection of over 500,000 objects.



CARING FOR COUNTRY PRINCIPLES

In consultation with First Nations peoples of the Country on which the Powerhouse sites are situated, *Caring for Country Principles* form the foundation of this Climate Action Plan, they are our acknowledgement to Country in practice.

In Indigenous culture, Country is vast, all-encompassing and limitless and transcends western notions of property and land ownership. Country is multifaceted and includes all tangible and intangible cultural heritage. It means the lands, waters, seas, and skies and everything on it, including people, plants, animals and landscapes.

Country also is the song lines, stories, language, cultural expressions and knowledge. It is all parts Australia, the deserts, rainforests, mountains and plains. Urban areas, the streets, parks, and the buildings are situated all on Country.

Country is holistic and living.

Country is spiritual belonging.

Country shapes individual and communal identity and wellbeing. It is the 'people, family, mob, who walk on Country?' Country is kin. The relationship between people and Country must include reciprocity.

Powerhouse Taking Care of Country Principles
Terri Janke and Company, 2022

Mittji by Wukun Wanambi. Commissioned by Powerhouse for the exhibition *Eucalyptusdom* and acquired 2021. Photo: Zan Wimberley



LOCALITY OF PLACE

The obligation to care for Country is inherently defined by the relationship between Country and its custodians, whereby no two groups will have the same practices, knowledge of, or obligation to Country. Powerhouse respects the obligations Traditional Owners have to the different Country its sites are located on.

KNOWLEDGE

Powerhouse will work with First Nations people to develop opportunities, engagement, and strategies to embed caring for Country principles that reflect their perspectives and knowledge.

RESPECT

Powerhouse respects the responsibilities First Nations people have to care for Country, and their role as interpreters of their own culture and custodians of Country. Powerhouse aims to embed these values into its practices with First Nations guidance.

HOLISTIC

Caring for Country is holistic and cyclical. Powerhouse will consider the needs and health of Country – the people, plants and animals, waters, seas, skies, and landscapes – in accordance with a First Nations holistic world view.

VITALITY – PEOPLE AND COUNTRY

The vitality, health and wellbeing of First Nations people and Country are interconnected. Powerhouse will use its resources and knowledge to support First Nations people maintain strong relationships with Country, access to Country and resources, and connect with Mob.

STEWARDSHIP

First Nations people are the custodians of Country and are bound to respect, care and maintain the health of Country. Powerhouse will consider the impact of its activities and practices to ensure it does not damage Country or hinder First Nations peoples' custodial obligations, including to future generations.

CONTINUING CULTURE

Powerhouse understands the centrality of intergenerational equity in sustainability in Indigenous culture and will work to ensure this forms part of its Climate Action Plan.

CULTURAL FLOWS

Cultural flows recognise the rights First Nations people have to access, manage and care for waterways. Powerhouse acknowledges that its sites are located near or on significant rivers and seas and First Nations people have responsibilities to care for these waterways.

LANGUAGE

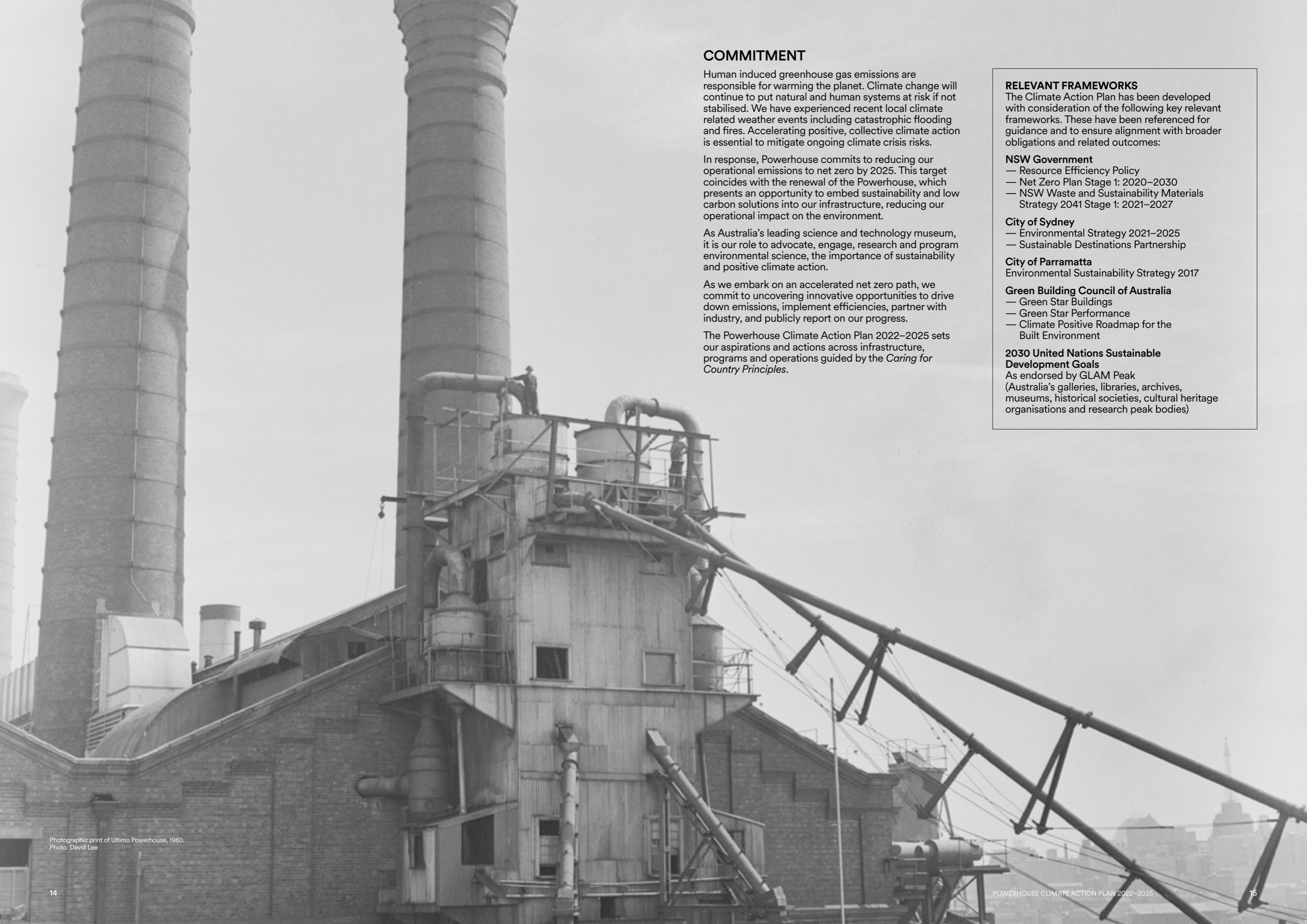
Language allows First Nations people to connect to identity, Country and culture. Powerhouse will support language revitalisation and connection to Country.

CULTURAL EXPRESSION

Powerhouse will celebrate the diversity in traditional cultural expression and support First Nations people connect and care for Country through cultural practices.

Powerhouse is committed to reckoning with its time and place in Australia's colonial history to better serve, make space and provide opportunities for First Nations empowerment and representation. Powerhouse recognises and shares the value and importance of preserving, revitalising, and strengthening Aboriginal and Torres Strait Islander cultures, histories, and achievements.

Castle Hill site documentation of plantation prior to Building J construction.
Photo: Amanda Williams



COMMITMENT

Human induced greenhouse gas emissions are responsible for warming the planet. Climate change will continue to put natural and human systems at risk if not stabilised. We have experienced recent local climate related weather events including catastrophic flooding and fires. Accelerating positive, collective climate action is essential to mitigate ongoing climate crisis risks.

In response, Powerhouse commits to reducing our operational emissions to net zero by 2025. This target coincides with the renewal of the Powerhouse, which presents an opportunity to embed sustainability and low carbon solutions into our infrastructure, reducing our operational impact on the environment.

As Australia's leading science and technology museum, it is our role to advocate, engage, research and program environmental science, the importance of sustainability and positive climate action.

As we embark on an accelerated net zero path, we commit to uncovering innovative opportunities to drive down emissions, implement efficiencies, partner with industry, and publicly report on our progress.

The Powerhouse Climate Action Plan 2022–2025 sets our aspirations and actions across infrastructure, programs and operations guided by the *Caring for Country Principles*.

RELEVANT FRAMEWORKS

The Climate Action Plan has been developed with consideration of the following key relevant frameworks. These have been referenced for guidance and to ensure alignment with broader obligations and related outcomes:

NSW Government

- Resource Efficiency Policy
- Net Zero Plan Stage 1: 2020–2030
- NSW Waste and Sustainability Materials Strategy 2041 Stage 1: 2021–2027

City of Sydney

- Environmental Strategy 2021–2025
- Sustainable Destinations Partnership

City of Parramatta

Environmental Sustainability Strategy 2017

Green Building Council of Australia

- Green Star Buildings
- Green Star Performance
- Climate Positive Roadmap for the Built Environment

2030 United Nations Sustainable Development Goals

As endorsed by GLAM Peak (Australia's galleries, libraries, archives, museums, historical societies, cultural heritage organisations and research peak bodies)



DIRECTIONS 2022–2025

The Powerhouse Climate Action Plan focuses on three directions with deliverables against 12 objectives, outlining the important immediate actions that will embed sustainability across our organisation.

POWERHOUSE INFRASTRUCTURE

The Powerhouse renewal, which will expand, renew and conserve our infrastructure, is an opportunity to recognise the relationship between the built form and function, and embed our responsibility and responsiveness to climate, seasons and sustainability.

Objectives

1. Practice responsible stewardship
2. Decarbonise Powerhouse precincts
3. Standardise zero waste approach to exhibition construction and museum operations
4. Integrate water harvesting and reuse in property operations

POWERHOUSE PROGRAMS

Powerhouse will demonstrate leadership as Australia's pre-eminent museum for applied arts and sciences by integrating sustainability into museum programming and practice.

Objectives

5. Embed sustainable practices in museum collection management
6. Prioritise collaboration and research with climate science thought leaders and industry
7. Reduce carbon emissions associated with exhibition design and program development
8. Collaborate with community to develop and support access to Powerhouse education programs and exhibitions

POWERHOUSE OPERATIONS

Powerhouse will prioritise sustainable outcomes in day-to-day operations through systemic reviews and incorporate sustainability into Powerhouse policies and procedures.

Objectives

9. Integrate sustainability principles into ways of working
10. Build capacity and knowledge to support sustainable practices
11. Participate in industry leading collaborations and programs
12. Monitor and report on progress

Turbine Hall, Powerhouse, 2020. Photo: Katherine Lu

PATH TO NET ZERO

Powerhouse green house gas emissions inventory was collated and calculated according to the Green House Gas Protocol, based on activity data from financial year 2018/2019.

A combination of analysis, site energy audits and staff engagement were considered in the development of the net zero operations pathway.

Net zero operations encompasses the scope of emissions from building operations, including scopes 1 and 2, and targeting improvements across water use and waste to landfill. Key reductions will be achieved by:

- Eliminating the use of fossil fuels
- Improving energy efficiency
- Generating renewable energy on site
- Procuring 100% renewable energy for the remaining energy needs.

The objectives and actions outlined on the following pages include commitment to improving the measurement of impacts of other key activities. This will support better outcomes particularly for exhibitions and programs, and the products and services used along our value chain, which will contribute to carbon emission reductions.

2025

Carbon and Energy

- Achieve net-zero operations
- Reduce energy consumption by 20% from FY 2018/19 baseline

Resource Recovery

- Achieve 90% resource recovery from production and operational waste

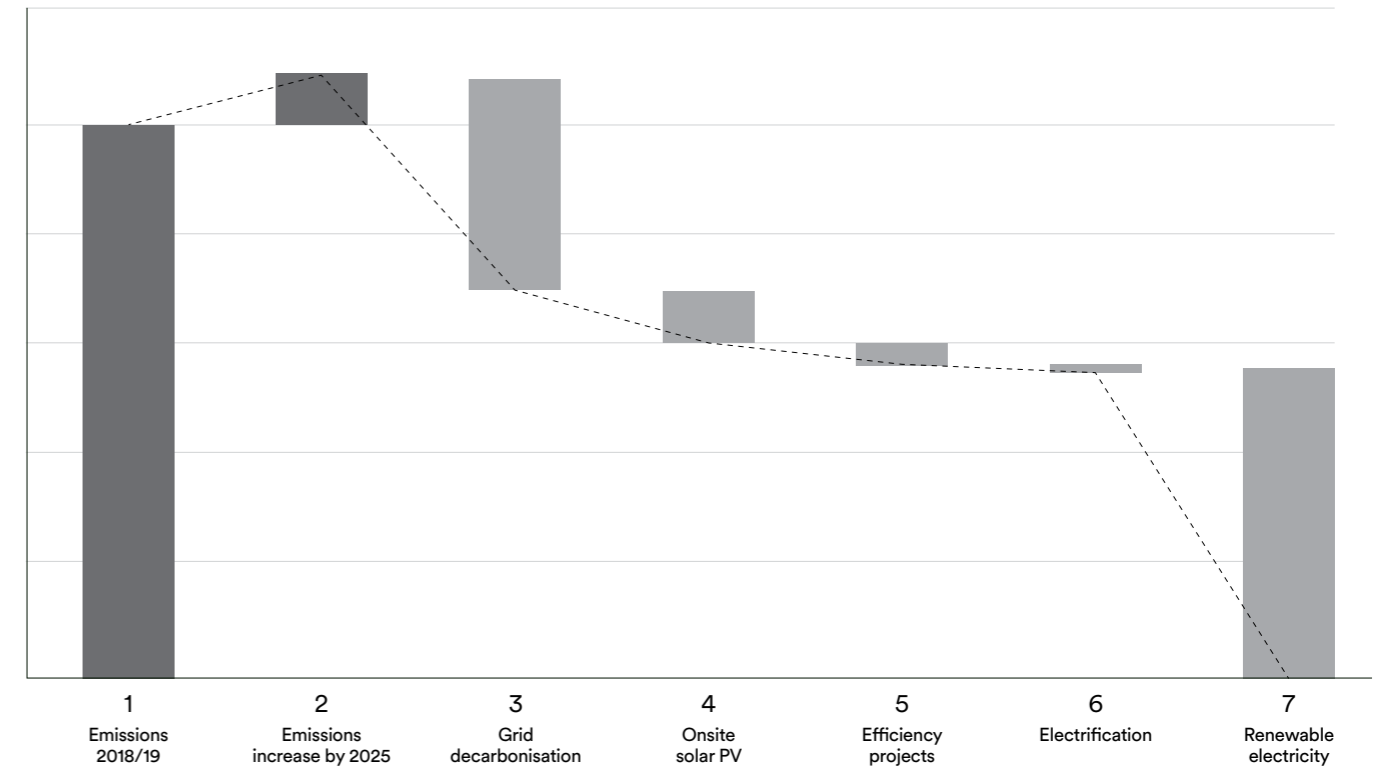
Water

- Achieve zero increase in potable water use from FY 2018/19 baseline

Industry Leadership

- Achieve 6 Star Green Star Rating for Powerhouse Parramatta and the renewal of Powerhouse Ultimo
- Measure and optimise building performance at all sites benchmarked against Green Star Performance

DECARBONISATION PATHWAY



	Emissions Pathway	Description	% of Emissions
1	Emissions 2018/19	Baseline GHG emissions inventory based on data from financial year 2018/19	100%
2	Emissions increase by 2025	Expected emissions increase aligned with Powerhouse capital works program	+9%
3	Grid decarbonisation	Estimated grid decarbonisation aligned to current expected closures of coal-fired plants in NSW	-40%
4	Onsite solar PV	Install solar photovoltaic system with supporting battery storage unit	-9%
5	Efficiency projects	Energy efficiency upgrades; reduced waste to landfill; reduced water consumption	-4%
6	Electrification	Convert gas reliant plant to electric equivalent and fleet to electric vehicles	-1%
7	Offsite renewable electricity	Source 100% renewable electricity for all sites	-55%

OBJECTIVES AND ACTIONS

INFRASTRUCTURE

Innovation, function and critical analysis of energy production and consumption have been ongoing themes throughout the history of the Powerhouse, from our priceless Boulton and Watt Steam Engine through to the adaptive reuse of the Ultimo Power Station for the Powerhouse Museum in the 1980s.

Renewal of our buildings and precincts represent an immediate opportunity for Powerhouse to reduce carbon emissions. With innovative architectural design and engineering, Powerhouse Parramatta will be a 6 Star Green Star building. The renewal of Powerhouse Ultimo will adopt a sustainable approach to modifications, new built form and further adaptive reuse, while recognising the sites' original function and purpose.

Our 6 Star Green Star ratings will prioritise resource efficiency in construction, reducing upfront carbon emissions and will ensure net zero carbon emissions in operations.



**Objective 1
PRACTICE RESPONSIBLE STEWARDSHIP**

The Powerhouse renewal presents an opportunity to enact our Caring for Country Principles including Locality of Place, Vitality of People and Country, and Language.

First Nations peoples are the custodians of Country and are bound to respect, care and maintain the health of Country. Powerhouse will consider the impact of its activities and practices to ensure it does not damage Country or hinder First Nations peoples' custodial obligations, including to future generations.

Within the urban contexts our precincts are embedded Powerhouse will:

- 1.1. Work with First Nations people to develop opportunities, engagement, and strategies to embed caring for Country principles that reflect their perspectives and knowledge.
- 1.2. Enhance biodiversity values at all sites prioritising Indigenous plants, a diversity of species and climate resilient plants, through the construction of new and renewed sites.
- 1.3. Develop sustainable biodiversity management plans that incorporate sustainable landscaping practices for each site.

**Objective 2
DECARBONISE POWERHOUSE PRECINCTS**

We have developed our Green House Gas Emissions Inventory and modelled net zero pathways to achieve an ambitious target of net zero operations by 2025. In the operational context, net zero refers to the Powerhouse's intention to operate efficiently, eliminate fossil fuels usage and generate and purchase renewable energy. The use of carbon offsets will be as minimal as possible. Outstanding carbon emissions will initially be addressed with nature based offset programs while we continue our efforts to reduce and eliminate emissions.

Aligning with the Green Star Climate Positive frameworks (Green Building Council of Australia) Powerhouse will:

- 2.1. Eliminate fossil fuel use and electrify plant.
- 2.2. Maximise onsite renewable energy opportunities.
- 2.3. Reduce upfront embodied emissions through the construction of new buildings and capital works programs for existing sites.
- 2.4. Implement sustainable transport plans for all Powerhouse locations.

**Objective 3
STANDARDISE ZERO WASTE APPROACH TO EXHIBITION CONSTRUCTION AND MUSEUM OPERATIONS**

The manufacture, use and disposal of materials have associated carbon emissions and material waste, particularly if materials are sent to landfill. Reducing material disposal to landfill minimises emissions and increases the realised value of a material.

Exhibition production, install and dismantle is responsible for the majority of waste materials generated by the Powerhouse. As part of our Net Zero commitment, we will take a longer-term view of the waste hierarchy and move towards a circular approach to exhibition design, construction and related processes.

To reduce waste materials Powerhouse will:

- 3.1. Develop a materials management plan to maximise use of all materials procured for operational requirements.
- 3.2. Review existing waste contracts and embed 90% landfill diversion targets.
- 3.3. Integrate circular principles into exhibition design and production processes.
- 3.4. Review our exhibition and program pipeline for opportunities to reduce our material footprint and minimise material waste.

**Objective 4
INTEGRATE WATER HARVESTING AND REUSE IN PROPERTY OPERATIONS**

Powerhouse commits to understanding the stories and histories of the rivers and seas connecting Powerhouse sites and seeks guidance from First Nations people to maintain healthy waterways.

Recent record-breaking climate change induced floods have damaged the east coast of Australia. In this context, the devastating potential of drought can seem distant. However, water remains a precious resource, integral to museum operations. Water harvesting and reuse will support more resilient precinct operations and reduce unnecessary reliance on potable water.

To ensure the future resilience of water dependent systems, Powerhouse will:

- 4.1. Investigate opportunities to capture and reuse stormwater and integrate this into sustainable site management.
- 4.2. Capture water from building systems and reuse onsite where possible.
- 4.3. Maintain and highlight the importance of the sea water exchange and manifold at the Powerhouse Ultimo site.

Bala Ga Lili (Two ways Learning). Photo: Bernard Wright Photography @bw.thru.the.lens

PROGRAMS

As we deliver our renewal program, it is timely to reflect upon and learn from our history, and redefine our role in contemporary society. It is insufficient for cultural institutions to simply stage exhibitions and programs that highlight contemporary social issues. They must demonstrate leadership by interrogating their own processes and practices and make intrinsic changes.

Powerhouse exhibitions and programs account for the second highest proportion of carbon emissions, behind electricity use. The precise environmental conditioning requirements for collection management are also very energy intensive. The following objectives prioritise leadership in sustainable museum practice, collection management, and programming focused on climate action.



Objective 5

EMBED SUSTAINABILITY IN MUSEUM PRACTICE COLLECTION MANAGEMENT

Collection management requires precise environmental conditioning and conservation. Powerhouse commits to embedding culturally sustainable collection management and conservation practices in line with industry best practice and the Caring for Country Principles of Knowledge, Respect and Stewardship.

Maintaining stable environmental conditions to preserve items and eliminate environmental degradation of objects is energy intensive. Powerhouse will investigate and partner with industry to identify opportunities to improve efficiencies in preserving objects to help achieve energy reduction targets.

Powerhouse will:

- 5.1. Facilitate and promote culturally sustainable practices within conservation and collection management.
- 5.2. Formalise our commitment to sustainable collection development and management practices within conservation and collection policies and procedures.
- 5.3. Support regional museums and galleries through outreach programs to share learnings gained through sustainable conservation and collection management.
- 5.4. Respond to industry development and guidelines for collection conditioning and sustainable conservation practices.

Objective 6

PRIORITISE COLLABORATION AND RESEARCH WITH CLIMATE SCIENCE THOUGHT LEADERS AND INDUSTRY

We have a responsibility to leverage our platform to demonstrate leadership on embedding sustainability and responding to climate change.

Powerhouse will:

- 6.1. Create a curatorial role focused on climate change science and sustainability.
- 6.2. Embed sustainability and climate change experts within the Powerhouse Visiting Research and Residency programs.
- 6.3. Produce innovative sustainability related programs, research projects and exhibitions ensuring relevance and responsiveness to global climate science issues.
- 6.4. Partner with the Green Building Council of Australia to develop industry leadership credits recognising strategic partnerships and collaborations with the wider community.

Objective 7

REDUCE CARBON EMISSIONS ASSOCIATED WITH EXHIBITION DESIGN AND PROGRAM DEVELOPMENT

The exhibition and programming production process is the Powerhouse's second highest source of carbon emissions. As part of the path to net zero emissions, it is essential to understand the carbon impacts associated with the decisions, phases and service types used in exhibition and program development. Improving visibility across these impact areas will allow us to seek low carbon alternatives.

Powerhouse will:

- 7.1. Review 100 Climate Conversations (Powerhouse's first carbon neutral certified exhibition) production process with a view to reduce the carbon footprint of exhibition making and presentation.
- 7.2. Incorporate sustainable supply chain considerations and material impact measures to future exhibition planning, design and program development.

Objective 8

COLLABORATE WITH COMMUNITY TO DEVELOP AND SUPPORT ACCESS TO EDUCATION AND PROGRAMS

Embedded in creative and knowledge precincts, and communities of practice, Powerhouse will lead new levels of engagement investing in enduring and authentic relationships with community. Powerhouse will be in the service of new knowledge, storytelling, prioritising access and community collaboration.

Powerhouse will:

- 8.1. Undertake continuous community engagement throughout Powerhouse Parramatta construction and Powerhouse Ultimo design and development processes.
- 8.2. Extend unmediated access to objects and cultural belongings through original exhibition making and an expansive and dynamic program informed by community.
- 8.3. Facilitate community collaboration by expanding access to museum facilities.



OPERATIONS

To ensure accountability, track against our targets and improve ways of working, Powerhouse commits to reviewing and redefining policies and procedures and developing the capabilities of our workforce to achieve our net zero commitments.

We will focus on performance measures and continuous improvements to embed the actions of the Climate Action Plan into operations.

The Blériot Monoplane in the Boiler Hall, 2021. Photo: Zan Wimberley

**Objective 9
INTEGRATE SUSTAINABILITY INTO
WAYS OF WORKING**

The delivery of the commitments set out in this plan requires a review of our ways of working, policies, procedures and operations.

To ensure sustainability is embedded into operating systems, Powerhouse will:

- 9.1. Develop and implement a sustainable procurement policy embedding procurement from First Nations suppliers and contractors.
- 9.2. Collaborate with Buy NSW to increase the value of sustainability criteria in key procurement activities
- 9.3. Incorporate responsible products and framework principles into supplier and collaborator agreements to set clear expectations for partnering suppliers and contractors.
- 9.4. Develop Business Continuity and Recovery Strategies to support the community through acute shocks and climate events.

**Objective 10
BUILD CAPACITY AND KNOWLEDGE TO
SUPPORT SUSTAINABLE PRACTICES**

The delivery of this plan requires contributions and collaboration across all functions of the Powerhouse. Areas of operation will require transition to new practices and concepts which will require knowledge sharing and engagement with industry.

Powerhouse will:

- 10.1. Provide opportunities for the transfer of knowledge and collaboration between First Nations communities, staff members, and non-Indigenous staff.
- 10.2. Provide training and support to staff delivering climate action and sustainability objectives.
- 10.3. Create a climate action and sustainability network that works across all Powerhouse functions to deliver sustainable outcomes in operations.

**Objective 11
PARTICIPATE IN INDUSTRY LEADING
COLLABORATIONS**

Since its inception the Powerhouse has been intrinsically connected to industry.

We will be active in seeking synergies between the research and work of industry, to partner and drive innovation through our program and functions.

Powerhouse will:

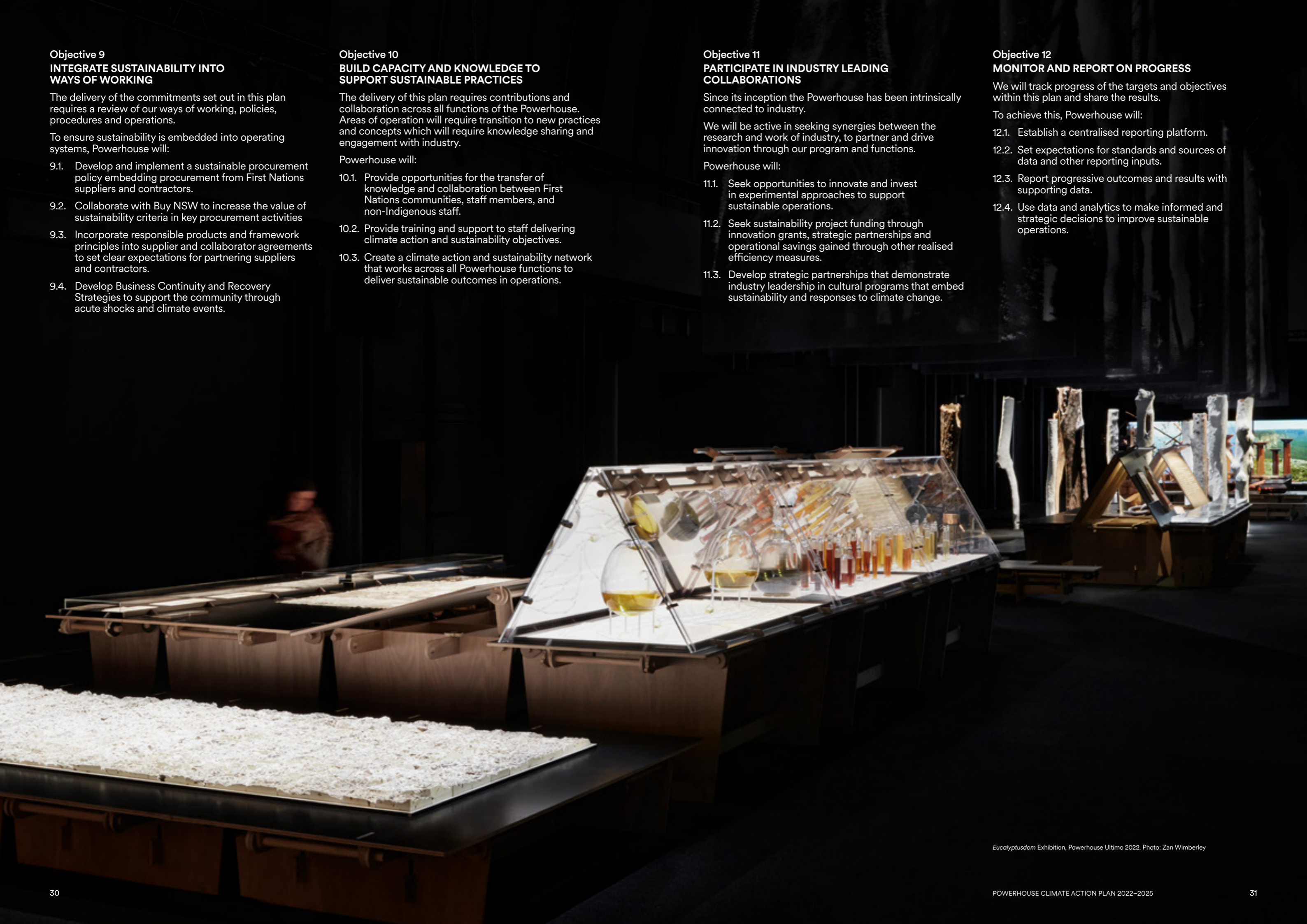
- 11.1. Seek opportunities to innovate and invest in experimental approaches to support sustainable operations.
- 11.2. Seek sustainability project funding through innovation grants, strategic partnerships and operational savings gained through other realised efficiency measures.
- 11.3. Develop strategic partnerships that demonstrate industry leadership in cultural programs that embed sustainability and responses to climate change.

**Objective 12
MONITOR AND REPORT ON PROGRESS**

We will track progress of the targets and objectives within this plan and share the results.

To achieve this, Powerhouse will:

- 12.1. Establish a centralised reporting platform.
- 12.2. Set expectations for standards and sources of data and other reporting inputs.
- 12.3. Report progressive outcomes and results with supporting data.
- 12.4. Use data and analytics to make informed and strategic decisions to improve sustainable operations.



Eucalyptusdom Exhibition, Powerhouse Ultimo 2022. Photo: Zan Wimberley

BEYOND 2025

By 2030 the Powerhouse renewal will be complete – our four sites operating as regenerative, climate positive precincts.

The next eight years present an extraordinary opportunity to accelerate Powerhouse towards a zero carbon reality, with the most critical steps and decisions to be made in the immediate term. This plan has set out our intention and initial actions to transition Powerhouse to net zero operations.

Beyond 2025 we will direct our attention to the continued improvement of the emissions along our value chain and be responsive to the science and innovation in climate science and sustainability.

Preparation and development of the Climate Action Plan Stage 2: 2025–2030 is already underway and will be informed by the ongoing progress of the deliverables in this plan.



POWERHOUSE

Printed on ecoStar+, an environmentally responsible paper made carbon neutral and FSC Recycled certified. Manufactured from 100% post consumer recycled fibre in a process chlorine free environment under the ISO 14001 environmental management system.

