2025 consultation

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Committee for Sydney

T: + 61 2 8320 6750
E: committee@sydney.org.au
Level 8 23 O'Connell Street
Sydney NSW 2000
ABN: 30 332 296 773

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To: Chair, Net Zero Commission

Submission in response to: Net Zero Commission Consultation Paper

Thank you for the opportunity to provide feedback on the consultation questions.

The Committee for Sydney is the city's peak advocacy and urban policy think tank. We work with our 160+ member organisations to produce research and policy recommendations on key agendas for the metropolitan region. Our members include energy companies, utilities, transport and infrastructure constructors and managers, developers and designers of all forms of buildings, local governments, universities, and professional services.

In 2021 the Committee for Sydney's Climate Resilience Program was established to provide a clear voice that advocates for Greater Sydney's residents and businesses in the climate transition.

This submission is in 2 parts, responding to the decarbonisation (first) and adaptation (second) questions from the Net Zero Commission Consultation Paper that are most relevant to the Committees experience and expertise.

Part 1 - Accelerating emissions reductions: Questions 5, 6, 9, 19, 20 and 22

The Committee for Sydney have a significant body of work related to decarbonisation agenda for Greater Sydney, with the most relevant being **Decarbonising Sydney:** The role of transport, buildings & grid infrastructure on Sydney's path to net zero (2022), and **Sydney as a Renewable Energy Zone: (2025),** which will use place-based evidence and collaborative research to make the case for specific changes to market rules, investment incentives and infrastructure priorities.

Together, these reports reflect detailed modelling, stakeholder collaboration, and policy analysis on how Greater Sydney can equitably and effectively transition to net zero by 2050.

Question 5: What additional information and evidence should the Commission consider when assessing progress towards NSW's targets for reducing net greenhouse gas emissions?

Greater Sydney accounts for 36% of NSW's emissions. According to *Decarbonising Sydney* (pp. 20–23), under a "Steady Transition" scenario, emissions are projected to fall ~43% by 2030 — short of the 50% required.

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To improve assessment, the Commission should monitor:

- **Regional emissions trajectories** within the Greater Sydney footprint (see Chart 3).
- **Electrification rates** across buildings and transport (Charts 14, 20–21).
- **DER uptake**, including solar PV, batteries, VPPs (Charts 22–24).
- **Energy equity outcomes**, such as DER access by renters and low-income households (p. 31; *Sydney REZ*, pp. 6–9).
- **Energy burden**: Energy as % of disposable income (Chart 9).
- **Local government contributions** and infrastructure readiness (Chart 29).

We also recommend adopting a **consumption-based accounting framework** alongside generation-based metrics, to better reflect urban emissions responsibility (see *Decarbonising Sydney*, p. 17).

Question 6: The speed of deployment of electricity generation and infrastructure is a key risk to emissions reduction targets. What more could be done to fast-track deployment?

The *Sydney as a Renewable Energy Zone* report (pp. 19–27) shows that Sydney could meet up to 75% of its own energy needs via rooftop solar and storage. However, DER deployment is limited by regulatory, financial, and coordination barriers.

Recommendations to accelerate deployment:

- **Set DER targets for metropolitan Sydney** and develop a spatial energy strategy (pp. 9, 34).
- **Mandate rooftop solar and batteries** for all new homes and industrial developments (p. 44).
- **Streamline planning approvals** for BESS and embedded networks (pp. 41–44).
- **Expand the Capacity Investment Scheme to include <30 MW projects**, enabling urban VPPs (p. 9).
- **Adopt urban REZ-style governance and investment mechanisms** in industrial precincts (pp. 9, 40–44).

Most distribution infrastructure is underutilised (Chart 29, *Decarbonising Sydney*), creating a near-term opportunity to scale local generation and resilience.

Question 9: What are likely to prove the most effective approaches to accelerate rapid decarbonisation across freight and passenger transport?

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Decarbonising Sydney (pp. 36–61) presents a multi-pronged decarbonisation strategy:

1. Modal Shift

- Set a 2030 target for 40% of all kilometres travelled via public transport, walking, cycling, or shared mobility (p. 42).
- Shift away from single-occupant ICE vehicle use (Chart 15).

2. Passenger EV Uptake

- Reach 100% new EV sales by 2027 (p. 46; Chart 16).
- Provide purchase subsidies and fuel efficiency standards (pp. 50–51).
- Expand EV charging at homes, workplaces, and public spaces (p. 52).

3. Freight and Heavy Transport

- Begin transition planning now for freight vehicle electrification (p. 61).
- Incentivise depot-based charging and zero-emission freight corridors.

4. Bus Electrification & V2G

- Support electric bus rollouts and explore vehicle-to-grid integration (p. 100).

These combined strategies yield cost savings and reduce emissions significantly (Charts 13–14).

Question 19: What additional measures could accelerate electrification and increase energy efficiency of new and existing buildings?

The *Decarbonising Sydney* report (pp. 64–78) provides a building retrofit roadmap:

- **Ban new gas connections** and gas appliances (p. 68).
- **Mandate full electrification of all government-owned buildings** (p. 72).
- **Tighten minimum energy performance standards** (p. 74).
- **Require energy rating disclosure** at the point of lease or sale (p. 76).
- **Subsidise electrification of water heating, space heating, and cooking** (p. 78).
- **Mandate DER installation in new homes** (p. 98).
- **Support circuit upgrades and smart meter rollout** (p. 120).

Household energy costs could fall by ~$1,900/year (Chart 8) with these measures, reducing energy poverty and strengthening grid stability.

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Question 20: How could social equity be better addressed in the transition to an electrified built environment?

Both reports emphasise that equity must be central to the energy transition. *Decarbonising Sydney* (pp. 31–33) highlights that energy costs represent up to 20% of disposable income for the lowest-income households, compared to ~3% for the highest quintile (Chart 9).

To improve equity:

- **Mandate minimum energy performance in rentals**, including insulation and electrification (*Sydney REZ*, p. 9).
- **Fund "solar for rentals" programs** and ensure tenants share in bill savings (p. 41).
- **Expand appliance replacement schemes for social housing** (p. 72).
- **Enable strata access to shared DER and batteries** (p. 41).
- **Track electrification uptake and affordability outcomes by income and dwelling type** (Chart 9).

These measures can cut low-income household energy costs to ~5% of disposable income (p. 31). Our research has also revealed three broad types of **consumer perspectives**, with a range of incomes in each group, and therefore differing levels of ability to afford upfront costs of low emission technologies:

- **Hesitants** (22%) are aware of climate change, but doubt that individual action can make a difference and many also believe that proposed solutions might create perverse impact on the climate. They are waiting for government to lead the way with sensible policies.
- **Pragmatists** (around half of Sydney's residents) focus on affordable solutions that make their lives easier. They would consider solar panels and electric heating and water but have not gone looking for them. If they have, they must be convinced clean solutions match the convenience they're used to. Clear and transparent information is key to nudging positive change from this cohort.
- **Stewards** (26%) are far more motivated to adopt sustainable technologies. They seek out new solutions and information but expect government and businesses to support those options.

Despite their differences, these consumers archetypes all expect government and businesses to demonstrate bold action and help make it easy for them to change.

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Question 22: What should be included in a monitoring framework for NSW in the context of the transition to net zero, including any specific metrics and indicators?

We recommend the following indicators, grounded in our reports:

- **Sectoral emissions by sub-region** within Greater Sydney (*Decarbonising Sydney*, Chart 3).
- **DER and VPP participation** by income and tenure (*Sydney REZ*, p. 19).
- **Electrification uptake** in buildings and transport (*Decarbonising Sydney*, Charts 20, 21, 16).
- **Energy burden metrics** across income quintiles (*Decarbonising Sydney*, Chart 9).
- **Participation rates in rebates and upgrade programs**.
- **Equity of access indicators**, including rental and apartment DER access (p. 9).

This framework must be inclusive, transparent, and regularly reviewed to ensure accountability and adaptive management.

Part 2 – Adapting to a changing climate: Questions 23, 24 and 27

The Committee for Sydney have a significant body of work related to the climate risk and adaptation agenda for Greater Sydney. Specifically Defending Sydney: Adaptive planning for today's floods and tomorrow's climate (2023); Nature Positive Sydney: Valuing Sydney's living infrastructure (2023), and Burning Money: The rising economic costs of heatwaves in Western Sydney (2024).

Question 23: What does a more resilient NSW look like to you?

A more resilient NSW is one where communities, infrastructure, ecosystems, and governance systems are designed to withstand, adapt to, and recover from climate shocks. As articulated in *Defending Sydney*:

- **Infrastructure designed for disruption**: Redundancy in energy, communications, and transport systems (pp. 14–15). For example, New York City's post-Sandy investments in flood-resilient subways and energy microgrids demonstrate how multi-system resilience can reduce city-wide disruption.

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- **Nature as infrastructure**: Investment in green-blue networks (e.g., wetlands, creek systems, green corridors) to absorb heat and water (pp. 18–25, Nature Positive Sydney). Singapore's Bishan-Ang Mo Kio Park, Net Zero Commission Consultation Paper a flood-prone concrete canal, was naturalised into a river-park that reduces flood risk and adds amenity.
- **Community-centred preparedness**: Local leadership, training, and decentralised resources (p. 30). Victoria's Community Resilience Committees, formed post-Black Saturday, exemplify how local leadership and trusted networks build social capital before disasters strike.
- **Cultural and place-based resilience**: Incorporating Aboriginal land management and climate knowledge. For example, Indigenous-led fire management programs in Arnhem Land have halved carbon emissions from savanna burning.

In short, a resilient NSW blends engineered, natural, and community-based systems to anticipate and absorb disruption.

Question 24: What additional information and evidence should the Commission consider when assessing progress towards the adaptation objective?

Drawing from *Burning Money* and *Nature Positive Sydney*, the Commission should monitor both risk exposure and system-wide adaptive capacity.

Recommended metrics include:

- **Heat vulnerability indicators,** including access to cooling, health burden from heat, and canopy cover (Burning Money, pp. 8–9). E.g., Los Angeles' Climate Vulnerability Index maps income, heat exposure, and chronic illness.
- **Insurance trends and financial risk**: Monitor households and businesses that are uninsured or under-insured in climate-exposed areas (Burning Money, p. 10). In Lismore, repeated flooding has left thousands of residents without affordable coverage.
- **Uptake of nature-based adaptation**: For example, number of councils adopting green-blue infrastructure, or proportion of catchment areas protected by NBS (pp. 22–25, Nature Positive Sydney). In Melbourne's Arden Precinct, stormwater wetlands and green roofs reduce flood and heat risk while unlocking housing growth.
- **Local adaptation planning activity**: E.g., number of LGAs with climate adaptation strategies aligned to best practice (Defending Sydney, p. 29).

Progress should be disaggregated by geography and demographics to ensure vulnerable communities are not left behind.

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Question 26: What other information or tools are needed to support decision-makers in NSW?

Decision-makers across councils, agencies, and businesses require tools that are accessible, place-specific, and linked to cost-benefit frameworks. As articulated in *Defending Sydney* and *Nature Positive Sydney*:

- **Spatial risk platforms**: A single statewide dashboard mapping heat, flood, and social vulnerability at the postcode/suburb level (pp. 21–22).
- **Valuation of nature-based solutions**: Tools that quantify avoided losses and co-benefits (cooling, amenity, biodiversity) from green infrastructure.
- **Resilience decision-support tools**: Scenario planning frameworks that integrate community input, like the Lismore Living Lab, which was co-designed with vulnerable neighbourhoods and has the potential to guide planning and capital investment.
- **Mandated data-sharing standards**: Requiring consistent use of climate data in planning, building, and infrastructure projects (pp. 24–26). This echoes reforms in the Netherlands' "Room for the River" program, where multi-jurisdictional flood data is integrated into spatial plans.

Such tools help normalise resilience as a core planning and investment function, rather than a reactive add-on.

Question 27: What initiatives should the Commission consider in assessing NSW's preparation and responses to extreme heat and humidity events?

Extreme heat is now the deadliest climate risk facing NSW. *Burning Money* estimates annual costs of $1.5 billion for Western Sydney alone (p. 4). Key initiatives to track:

- **Local Heat Action Plans**: Track which LGAs have plans that include public cool spaces, medical outreach, and early warnings (Burning Money, pp. 8–10). Maribyrnong Council in Victoria has embedded heatwave protocols into emergency management planning.
- **Urban greening and canopy targets**: Include both absolute targets and distributional equity measures.
- **Cool materials standards for buildings**: Require cool roofs, reflective surfaces, and low-heat-absorbent materials in urban infill and social housing (Burning Money, p. 9).

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- **Resilient transport infrastructure**: Assess how public transport systems are being upgraded for passenger safety and operability during heatwaves (Defending Sydney, p. 19).
- **Outdoor worker protection policies**: Especially for construction and logistics workers in Western Sydney, where temperature differentials of up to 10°C from the coast are common (Burning Money, p. 7).

These efforts must be coordinated, funded, and regularly evaluated, with explicit attention to equity and vulnerable populations.

Closing Statement

The Committee for Sydney thanks the Commission for the opportunity to contribute to this important consultation. Our work demonstrates that Sydney can—and must—become a net-zero, resilient city that shares the benefits of clean energy equitably.

We welcome further engagement and offer the resources of our member network to support delivery and implementation.

Please don't hesitate to reach out to discuss our submission in more detail.

Yours sincerely,

[redacted]

Sam Kernaghan -
Director, Resilience Program
Committee for Sydney
sam@sydney.org.au | [redacted]