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Purpose: *and the net zero*

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Dear Commissioners,

Please accept this submission from the **Urban Transformations Research Centre (UTRC)** at Western Sydney University in response to the Commission's interim report, *Investing in cheaper, cleaner energy and the net zero transformation* (August 2025).

1) About UTRC and our Net Zero Cities CRC bid

UTRC is a cross-sector centre focused on turning decarbonisation and climate-resilience strategies into financeable, place-based delivery. We convene city governments, utilities, industry and research partners to design and scale practical solutions across energy, housing and critical infrastructure.

In March 2025, UTRC submitted the **Net Zero Cities CRC** bid to the commonwealth government (A\$127+ million, whole-of-city focus). The NZC CRC assembles a consortium of over 50 partners across industry, government, research, and community, developing a bid focused on cross-cutting research at the city scale, providing a catalyst for cross-sector growth and unlocking the new Net Zero Economy to:

- Accelerate precinct-scale electrification and distributed energy,
- Decarbonise hard-to-abate industry and freight corridors,
- Upgrade existing housing for energy efficiency and multi-hazard resilience, and
- Standardise data, procurement and investment-grade business cases to de-risk private capital.

The NZC CRC's purpose and methods align closely with the Commission's emphasis on least-cost abatement, nationally consistent settings, faster approvals and practical adaptation that households and businesses can act on.

2) Overall view of the interim report

We commend the Commission for a clear, pragmatic interim report. The organising principles, **technology neutrality, filling genuine policy gaps, and removing overlaps** are sound and, if implemented, would lower system costs and investor risk. We strongly support the direction of travel on:

- A durable, nationally consistent **post-2030 electricity incentive** that integrates reliability;
- **Broadening coverage** and improving integrity in industry policy while managing leakage;
- A **technology-neutral mechanism for heavy vehicles** and rationalisation of overlapping light-vehicle supports;
- **Faster, better approvals** via a strike team, a single front door and a Coordinator-General with authority; and
- **Adaptation measures households can use**, including a national climate-risk database and a resilience rating for homes that prioritises existing stock.

3) Feedback and feasible solutions

A) Post-2030 electricity incentives and reliability

Why this matters: Australia needs a long-lived, bankable framework that continues to drive clean supply while maintaining reliability at least cost.

Our recommendation:

1. Pair a **technology-neutral decarbonisation incentive** with **explicit reliability instruments**. Implement competitive, technology-neutral **contracts for difference (CfDs)** or equivalent revenue-stabilisation auctions for clean generation, alongside **cap-and-floor-style** arrangements for long-duration storage and interconnection.
 - **Precedent:** The UK's CfD program materially reduced financing costs and enabled multi-GW build-out (UK Dept for Energy Security & Net Zero evaluations; National Audit Office).
2. Adopt **target-consistent carbon values** across government for appraisals and procurement so policies line up on cost per tonne and system value.
 - **Precedent:** UK **Green Book** carbon values; US **EPA Social Cost of Greenhouse Gases**.

Implementation notes: Request from the Energy Ministers to task AEMO/ESB with options that keep the NEM market-based while integrating reliability products; embed carbon values in Regulatory Impact Statements and major procurement.

B) Industry decarbonisation, leakage and trade

Why this matters: Competitiveness and integrity hinge on broad, predictable coverage and credible leakage management.

Our recommendation:

1. **Broaden Safeguard coverage** in measured steps (e.g., toward ~25 kt CO₂-e) with transitional compliance pathways for smaller facilities.
2. Develop a **Border Carbon Adjustment (BCA) roadmap** for a narrow set of emissions-intensive, trade-exposed products with robust MRV (iron/steel, cement, aluminium, fertilisers, hydrogen, electricity). Phase out domestic relief where products are BCA-covered.
 - **Precedent:** EU **CBAM** transitional phase (since 2023) with embedded emissions reporting prior to financial adjustment.

Implementation notes: Align BCA accounting with Safeguard baselines; run a pilot for one or two product lines to validate data quality and administrative burden before scaling.

C) Heavy vehicles; close the policy gap without picking winners

Why this matters: Freight decarbonisation is behind the curve; operators need clear, technology-neutral rules and investable infrastructure.

Our recommendation:

1. Introduce a **national heavy-vehicle CO₂ performance standard** (fleet-average) for manufacturers and importers, complemented by a **fuel-neutral carbon-intensity crediting** scheme that rewards verified lifecycle emissions reductions across electricity, hydrogen and certified renewable diesel.
 - **Precedents:** EU **HDV CO₂ standards** (2024 update); California **Advanced Clean Trucks/Advanced Clean Fleets + Low Carbon Fuel Standard (LCFS)**.
2. Publish a **corridor infrastructure plan** mandating minimum heavy-duty charging and hydrogen refuelling on priority freight routes, synchronised with grid upgrades and planning reforms.
 - **Precedent:** EU **Alternative Fuels Infrastructure Regulation (AFIR)** with mandated intervals and capacities.
3. **Fix the renewable-diesel blind spot** by crediting certified blends on a lifecycle-intensity basis while keeping road-user charging focused on cost recovery, not abatement.

Implementation notes: Start with indicative targets and generous credit banking/borrowing; set verifiable CI methods (ISCC/RTFO-style mass-balance), then tighten over time.



D) Approvals; certainty through enforceable timelines and a true front door

Why this matters: Time risk is now a primary cost driver for generation, storage, transmission and corridor assets.

Our recommendation:

1. Legislate **maximum statutory timelines** for projects on a **National Renewable Energy Priority List**, publish **live project dashboards**, and empower an independent **Clean Energy Coordinator-General** to set and enforce schedules across agencies.
 - **Precedents:** US FAST-41/Permitting Council (enforceable schedules, dashboards); UK NSIP reform program; EU RED III “go-to” areas with capped timelines.
2. Resource a Commonwealth-led **strike team** to unblock cross-jurisdictional issues (biodiversity offsets, cultural heritage protocols, corridor co-design with communities).

Implementation notes: Start with a limited set of projects to prove the model; scale once KPIs on decision quality and timeframe predictability are met.

E) Adaptation & housing resilience; make it investable for households

Why this matters: Most risk is embedded in existing homes; households will act when benefits are measurable and financeable.

Our recommendation:

1. Build the **national climate-risk database** as an **API-first public good** with property-level layers (heat, flood, fire, cyclone) and insurer-grade metadata; require use in conveyancing, lending and planning.
 - **Precedents:** US Climate Mapping for Resilience and Adaptation (CMRA); ClimateData.ca; UK national flood maps.
2. Create a **multi-hazard resilience star rating** tied to **expected annual loss (EAL)** and certify **retrofit packages** that demonstrably lower loss, not just improve check-box compliance.
 - **Precedents:** US IBHS FORTIFIED programs; post-2002 Florida building code outcomes.
3. Pair ratings with **finance and rebates** (low-interest loans, insurer premium discounts, “build-back-better” grants after claims).
 - **Precedents:** UK Flood Re – Build Back Better; US FEMA BRIC and Community Rating System; Queensland Resilient Homes Fund.

Implementation notes: Co-design with insurers and banks from day one so savings are recognised in pricing; prioritise low-income households and high-risk postcodes.



How UTRC can assist implementation

- **Policy design sprints:** Co-design options for a **post-2030 electricity framework** that integrates reliability, and a **heavy-vehicle performance + CI crediting** scheme.
- **Approvals delivery office prototype:** Stand up a **Coordinator-General dashboard** and escalation pathways, drawing on proven PMO methods from metro-scale programs.
- **Resilience pilots:** Launch two **Climate-Resilient Streets** pilots (rating + certified retrofits + insurer/bank offers) using EAL-based certification with state and local partners.

Evidence base

1. United Kingdom **Contracts for Difference** (DESNZ/NAO evaluations); **HM Treasury Green Book** carbon values.
2. United States **EPA Social Cost of Greenhouse Gases**; **FAST-41/Permitting Council**; **IBHS FORTIFIED**; **FEMA BRIC/CRS**; **CMRA** portal.
3. European Union **CBAM** Regulation (EU 2023/956); **HDV CO₂ standards** (2024 update); **AFIR**; **RED III “go-to” areas**.
4. United Kingdom national flood risk maps; **ClimateData.ca** (Canada); **Flood Re – Build Back Better** (UK).
5. Queensland **Resilient Homes Fund** program materials.

Thank you for the opportunity to contribute. We would welcome the chance to brief Commissioners and your secretariat on delivery models and to support costed, implementation-ready options for the final report.

Yours faithfully,

Dr Ehsan Noroozinejad and Professor Greg Morrison
On behalf of the Net Zero Cities CRC bid consortium partners