



Agricultural Road Freight Fuel Security

Level 3 & 4 Fuel Supply Response

Government Submission

Australian Livestock and Rural Transporters Association | May 2026



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1. Executive Summary

This submission provides an evidence-informed planning assessment of the minimum diesel fuel requirements necessary to sustain critical agricultural road freight operations under the National Fuel Security Plan framework. It is directed at planning for Level 3 and Level 4 fuel supply constraint scenarios.

Agricultural road freight underpins a national supply chain valued at approximately \$95–130 billion — representing the enabled supply-chain value originating from a \$60–70 billion farmgate production base, as outlined in the ALRTA Economic Contribution Report. This system relies on the continuous movement of livestock, grain, fodder and related commodities across geographically dispersed production regions to processing facilities, export terminals and domestic distribution networks.

Agricultural supply chains are heavily dependent on diesel-powered road transport, particularly for livestock, first-mile grain, feed, fodder, regional distribution and time-sensitive movements.

Based on national modelling, agricultural road freight consumes approximately 1.5–2.5 billion litres of diesel annually, equivalent to approximately 28–48 million litres per week under normal operating conditions.

The modelling produces the following planning estimates:

Under Level 3 conditions (Targeted Action), agricultural road freight is estimated to require approximately 26–43 million litres of diesel per week to maintain system continuity. This reflects near-full operational continuity with only limited reductions in deferrable or non-essential freight activity.

Under Level 4 severe constraint conditions (Protecting Critical Services), the critical-only floor is estimated at 17–34 million litres per week. Operating at this level would involve material supply-chain disruption and should not be treated as sufficient for normal continuity.

These figures are indicative planning estimates. They should be refined through operator-level fuel-use data, regional route modelling and government-defined critical freight classifications.

The minimum Level 3 requirement reflects the fuel necessary to sustain freight tasks that directly support:

- animal welfare outcomes
- food production and supply
- processing continuity
- export supply chains
- biosecurity integrity

Level 3 — Targeted Action

26–43M litres/week

~90% of normal agricultural freight activity

Level 4 — Critical Only

17–34M litres/week

60–70% of normal activity — not a continuity level

2. Purpose

The purpose of this submission is to support government planning under Level 3 and Level 4 fuel supply conditions by:

- identifying critical agricultural freight priorities
- estimating minimum fuel requirements for critical freight operations
- outlining system risks associated with constrained fuel supply
- providing a structured basis for fuel prioritisation decisions
- outlining ALRTA's potential role as a national coordination partner

3. National Fuel Security Plan Framework

This submission uses the National Fuel Security Plan framework as the basis for scenario definitions. Level 3 is treated as a targeted-action scenario requiring practical demand management while preserving critical supply-chain continuity. Level 4 is treated as a severe constraint scenario involving prioritisation of fuel to critical users and sectors, with material reduction in non-essential activity.

These definitions reflect the Plan's description of Level 3 as 'Taking targeted action' and Level 4 as 'Protecting critical services for all Australians.'

4. Legislative Context

Under the Liquid Fuel Emergency Act 1984, the Commonwealth has emergency powers relating to industry-held fuel stocks, refinery production and fuel sales during a declared national liquid fuel emergency. Formal Essential User status is limited under existing determinations and guidance. Current DCCEEW guidance states that Essential Users have been identified and that the Federal Minister will be advised not to extend Essential User status beyond the categories already identified — which include defence, ambulance, corrective services, fire and rescue, police, public transport, SES and taxi services.

ALRTA is not seeking to rely on formal Essential User status under the Liquid Fuel Emergency Act. Rather, ALRTA submits that agricultural road freight should be recognised within any critical-sector fuel prioritisation framework because of its direct role in food supply, animal welfare, biosecurity, processing continuity and export supply chains. The National Fuel Security Plan contemplates broader prioritisation of fuel supplies to critical sectors under Level 4 conditions, and agricultural road freight should be recognised within that framework accordingly.

5. Agricultural Freight System Overview

Australia's agricultural production system is geographically dispersed and structurally dependent on transport.

Road freight provides the primary connection between:

- farms and saleyards
- farms and feedlots
- farms and processing facilities
- farms and grain receival sites
- storage facilities and export terminals
- processors and domestic distribution networks

This system operates continuously and is highly time-sensitive, particularly in livestock and perishable commodity supply chains. Without transport, agricultural production cannot be converted into processed output, export value or domestic food supply.

6. Critical Freight Priorities

Under constrained fuel conditions, the following freight tasks should be treated as critical, listed in priority order reflecting the likely sequencing of government decisions under severe constraint:

- livestock movements required for animal welfare
- feed, fodder and water movements
- livestock and perishable commodities to processing
- domestic food and feed supply chains
- biosecurity and emergency response movements
- export-linked movements where interruption would create major market, animal welfare or storage consequences

These activities directly support system continuity and cannot be reduced without significant impact.

7. Minimum Fuel Requirement

7.1 Level 3 — Targeted Action (System Continuity)

Under Level 3 fuel supply conditions, the objective is to maintain continuity of critical supply chains while implementing targeted measures to reduce non-essential fuel use.

For agricultural road freight, this requires maintaining near-full operational continuity to prevent immediate disruption to critical agricultural supply chains, with only limited reductions in deferrable or non-essential freight activity.

As a planning assumption, ALRTA has applied a 90% continuity factor under Level 3. This reflects the limited proportion of agricultural freight that can be deferred without immediate consequences. Livestock, feed, fodder, processing, domestic food supply and many export-linked movements are time-sensitive, leaving only a relatively small share of activity available for short-term reduction.

Potentially deferrable activity under Level 3 may include non-urgent repositioning, avoidable empty running where it does not compromise next-load availability, administrative travel, non-essential maintenance movements, and discretionary freight where animal welfare, food supply, processing or export commitments are not affected.

It is estimated that approximately 90% of normal agricultural freight activity must be maintained under Level 3. This equates to approximately:

Level 3 — Targeted Action

26–43 million litres per week

Required to sustain livestock transport to processing, feed and fodder delivery, grain supply chains, processing throughput, domestic food supply, and export operations.

7.2 Level 4 — Severe Constraint (Critical Operations Only)

Under more severe fuel constraints, where supply cannot be maintained at Level 3 levels, operations may be reduced to critical-only freight activity. Operating at Level 4 involves material supply-chain disruption and should not be treated as a continuity level.

As a critical-only planning assumption, ALRTA has applied a 60–70% continuity factor under Level 4. This represents a constrained operating floor for critical freight tasks, not a level sufficient to maintain normal supply-chain continuity. The resulting minimum requirement is:

Level 4 — Severe Constraint (Critical Operations Only)

17–34 million litres per week

A constrained operating floor — not a continuity level. Operating at this level involves material supply-chain disruption.

The following table illustrates how freight tasks are managed at each level:

Freight Task	Level 3	Level 4
Livestock to processing	Maintain	Critical only
Feed and fodder	Maintain	Prioritise animal welfare and feed-shortage regions
Grain to domestic processing and feedlots	Maintain	Prioritise food and feed
Grain to export	Maintain where scheduled	Prioritise only where contractual or port constraints apply
Non-urgent movements	Reduce	Defer

7.3 Methodology

Fuel requirement estimates are derived from national modelling of agricultural road freight diesel consumption.

Under normal operating conditions, agricultural road freight is estimated to consume approximately 1.5–2.5 billion litres of diesel annually, equivalent to approximately 28–48 million litres per week.

To estimate fuel requirements under constrained conditions, two operating scenarios are modelled:

Level 3 — Targeted Action: Applies ALRTA's 90% planning continuity factor. This reflects removal of non-essential or deferrable freight only, while maintaining critical agricultural supply chains.

Level 4 — Critical Operations Only: Applies ALRTA's 60–70% critical-only planning factor. This is derived by converting annual fuel consumption into weekly demand and limiting activity to critical freight tasks as defined in Section 6.

7.4 Summary of Fuel Requirements

Scenario	% of Normal Activity	Weekly Fuel Requirement
Level 3 — Targeted Action	~90%	26–43 million litres
Level 4 — Critical Only	60–70%	17–34 million litres

7.5 Sensitivity Analysis

The following table illustrates how the fuel requirement estimates vary depending on the underlying annual diesel consumption assumption. This is provided to allow government to test the estimates against alternative data sources.

Annual Diesel Use	Weekly Normal Use	Level 3 at 90%	Level 4 at 60–70%
1.5 billion L	28.8 million L	25.9 million L	17.3–20.2 million L
2.0 billion L	38.5 million L	34.6 million L	23.1–26.9 million L

Annual Diesel Use	Weekly Normal Use	Level 3 at 90%	Level 4 at 60–70%
2.5 billion L	48.1 million L	43.3 million L	28.8–33.7 million L

7.6 Data Limitations

There is no single national dataset that directly allocates diesel consumption by freight sector. The 1.5–2.5 billion litre annual diesel estimate is a planning range, not a directly reported national statistic. It is derived by applying an estimated agricultural freight share to national road freight diesel use and testing that range against agricultural commodity volumes, transport distances, vehicle utilisation, loading patterns and regional operating conditions. The range is deliberately broad to reflect uncertainty in the absence of a single national dataset that allocates diesel consumption by freight sector.

The component data sources are: national freight task data (BITRE), vehicle utilisation data (ABS Survey of Motor Vehicle Use), and agricultural production and supply chain data (ABARES, MLA). This approach aligns with standard freight modelling practices.

These figures are indicative planning estimates and should be refined through operator-level fuel-use data, regional route modelling and government-defined critical freight classifications.

The ABS Survey of Motor Vehicle Use remains a key national source for vehicle utilisation and fuel consumption, although the latest release relates to 2019–20. For that reason, the estimates should be treated as planning ranges and tested against current operator-level data.

8. Geographic Pressure Points

Regions most vulnerable to fuel supply disruption include remote and regional production areas, long-distance freight corridors, cross-border routes, and areas with limited fuel storage and distribution infrastructure. Key national pressure points include:

- northern cattle regions in Queensland, the Northern Territory and Western Australia
- the WA grainbelt and port corridors
- the Riverina and Murray livestock and feed systems
- Western District livestock and dairy (Victoria)
- Gippsland dairy and livestock (Victoria)
- northern Victorian grain corridors
- cross-border livestock and feed corridors
- port-linked export corridors nationally

9. Operational Constraints

Operational constraints limit the ability to reduce fuel use without impacting supply chains. In agricultural freight, these constraints are more severe than in general freight because of the time-critical and welfare-sensitive nature of the tasks:

- animal welfare time limits on livestock in transit
- processor booking windows that cannot readily be rescheduled
- saleyard schedules that govern when and where livestock can be received
- port receipt windows for export consignments
- truck wash and biosecurity requirements between loads
- limited regional fuel storage and distribution infrastructure
- lack of viable backloading options in many regional corridors
- route access restrictions for higher-productivity vehicles
- fatigue management rules that cannot simply be waived
- permit approval timeframes that constrain rapid operational adjustment

These constraints collectively reduce system flexibility during periods of fuel restriction and must be accounted for in any fuel prioritisation framework.

10. Efficiency Opportunities

Short-term efficiency measures that may reduce fuel demand without reducing supply-chain continuity include:

- increased access to high productivity vehicle combinations
- extended operating hours for freight movements
- streamlined permitting processes
- improved load consolidation

These measures can improve fuel efficiency but do not replace the need for minimum fuel supply. They should be implemented subject to safety, route suitability, bridge capacity, animal welfare, fatigue management and local access conditions.

11. System Risk Under Fuel Constraint

If fuel supply falls below minimum requirements, cascading supply-chain failures are likely. The following risks emerge rapidly and are difficult to recover from once supply chains are disrupted:

If livestock movements are interrupted, animal welfare risks can emerge rapidly, particularly where animals cannot be moved to feed, water, processing or lower-risk regions.

If processing throughput is reduced due to transport constraints, production losses and market disruptions follow. Processing facilities that fall below minimum throughput thresholds face significant costs and recovery challenges.

If feed and fodder movements are disrupted, supply chain stress is transmitted rapidly to on-farm production systems, with compounding effects on animal welfare and productivity.

If export supply chains are interrupted, market relationships, port scheduling and contractual obligations are put at risk. Recovery from export-market disruption can take significantly longer than the initial supply event.

If domestic food supply is affected, availability risks emerge in regional and metropolitan markets, with the most acute effects in communities already dependent on supply chains that traverse constrained corridors.

System risk summary

Fuel supply disruption in agricultural road freight is not linear in its effects. Each stage of the supply chain — livestock welfare, processing throughput, feed supply, export schedules, domestic food distribution — is interdependent. Disruption at any point cascades rapidly through the system, and recovery timelines are typically longer than the initial supply event.

12. Coordination and Industry Role

The Australian Livestock and Rural Transporters Association (ALRTA), as the national peak body for livestock and rural transport operators, is positioned to support government by:

- assisting government, through its state association network and industry contacts, to identify priority freight tasks
- validating operational assumptions and fuel requirements
- providing industry-level operational insight
- communicating with operators to support implementation of fuel prioritisation arrangements
- coordinating communication across the agricultural freight network

Through its national network, ALRTA can support consistent and efficient implementation of fuel prioritisation measures.

13. Fuel Security and Food Supply

Fuel availability underpins freight continuity. Freight continuity enables the movement of agricultural commodities, processing of production, and distribution to domestic and export markets. In practical terms, fuel security supports agricultural production, domestic food availability, animal welfare and export supply-chain reliability.

14. Requested Government Actions

ALRTA requests that governments:

- recognise agricultural road freight as a critical fuel-dependent supply chain within any Level 3 or Level 4 fuel prioritisation framework
- use 26–43 million litres per week as the indicative Level 3 planning requirement for agricultural road freight
- treat 17–34 million litres per week as a Level 4 critical-only floor — not a continuity level — with the understanding that operating at this level involves material supply-chain disruption
- work with ALRTA and state associations to validate operator-level fuel demand and refine modelling
- ensure regional and remote agricultural freight operators can access prioritised diesel supply under any fuel allocation framework
- implement temporary freight-efficiency measures where safe and practical, subject to safety, route suitability, bridge capacity, animal welfare, fatigue management and local access conditions

15. Conclusion

Agricultural road freight is a critical fuel-dependent supply chain. Maintaining minimum diesel supply is necessary to sustain agricultural production, protect animal welfare, maintain domestic food supply and preserve export continuity.

The indicative modelling presented in this submission provides a structured basis for government fuel planning under Level 3 and Level 4 constraint scenarios. ALRTA stands ready to work with government to refine these estimates and to support practical implementation of fuel prioritisation arrangements.

ALRTA stands ready to work with government

As the national peak body for livestock and rural transport operators, ALRTA is positioned to validate operational assumptions, identify priority freight tasks, and coordinate communication across the agricultural freight network to support practical implementation of any fuel prioritisation framework.

16. References

The following sources underpin key claims in this submission. The Level 3 ('Taking targeted action') and Level 4 ('Protecting critical services for all Australians') scenario definitions are drawn directly from the National Fuel Security Plan (Commonwealth of Australia 2026). The scope of existing Essential User determinations is drawn from the NOSEC guidance note published by DCCEEW. The \$95–130 billion enabled supply-chain value figure and the \$60–70 billion farmgate production base are sourced from the ALRTA Economic Contribution Report. The 1.5–2.5 billion litre annual diesel estimate is modelled from BITRE freight task data, ABS Survey of Motor Vehicle Use vehicle utilisation data, and ABARES and MLA commodity and supply chain data.

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