

# Demand for bulk fuels, chemicals, gas

Phil Potterton

Bulk Tanker Day  
*Brisbane Show Grounds*  
*5 September 2019*

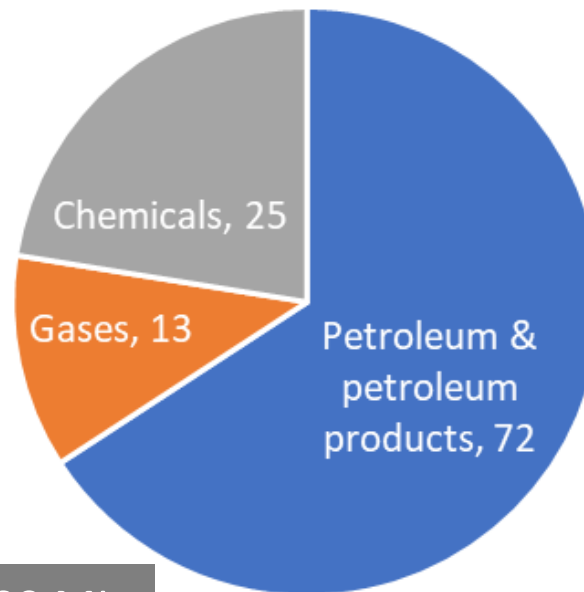
# Demand for bulk fuels, chemicals, gas

1. Commodities snapshot
2. Drivers of change
3. Outlook
  1. Liquid transport fuels
  2. LPG and other gases
  3. Chemicals
4. Wrap-up



# Commodities – petroleum makes up almost 2/3 of the road task

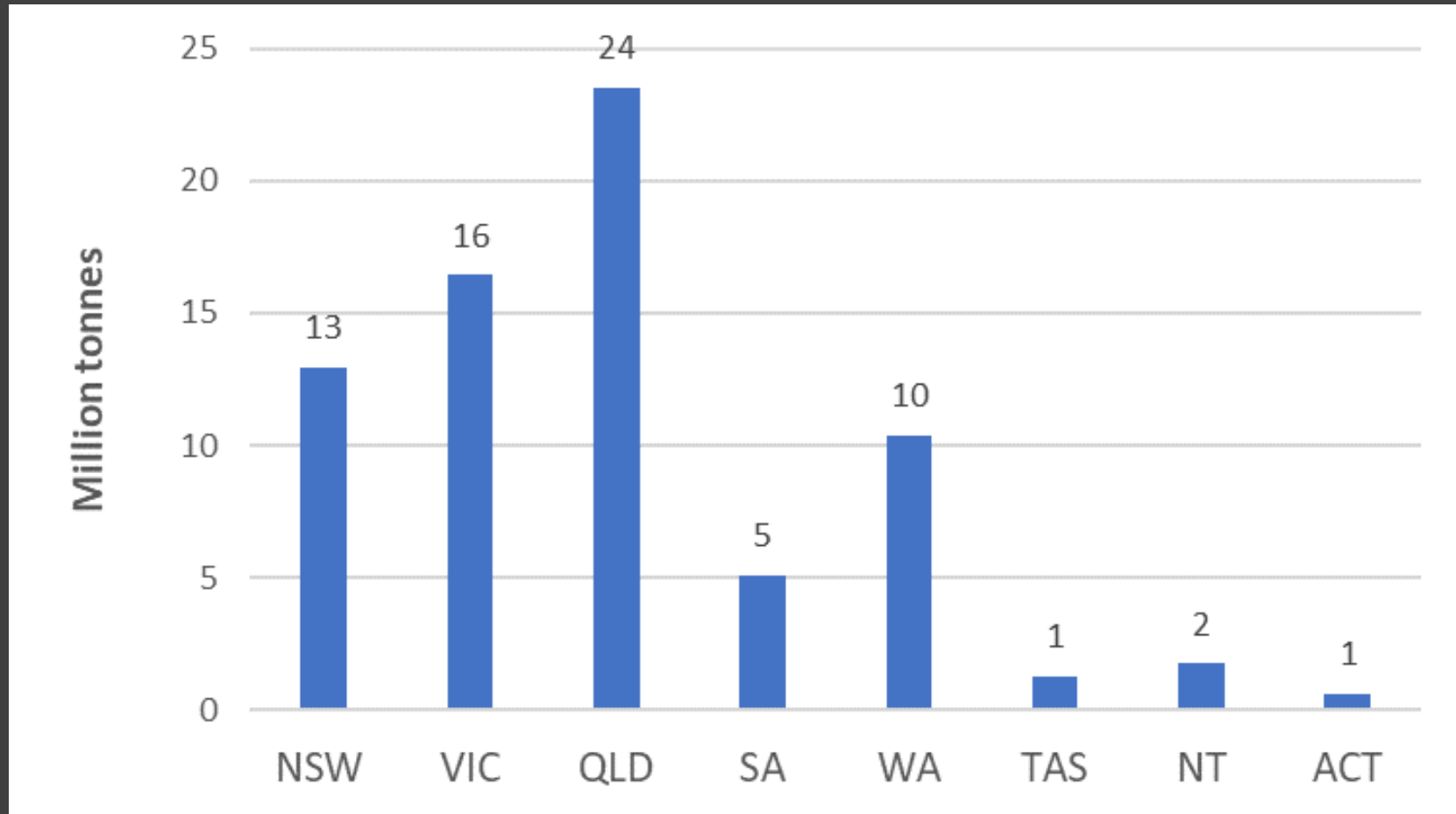
Petroleum, gases, chemicals 2014 (MT)



110 MT  $\approx$  134,000 ML

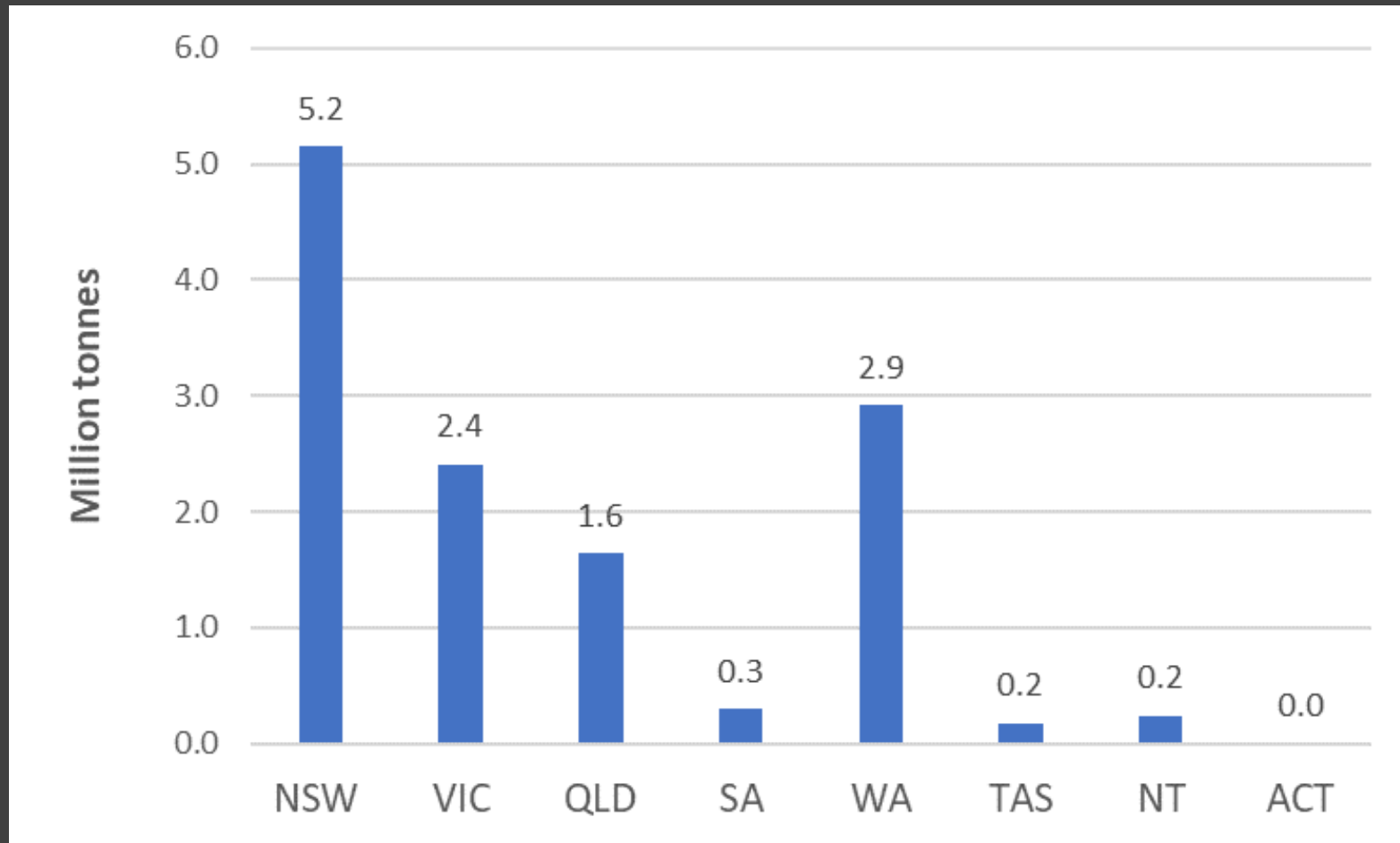
Source: ABS 2017

# Petroleum – QLD has 1/3 tonnage



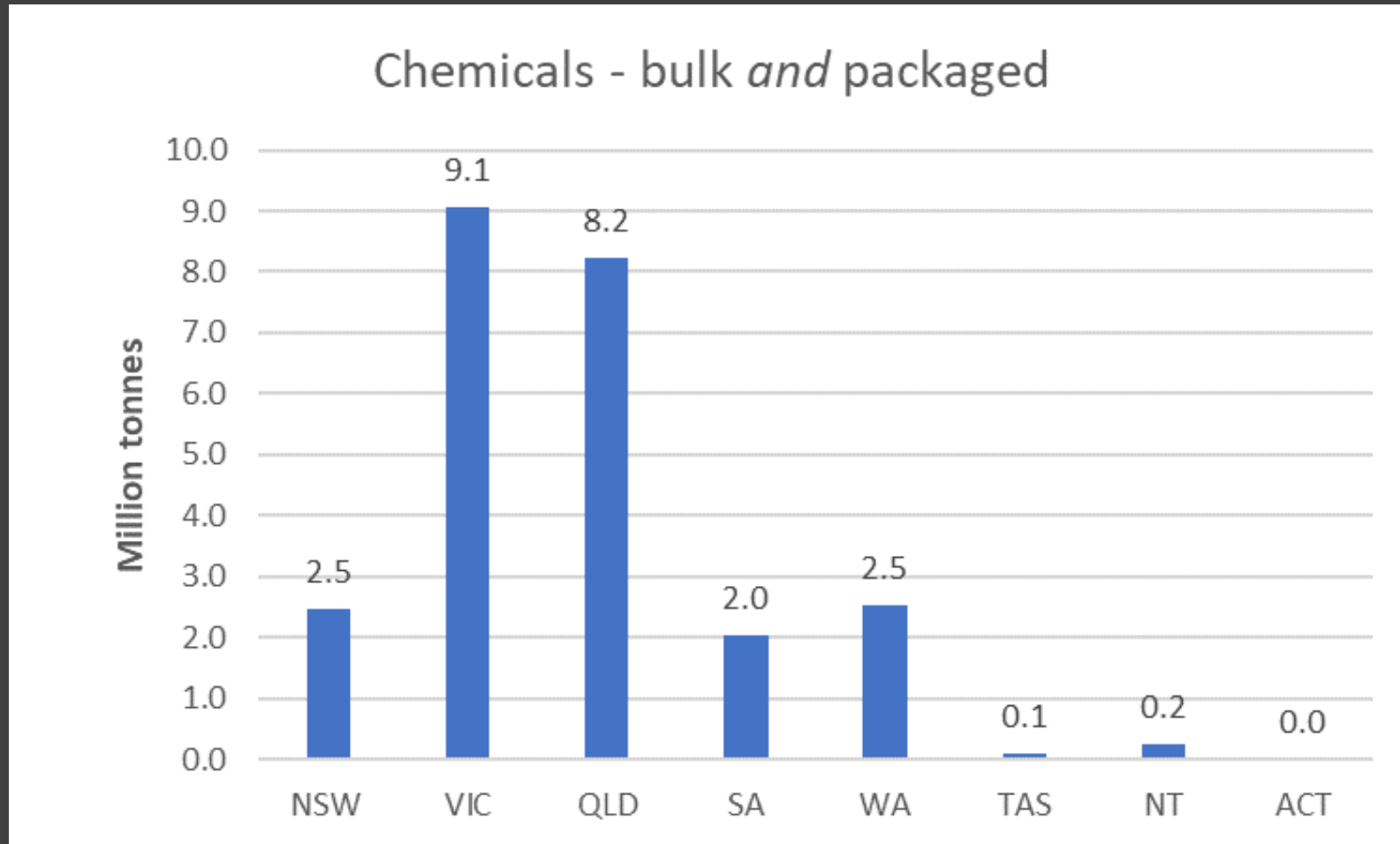
Source: ABS 2017

# Gases – NSW has 40% tonnage



Source: ABS 2017

# Chemicals – VIC has 1/3 tonnage



Source: ABS 2017

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# Two traditional drivers of demand growth

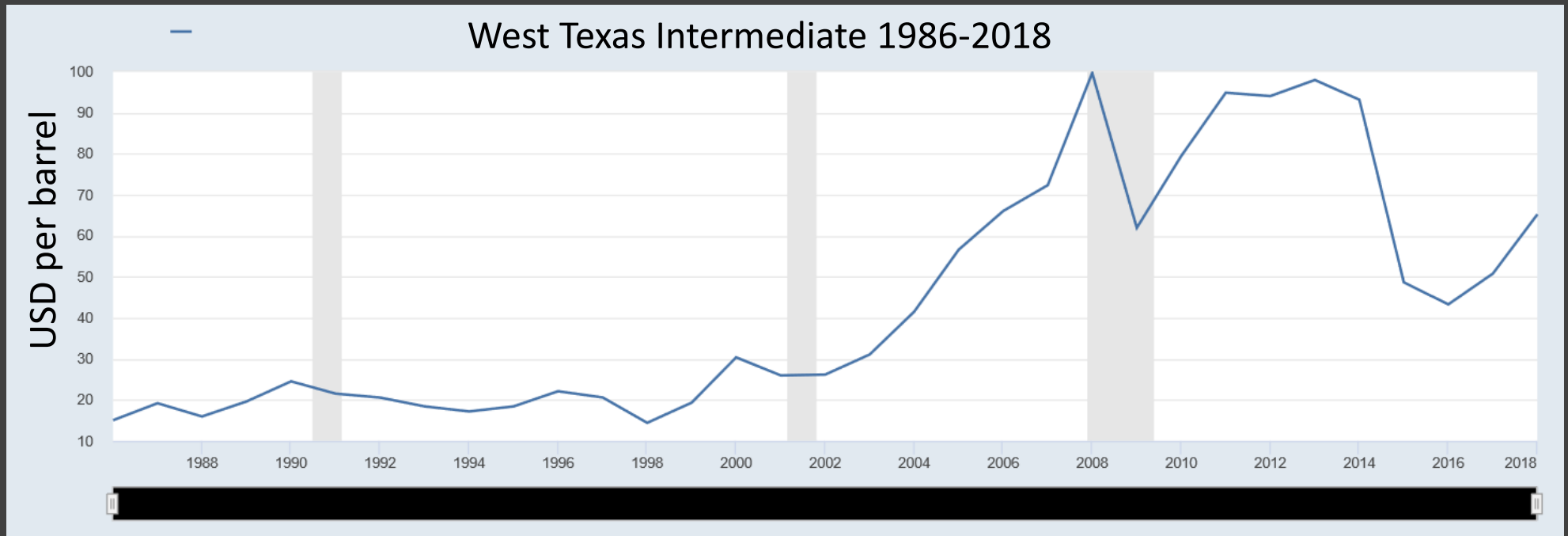
	<i>Average annual growth</i>		
	<b>1998-2018</b>	<b>2018-23</b>	<b>2018-40</b>
Population *	1.4%	1.6%	1.4%
Economy	3.1%	2.8%	

\* 'Medium' forecasting assumptions

Source: ABS various and Commonwealth of Australia 2019



# And a third, world oil prices

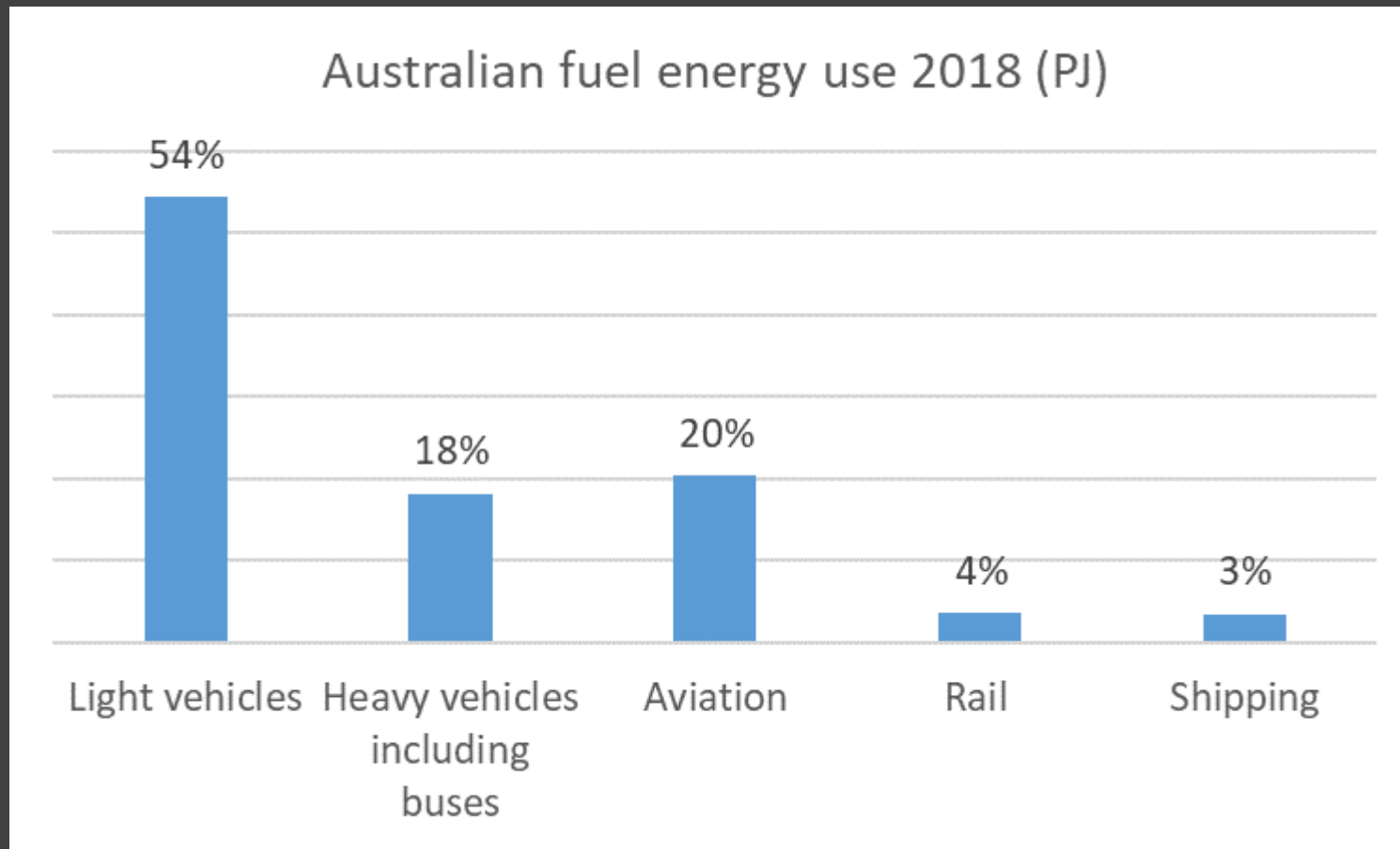


Reproduced from (US) Federal Reserve 2019

**A fourth driver is the response,  
global and local, to climate  
change risks**

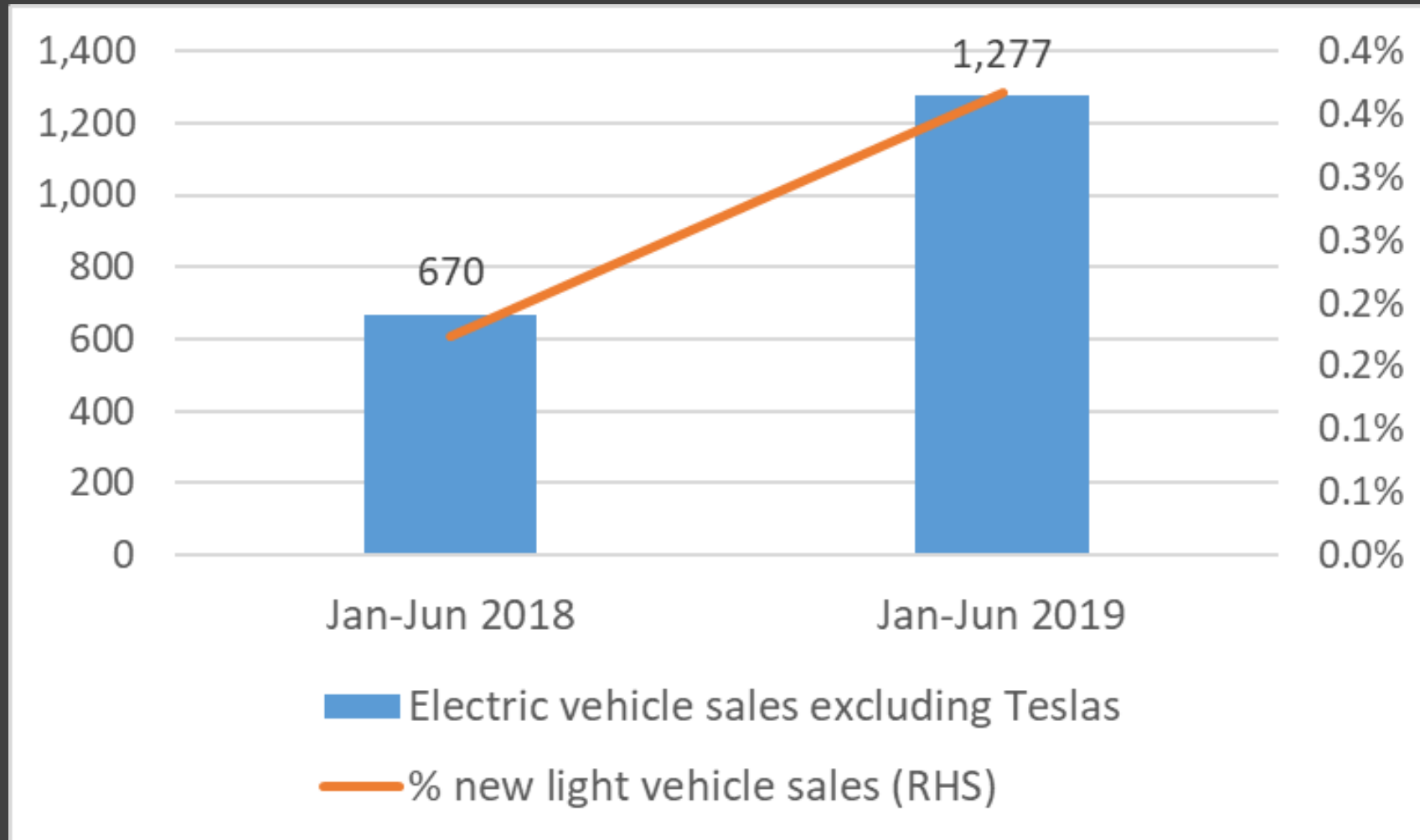


# Electricity fuelling aside, a feasible pathway is close for light vehicles – over 50% of transport fuel demand



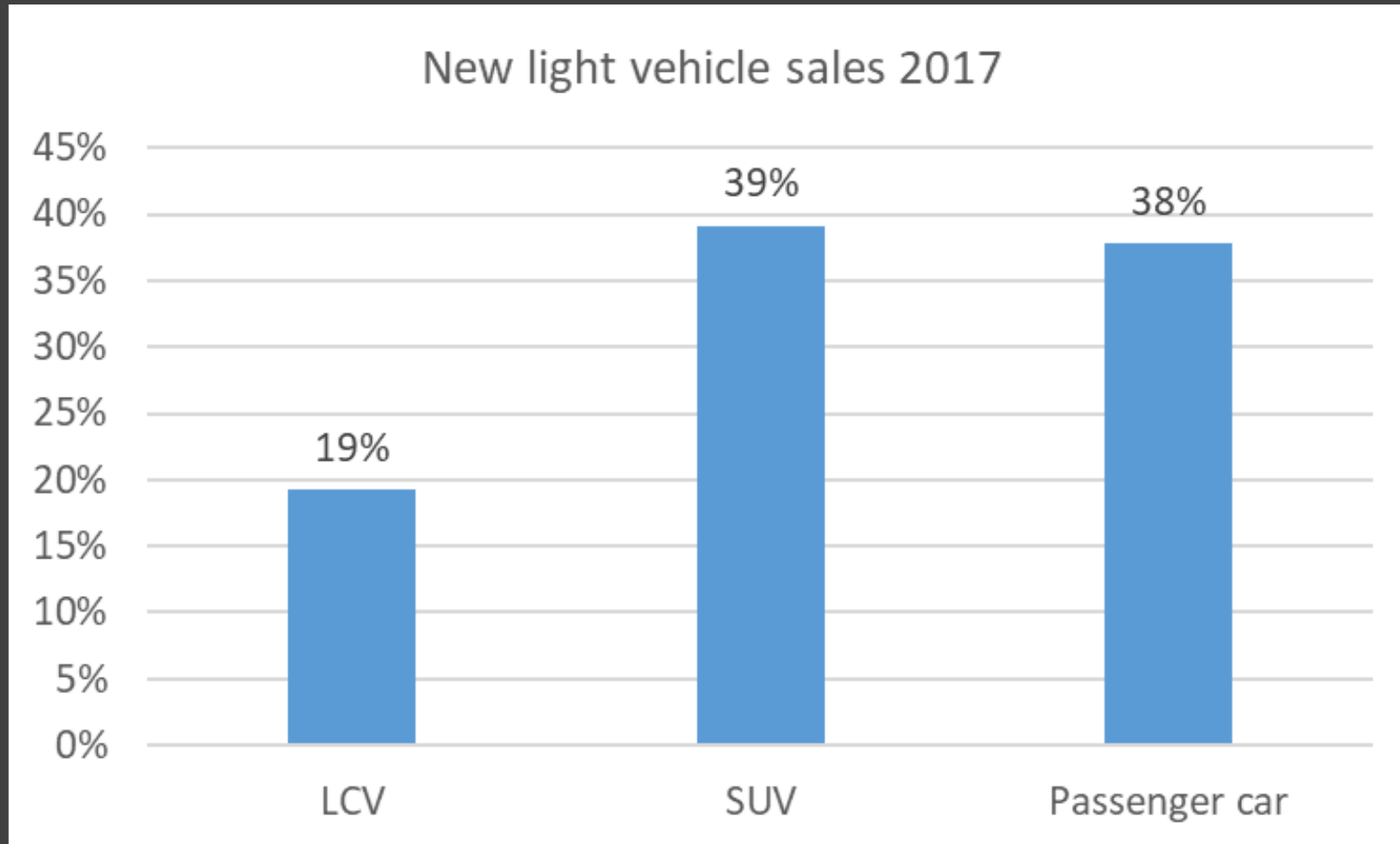
Source: Gargett and Cosgrove 2019 (forthcoming) and Economic Connections analysis

# But it is still early stages in Australia



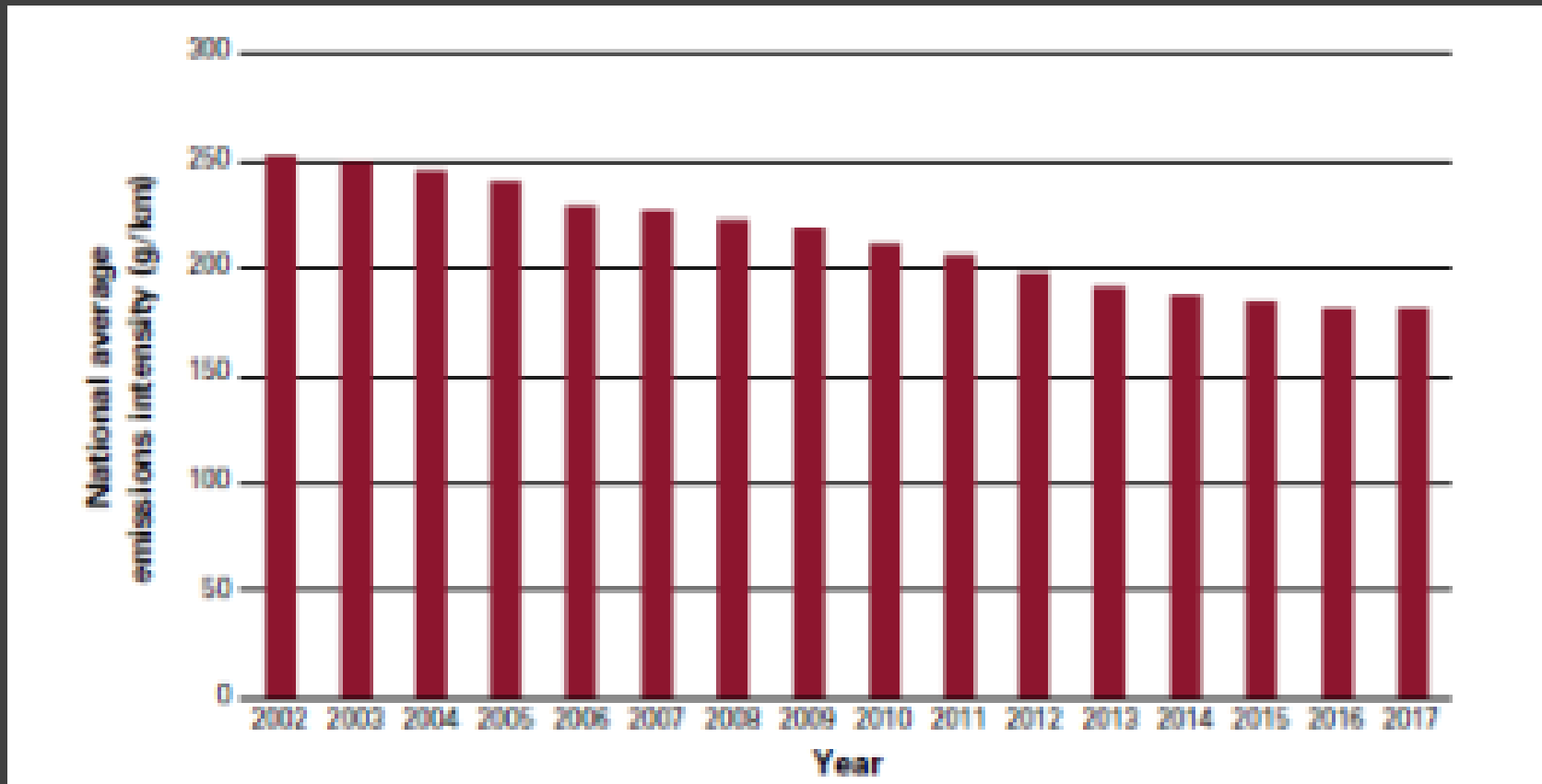
Source: Murphy 2019

# Within light vehicles, a changing vehicle mix adds to fuel demand



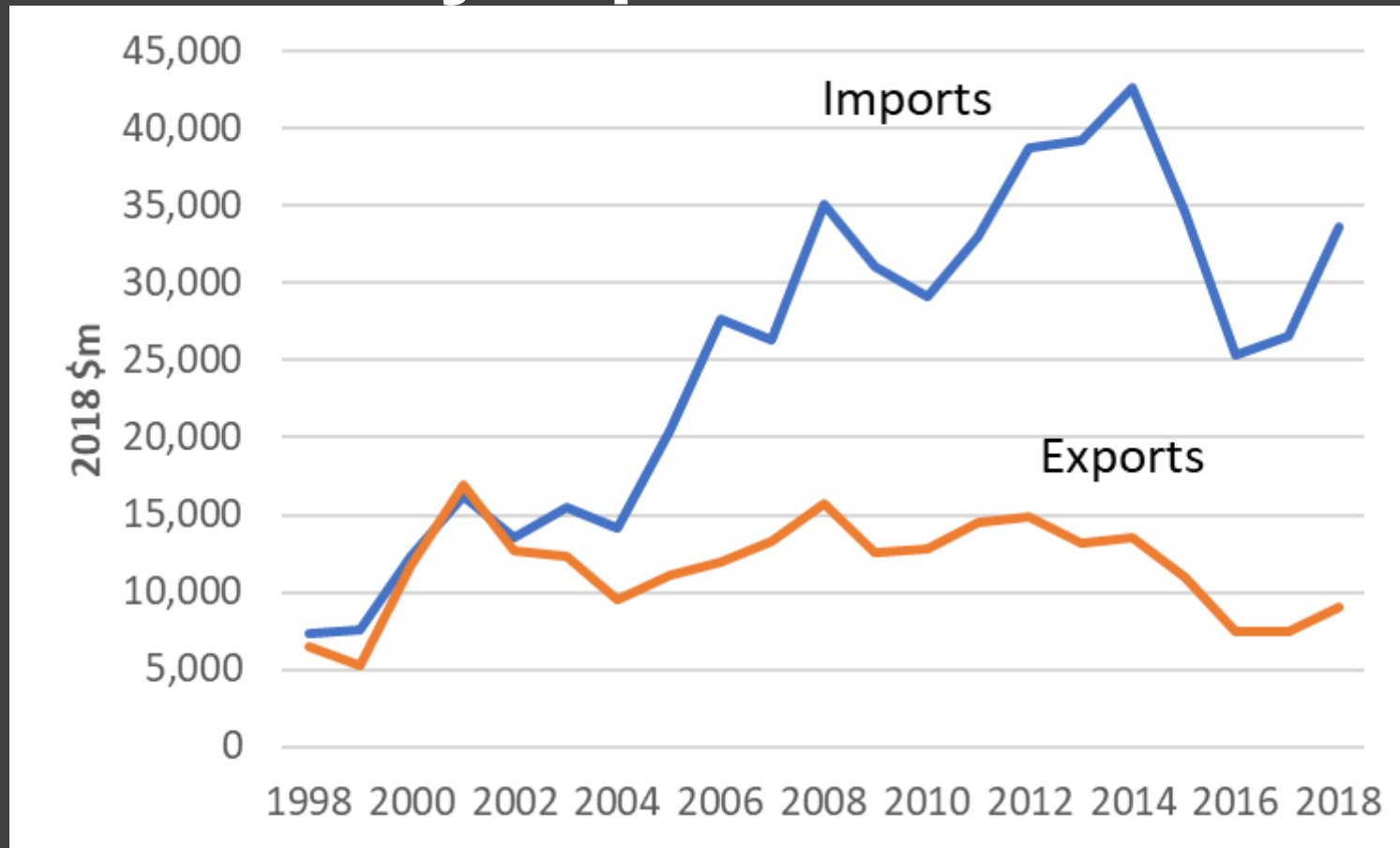
Source: FCAI 2018

# While the light vehicle fuel economy trend is negative for demand growth



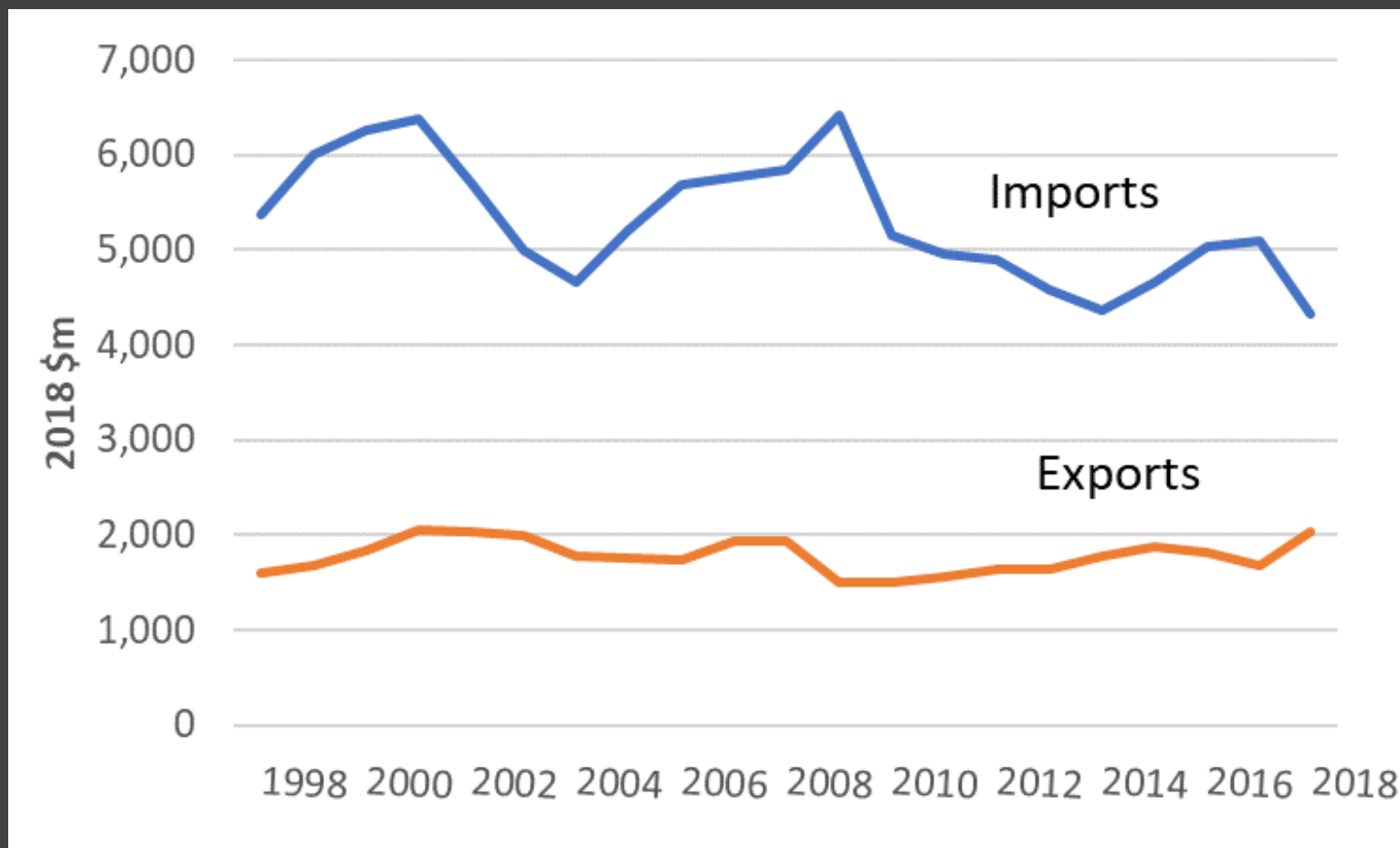
Reproduced from National Transport Commission 2018

# Fuel industry structure – imports have substantially replaced local refining



Source: ABS 2018b

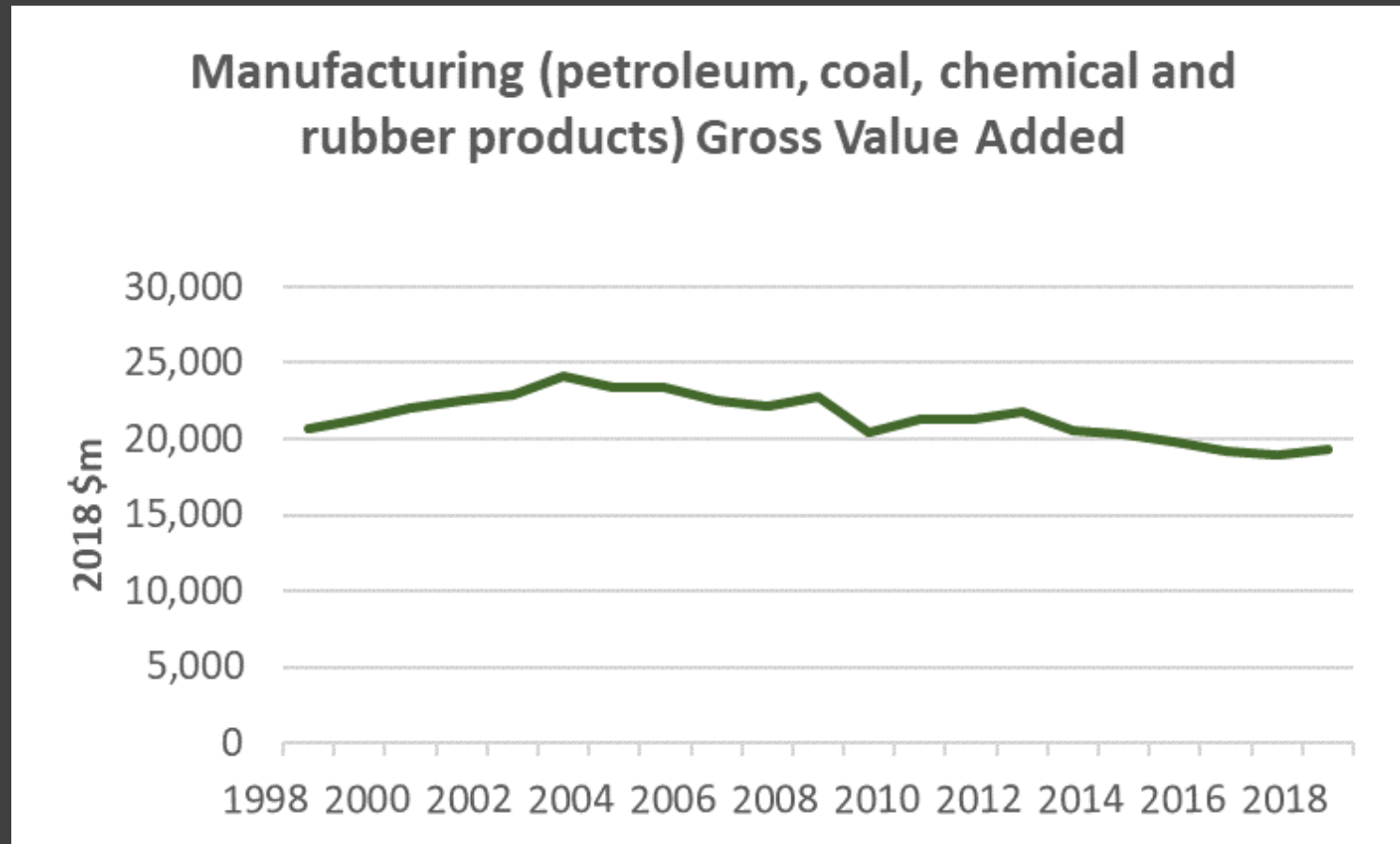
# The import trend is less evident, but is reported, in chemicals



Source: ABS 2018b



# Imports may be the more important in a slightly smaller chemicals sector



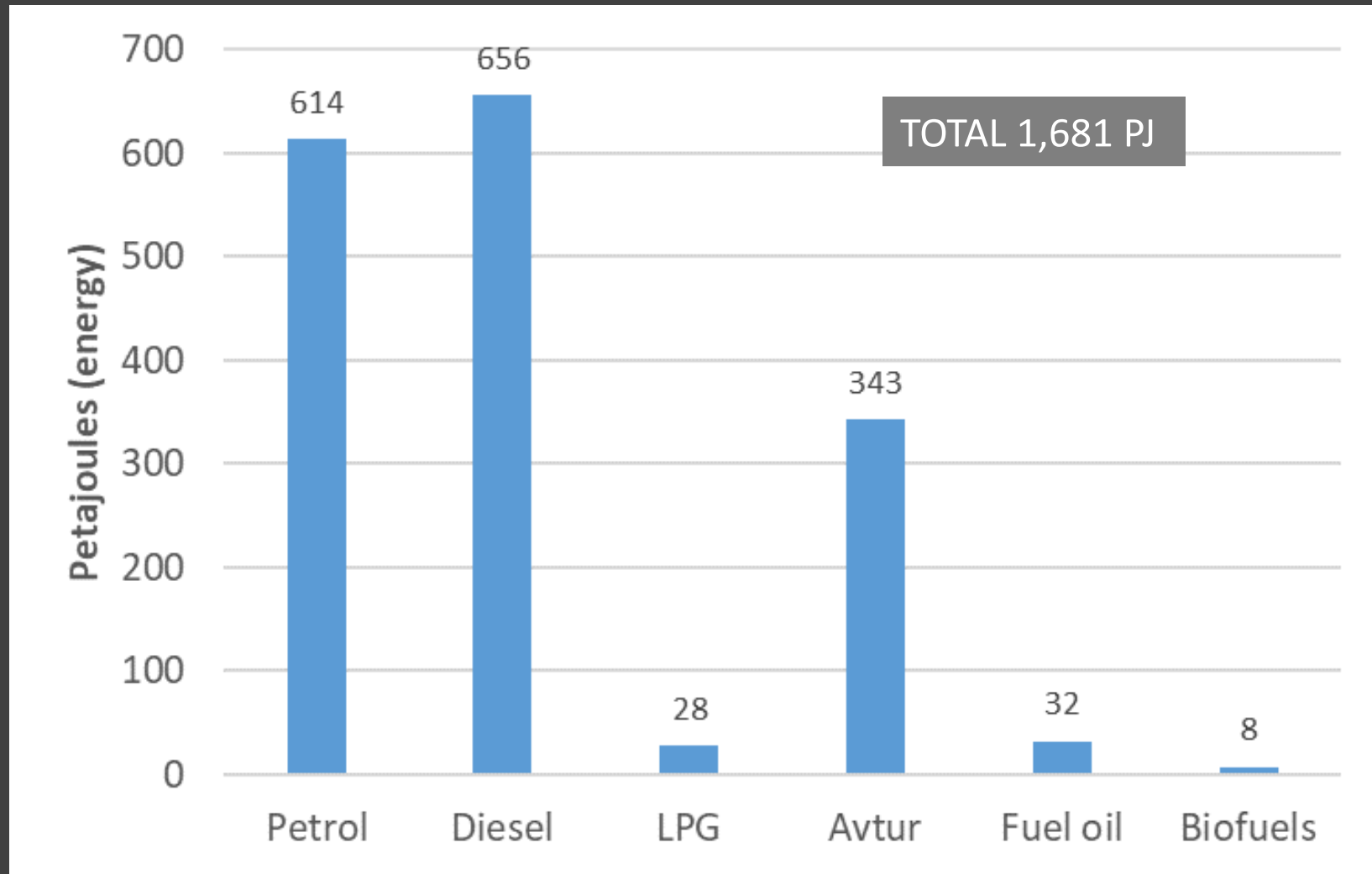
Source: ABS 2018a

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# Current liquid fuel mix – diesel at 40%



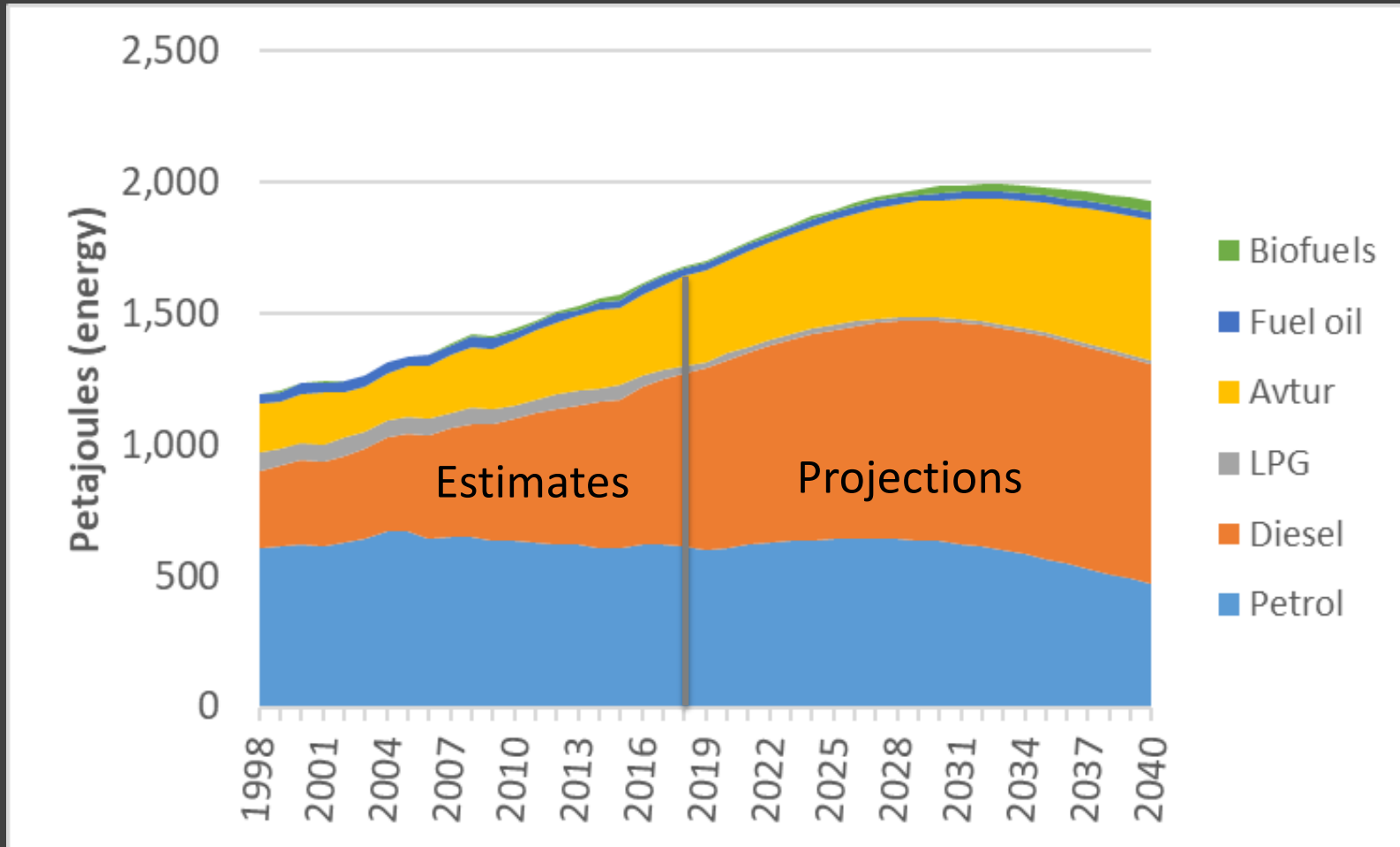
Source: Gargett and Cosgrove 2019 (forthcoming)

# Liquid transport fuels – Business as Usual growth rates

Fuel	<i>Annual growth rate</i>	
	<i>1998-2018</i>	<i>2018-30</i>
Petrol	0.1%	-1.2%
Diesel	4.0%	1.1%
Avtur	3.2%	2.1%
Fuel oil	-0.5%	-0.4%
Biofuels	14.5%	8.3%
TOTAL	1.9%	0.7%

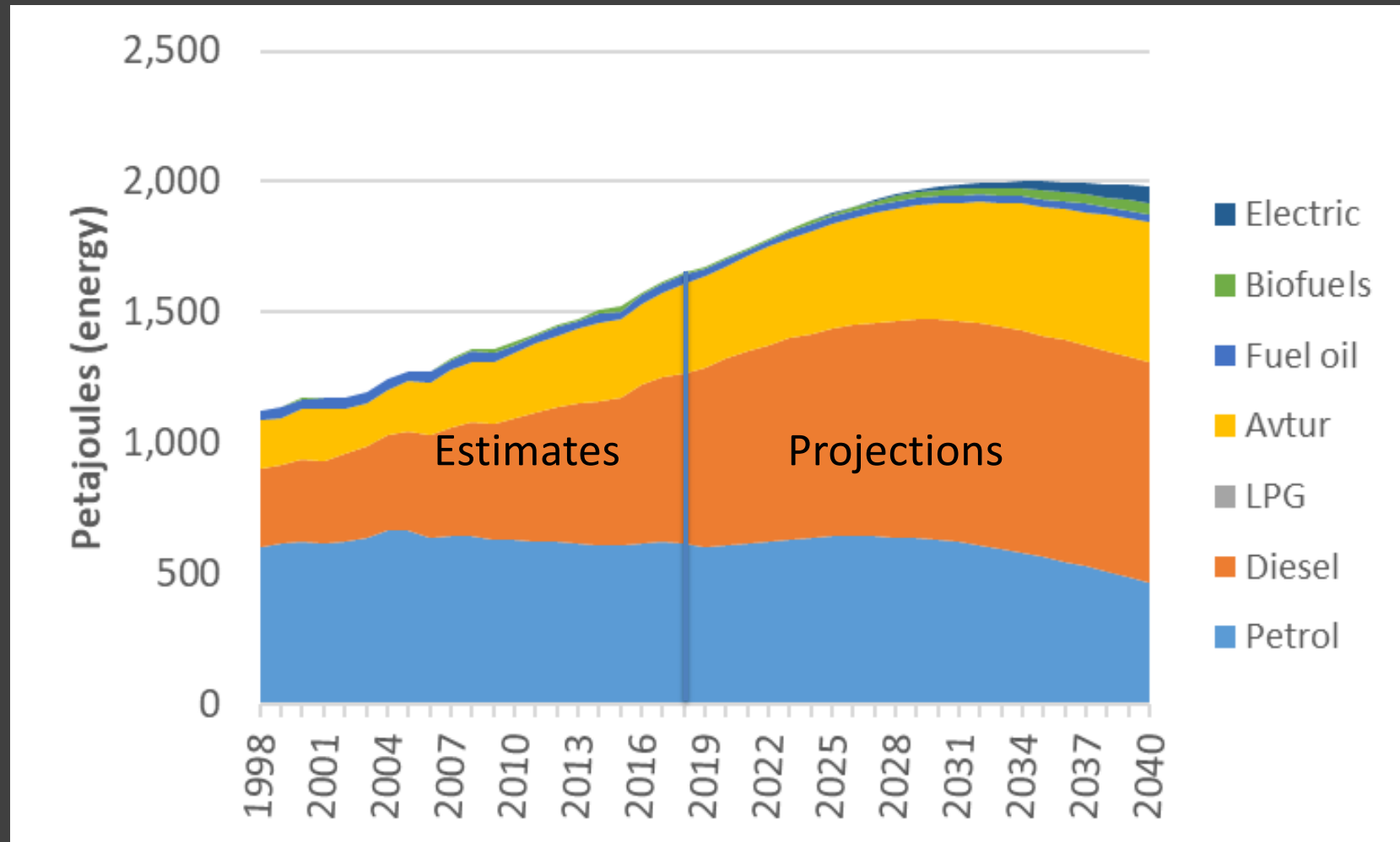
Source: Gargett and Cosgrove 2019 (forthcoming)

# Diesel and avtur to continue to grow, petrol and LPG declining (BAU)



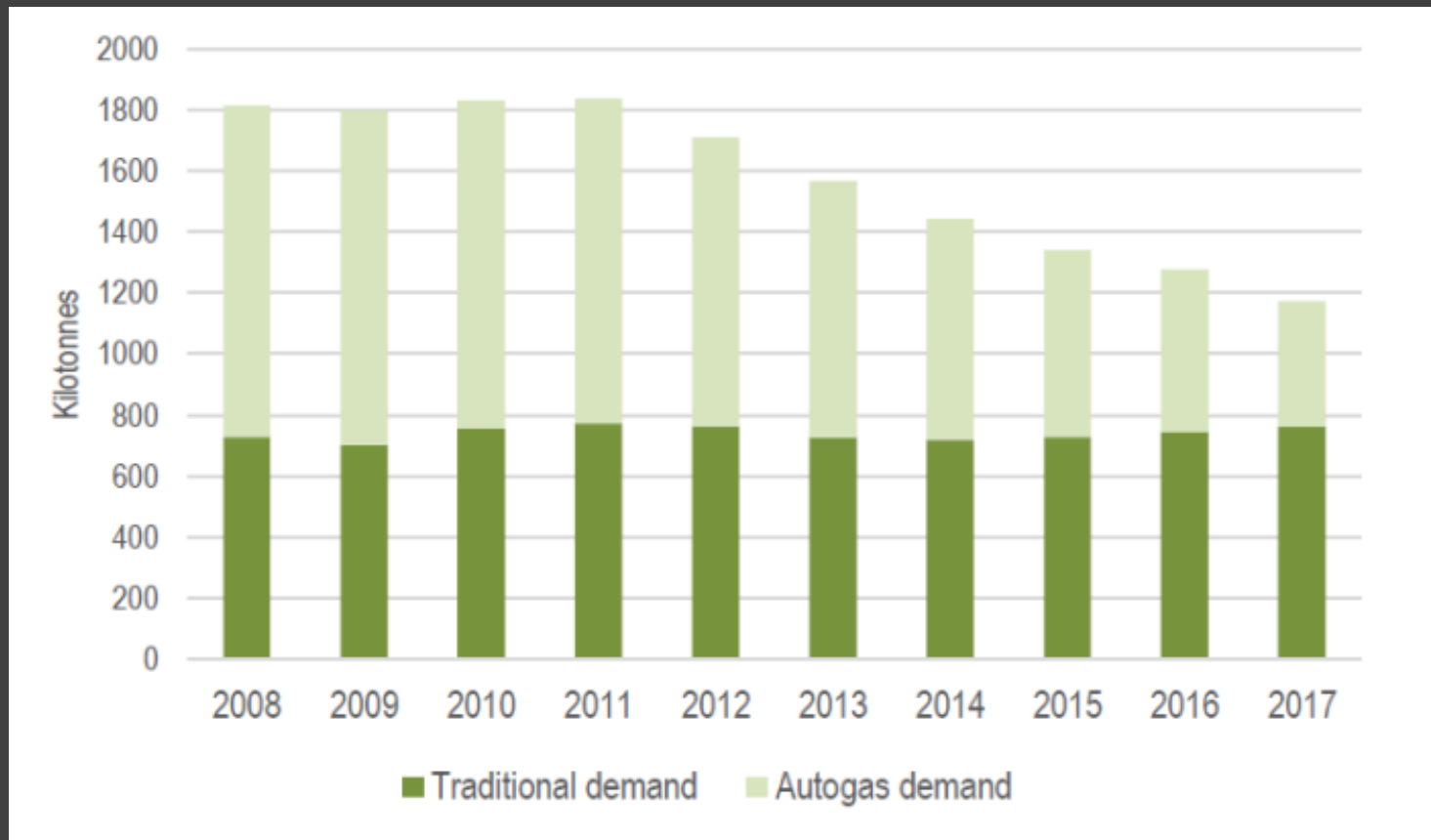
Source: Gargett and Cosgrove 2019 (forthcoming)

# With 50% of new light vehicles electric in 2040 (BAU), 3% of liquid transport fuels would be replaced



Source: Gargett and Cosgrove 2019 (forthcoming)

# LPG – recent transport use lower, heating unchanged, declining outlook



Reproduced from Gas Energy Australia 2018

# Chemicals outlook

- Absence of a long term, reliable, competitive gas supply market constrains industry growth (PACIA 2014)
- 0.4 per cent growth forecast to 2022 (IBISWorld 2019)
- New transport challenges with ‘increased imports’?





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# Wrap-up – liquid transport fuels

- The pace of light vehicle electrification is uncertain and depends on further battery capacity increase/cost reduction and on policy settings
- Even 100% EV new passenger vehicles by 2040 would likely reduce BAU total liquid fuel use by less than 10 percentage points (Economic Connections estimate)
- Electrification of trucking and the other heavy transport modes – *if* it becomes the preferred pathway – is likely be still slower

# Wrap-up – gases and chemicals

- The growth area of LNG exports appears to largely exclude road transport
- LPG road transport delivery remains important
  - With non-transport uses a growing share
- Gas availability/pricing certainty and offshoring remain challenges for chemicals, impacting sector growth outlook



*Thank you*

*Questions and discussion*



# References

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