

Executive Summary

The Australian Livestock and Rural Transporters Association (ALRTA) is the peak national body for rural road transport businesses servicing Australia's agricultural supply chains. Through our six state member associations, we represent around 700 operators — from single-truck owner-drivers to large regional fleets. They move livestock, grain, fertiliser, fuel and other essentials on some of the country's toughest roads. When rural trucks stop, animals don't move, supermarket shelves thin out, and regional communities feel it fast.

The Productivity Commission has been asked to advise governments on heavy vehicle reforms. Done well, these reforms lift productivity, improve safety and cut emissions. Done badly, they add cost and red tape for small regional operators, weaken animal welfare and food security, and push more risk onto under-resourced rural councils.

For these reforms to work where the freight task actually runs, they must:

- **Put rural and regional impacts first** — test every major decision against impacts on operators, councils, livestock welfare and food supply, not just national averages.
- **Back what works** — judge EV, hydrogen and low-carbon liquid fuels on real-world emissions and whether they can do the long-haul, high-mass rural task.
- **Cut emissions now through productivity** — fewer truck movements on the right roads reduces emissions while fuels and infrastructure scale.
- **Follow the freight task** — build around real corridors and nodes: saleyards, abattoirs, grain receival sites, intermodals, ports and regional distribution centres.
- **Make access predictable and visible** — NAAS, the NHVR Portal and the National Freight Data Hub should function as one national access “control panel” for permits, performance and accountability.
- **Fix the blind spots** — local road and bridge condition, permit coverage and decision times, workforce and licence progression, and infrastructure availability at freight nodes and along regional corridors.
- **Treat animal welfare, cold-chain reliability and food security as non-negotiables** — if those go backwards, the reform has failed for regional Australia.

This submission sets out ALRTA's recommendations across each reform area and responds to the Commission's data and modelling questions to support a package that delivers in practice.

Reform 1 – Road access, mass limits and higher-productivity vehicles: turning higher limits into real productivity and safety

For agriculture and regional freight, access is where this reform either delivers – or fails.

Regional Australia is an export machine: agriculture, fisheries and forestry send around 70% of output offshore, worth \$75.6 billion in 2023–24.¹ That task is growing—ABARES forecasts agricultural production at \$99.5 billion in 2025–26 (over \$106.4 billion including fisheries and forestry).² Agriculture alone employs about 255,500 people (around 1.8% of the workforce).³ Livestock and rural freight is the link in the chain. If access fails, the export task fails.

Yet the heavy-vehicle task that underpins this export performance runs overwhelmingly on local and regional roads that were never designed for modern high-productivity vehicles.

Since January 2022 there have been 23 flood events leading to 429 disaster declarations across 277 local government areas, with more than 82,000 km of roads closed during recent east-coast floods alone.⁴ These closures fell hardest on the local roads that carry stock, grain, fertiliser and rural supplies.

For ALRTA members, the Commission’s access recommendations will decide whether higher mass and height limits:

- unlock safer, more efficient regional freight; or
- shift risk and cost onto small councils and family operators, forcing them onto weakened roads with heavier vehicles and little help to pay for upgrades.

What “good access” looks like in the real world

From a national perspective, access is often described in broad terms – “general access” vs “restricted access”, or network tiers on a map. For rural and livestock transporters, it is much more concrete:

- Can I get from farm gate or saleyard to processor without detours that add hours, stress livestock and blow fatigue margins?
- Can I use a safe, modern PBS or Euro VI combination at higher mass despite higher tare weights, rather than making extra trips with older trucks?

¹ ABARES 2024, *Snapshot of Australian Agriculture 2025*, Department of Agriculture, Fisheries and Forestry (DAFF), Canberra.

² ABARES 2025, *Agricultural commodities: December quarter 2025*, Australian Bureau of Agricultural and Resource Economics and Sciences, Department of Agriculture, Fisheries and Forestry, Canberra, 2 December.

³ ABARES 2025, *At a glance: Australian agricultural workforce*, DAFF.

⁴ Australian Local Government Association (ALGA) 2023, ‘New alliance calls for emergency funding for rural roads’, Joint media release, Rural Road Alliance.

- Are low bridges, overhead powerlines and tree canopies, older timber structures and tight town streets mapped and managed, or will a 4.6 m vehicle be ‘legal on paper’ but practically unusable?

The National Transport Commission’s (NTC) Heavy Vehicle National Law (HVNL) Consultation Regulatory Impact Statement (C-RIS) shows that raising General Mass Limits (GML) to match current Concessional Mass Limits (CML) (Options 4a and 4b) can deliver large net benefits. It estimates:

- road-wear costs of about \$48.7 million (Option 4a) and \$71.3 million (Option 4b), vs
- productivity benefits of around \$553.7 million and \$1,107.4 million respectively.⁵

The RIS rightly cautions that these are network-wide averages and that estimating where the extra wear actually falls is difficult. In practice, ALRTA members know that:

- well-built arterial roads and key freight corridors can comfortably carry higher-productivity combinations, while
- under-strength local roads and bridges often become the weak link, bearing a disproportionate share of the pavement and bridge-wear.

“Good access” therefore means:

1. **Targeted use of higher mass and height limits** on corridors and structures that can safely accommodate them.
2. **Better, faster pathways to access** for PBS/HPV and Euro VI combinations on suitable rural routes.
3. **Explicit protection for vulnerable local roads and bridges**, backed by funding, not just signage, when national reforms push more task onto them.

High-productivity vehicles: safer, fewer trucks, less distance – if they can access the right routes

The evidence is clear: well-designed high-productivity vehicles (HPVs), particularly PBS combinations, improve safety and efficiency rather than undermining it.

Key findings include:

- Austroads estimated that the HPV initiative is poised to deliver \$12.6 billion in real benefits to Australia by 2030, including safety, productivity, fuel and environmental savings (plus wider economic flow-on benefits).⁶

⁵ National Transport Commission (NTC) 2023, *Reforms to Heavy Vehicle National Law – Consultation Regulation Impact Statement*, Melbourne, esp. ch. 7 and Table 23.

⁶ Austroads 2014, AP-R465-14: *Quantifying the Benefits of High Productivity Vehicles*, Austroads, Sydney.

- An NTC review of the PBS scheme (2014–16) reported an average 24.8% productivity gain across commodities, a 6.2% saving in gross tonne-kilometres in 2016, and an estimated reduction of over 440 million truck-kilometres over 2014–16, equating to at least four lives saved, including around \$65 million in avoided road-maintenance costs.⁷
- NHVR reporting indicates that as the PBS fleet has grown, the cumulative benefits have grown with it; for example, reporting attributed to NHVR's *Heavy Vehicle Productivity Plan 2020–2025* notes that from 2007 to 2019 PBS vehicles reduced truck distance travelled by over 1.6 billion kilometres, reduced fuel consumption by over 800 million litres, and reduced CO₂ emissions by over 2.2 billion kilograms, compared with the conventional fleet required to do the same task.⁸

Taken together, these evaluations show that the benefits first identified in 2014–16 have grown substantially as PBS uptake has increased.

For rural and regional freight, that means using a mix of PBS combinations and incremental improvements to existing B-double and road train networks, wherever roads and bridges can safely carry the task.

For ALRTA, the ask is simple: the Commission should back access reforms that favour productivity-improving combinations – including PBS vehicles and smarter use of existing B-double and road train networks – and open up better access on suitable routes, rather than simply raising limits for every combination on every road.

Access reform that starts with high-productivity vehicles on key agricultural, commodity and regional freight corridors would:

- reduce the number of trucks needed to move the same task, cutting traffic and exposure
- enable operators to justify investment in modern, safer equipment
- deliver measurable emissions reductions in line with broader climate and fuel-efficiency objectives

However, these gains only materialise if those vehicles can actually get to and from farms, saleyards and processors. Restricting high-productivity combinations to a small number of four-lane highways may look positive in a model, but will not transform rural freight.

⁷ National Transport Commission (NTC) 2017, *Assessing the effectiveness of the PBS Scheme: Discussion paper*, NTC, Melbourne.

⁸ National Heavy Vehicle Regulator (NHVR) 2022, *Submission to the Productivity Commission: Lifting productivity at Australia's container ports: between water, wharf and warehouse (Draft Report)*, 19 October 2022, p. 6.

Height, bridges and the 4.6 m question

The consultation proposes increasing the general vehicle height limit from 4.3 m to 4.6 m to reflect existing industry practice in some sectors and allow more volumetric loads.⁹

In practice, Australian jurisdictions already permit certain articulated vehicles – such as livestock trucks, car carriers and some cubic-freight and hay vehicles – to operate up to 4.6m under specific notices or conditions.¹⁰¹¹¹² Height-clearance maps and bulletins (for example, Victoria’s “Height Clearance on Roads” and similar tools in other HVNL jurisdictions) are used to help drivers plan routes that avoid low structures.¹³

ALRTA supports sensible moves toward 4.6m that:

- reflect existing livestock and rural freight practices
- are underpinned by robust, publicly available height-clearance mapping
- are paired with targeted investment in critical low-clearance bridges, roadside vegetation management (including low-hanging branches) and other structures on key regional freight routes.

For rural operators, poorly maintained roadside vegetation and other low-clearance structures can be just as limiting as a low bridge, so height-clearance mapping and NAAS design must capture those real-world constraints, not just formal structure heights.

The Commission’s modelling will be most useful to regional communities if it:

- differentiates between new, structurally robust bridges and older timber or low-clearance structures
- assesses where a 4.6m general height limit would require upgrades or route restrictions to avoid an unacceptable increase in bridge-strike risk
- recognises that on some corridors, a modest program of bridge upgrades can unlock safe use of 4.6m vehicles and HPVs, multiplying national productivity gains.

⁹ NTC, 2023, *Reforms to Heavy Vehicle National Law – Consultation Regulation Impact Statement*, ch. 7, Table 23.

¹⁰ NHVR / VicRoads 2009, *Height Clearance on Roads – Information Bulletin*.

¹¹ Advanced Heavy Vehicles Training Centre 2020, *HC and MC Learner Guide – Vehicle dimension limits* (summarising Victorian Road Safety (Vehicles) Regulations).

¹² NHVR 2018, *National Class 3 Drought Assistance Dimension Exemption Notice* and related operators’ guides for baled commodities.

¹³ Department of Transport and Planning (Vic.) 2025, ‘Height clearance on roads’, Victorian NHVR network map and height-clearance web tool.

A practical access package for the Commission to model

To ensure reforms work for rural and livestock transporters, ALRTA asks the Commission to focus its access analysis on a practical, sequenced package:

(a) Start with corridors where the network is already close to “HPV-ready”

- Identify regional freight corridors where road geometry and key structures already suit PBS/HPV and higher-mass combinations or can be upgraded at reasonable cost.
- Model priority access for PBS/HPV and Euro VI trucks on these routes under the new GML and (where appropriate) 4.6m height, alongside a targeted program of bridge and pavement upgrades.

(b) Tie new mass and height to safer, cleaner vehicles

- Link higher GML and height limits to PBS performance, modern braking and stability systems, and Euro VI emissions standards, consistent with the HVNL C-RIS recognition that Euro VI vehicles otherwise risk losing payload due to higher tare weights.¹⁴
- This approach ensures that the vehicles doing the extra damage are also the ones delivering the greatest safety and emissions benefits.

(c) Design access around real agricultural freight tasks

- Explicitly model farm-gate to saleyard, saleyard/feedlot to processor, and inputs (grain, fertiliser, fodder) into rural communities, rather than treating all freight as generic “tonnes moved”.
- Recognise that detours or restrictions that add an hour to each livestock or perishable load erode animal welfare, farmer returns and driver fatigue margins, even if they look minor in aggregate freight-task statistics.

(d) Include a modest but focused regional upgrade program

- Use the Commission’s modelling to identify “high-leverage” upgrades – for example, a small number of local bridges that currently prevent PBS or higher-mass access between key production zones and state networks.
- Examine how far a targeted federal co-investment program could go towards enabling HPVs on these links, leveraging the substantial national productivity gains identified by Austroads, NTC and NHVR.

¹⁴ NTC 2023, *Reforms to Heavy Vehicle National Law – Consultation Regulation Impact Statement*, ch. 7, Table 23.

Sharing the costs of extra wear fairly

The HVNL Consultation RIS finds a large *headline* productivity dividend from lifting General Mass Limits (GML) to replace today's Concessional Mass Limits (CML): estimated benefits of \$553.7 million to \$1,107.4 million per year, compared with estimated road-wear increases of \$48.7 million to \$71.3 million per year (2023 dollars).¹⁵

But the core issue for rural Australia is not whether there are net benefits—it is who captures them and who pays. The RIS makes clear that most of the quantified benefits are vehicle operating cost savings (linked to fewer kilometres travelled), while the key cost impact is road wear. It also cautions that road-wear impacts are challenging to estimate and that results should be interpreted carefully (the RIS does not calculate headline NPV/BCR figures to avoid overstating impacts).¹⁶

The RIS explicitly recognises that a portion of the freight task already operates at increased mass limits, and assumes that lifting GML provides no productivity benefit for movements that can already run at higher mass settings. It also notes that determining uptake of mass concessions is difficult given the complexity of freight movements and limited general data on mass utilisation. In other words, part of the “reform dividend” may be genuine payload uplift for operators currently constrained at GML, but part may be streamlining / transaction-cost reduction for operators already using higher-mass settings—while road managers still face real maintenance pressures on the weakest links.¹⁷

The RIS also highlights the distributional risk: if higher general access limits reduce participation in mass accreditation, there may be greater variability in loading practices and increased incidence of overloading, which could increase pavement wear. It reports that around 40% of NHVAS operators held the mass management module only (around 3,500 in March 2023), but that it is not possible to extract from the data the exact number accessing CML versus those accredited to access Higher Mass Limits (HML).¹⁸

ALRTA therefore asks the Commission to explicitly “stress-test” fairness in its access modelling and recommendations by:

- **making transparent where the extra wear costs are likely to fall**, distinguishing between high-standard highways, state roads and under-resourced local road networks
- **treating existing higher-mass operations as a core baseline sensitivity**, so the analysis separates:

¹⁵ National Transport Commission (NTC) 2023, *Reforms to Heavy Vehicle National Law: Consultation Regulation Impact Statement (October 2023)*, NTC, Melbourne.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

- (i) payload/productivity uplift for movements genuinely constrained at GML, from
- (ii) streamlining and compliance-cost effects for movements already operating at CML/HML or under other mass schemes
- **recommending mechanisms to recycle part of the national productivity dividend into local and regional road upgrades**, so the reform does not leave small councils and rural ratepayers carrying a national cost shift.

This aligns with the Rural Roads Alliance's call for an emergency rural road funding package to rebuild disaster-damaged networks and improve first-and-last-mile freight productivity.¹⁹ In short: if the national economy and major freight customers bank the benefits, rural communities should not be left with the bill.

Reform 2 – National Automated Access System (NAAS): making access work for rural and regional freight

The National Automated Access System (NAAS) is one of the most powerful levers governments have to lift heavy-vehicle productivity without compromising safety. For ALRTA members, it will determine whether livestock and rural freight can move reliably on first- and last-mile routes, or remain stuck in the current maze of permits, delays and inconsistent local decisions.

ALRTA strongly supports a well-designed NAAS that replaces most permits with predictable, network-based access, while properly resourcing local government to manage their assets and make timely, defensible decisions.

The permit problem NAAS is meant to solve

NatRoad reports that NHVR access permits have more than doubled in the past decade, from about 78,500 permits in 2014–15 to over 172,000 in 2023–24.²⁰ With an average processing time of 11.5 days per permit, NatRoad calculates this equates to almost two million days of regulatory delay each year just to get access to the road network.²¹

At the same time, HVIA has highlighted that the Heavy Vehicle National Law (HVNL) requires road managers to respond to NHVR consent requests within 28 days, unless an extension is agreed, yet many do not respond within that period, leaving applications marked as “overdue” and adding to uncertainty for operators.²²

¹⁹ National Farmers' Federation (NFF) 2023, *Rural Roads Alliance outlines infrastructure priorities to Parliament* (media release, 2 May 2023).

²⁰ NatRoad 2025, *Road to 2028: Road Freight Reform Priorities for the 48th Australian Parliament*, NatRoad, Sydney.

²¹ Ibid.

²² Heavy Vehicle Industry Australia (HVIA) 2023, *HVIA submission on PBS 2.0*, pp. 7–9.

For rural and livestock operators moving time-sensitive loads (livestock welfare, perishable produce, seasonal inputs), this friction is not just an annoyance—it translates directly into lost time, higher costs, lower asset utilisation and increased risk. When local councils are cautious, under-resourced and facing ageing bridges and pavements, operators see:

- long chains of repeat permits on the same routes
- inconsistent conditions across neighbouring councils
- last-minute refusals or delays that disrupt animal welfare and supply chains.

NAAS is supposed to fix this. Whether it does so for rural freight depends entirely on how it is designed, funded and governed.

A critical design question for NAAS is how bridges are assessed. Currently, similar structures can be treated quite differently between jurisdictions and road managers, depending on the live-load models and safety factors they apply. From an operator's point of view, the same PBS or other high-productivity combination should get the same answer on comparable bridges, regardless of which side of a council or state boundary it sits. ALRTA urges the Commission to recommend a nationally consistent approach to bridge assessment and live-load modelling within NAAS, backed by shared tools and practical guidance for local road managers. These concerns are raised repeatedly by ALRTA members and go directly to confidence in the system and willingness to invest in safer, higher-productivity combinations.

Lessons from Tasmania's HVAMS

Tasmania's Heavy Vehicle Access Management System (HVAMS) shows what is possible when asset data and access rules are pre-loaded into a digital system.

The Tasmanian Spatial Information Council (TASSIC) case study reports that HVAMS delivers 24/7, self-service, permit-free access for approximately 80% of oversize–overmass (OSOM) activity and 95% of special purpose vehicle (SPV) activity.²³ It has cut SPV permit applications from about 700 to around 30 per year, saving “thousands of days of waiting time each year” and freeing road-manager resources for proactive network management.²⁴

The May 2025 ministerial statement on NAAS confirms these benefits, noting that the Tasmanian system has encouraged road managers to maximise access where safe, delivered a 95% reduction in permit applications for mobile cranes, and is already helping target investment to priority assets.²⁵

²³ Tasmanian Spatial Information Council (TASSIC) 2021, *Heavy Vehicle Access Management System (HVAMS) Case Study*, Tasmanian Government.

²⁴ Ibid.

²⁵ Infrastructure and Transport Ministers 2025, *May 2025 Statement – Update on National Automated Access System*, Australian Government.

This is exactly the kind of outcome rural operators need:

- clear maps of where they can go, under what conditions
- same-day route planning without permits for most regular tasks, and
- asset data feeding directly into investment decisions where constraints are binding.

ALRTA supports the decision to base NAAS on the high-level architecture of HVAMS. The challenge now is to ensure the national system delivers HVAMS-style benefits on the mainland, including across the complex web of local and regional roads used by livestock and rural freight.

Getting NAAS design right for rural and regional networks

The May 2025 NAAS statement makes clear that ministers intend NAAS to replace around 90% of current access permit requests, with early releases for PBS, OSOM and SPV vehicles already in testing in Queensland and Tasmania.²⁶

Separately, the 2022 Kanofski recommendations, as summarised by NatRoad, called for:

- NAAS to be established within three years,
- a 50% reduction in permits within three years, and
- a 90% reduction in access permits for all heavy vehicles within five years.²⁷

NatRoad now urges governments to recommit to these targets and eliminate at least 90% of access permits by 2028, stressing that NAAS must not become “just a layer of automation over the top of an existing broken permit system”.²⁸

ALRTA agrees. For rural and livestock freight, a successful NAAS must:

- **Deliver network-based access, not “digital permits”**
NAAS will only be a reform if it shifts the default from individual, route-specific permits to pre-assessed networks and envelopes that operators can use repeatedly—especially for common livestock and rural freight configurations.
- **Prioritise first- and last-mile rural connections**
The biggest productivity gains for ALRTA members will come from lifting constraints on local and regional roads that connect farms, saleyards, feedlots, abattoirs and regional hubs to state and national freight routes, not just from optimising high-standard highways.
- **Reflect real-world risk, not worst-case assumptions**
NAAS rules need to be transparent and risk-based so that local road managers can

²⁶ Ibid.

²⁷ NatRoad 2025, *Road to 2028: Road Freight Reform Priorities for the 48th Australian Parliament*.

²⁸ Ibid.

safely maximise access where assets are fit-for-purpose, and clearly identify where investment is needed rather than defaulting to “no”.

Bridge assessment reform: NAAS will only be as fair as the bridge rules it automates

NAAS will only lift productivity if it gives operators clear, repeatable network access—not faster uncertainty. The May 2025 ministerial update on NAAS states that the system will match any application vehicle/load to the capacity of road assets (taking account of each road manager’s “risk appetite”), with decision-making effectively pre-loaded to allow immediate generation of access maps.²⁹

That design strength is also the risk: if bridge assessment assumptions and access settings vary between road authorities, NAAS can scale up today’s variability into a national “default” unless governments actively harmonise the underlying bridge rules.³⁰

ALRTA therefore supports a nationally consistent bridge assessment approach for NAAS, aligned with established Australian bridge assessment practice (including AS 5100.7) so that bridge capacity is assessed on a consistent basis across borders.

ALRTA also supports governments considering a nationally consistent live-load factor of 1.6 for *assured-mass* freight tasks—where modern assurance mechanisms (for example PBS approvals and telematics-based compliance programs) give road managers greater confidence that real-world performance and compliance are controlled—so bridge access rules can move away from blunt “worst-case” conservatism while maintaining safety.³¹

If conservative settings are hard-coded into NAAS, the reform risks becoming a faster way to say “no”—or a faster way to force detours—rather than a system that reliably opens first- and last-mile routes where assets can safely carry the task.

ALRTA urges the Commission to treat NAAS as a core productivity reform, with measurable targets for permit reduction, access certainty and turnaround times, and explicit expectations that benefits will be delivered on rural networks, not just major freight corridors.

Local government capacity, funding and SLGAAP

NAAS cannot succeed without local government. Councils own and manage around 678,000 km of sealed and unsealed roads—about 77% of Australia’s road network—yet collect only

²⁹ Infrastructure and Transport Ministers (Australian Government), *May 2025 Statement – Update on National Automated Access System (NAAS)*, May 2025.

³⁰ National Transport Commission 2016, *Review of quad axle groups: discussion paper*, NTC, Melbourne, March.

³¹ National Transport Commission (NTC), *Review of quad-axle groups – Discussion paper*.

about 3.5% of national taxation revenue and have no direct mechanism to levy road user charges or similar fees.³²

ALGA's 2021 State of the Assets–backed analysis shows that:

- about 8% of sealed local roads and 14% of unsealed local roads are in poor condition, function and capacity, close to the end of their useful life, and
- the estimated replacement cost of these roads is \$17.8 billion, well beyond local government's financial capacity.³³

At the same time, councils are being asked to:

- collect and maintain detailed asset attribute data (bridges, culverts, pavements, geometry) to feed NAAS
- make faster, more defensible access decisions using that data, and
- keep up with increasing heavy-vehicle mass and dimension limits.

The Commonwealth has taken some important steps. The Strategic Local Government Asset Assessment Project (SLGAAP), funded with \$8.0 million in 2019–20 and a further \$12 million in 2021–22, aims to support engineering assessments of local government-owned road and bridge assets and build a shared asset information database.³⁴

However, SLGAAP funding is very modest relative to the scale of the task and the demands NAAS will place on councils:

- thousands of bridges and structures require assessment
- many rural councils have limited access to structural engineers or advanced asset-management systems
- smaller councils in particular often lack the staff and IT capacity to keep data current once it is collected.

Without dedicated, long-term funding and technical support, there is a real risk that NAAS will replicate existing inequalities:

- metropolitan and high-volume freight routes will be fully populated in NAAS, enabling faster, automated access
- thinly funded rural councils will lag behind, leaving key first- and last-mile routes outside the system or locked under conservative settings.

³² Australian Local Government Association (ALGA) 2022, *Pre-Budget Submission 2022–23*, ALGA, Canberra.

³³ *Ibid.*

³⁴ Department of Infrastructure, Transport, Regional Development, Communications and the Arts 2023, 'Heavy vehicle regulation' (webpage), Australian Government, viewed 4 December 2025, section 'Strategic Local Government Asset Assessment Project (SLGAAP)'.

That outcome would undermine the national objectives of NAAS and further entrench the urban–regional divide.

Data, transparency and industry confidence

The May 2025 NAAS statement notes that implementation teams in each HVNL jurisdiction are now gathering asset attribute data for bridges, tunnels, intersections and road geometry along key routes, with NAAS designed to “match any application vehicle/load to the capacity of any road asset (and the risk appetite of the road manager)” and generate immediate maps of accessible roads.³⁵

Done well, this can transform both productivity and infrastructure planning:

- **For operators**, it can provide a single, authoritative view of where certain vehicles can operate, under what conditions, and with what level of certainty.
- **For road managers**, it can translate technical assessments into consistent decisions and highlight where constrained assets are holding back productivity and should be prioritised for investment.
- **For governments**, it can link road investment more directly to freight productivity outcomes.

NatRoad cites Deloitte’s 2019 analysis, which found that reforms to improve heavy-vehicle access could save the average consumer \$452 per year, underlining the broader economic payoff from better access regulation.³⁶

To secure industry confidence, NAAS must therefore be:

- **Transparent** – operators should be able to see, in practical terms, why a route is allowed or restricted, and what would need to change (vehicle, load or asset) to improve access.
- **Accountable** – performance metrics such as permit volumes, NAAS coverage, turnaround times and refusal rates should be monitored and published, including for rural and regional networks.
- **Open to review** – there should be clear pathways for operators and councils to seek review of NAAS rules where they appear inconsistent with risk or new evidence.

From ALRTA’s perspective, a NAAS that is viewed as a black box—or as simply accelerating inconsistent local decisions—will not deliver on its promise. A NAAS that is transparent, predictable and backed by proper funding for local government will.

³⁵ Infrastructure and Transport Ministers 2025, *May 2025 Statement – Update on National Automated Access System*, Australian Government.

³⁶ NatRoad 2025, *Road to 2028: Road Freight Reform Priorities for the 48th Australian Parliament*.

Recommendations to the Commission

To ensure NAAS delivers real productivity and reliability gains for livestock and rural freight, ALRTA recommends that the Commission:

1. Endorse clear permit-reduction targets and timelines

- Support the Kanofski framework, as summarised by NatRoad, of a 50% reduction in access permits within three years and a 90% reduction within five years, with a national goal of eliminating at least 90% of access permits by 2028 across all heavy-vehicle classes.³⁷
- Recommend that ministers publicly commit to these targets and require regular reporting against them.

2. Frame NAAS around network-based access, not digitised permits

- Recommend that NAAS design prioritise pre-assessed networks and envelopes for common freight tasks (including livestock and rural freight combinations), using the Tasmanian HVAMS experience as a benchmark for permit-free coverage and turnaround.

3. Guarantee that rural first- and last-mile routes are front-loaded in NAAS rollout

- Recommend that early NAAS releases explicitly include rural and regional first-/last-mile corridors critical to supply chains (farms, saleyards, feedlots, abattoirs, regional depots), not just high-standard freight highways.

4. Tie NAAS to a serious local-government funding and capability package

- Recommend that NAAS implementation funding include dedicated, multi-year support for local government to:
 - complete and maintain asset assessments and attribute data (building on SLGAAP)
 - upgrade asset-management systems and GIS capability
 - access specialist engineering support where required.
- Encourage the Commonwealth and states to align this with ALGA's broader calls for improved local-roads funding and first- and last-mile investment.

5. Build in transparency and performance reporting

- Recommend that NAAS include mandatory public reporting on:
 - the share of access decisions handled automatically vs manually

³⁷ Ibid.

- permit volumes and average turnaround times
- regional breakdowns of NAAS coverage and performance, including for livestock and rural freight.

6. Ensure NAAS remains risk-based and adaptable

- Recommend that NAAS rules are periodically reviewed with industry and local government to ensure they reflect current engineering evidence and operational experience, and that they can adapt as assets are upgraded.

ALRTA believes that with these settings, NAAS can become a genuine reform for rural freight—cutting red tape, improving safety and productivity, and helping governments target investment where it delivers the greatest benefit for communities and supply chains.

Reform 3 – National Heavy Vehicle Driver Competency Framework: lifting standards, keeping rural freight moving

The National Heavy Vehicle Driver Competency Framework (NHVDCF) is the opportunity to fix long-standing inconsistencies in licensing and move to a genuinely competency-based system that produces safe, job-ready drivers. The framework sets minimum competency and assessment standards for heavy vehicle drivers and is scheduled to start rolling out in 2026, beginning with new training and assessment materials and then progression pathways.³⁸

The industry has historically relied on supervised, work-based learning pathways to develop drivers—pathways that are less available for many entrants today.³⁹

For rural and livestock transporters, this reform will only succeed if higher training standards go hand-in-hand with practical licence pathways, regional access to training and realistic costs for small operators. Otherwise, it risks becoming just another layer of complexity in a labour market already in severe shortage.

Why driver competency reform matters now

Truck driving is already one of the largest employing occupations in shortage in Australia. Jobs and Skills Australia's 2024 *Occupation Shortage – Drivers* report identifies "Truck Drivers" as one of the ten largest employing unit groups in national shortage, with around 161,582 workers, and finds that the shortage is driven by a "short training gap" rather than a lack of long formal education.⁴⁰

³⁸ Austroads 2025, *National Heavy Vehicle Driver Competency Framework* (webpage, updated 31 March 2025), viewed December 2025.

³⁹ Turpie, B 2024, *The Hume: An historical and nostalgic look at 50 years of interstate road transport on the Hume Highway*, Green Hill Publishing, pp. 19–20, ISBN 9781923265738.

⁴⁰ Jobs and Skills Australia 2024, *2024 Occupation Shortage Drivers Report*, Australian Government, esp. Table 3 (Truck Drivers – Short training gap, 161,582 employed).

At the same time, the workforce is ageing and vacancies are growing. NatRoad, drawing on the 2024 Global Truck Driver Shortage Report by the International Road Transport Union (IRU), reports that in Australia 47% of drivers in 2024 were 55 or older, only 5.4% were under 25, and there were around 28,000 unfilled truck driving positions, projected to rise to over 78,000 by 2029 as more than 50,000 drivers retire.⁴¹ Road freight volumes are projected to grow by 77% by 2050, adding further pressure.⁴²

Safety stakes are also high. The National Truck Accident Research Centre's Major Incident Investigation Report 2025, summarised by AfMA, finds that human factors remain the leading causes of serious truck crashes—with inattention, distraction, poor following distance and inappropriate speed together accounting for a large share of major incidents—while heavy vehicle drivers are described as having one of the most dangerous occupations in Australia.⁴³ In crashes involving trucks and cars, heavy vehicles are found not to be at fault in about 86% of cases.⁴⁴

What the NHVDCF is proposing

Austroads describes the NHVDCF as setting national minimum competency and assessment standards for heavy vehicle licensing, aimed at removing interstate inconsistencies, lifting training quality and improving safety outcomes.⁴⁵ Implementation will begin in 2026, with:

1. Redesigned learning and assessment requirements by licence class, including minimum course lengths and minimum behind-the-wheel time.
2. Experience-based progression options, allowing drivers who can demonstrate real work experience to move to higher licence classes more quickly.
3. Stronger training governance and nationally consistent training and assessment support materials.⁴⁶

The Productivity Commission is examining how accelerating and shaping this implementation will affect safety, productivity and costs, including in regional areas. ALRTA asks the Commission to back the framework's safety ambitions, but insist that implementation is designed around the realities of rural and livestock transport.

⁴¹ Clark, W 2025, 'A ticking time bomb', NatRoad, 14 August 2025, summarising IRU's 2024 Global Truck Driver Shortage Report (age profile, unfilled positions, projected shortage and 77% growth in road freight volumes by 2050).

⁴² Ibid.

⁴³ National Truck Accident Research Centre / NTI 2025, *Major Incident Investigation Report 2025*, as summarised in AfMA, 'Human Factors Are the Main Causes of Heavy Vehicle Crashes – NTARC', 15 October 2025 (human factors as leading causes, heavy vehicle drivers' occupational risk, fault patterns in car–truck crashes).

⁴⁴ Ibid.

⁴⁵ Austroads 2025, *National Heavy Vehicle Driver Competency Framework*.

⁴⁶ Ibid.



ALRTA's position – high standards, practical pathways

ALRTA supports the NHVDCF's move to nationally consistent, competency-based licensing, minimum behind-the-wheel requirements and experience-based progression. ALRTA's core position is simple:

Lift standards, but design the framework so that regional operators can actually use it.

We see four implementation priorities.

Minimum behind-the-wheel hours and real-world competence

Given that human factors still dominate serious truck crashes, a “tick-and-flick” approach to training is no longer acceptable.⁴⁷

ALRTA therefore supports the NHVDCF's commitment to minimum behind-the-wheel time for each licence class. But for rural and livestock transport, it matters what kind of driving that time covers.

ALRTA recommends that the Commission endorse:

- Minimum behind-the-wheel hours for each heavy vehicle licence class that include meaningful exposure to:
 - long rural runs and night driving
 - unsealed or marginal roads
 - loading and unloading at saleyards, feedlots, farms and regional depots
 - basic emergency and breakdown procedures in remote areas.
- A requirement that a proportion of practical training for drivers training for rural freight tasks be delivered in real freight environments, not just on metropolitan test routes or closed circuits.

These elements give practical effect to ALRTA's long-standing push for stronger heavy-vehicle driver training and minimum behind-the-wheel hours, while remaining fully consistent with the NHVDCF's safety objectives.

Licence progression pathways and MC licensing

The framework's proposed experience-based progression options are particularly important for multi-combination (MC) licences. In a setting where truck drivers are already in shortage and road freight demand is rising, Australia cannot afford an MC licensing system that is slow, opaque or prohibitively expensive for smaller regional fleets.

ALRTA recommends that the Commission support an MC progression model that:

⁴⁷ National Truck Accident Research Centre / NTI 2025, *Major Incident Investigation Report 2025*.

- Recognises structured workplace experience—for example, hours and kilometres driven in specific combinations and operating environments—as a pathway to higher classes, in line with the NHVDCF's experience-based options.
- Establishes nationally consistent MC licence rules, drawing on best-practice models already operating in some jurisdictions (such as South Australia), to avoid the current patchwork of approaches.
- Ensures that pathway design supports uptake of higher-productivity vehicles (HPVs) by allowing capable drivers to progress in a predictable timeframe, while still meeting rigorous competency standards.

These recommendations deliver the kind of competency-based licensing and nationally consistent MC rules that ALRTA has long advocated within the national framework.

Rural training access, RPL and micro-credentials

Jobs and Skills Australia's *An Essential Ingredient: The Food Supply Chain Workforce* highlights the importance of work-based learning models (apprenticeships, traineeships, "earn while you learn") and stresses that food and freight production is a major employer in regional, rural and remote Australia, where access to housing, services and training is more difficult and local solutions are needed.⁴⁸

There are also clear examples of what works when governments and industry partner on training:

- Victoria's Heavy Vehicle Training Program has been continuously funded since 2016 and, in partnership with the Victorian Transport Association, has trained and placed nearly 400 heavy vehicle drivers, with additional funding committed to train more drivers and attract younger people into freight and logistics.⁴⁹
- ALRTA has initiated Livestock Transport Training work with Industry Skills Australia, responding to challenges in accessing relevant training. The project will create a national Skill Set to benchmark best practice in livestock transport, aligning with the Australian Animal Welfare Standards and NHVR regulatory advice, and explicitly explores flexible delivery (online theory, face-to-face practical) and VET system capacity for regional training.

These examples point to the kind of rural driver pathways, recognition-of-prior-learning systems and regional job-ready training models that ALRTA has consistently called for.

⁴⁸ Jobs and Skills Australia 2025, *An Essential Ingredient: The Food Supply Chain Workforce*, Australian Government, publication page and summary (work-based learning, regional workforce issues, migration and PALM scheme, critical roles in regional supply chains).

⁴⁹ Victorian Government 2024, *Heavy Vehicle Training Program* (vic.gov.au), updated 2 September 2024 (additional \$1 million funding, partnership with the Victorian Transport Association, nearly 400 drivers trained and placed since 2016, focus on younger drivers and driver shortages).

ALRTA recommends that the Commission:

- Recognise that regional access and cost are core determinants of whether the NHVDCF succeeds for rural freight.
- Support targeted funding for regional heavy vehicle training hubs and work-based programs, building on models such as Victoria's Heavy Vehicle Training Program and the livestock transport Skill Set.
- Endorse a national RPL and credit-transfer framework that allows drivers' prior experience and training (especially in livestock and rural freight tasks) to be recognised consistently across jurisdictions.

Without these elements, rural operators will face higher compliance costs with no realistic way to access the training the framework requires.

Migration as one lever in the driver shortage

Jobs and Skills Australia's Essential Ingredient report recognises that migration—including schemes such as the Pacific Australia Labour Mobility (PALM) program—plays an important role in supporting regional and supply-chain workforces, but stresses that migration must be accompanied by strong safeguards and integrated with local training pathways.⁵⁰

ALRTA agrees that migration should be treated as one lever, not the whole solution, in addressing driver shortages. Consistent with ALRTA's long-standing support for targeted migration settings for critical truck-driver roles, we recommend that the Commission:

- Encourage the Australian Government to treat heavy vehicle drivers (especially HC/MC) as a critical skills occupation where local training and migration are aligned—so that sponsored drivers are required to meet NHVDCF competency standards and can progress through the same pathways as domestic workers.
- Emphasise that migration settings should complement, not substitute for, investment in domestic training, regional training access and improved job quality, as highlighted by both JSA's driver shortage analysis and Essential Ingredient findings.

Summary of recommendations

ALRTA recommends that the Productivity Commission:

1. **Endorse the NHVDCF's safety and consistency objectives**, including minimum course lengths and behind-the-wheel requirements, while highlighting the specific needs of rural and livestock transport.

⁵⁰ Jobs and Skills Australia 2025, *An Essential Ingredient: The Food Supply Chain Workforce*, Australian Government.

2. **Back experience-based MC progression** that allows competent drivers to move to higher licence classes in a predictable timeframe, supporting HPV uptake while maintaining rigorous competencies.
3. **Prioritise regional training access**, drawing on successful models such as Victoria's Heavy Vehicle Training Program and the Livestock Transport Training Skill Set, and support a national RPL and credit-transfer framework to recognise experience across jurisdictions.
4. **Treat migration as a complementary lever**, advocating alignment between skilled migration settings and the NHVDCF so that sponsored drivers are trained and assessed to the same national standard, particularly for critical freight roles in regional Australia.

These recommendations give the Commission a practical blueprint for improving safety and productivity without leaving rural operators behind.

Reform 4 – Barriers to EV Truck Charging Infrastructure: making decarbonisation work for rural freight

What the Commission is asking

The Commission is asking what is holding back deployment of publicly accessible charging and refuelling infrastructure for low- and zero-emission heavy vehicles along key freight routes – and what governments should do about the regulatory, practical and policy barriers. The focus is high-mass trucks moving freight across the national network, not just light vehicles in cities.

ALRTA's core position is straightforward: Australia cannot decarbonise freight unless we build a corridor- and node-based network that suits long-haul, high-mass rural road transport, and unless policy remains technology-neutral across battery-electric, hydrogen and renewable liquid fuels. If charging and incentives stay metro- and car-focused, rural and regional operators – and the freight tasks they service – will be left behind.

Why this matters for freight decarbonisation

Heavy road vehicles already account for around 22 Mt CO₂-e a year – about 24% of Australia's transport emissions – and their task is projected to keep growing. The Climate Change Authority's Sector Pathways Review stresses that cutting these emissions will require multiple decarbonisation pathways: battery-electric trucks on suitable routes, hydrogen and

other zero-emissions fuels for heavier and longer-range tasks, and lower-carbon liquid fuels where direct electrification is difficult.⁵¹

If the national charging and refuelling network is designed primarily around urban light vehicles, freight decarbonisation will stall. For ALRTA members, the priority is a network that matches real freight patterns: livestock saleyards, abattoirs, grain receival sites, intermodal terminals, rural depots and roadhouses on the key corridors – not just fast chargers in capital-city carparks.

Where the infrastructure is – and isn't

Public fast-charging infrastructure is expanding quickly, but it is still thin and uneven from a freight perspective. Electric Vehicle Council data, cited by the ACCC and AER, shows that by mid-2024 Australia had 1,059 high-power public charging locations and 1,849 individual high-power chargers, around 90% more locations than a year earlier.^{52⁵³}

However, these chargers are heavily concentrated in metropolitan areas and along a small number of major highways, with large parts of rural and regional Australia still poorly served.⁵⁴

From a long-haul livestock or bulk freight operator's point of view, the pattern is clear:

- It is getting easier to fast-charge near the big cities.
- It is still hard to plan a fully decarbonised trip between key rural freight nodes without detours, long dwell times or range anxiety.

The Commission's reform task, in ALRTA's view, is to shift from a car-centric, metro-centric rollout to a freight-centric, network-wide rollout. That means deliberately targeting:

- corridors: the main interstate and regional freight routes, and
- nodes: saleyards, abattoirs, major depots, intermodal terminals and key roadhouses.

⁵¹ Climate Change Authority 2024, *Sector Pathways Review – Transport Sector*, Climate Change Authority, Canberra (heavy vehicles' share of transport emissions and need for multiple decarbonisation pathways, including electrification, hydrogen and renewable fuels).

⁵² Australian Competition and Consumer Commission 2024, *Report on the Australian Petroleum Market – December Quarter 2024*, ACCC, Canberra (citing Electric Vehicle Council data: 1,059 high-power public charging locations and 1,849 individual chargers in Australia as of mid-2024, a 90% increase year-on-year).

⁵³ Australian Energy Regulator 2025, *Ring-fencing consultation paper – CPU EV charging infrastructure*, AER, Canberra (corroborating mid-2024 figures for high-power public charging locations and chargers).

⁵⁴ Addelec 2024, 'Rural Reach: Expanding Electric Vehicle Charging Stations Outside Urban Australia', Addelec, blog article, 23 September (showing most of Australia's public DC chargers are concentrated in metropolitan areas, with rural regions underserved).

ARENA-commissioned analysis of heavy road freight indicates that a national linehaul network would likely need on the order of hundreds of high-capacity freight charging hubs sited on major freight corridors and in logistics precincts, not just scattered public chargers.⁵⁵

Grid and land barriers at freight nodes

Even where there is a strong commercial case, installing truck-scale charging at freight nodes is often blocked by grid and land constraints rather than a lack of interest from operators. These are exactly the kinds of practical and regulatory barriers the Commission has been asked to identify and address. RACE for 2030's *Electric Vehicles and the Grid* report highlights that:

- installation and connection costs, and regulatory hurdles for both electrical connection and planning approvals, are key barriers for public and commercial charging
- high-powered fast chargers can be a very large load and can trigger significant grid upgrade costs, even if used only in short bursts
- commercial tariffs are often based on very high-capacity connections, even though EV charging uses that capacity for only a small share of the time.⁵⁶

For a small regional depot, saleyard or abattoir, these issues translate into:

- long lead times for distribution network upgrades
- high up-front capital requirements for transformers, switchboards and civil works
- ongoing demand charges that can make high-capacity charging commercially marginal.

In light of this, ALRTA recommends that governments:

- treat freight nodes as priority connection points, with streamlined approvals and dedicated funding for grid upgrades
- co-fund the enabling infrastructure (land, grid, civil works), leaving private operators to invest in and run the chargers
- coordinate tariffs and connection arrangements so that high-capacity truck charging isn't killed off by prohibitive demand charges.

⁵⁵ RACE for 2030 CRC 2021, *Electric Vehicles and the Grid – Opportunity Assessment Report*, RACE for 2030 Cooperative Research Centre, Sydney (identifying installation/connection costs, planning approvals and high-powered fast chargers' grid impacts as major barriers for public and commercial charging).

⁵⁶ *Ibid.*

Hydrogen and multi-fuel hubs at key freight locations

For many ALRTA members, particularly in high-mass or remote tasks, battery-electric alone will not be enough. The Climate Change Authority emphasises that hydrogen and other zero-emissions fuels are likely to be important for longer, heavier freight tasks, and that planning infrastructure and supply chains early is essential.⁵⁷

The emerging model is a multi-fuel freight hub that can:

- fast-charge battery trucks
- refuel hydrogen fuel-cell trucks
- eventually supply renewable diesel or other low-carbon liquid fuels from the same precinct.

Viva Energy's Geelong hydrogen service station – backed by ARENA funding – illustrates this approach. The project includes a 2.5 MW electrolyser and high-capacity hydrogen refuelling system designed for heavy vehicles, with the intention of catalysing a broader corridor of hydrogen refuelling from Geelong and Melbourne towards Sydney and Brisbane.⁵⁸

This model aligns closely with what ALRTA has been advocating on freight-node charging, hydrogen refuelling and fuel security. We support:

- a national map of priority heavy-vehicle hydrogen and charging hubs at major freight nodes
- government co-investment to de-risk early sites, especially in regional locations where private investors face long payback periods.

The transitional role of renewable diesel and low-carbon liquid fuels

ALRTA strongly supports decarbonisation, but we are realistic about fleet turnover and technology readiness. For many years, a large share of Australia's rural heavy-vehicle task will still be performed by diesel trucks. That means a credible pathway must include drop-in low-carbon liquid fuels alongside electrification and hydrogen—not as a distraction from zero-emissions freight, but as a practical bridge where technology readiness, infrastructure coverage and capital cycles are slower.

⁵⁷ Climate Change Authority 2024, *Sector Pathways Review – Transport Sector*.

⁵⁸ Viva Energy 2022, 'Viva Energy hydrogen service station on track for 2023 delivery', media release, 13 July (describing the Geelong hydrogen refuelling station with a 2.5 MW electrolyser and heavy-vehicle hydrogen refuelling system, intended as a catalyst for a broader hydrogen corridor).

The Federal Government has signalled this reality by announcing a \$1.1 billion Cleaner Fuels Program, designed to provide production-linked incentives over 10 years to encourage domestic production of low-carbon liquid fuels.⁵⁹

What Australian experience shows: big abatement, right now, in existing trucks

Renewable diesel (including HVO) can deliver material near-term abatement using the existing fleet and existing refuelling infrastructure. Cleanaway reports that HVO100—made from used oils and fats such as used cooking oil—reduces greenhouse gas emissions by 91% compared with fossil fuel.⁶⁰ Cleanaway’s operational trial also reported equal or better fuel consumption and vehicle uptime compared with mineral diesel, underscoring why drop-in fuels matter for high-utilisation heavy vehicles.⁶¹

Scale and feedstock constraints: why renewable diesel can only ever be part of the answer

The policy case for renewable diesel is strong—but so is the warning label: sustainable feedstocks are limited.

Australia’s transport diesel market is enormous. In 2022–23, automotive diesel sales totalled 32,109.8 megalitres (\approx 32.1 billion litres).⁶² A 10% substitution target therefore implies roughly 3.2 billion litres of renewable diesel—before accounting for growth in freight demand and diesel use.⁶³

If Australia attempted to meet that scale primarily from purpose-grown oilseed, the challenge quickly becomes a land-use question. In 2022–23 Australia grew 4.4 million hectares of canola and sold 8.9 million tonnes.⁶⁴ While precise land requirements depend on yields and conversion efficiencies, that benchmark shows the order of magnitude involved: supplying billions of litres from crops pushes you into land areas measured in millions of hectares, comparable with the national canola footprint—and therefore in direct

⁵⁹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts 2025, ‘Cleaner Fuels Program: Powering low carbon liquid fuel production in Australia’ (consultation webpage), Australian Government, viewed 4 December 2025.

⁶⁰ Cleanaway n.d., ‘Renewable fuel’ (webpage), Cleanaway, viewed 4 December 2025.

⁶¹ Cleanaway 2018, ‘HVO100 performs for Cleanaway fleet decarbonisation’, Cleanaway (webpage/news item), 30 April, viewed 4 December 2025.

⁶² Bureau of Infrastructure and Transport Research Economics (BITRE), *Australian Infrastructure and Transport Statistics—Yearbook 2024*, Table 11.1 “Total transport petroleum sales, by fuel type” (automotive diesel sales 32,109.8 ML in 2022–23), 2025.

⁶³ Ibid.

⁶⁴ Australian Bureau of Statistics 2024, *Australian agriculture: Broadacre crops, 2022–23* (webpage), ABS, 14 June, viewed 4 December 2025.

competition with food and feed production and regional land-use choices.⁶⁵ For comparison, Victoria's grains farms operated on about 3.5 million hectares in 2021–22.⁶⁶

Waste-derived lipid feedstocks (such as used cooking oil and tallow) help, but they are constrained and globally competed. Argus reports Australia produces about 100,000 tonnes per year of used cooking oil, and that most is exported for biofuel production.⁶⁷ Tallow is also heavily traded: Argus reports Australia exported 517,364 tonnes of tallow in the first 11 months of 2024, with over 90% going to Singapore or the United States.⁶⁸

Affordability and global competition: don't push rural freight into a cost cliff. Public submissions to the Commonwealth's low-carbon liquid fuels consultation note renewable diesel currently carries a substantial cost premium—estimated at \$1.20–\$1.40 per litre (wholesale) in Australia's current supply context—and warn that any mandatory requirements would likely be passed through into higher transport and consumer costs.⁶⁹ Other Australian analysis prepared for a NSW Government decarbonisation trial similarly notes imported HVO renewable diesel at almost \$5 per litre compared with fossil diesel at just under \$2 per litre, illustrating how large the gap can be when supply is tight.⁷⁰ These pressures are likely to intensify as aviation and maritime biofuel demand expands and competition for waste oils and fats increases.⁷¹

Bottom line: renewable diesel is a legitimate transition option for parts of the freight task, but constrained feedstocks and cost volatility mean it cannot be the sole plan for decarbonising diesel-reliant rural freight.

What this means for heavy-vehicle reform: productivity is also decarbonisation

Because sustainable fuel supply is constrained and zero-emissions infrastructure will take time to reach regional networks, productivity improvements—moving more freight with fewer truck movements—are among the most practical decarbonisation tools available in the medium term. Better access for modern, safer high-productivity vehicles (HPVs) and fit-for-purpose networks reduces emissions per tonne-kilometre immediately, while also lowering costs and easing the transition burden on regional operators.

⁶⁵ Ibid.

⁶⁶ Agriculture Victoria 2024, *Grains industry fast facts: June 2024* (PDF), Victorian Government, viewed 4 December 2025.

⁶⁷ Argus Media 2025, 'Australia's Viva, Cleanaway sign UCO-based biofuels MoU', *Argus Media* (online), 16 October.

⁶⁸ Argus Media 2025, 'Australia's Jan–Nov tallow exports hit record high', *Argus Media* (online), 14 January.

⁶⁹ Australasian Convenience and Petroleum Marketers Association (ACAPMA), *Submission: Low Carbon Liquid Fuels Consultation*, 17 Jul 2024 (pricing premium estimate; pass-through risk).

⁷⁰ BDO 2025, *Economic impact of renewable diesel on Australia's fishing industry*, BDO, 24 April.

⁷¹ International Energy Agency 2024, *Renewables 2024: Analysis and forecast to 2030*, IEA, Paris.

Practical policy directions

In practice, a credible decarbonisation strategy for rural freight should:

- treat renewable diesel and other low-carbon liquid fuels as legitimate transition options for existing trucks where zero-emission options are not yet technically or commercially viable
- build domestic fuel supply chains where possible—while being transparent about feedstock limits and trade-offs
- pair fuel transition with productivity reforms (access, network upgrades, and operational changes) so the sector can cut emissions by doing the same task with fewer vehicle kilometres
- design policy settings that reward verified emissions reductions and avoid single-solution assumptions.

Equity for rural and regional freight

If policy and funding remain focused on metro passenger vehicles and metro charging networks, the risk is that:

- urban light-vehicle emissions fall, but rural freight emissions do not
- small and mid-sized regional operators face rising expectations without practical tools (fuel availability, infrastructure, or affordable vehicle options)
- key agricultural and regional freight tasks are stranded in a high-carbon, high-cost niche.

To avoid this, governments should explicitly recognise rural freight as a priority user when planning both zero-emissions infrastructure and future fuel supply chains—so regional communities share, rather than lag behind, the benefits of the transition.

ALRTA recommendations on Reform 4

Drawing together this evidence and the experience of rural road transport operators, ALRTA recommends that the Commission:

1. **Endorse a corridor- and node-based approach** to EV truck charging and hydrogen refuelling on key freight routes and freight nodes – saleyards, abattoirs, depots, intermodal terminals and key roadhouses.
2. **Recognise grid and land constraints** as major regulatory and practical barriers at freight nodes, and recommend targeted government support for:
 - distribution network upgrades and new connections
 - site works and enabling infrastructure at freight nodes

- tariff and regulatory settings that make high-capacity truck charging commercially viable.

3. Support technology-neutral decarbonisation, including:

- a low-carbon fuel standard that rewards emissions outcomes, not specific technologies
- designing fuel standards and incentives so the transition is affordable for regional freight (staged targets tied to verified supply; transparent price-impact reporting; and measures that prevent decarbonisation costs being dumped on rural operators and their customers), noting current renewable diesel price premiums and intensifying competition for waste-oil feedstocks.
- continued support for renewable diesel and other low-carbon liquid fuels as transition options at freight nodes
- integration of hydrogen refuelling and high-capacity charging at multi-fuel freight hubs.

4. Prioritise rural and regional freight in planning and funding decisions, so that:

- the first wave of zero- and low-emissions infrastructure includes key agricultural and regional freight corridors
- small and medium rural operators can actually access practical decarbonisation options on realistic timeframes.

These measures would ensure that heavy-vehicle decarbonisation is practical for the freight tasks that actually keep regional Australia moving, while still aligning with national emissions targets and maintaining fuel security.

Reform 5 – Curfews for EV Trucks: balancing productivity, welfare and amenity

The Productivity Commission is asking whether relaxing curfews for quieter, zero-emission heavy vehicles could shift movements out of peak periods, cut congestion and improve freight efficiency – and what that would mean for communities.

For ALRTA members, curfew settings sit directly over some of the most sensitive parts of the freight system: cold-chain reliability, animal welfare and the ability to keep food and essential goods moving in and out of cities and regional centres.

Why EV truck curfews matter for rural and livestock freight

Modern battery-electric and hydrogen trucks can be significantly quieter than comparable diesel vehicles at low urban speeds. Controlled tests of a 40-tonne MAN eTruck, for example, found noise levels around 6–12 dB(A) lower than a diesel equivalent at typical urban speeds

– perceived as “about half as loud”.⁷² Similar work on hydrogen-fuelled trucks has shown noise emissions comparable to electric trucks in the lower speed range.⁷³

By contrast, Australian environmental regulators still treat truck deliveries near housing as a major source of complaints and set strict expectations that deliveries should be inaudible inside nearby homes outside prescribed hours.⁷⁴ In practice, the planning and regulatory system still assumes “noisy diesel plus noisy refrigeration plus noisy loading” as the norm, and curfews have been built around that assumption.

For rural and livestock freight, curfew flexibility is not just a congestion issue; it is directly tied to animal welfare and cold-chain integrity. Meat & Livestock Australia emphasises that long-distance livestock transport must be planned around forecast temperatures, with operators seeking to avoid the hottest parts of the day to reduce heat load and welfare risks.⁷⁵ Animal-welfare agencies and state agriculture departments likewise stress the need for shade, cooling and management changes during extreme heat, including reconsidering travel timing.⁷⁶

Cold-chain literature shows that temperature-sensitive products – meat, dairy, fresh produce, pharmaceuticals – require tightly controlled temperatures at every step; longer dwell times and delays increase the risk of spoilage and product loss.⁷⁷ Industry guidance identifies breakdowns in the cold chain as a major cause of food loss and quality degradation.⁷⁸ Being able to move freight in the cooler night and early-morning hours can therefore materially improve both animal welfare and product quality for regional and rural operators, especially on long-haul legs into and out of ports, saleyards, processors and wholesale markets. This is one of the most practical reforms available in the short term: it can lift welfare, cold-chain performance and freight efficiency immediately through access settings and operating practices, even before the heavy fleet fully transitions away from

⁷² Wirtz, M. 2023, ‘How Loud Is An Electric Truck?’, *Truck Pages*, summarising MAN eTruck noise tests showing the eTruck about 6–12 dB(A) quieter than a comparable diesel and perceived as about half as loud.

⁷³ Hydrogen Central 2023, ‘KEYOU trucks with hydrogen engines are only half as loud as their diesel counterparts’, reporting Fraunhofer IML test results showing hydrogen trucks have noise emissions comparable to electric trucks in low-speed operation.

⁷⁴ Environment Protection Authority Victoria 2021, *Noise Control Guidelines*, Publication 1254.2, EPA Victoria, Melbourne, esp. section on deliveries and truck-mounted refrigeration units.

⁷⁵ Meat & Livestock Australia 2025, ‘Beating the heat: Safe summer transporting’, MLA News & Events, 9 December 2025.

⁷⁶ Agriculture Victoria 2025, ‘Caring for animals during extreme heat’, Agriculture Victoria website, updated 21 October 2025; plus related guidance on livestock transport and heat stress.

⁷⁷ Rodrigue, J-P & Notteboom, T n.d., ‘B.9 – The cold chain and its logistics’, in *The Geography of Transport Systems* (webpage), TransportGeography.org, viewed 4 December 2025.

⁷⁸ Fan, Y, de Kleuver, C, de Leeuw, S & Behdani, B 2021, ‘Trading off cost, emission, and quality in cold chain design: A simulation approach’, *Computers & Industrial Engineering*, vol. 158, 107442; International Fresh Produce Association n.d., ‘Cold Chain Defined’ (webpage), IFPA, viewed 4 December 2025.

diesel—and the productivity dividend will still apply as trucks shift to electric, hydrogen and other post-diesel technologies.

Community expectations and the opportunity from quieter trucks

The COVID-19 pandemic showed that curfews are not fixed in stone. During the emergency, governments temporarily relaxed freight curfews so essential goods could reach supermarkets and pharmacies around the clock. A survey of 1,205 Australians for the Australian Logistics Council (ALC) found that:

- **71%** supported permanently removing curfews that prevent overnight deliveries into supermarkets and other retail premises
- **67%** supported allowing essential logistics infrastructure such as ports and warehouses to operate at night to enable more efficient freight movement.⁷⁹

International research on off-peak deliveries reinforces this picture. Studies in São Paulo and New York find that off-peak or overnight deliveries can reduce travel times, improve reliability and ease daytime congestion, provided noise is actively managed and incentives are aligned.⁸⁰⁸¹ Residents' acceptance of night deliveries has been shown to rise when quieter vehicles and noise-mitigation practices are in place.⁸²

Taken together, the evidence points to a clear opportunity: where trucks and logistics practices are materially quieter, communities may be willing to trade some night-time activity for safer, more reliable daytime conditions and better access to essential goods.

Balancing productivity, welfare and amenity

For ALRTA members, curfew reform is not about “unleashing trucks on quiet streets at 3 am”. The practical questions are how to:

- enable night and early-morning access on designated freight corridors serving saleyards, abattoirs, ports, intermodals, regional DCs and supermarket back-of-house docks
- take advantage of quieter prime movers and better logistics practices to improve cold-chain performance and animal welfare

⁷⁹ Australian Logistics Council 2020, *Strong Community Support For Permanent Changes to Curfews*, Media Release, 2 July 2020, reporting Newgate Research survey of 1,205 Australians on freight curfews.

⁸⁰ Dias, P A P et al. 2019, 'Daytime or Overnight Deliveries? Perceptions of Drivers and Retailers in São Paulo City', *Sustainability*, vol. 11, no. 22, 6316.

⁸¹ Holguín-Veras, J et al. 2005, 'Off-Peak Freight Deliveries: Challenges and Stakeholders' Perceptions', *Transportation Research Record: Journal of the Transportation Research Board*, no. 1906, pp. 42–48.

⁸² Zelidis, M A & Bouhouras, E 2023, 'Residents' acceptance for night deliveries policy in the city of Thessaloniki, Greece', *Transportation Research Procedia*, vol. 69, pp. 520–527, doi:10.1016/j.trpro.2023.02.203.

- do so in a way that protects residential amenity and does not leave small rural operators behind during the transition.

Noise does not disappear just because the prime mover is electric. Refrigeration units, loading and unloading, reversing beepers and site layout all contribute to perceived noise. EPA Victoria's *Noise Control Guidelines* (publication 1254.2) explicitly single out deliveries and truck-mounted refrigeration units as activities that must be controlled to protect residential amenity, recommending that deliveries impacting residential areas be inaudible inside dwellings outside 7 am–10 pm (9 am–10 pm Sundays and public holidays).⁸³

If governments choose to use curfew reform as a tool to encourage quieter, cleaner trucks and support more off-peak freight movements, a performance-based approach – focusing on actual noise and operating practices rather than just engine type – is more likely to align with community expectations and the evidence.

Practical design questions for the Commission

In that context, ALRTA suggests that the Commission focus less on whether curfews *should* be changed, and more on how any future changes would need to be designed if governments decide to proceed. Five practical questions stand out.

1. Where should curfew relief be offered first?

If curfew relief is to be used as a tool, priority would logically sit with:

- port and intermodal precincts
- major wholesale markets and supermarket DCs
- saleyards, abattoirs and livestock aggregation points
- key rural freight corridors where residential frontage is limited and zoning already reflects industrial or logistics uses.

These are the locations where off-peak access can deliver the largest gains for congestion, cold-chain reliability and animal welfare.

2. How should “low-noise” be defined and verified?

If curfew relief is tied to quieter vehicles and practices, it should be based on measured noise performance, not just drivetrain type. Recent tests of electric heavy vehicles (such as the MAN eTruck) and hydrogen-engine trucks (such as KEYOU prototypes) provide benchmarks for reduced noise levels in urban conditions. These could be translated into clear decibel thresholds under standard test conditions, with simple documentation that operators can present through NHVR and access systems.

⁸³ Environment Protection Authority Victoria 2021, *Noise Control Guidelines*, Publication 1254.2.

3. How will mixed fleets and equity be managed?

Many rural businesses run small, mixed fleets and cannot justify immediate replacement of all diesel assets. If curfew relief were granted only to EVs in large metro fleets, there is a risk that:

- small regional carriers lose work to larger operators who can invest earlier
- livestock and rural freight tasks that remain diesel-dominated are left behind.

A more equitable approach would allow curfew relief for any vehicle (including modern diesel or renewable-diesel trucks) that meets the same low-noise standards and uses agreed noise-mitigation practices (for example, quiet loading protocols, switching off refrigeration units where safe, low-noise reversing alarms), while any incentives for zero- and low-emission trucks are pursued through broader decarbonisation policy.

4. How will rules be mapped and enforced?

Whatever curfew settings governments adopt, they will only be workable if operators can see them clearly. Curfew and access rules should be digitised and integrated into national systems, including:

- the National Automated Access System (NAAS)
- NHVR access permits and route maps
- OEM and third-party telematics platforms.

This would allow operators to see, in real time, where and when low-noise trucks may legally operate at night, reduce the risk of accidental breaches and create a clear incentive to invest in compliant vehicles.

5. What evidence should be collected?

The Commission is well-placed to recommend a structured program of pilots and evaluation, including:

- before/after noise measurements at representative sites for diesel vs EV/hydrogen/heavy vehicles with mitigations
- measurement of travel times, delays, failed deliveries and cold-chain breaches for time-sensitive loads (livestock, chilled and frozen food) under existing vs relaxed curfew regimes
- community attitude surveys modelled on the ALC/Newgate research to track support for curfew changes and acceptable conditions
- economic analysis of productivity, emissions and welfare impacts, drawing on international off-peak delivery research.

Issues and options

Curfew reform is a rare “near-term win”: it can deliver meaningful productivity, welfare and cold-chain benefits now—using existing freight infrastructure and better operating practices—while also creating a runway for quieter, lower-emissions vehicles as they scale. Importantly, the productivity gains from off-peak access endure in a post-diesel fleet: smoother travel times, fewer missed slots, and better utilisation benefit electric, hydrogen and low-noise vehicles just as much as today’s diesel task.

- **Use performance-based criteria for night access.** If curfews are relaxed for freight, extended delivery windows should be linked to verified low-noise, low-emission performance and adoption of best-practice quiet-delivery protocols (including refrigeration, loading and reversing alarms), while retaining strong protections for residential amenity.
- **Focus initially on critical food and commodity freight corridors and nodes.** Early reforms should be concentrated on key food and commodity corridors and around ports, wholesale markets, DCs, saleyards and abattoirs, where potential gains for cold-chain continuity, animal welfare and network efficiency are greatest.
- **Avoid leaving regional and rural operators behind.** Any framework for curfew relief should be designed so that small rural and livestock carriers with mixed fleets can participate on fair terms over time – for example, through recognition of low-noise diesel/renewable-diesel configurations and practical, nationally consistent rules that are visible in digital access tools.
- **Test changes through pilots and shared evaluation.** Curfew adjustments should be trialled through a program of state- and territory-led pilots, with Commonwealth support, to test EV/low-noise night-access regimes across different corridor types, freight tasks and community contexts under a common evaluation framework.
- **Integrate curfew settings into NAAS and NHVR systems.** Curfews, exemptions and any designated “quiet freight corridors” should be captured in national digital maps and access systems, so that operators can plan compliant routes and governments can monitor outcomes and adjust policy over time.

Framed this way, curfew reform stops being a culture war about “trucks at 3am” and becomes a practical package the Commission can endorse: move essential freight when the network is quieter and cooler, protect residents through enforceable noise standards and quiet-delivery protocols, and unlock immediate productivity, cold-chain and animal-welfare gains. Done properly, it rewards operators who invest in quieter vehicles and better practices, and it ensures regional and rural carriers are not priced or regulated out of the benefits of off-peak access.

Data, modelling and evidence priorities

The Commission has asked where better data, modelling and evaluation would make the biggest difference to heavy-vehicle reform. From ALRTA's perspective, the biggest blind spots are in exactly the parts of the system our members depend on: local and rural roads, bridge constraints, access and permit performance, workforce pipelines, and the readiness of regional freight nodes for decarbonisation.

Australia already has some strong platforms – BITRE datasets, the National Freight Data Hub (NFDH) and the emerging National Automated Access System (NAAS) – but they still don't give a full picture of what is happening on the ground in rural freight. ALRTA's proposals on digital access, food security and workforce data are designed to help close those gaps.

Rural road and bridge condition data

BITRE's 2023 *Economics of Road Maintenance* report shows how detailed segment-level data on traffic, climate, pavement type and condition can support rigorous maintenance-needs modelling for national and state arterial roads.⁸⁴ However, the same report is explicit that extending this approach to local roads is "restricted by lack of data", even though local roads account for around 39% of Australia's paved public road length.⁸⁵

For ALRTA members, that matters because:

- most first- and last-mile movements for livestock and rural freight occur on local council roads and older bridges
- these are often the weakest links in HPV routes and the most exposed to under-funded maintenance
- if reforms to charging, axle limits or access are modelled using only state and national networks, the cost and risk shifted onto small rural councils will be invisible in the results.

ALRTA urges the Commission to treat local and rural road condition data and bridge capacity constraints as a priority national data gap—because this is where first- and last-mile freight either flows or fails for rural industries. A practical step would be to recommend targeted funding to support councils and states to collect and standardise basic condition and capacity data for high-freight rural links and bridges, and to integrate that into BITRE/NFDH datasets and NAAS.

Critically, pair better data with better rules. NAAS will only improve access if it isn't forced to automate today's inconsistency. The Commission should push governments to harmonise

⁸⁴ Bureau of Infrastructure and Transport Research Economics (BITRE) 2023, *The Economics of Road Maintenance*, Research Report 156, Department of Infrastructure, Transport, Regional Development, Communications and the Arts, Canberra.

⁸⁵ *Ibid.*

bridge assessment settings so the same vehicle gets the same answer on comparable bridges—regardless of which side of a border or council boundary it's on—and so investment is aimed at the handful of bridges that are actually choking off HPV access on freight-critical rural links.

Where governments are relying on modern assurance mechanisms (such as PBS settings and accredited/telematics-based mass compliance), the Commission should also **recommend** a consistent approach to “assured-mass” access settings, so rural operators aren't forced into detours and extra trips simply because bridge rules are conservative or inconsistent rather than evidence-based.

Access, permit and compliance performance

Australia has made real progress on digital freight data. The National Freight Data Hub has been funded to “capture, improve, standardise and share freight data to improve the efficiency, safety, productivity and resilience of the freight sector”, with interactive tools and a curated national freight data catalogue.⁸⁶

The iMOVE freight data requirements work and the Hub prototype highlighted three core problems the Hub is intended to fix:

- lack of coordination and leadership across industry and government in freight data
- operational freight data that is not captured or visible, limiting the ability to manage supply-chain risks
- under-utilisation of data and analytics to improve performance.⁸⁷

On heavy-vehicle access, NAAS and the NHVR Portal are starting to consolidate permit and consent workflows and allow road managers to make more consistent decisions using shared data and tools.⁸⁸ But from an operator perspective, there are still major gaps:

- no consistent national metrics on permit decision times by vehicle class, jurisdiction or road manager
- limited visibility of where access is refused, and why
- no way for industry or the Commission to see whether reforms are actually speeding up access or just moving paperwork around.

⁸⁶ Department of Infrastructure, Transport, Regional Development, Communications and the Arts 2023, ‘National Freight Data Hub’ (webpage), Australian Government, viewed December 2025.

⁸⁷ iMOVE Australia 2021, ‘National Freight Data Hub prototype launched’, iMOVE Australia website (accessed December 2025).

⁸⁸ Austroads 2024, *Contemporary Heavy Vehicle Access Decision-Making for Road Managers* (including National Automated Access System), Austroads, Sydney; and National Heavy Vehicle Regulator 2025, *Heavy Vehicle Productivity Plan 2025–2030* (accessed via public summaries, December 2025).

ALRTA recommends that the Commission:

- treat access and permit performance data (timeframes, outcomes and coverage by route/class) as a core evidence gap for heavy-vehicle reform
- recommend that NAAS and the NHVR Portal be developed into a nationally consistent reporting platform, with open performance dashboards showing:
 - median and 90th-percentile decision times by permit class, road manager and corridor
 - approval/refusal rates and standardised reasons
 - coverage of as-of-right access by vehicle class for key freight routes.

This would give the Commission and governments an objective evidence base to test whether reforms are genuinely improving access for rural freight, rather than simply reclassifying complexity.

Workforce, training and licence progression

On the driver side, Australia has good point-in-time snapshots, but no enduring system that tracks the heavy-vehicle training and licensing pipeline. The 2024 *Global Truck Driver Shortage Report*, cited in recent Australian analysis, estimates that Australia has over 28,000 unfilled truck-driver positions today, with the shortfall projected to reach 78,000 by 2029 if current trends persist.⁸⁹

BITRE's national profile of truck drivers shows the workforce was already ageing in 2016, with 28.3% of truck drivers aged 55 and over – a much higher share than the workforce average.⁹⁰ Yet there is no integrated national dataset that links:

- heavy-vehicle driver training capacity (including regional TAFEs and RTOs)
- completions and licence progression by class (including MC)
- recognition of prior learning and credit transfer
- geographic distribution of qualified drivers relative to freight demand.

ALRTA's proposed *National RPL & Credit-Transfer Framework with Searchable Record* policy is a practical model for how workforce data could work: a national system in which driver competencies, RPL decisions and course completions are recorded once and visible (with appropriate privacy safeguards) to employers, regulators and training providers.

⁸⁹ International Road Transport Union (IRU) 2024, *Global Truck Driver Shortage Report*, as summarised in Perdaman Global Services 2025, 'Australia's Supply Chain Under Threat: The Critical Truck Driver Shortage' (accessed December 2025).

⁹⁰ BITRE 2019, *National profile of transport, postal and warehousing workers*, Information Sheet 104, Department of Infrastructure, Transport, Cities and Regional Development, Canberra.

The Commission should identify “national heavy-vehicle workforce and competency data” as a priority gap and recommend:

- collaboration between Jobs and Skills Australia, regulators and industry to build an integrated heavy-vehicle driver data infrastructure
- use of that data to test how reforms to licensing frameworks, competency standards and HPV uptake affect the regional training pipeline and rural labour supply over time.

EV truck charging, alternative fuels and regional nodes

The ARENA-commissioned *Electrifying Road Freight* report estimates that road freight contributes 8.6% of Australia’s GDP, moves around 223 billion tonne-kilometres of freight annually, and accounts for roughly 80% of freight emissions – about 36 million tonnes of CO₂ each year. It projects that the freight task could grow by 77% by 2050, making freight decarbonisation essential.⁹¹

The same study develops a first national map of up to 165 potential heavy-vehicle charging hubs on key freight routes and concludes that energy generation is unlikely to be the main constraint; the binding limits are likely to be transmission and distribution capacity at specific locations, especially along interstate and intrastate corridors.⁹²

Critically for this inquiry, the report also notes major data limitations: its modelling relies heavily on the ABS *Survey of Motor Vehicle Use 2020*, a formerly recurring dataset that has been discontinued, and on high-level national and state freight data – limiting the ability to localise results for particular regional corridors or freight nodes.⁹³

From ALRTA’s perspective, the key data gaps are:

- node-level data on truck movements and dwell times at rural freight nodes – saleyards, feedlots, abattoirs, grain receival sites, intermodal terminals and major distribution centres
- corridor-level energy and land-use constraints, including grid connection capacity, substation proximity and suitable land parcels for charging and hydrogen refuelling in regional areas
- coverage and utilisation data for alternative fuels (renewable diesel and other low-carbon liquids) along rural freight corridors, to support a technology-neutral transition.

⁹¹ AECOM 2025, *Electrifying Road Freight – Pathways to Transition*, report for the Australian Renewable Energy Agency (ARENA), Canberra.

⁹² Ibid.

⁹³ Ibid.



ALRTA's advocacy on freight-node charging, hydrogen refuelling and technology-neutral lower-carbon fuels assumes exactly this kind of node- and corridor-level evidence base. The Commission should therefore:

- treat "EV and alternative-fuel infrastructure data at rural freight nodes and along key inland and regional corridors" as a priority evidence gap
- recommend that NFDH, ARENA and state energy bodies work with industry to integrate freight-node and corridor-specific data into both infrastructure and regulatory planning.

Outcomes metrics: food security, reliability and resilience

Finally, ALRTA encourages the Commission to expand the lens beyond cost-recovery metrics and average network performance, to include outcome measures for rural and remote communities.

ALRTA's draft *National Food Security Measurement Framework & Scorecard* proposes indicators such as:

- frequency and duration of stock-outs of essential goods in small towns
- time taken to restore freight services and supermarket supply after major disruptions (floods, bushfires, biosecurity events)
- reliability of livestock and perishable-freight chains (e.g. missed saleyard sales, spoilage or animal-welfare incidents linked to access constraints).

These kinds of metrics are not yet routinely captured in national datasets. However, they can be built using:

- NFDH freight performance dashboards
- BITRE freight statistics and regional profiling
- targeted surveys and data-sharing from major retailers, processors and carriers.

The Commission is well-placed to recommend that food-security and resilience indicators become part of the standard evaluation toolkit for heavy-vehicle reforms, particularly where changes to charges, access or decarbonisation pathways may have uneven regional impacts.

Summary of ALRTA recommendations on data and evidence

ALRTA recommends that the Commission:

1. **Prioritise rural and local-road data gaps**, including condition and bridge capacity, and recommend targeted funding to make this data available through BITRE, NFDH and NAAS.

2. **Back a National Automated Access & Digital Compliance Platform**, with transparent, publicly reported KPIs on permit and access performance, building on NAAS and the NHVR Portal.
3. **Support a national heavy-vehicle workforce and competency data system**, consistent with ALRTA's *National RPL & Credit-Transfer Framework with Searchable Record*, to track training, licence progression and regional capacity.
4. **Promote node- and corridor-based data for decarbonisation**, integrating EV charging, hydrogen and alternative-fuel infrastructure data at key rural freight nodes and corridors into NFDH and related planning tools.
5. **Embed food-security and resilience metrics** – drawing on ALRTA's *National Food Security Measurement Framework & Scorecard* – into the evaluation of heavy-vehicle reforms, so that rural and regional impacts are visible in the evidence base.

Taken together, these steps would give the Commission and governments a much sharper, more granular picture of how heavy-vehicle reforms play out in rural Australia – and help ensure that reforms lift productivity and safety without hollowing out the freight networks that keep regional communities alive.

Summary of Recommendations

Overall

1. **Put rural and regional Australia at the centre of the package.**
Every reform should be tested for its impact on small and medium rural operators, local councils, livestock welfare and food supply chains – not just on national averages.
2. **Keep the package genuinely technology-neutral.**
Back battery-electric, hydrogen and renewable/low-carbon liquid fuels as complementary tools. Judge each on real-world emissions and practicality for long-haul, high-mass rural freight – not on ideology or marketing.
3. **Plan from the freight task out.**
Design reforms around actual freight corridors and nodes – saleyards, abattoirs, grain terminals, intermodals, ports and regional DCs – instead of defaulting to capital-city arterials.
4. **Make digital access and transparency non-negotiable.**
Turn NAAS, the NHVR Portal and the National Freight Data Hub into a “control panel” for the network, with clear, public KPIs on access, permits, performance and network condition.
5. **Fix the data blind spots that matter most.**
Treat rural road and bridge condition, permit decision times, driver

competency/licensing, and EV/alternative-fuel infrastructure at freight nodes as priority data gaps – and fund systems to close them.

6. Measure what communities actually care about.

Embed food security, cold-chain reliability and livestock welfare in how reforms are evaluated, so regional impacts show up in the evidence, not just in the anecdotes.

Reform 1 – Road Access, Mass Limits and Higher-Productivity Vehicles

11. Build a coherent national HPV freight network – not a patchwork of one-off permits.

Use corridor- and node-based planning to connect key agricultural and regional freight routes with predictable, map-based access for HPVs, PBS combinations and improved B-double / road train routes wherever infrastructure is fit-for-purpose.

12. Tie HPV reform to real money for rural upgrades.

Expand mass and access only alongside co-funded upgrades to rural roads and bridges, so local road managers aren't forced to choose between "no" and unsafe.

13. Make access rules consistent, digital and accountable.

Standardise criteria and timeframes, route them through NAAS/NHVR systems, and publicly report permit performance and network coverage so operators can see where the roadblocks really are.

14. Tell the safety story clearly.

Position HPVs as a way to move more freight with fewer truck movements and better safety outcomes on the right roads – rather than letting them be painted as a risk by default.

Reform 2 – National Automated Access System (NAAS)

15. Make NAAS a genuine network-based access system, not just "digital permits".

Shift the default from individual, route-specific permits to pre-assessed networks and envelopes for common livestock and rural freight configurations, and embed nationally consistent bridge assessment and live-load settings in NAAS tools, so comparable bridges and vehicles are treated consistently across jurisdictions.

16. Set clear permit-reduction targets and track them publicly.

ALRTA recommends that the Commission draw on the Kanofski recommendations by proposing permit-reduction trajectories that, for example, cut access permits by around half within three years and around 90% within five, with governments setting clear, public targets and reporting against them.

17. Front-load rural first- and last-mile routes in NAAS rollout.

Ensure early NAAS releases explicitly include rural corridors that connect farms,

saleyards, feedlots, abattoirs and regional depots to state and national networks – not just high-standard highways.

18. Tie NAAS to real funding and capability for local government.

Provide multi-year support for councils to complete and maintain asset data, upgrade asset-management systems and access engineering advice, so rural road managers can safely maximise access.

Reform 3 – National Heavy Vehicle Driver Competency Framework

19. Back the framework, but make competence mean real-world competence.

Minimum hours and competencies must reflect genuine tasks – long runs, night work, marginal roads, on-farm and saleyard conditions – not just short metro loops.

20. Create a clean, national pathway to MC.

Harmonise MC rules and recognise structured on-the-job experience, so capable drivers can step up in a predictable way and support HPV uptake across the country.

21. Stop making regional drivers travel to the city to get qualified.

Invest in regional training hubs and work-integrated programs (including livestock skill sets) so rural drivers can meet higher standards without leaving their communities or their employers short-staffed.

22. Build a national “skills ledger” for drivers.

Establish a searchable national record of driver competencies, RPL decisions and completions so skills follow the worker – and employers and regulators can see what a driver can actually do.

23. Use migration to support, not replace, domestic training.

Align migration pathways with the new framework so overseas drivers meet the same competency bar, and use migration to ease pressure where needed while still building local capacity, especially in regional areas.

Reform 4 – Barriers to EV Truck Charging Infrastructure

24. Plan EV and hydrogen infrastructure as freight infrastructure, not just car charging.

Put high-capacity charging and hydrogen refuelling at saleyards, abattoirs, grain terminals, intermodals, ports and key rural junctions – the places heavy vehicles actually work.

25. Lock in a multi-pathway transition from the start.

Make it explicit that battery-electric, hydrogen and renewable/low-carbon fuels all have a role, and match each to the tasks where it makes technical and commercial sense.

26. Tackle regional grid and land bottlenecks head-on.

Map where distribution capacity, connection costs and planning rules will block

freight-node charging and refuelling – then recommend targeted upgrades, streamlined approvals and co-investment to unlock those sites.

27. No “fuel deserts” in regional Australia.

Coordinate the rationalisation of conventional fuels with the rollout of alternatives so key regional routes are never left without a viable way to move essential freight.

28. Treat rural freight as a priority customer in decarbonisation plans.

Make sure strategies and funding streams for EV and hydrogen explicitly name rural and agricultural freight, so regional operators aren’t left waiting years for infrastructure that arrives early in the cities.

Reform 5 – Curfews for EV Trucks

29. Replace blunt curfews with performance-based night access.

Give more flexible night access to trucks that prove they are genuinely quiet and low-emission – engine, fridge, equipment and operating practices – not just those with the right badge on the door.

30. Aim curfew reform where it does the most good.

Focus early night-access changes on major food and commodity corridors and on ports, markets, DCs, saleyards and abattoirs, where off-peak running cuts congestion, protects cold chains and improves animal welfare.

31. Write the rules so small, mixed fleets can actually use them.

Keep curfew provisions simple, nationally consistent and visible in NAAS/NHVR tools, so a regional operator with a mixed fleet can participate on fair terms – not just a handful of big metro fleets with dedicated EV assets.

32. Make cold-chain and welfare gains explicit objectives.

Say plainly that night access is being used to reduce spoilage and heat stress as well as noise – and tie access to compliance with cold-chain and animal-welfare standards.

33. Pilot, prove, then scale.

Run tightly designed pilots of EV/low-noise night access with clear noise, community and supply-chain metrics, publish the results, and only then expand to broader networks.