

NZ Gas Industry Forum 2016

An Australian industry update

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Millennium Hotel
Queenstown, NZ
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About Gas Energy Australia



- 1958 - Australia Liquefied Petroleum Gas Association (ALPGA) established



- 2009 – name change to LPG Australia



- 2012 – constitution amended to include broader gaseous fuels (ie LNG & CNG) and Association trading name changed to Gas Energy Australia



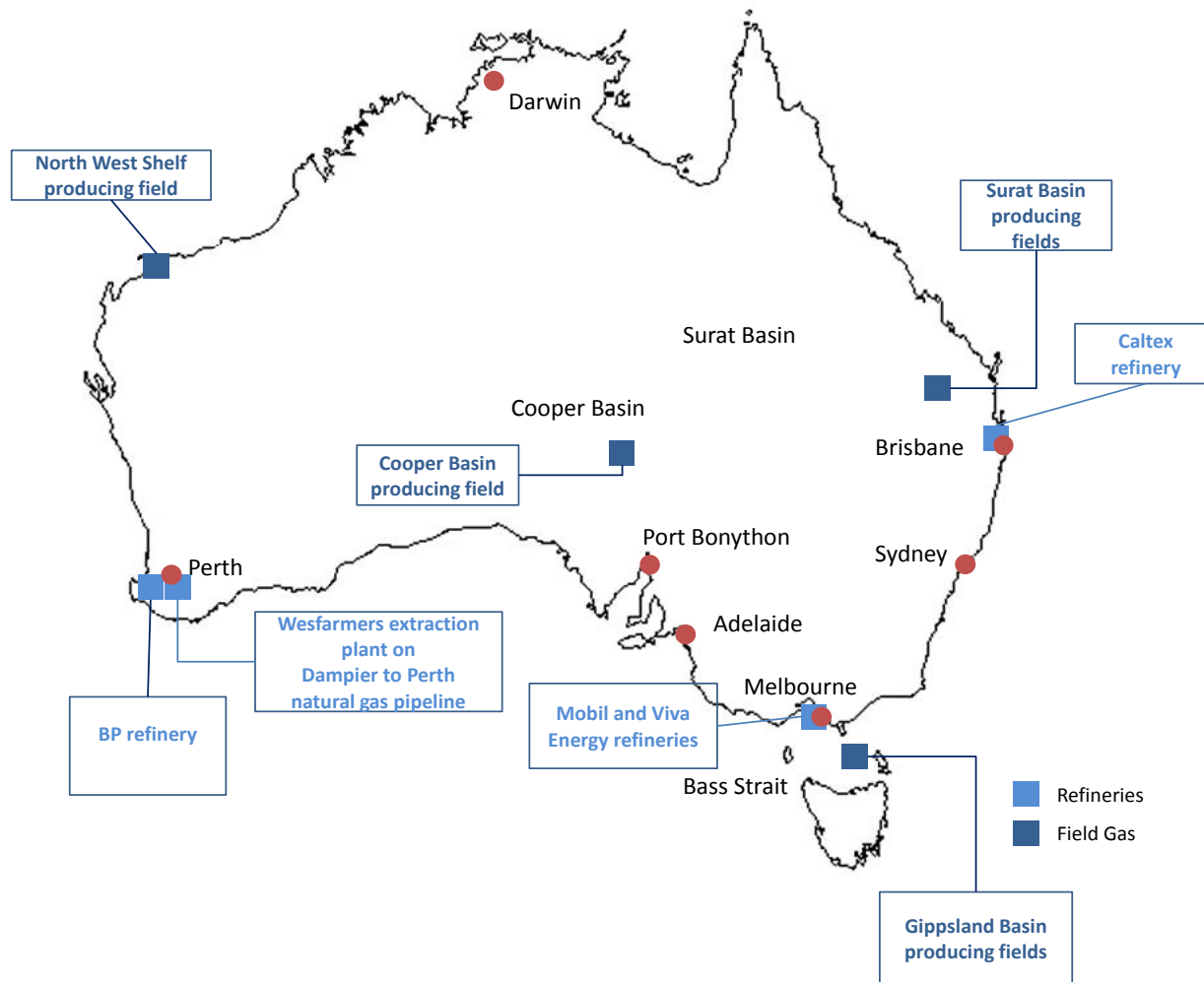
“...to optimise the value of gaseous fuels for the benefit of the national interest and the community

leading to improved energy security, carbon reduction, lower energy costs, and the development and growth of the industry...”

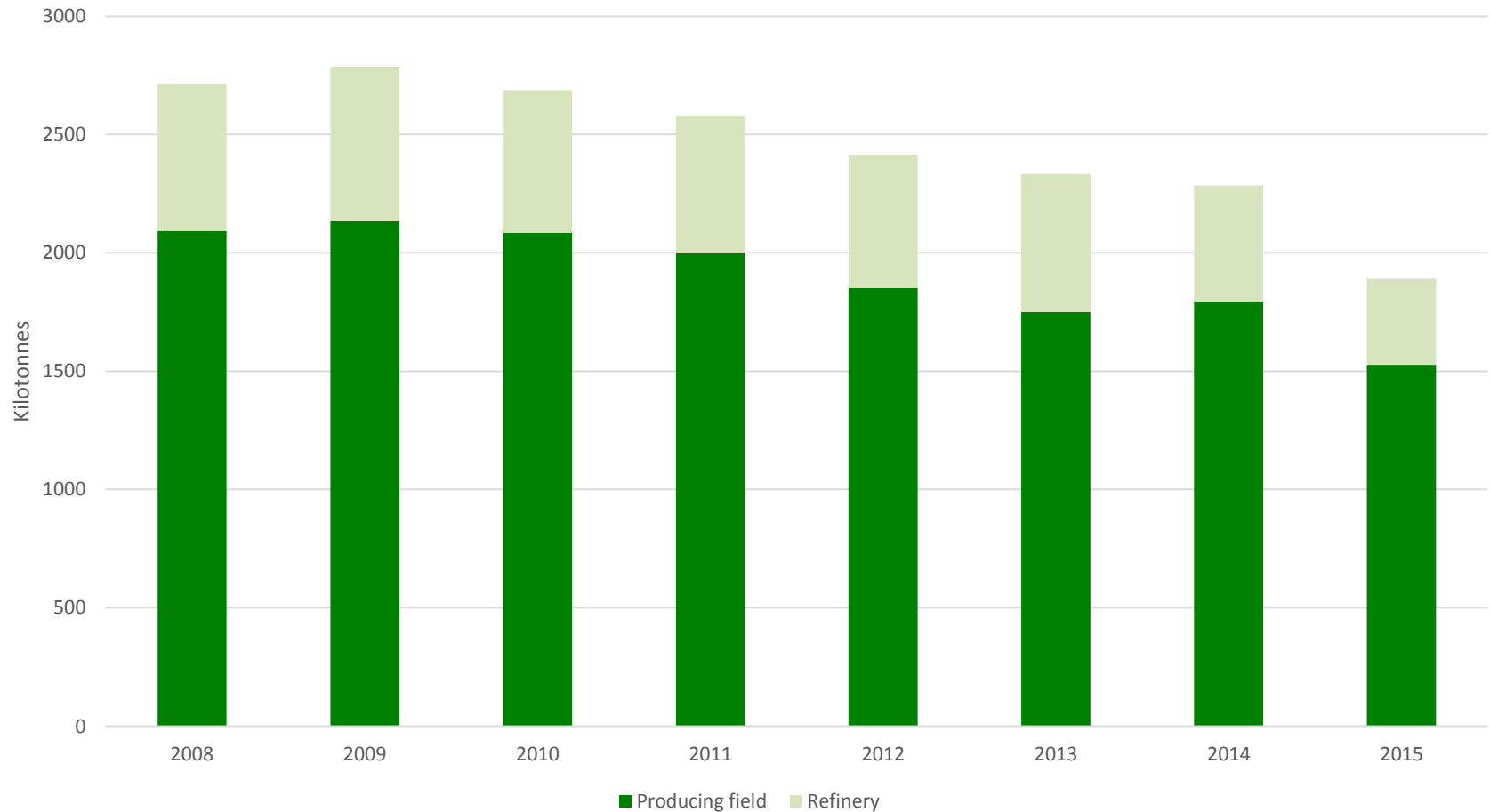
Australian LPG Supply and Demand



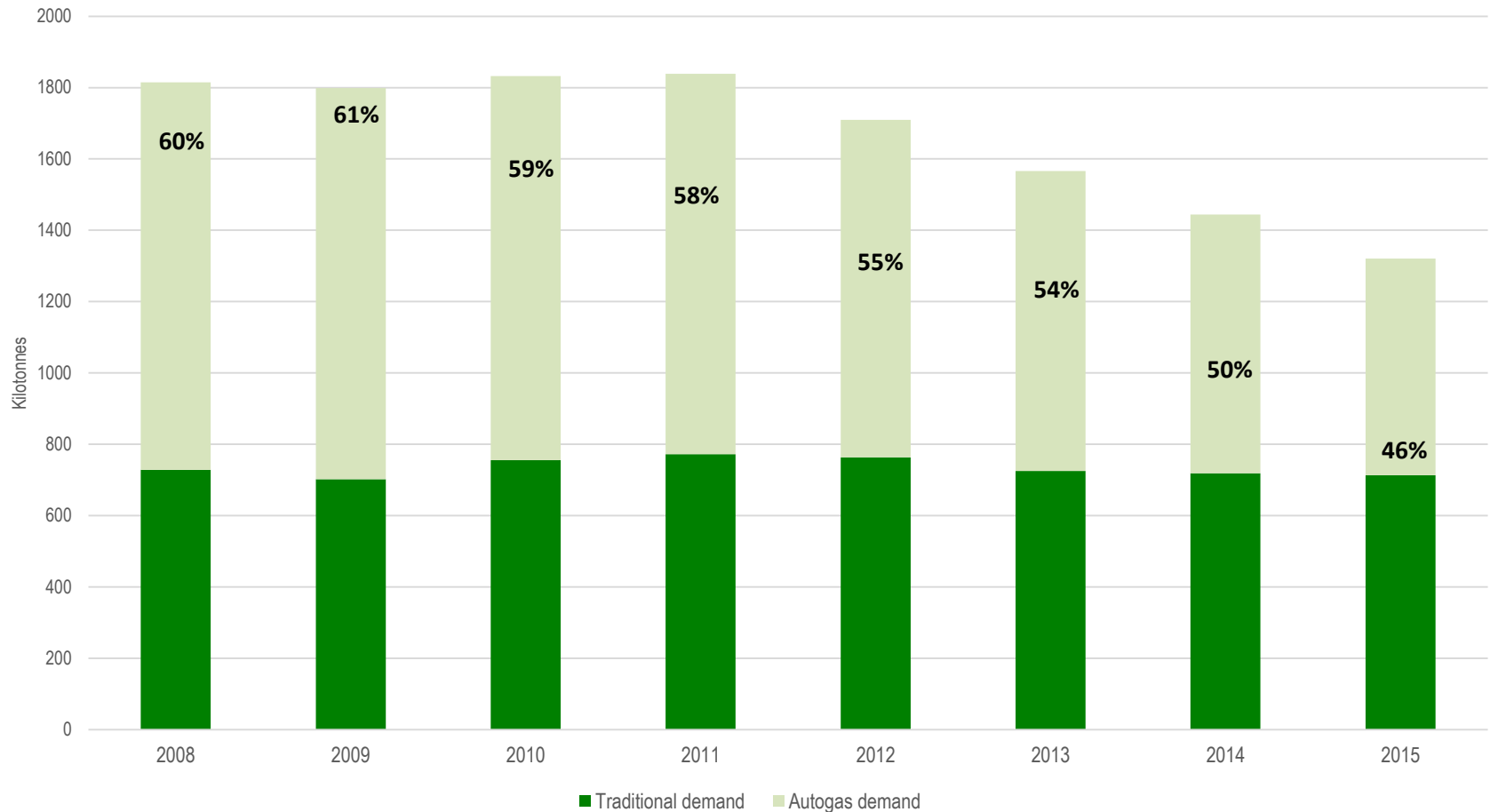
Australian LPG production sources



Australian LPG production: producing fields & refineries



Australian LPG demand: traditional (stationary) & autogas



Government policy landscape

Environment

- Climate change policy
 - 2017 review of national climate change policy
 - Federal, State and Territory Govt climate change policies
 - Direct Action Plan
 - Emissions Reduction Fund
- Ministerial Forum on Vehicle Emissions
 - CO2 emission standards for light vehicles?
 - Tighter vehicle tailpipe emission standards (eg, Euro6)?
- National Clean Air Agreement
 - Federal, State and Territory Governments



Government policy landscape

Energy security

- Review in response to recent South Australian blackout
- Tasmanian Energy Security Task Force – response to recent electricity shortages following low dam levels and interconnector failure

Industry policy

- Support for Australian manufacturing, including automotive industry

Fuel excise tax policy

- Fuel excise on gaseous fuels
- Heavy vehicle charges



Government policy landscape



Competition and consumer policy

- Fuel pricing and consumer safety

State and Territory Gas Technical Regulators

- Product and appliance safety
- Globally Harmonised System of Classification and Labelling of Chemicals (GHS) (1 January 2017)
- Workplace safety (model federal regulation implemented by states and territories)

National Transport Commission

- Land Transport Regulation 2040
- Policy and technical work streams:
 - heavy vehicle charging;
 - load restraint;
 - Australian Dangerous Goods update to align with UN Regulations; and
 - enforcement approaches for speeding vehicles

National Heavy Vehicle Regulator

- Chain of Responsibility
- Roadworthiness Project

Background

- Ministers for Urban Infrastructure (Fletcher) and Environment and Energy (Frydenberg) are leading this initiative
- Will propose and implement regulatory and policy options to reduce CO₂ and noxious emissions from the transport sector

Status update

- GEA participated in stakeholder consultation in December 2015
- February 2016 government released discussion paper
- GEA participated in stakeholder consultation in April 2016
- April 2016 GEA forwarded submission on discussion paper

Ministerial Forum on Vehicle Emissions

Next steps

- The Government will appoint an expert to test the impact of fuel quality on ability of vehicles to meet Euro 5 and/or 6 standards
- The Government will use feedback from consultations to inform policy options report to be released in late 2016
- The Government will deliver draft implementation plan in 2017
- GEA will continue to engage with the Government
 - to ensure they maintain an objective, technology neutral approach to assessing options; and
 - are aware of the benefits and proven applications of gas in transport

Rebuilding Australia's autogas industry



Autogas: political & economic environment in Australia



- mid-70s: oil price shock & LPG production in Bass Strait
 - Development of autogas technologies in Australia
 - 1974: excise imposed on autogas by Federal Government
- 1979-80: 2nd oil price shock
 - 1979: excise removed from autogas by Federal Government
- 1980s and 1990s: growth in Australian autogas industry
 - 2000: factory fitted Ford Falcon Intech E-gas engine introduced
- 2006: oil price spike
 - LPG Vehicle Scheme established by Federal Government
 - significant growth in LPG vehicles, especially conversions

Autogas: political & economic environment in Australia

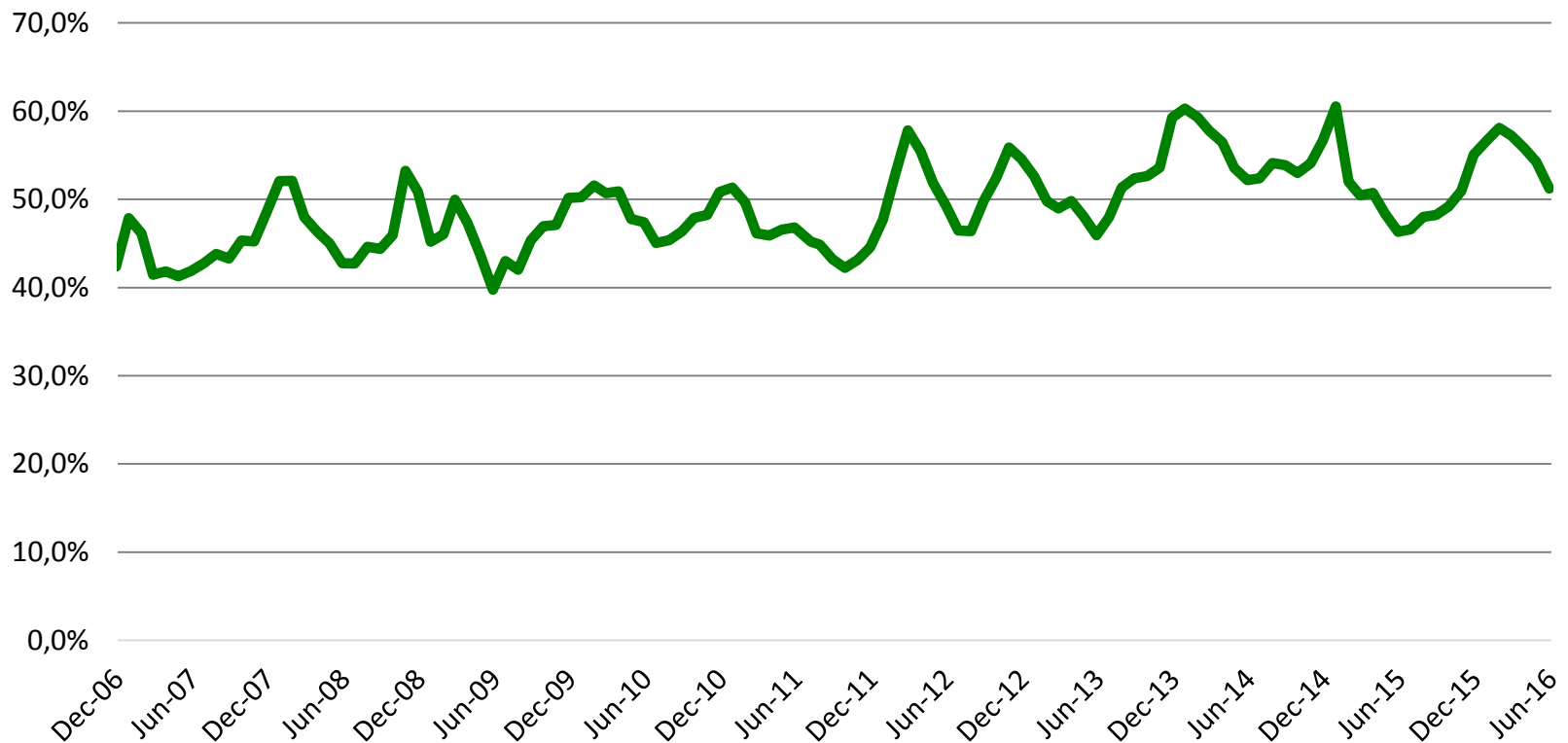


- 2011: excise imposed on autogas by Federal Government
- 2014: Budget repair takes precedence
 - LPG vehicle scheme closed by Federal Government
 - indexation of autogas excise reintroduced by Federal Government
- 2017: expected cessation of Toyota, Ford and Holden automobile manufacturing operations in Australia

The fuel price equation is still strong



Price of autogas as a % of price of unleaded petrol



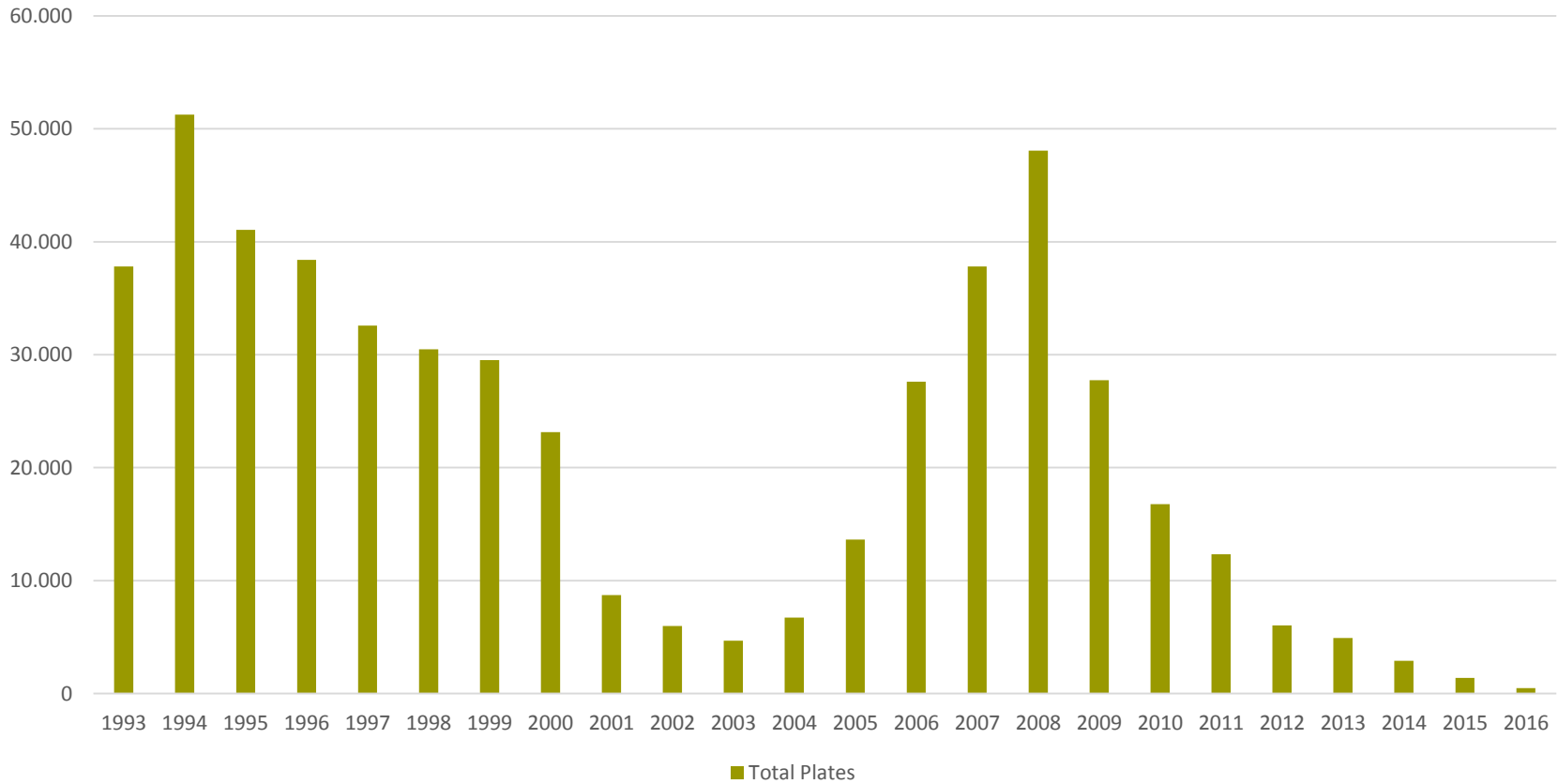
Australian autogas network



**Autogas available in
around 3,300 (over half
of all) service stations**

Victoria – autogas heartland not without its ups and downs

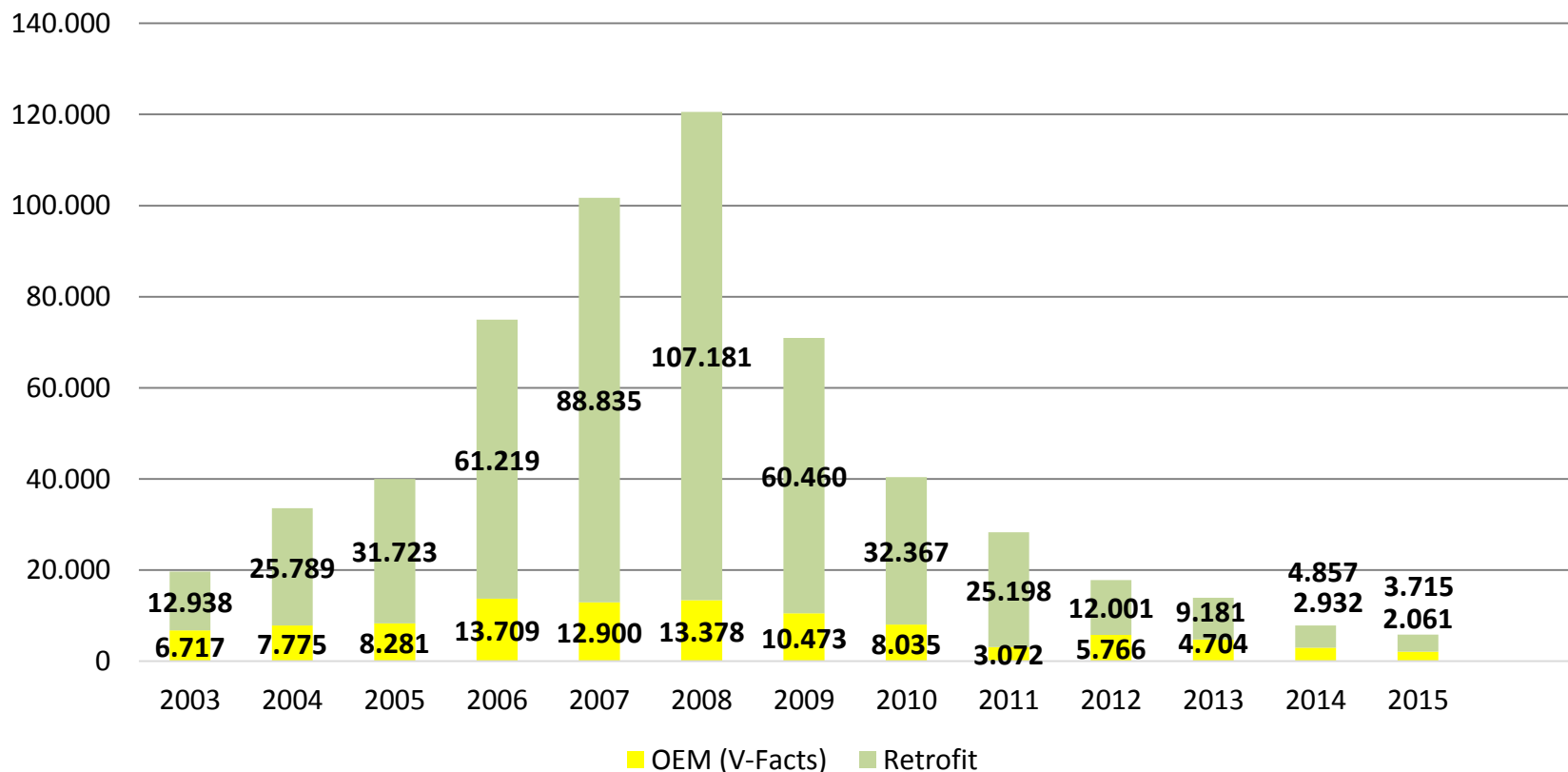
AAFRB autogas conversion compliance plates



OEM is part of Autogas vehicle sales



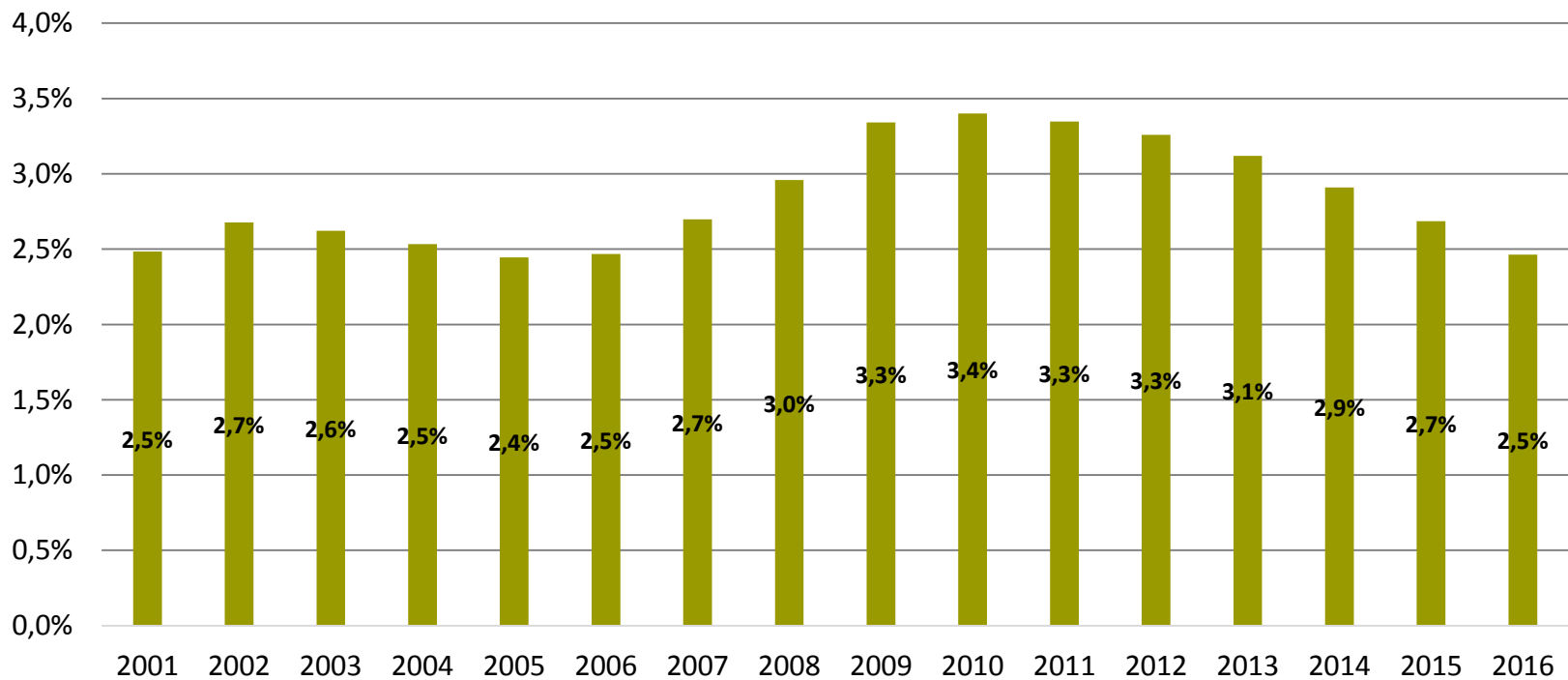
OEM vs retrofit LPG vehicles in Australia per annum 2003 - 2015



Autogas is a significant part of Australian vehicle fleet



number of LPG vehicles as a % of Australian light vehicle fleet



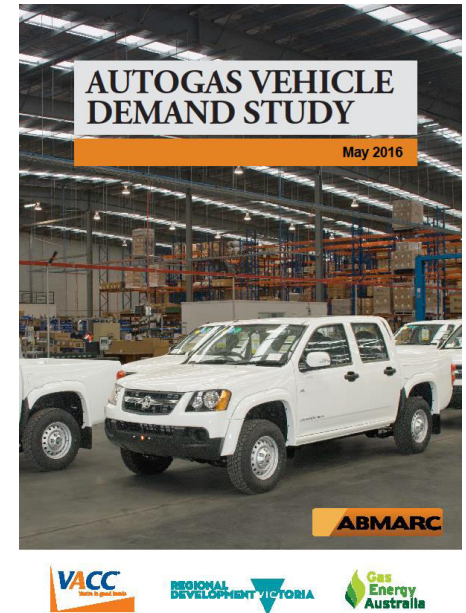
Autogas: Australian industry responses

- July 2013: Creation of joint GEA VACC National Autogas Task Force
- December 2013: Joint GEA VACC submission to Productivity Commission Review into the Automotive Manufacturing Industry
 - Outlined proposal for autogas centre of excellence and autogas vehicle production facilities
- January 2014: Joint GEA VACC submission to Economic Review of SA & Victoria
- July 2015: Announcement of joint GEA, VACC & Victorian Government autogas vehicle demand study

Autogas vehicle demand study

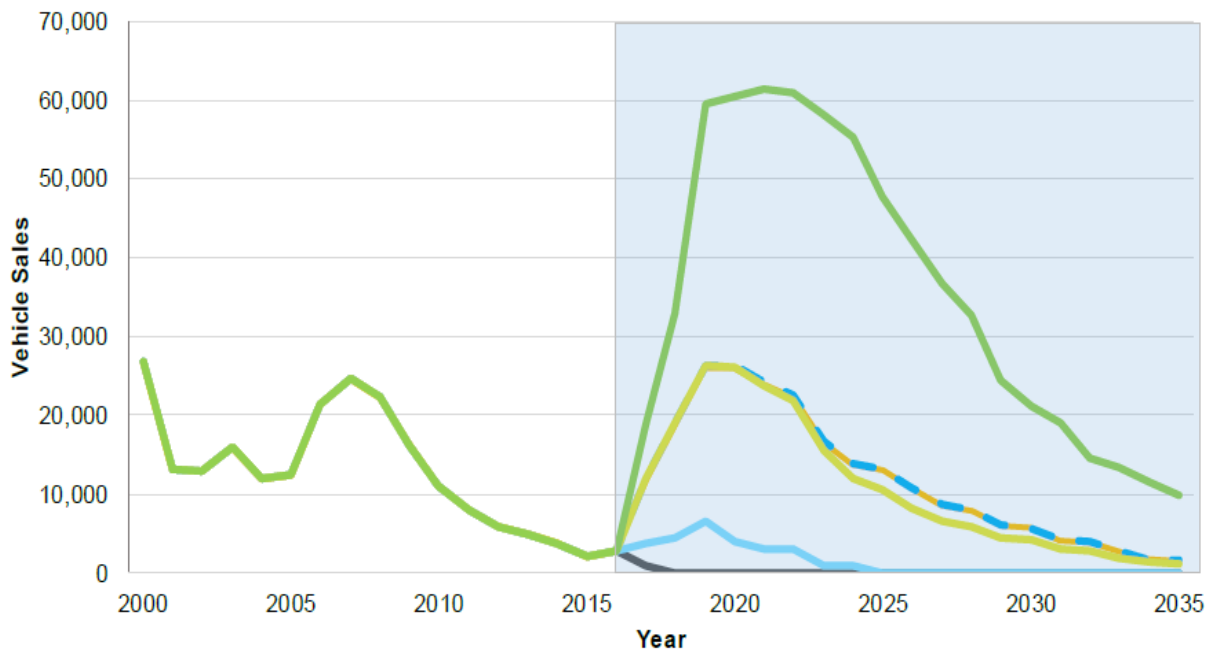
Background

- Commissioned and funded by VACC, GEA and Victorian Government
- Estimated demand for light duty autogas vehicles by fleet managers under various different policy and market conditions
- Input into business case for establishing an autogas vehicle engineering design centre
- Study released in May 2016 at WLPGA summit



Autogas Vehicle Demand Study

Autogas vehicle fleet demand scenarios



	PEAK	2025	2035
Scenario 1.		0	0
Scenario 2.	6,597 (2019)	0	0
Scenario 3.	26,014 (2019)	13,008	1,500
Scenario 4.	26,286 (2019)	13,153	1,512
Scenario 5.	26,259 (2019)	10,487	1,173
Scenario 6.	61,511 (2021)	47,702	9,803

Chart 1 - Total Fleet Autogas Sales Forecast

Autogas Vehicle Demand Study

Key findings

- There is potentially a 15 year window for autogas vehicles to make up significant share of vehicle fleet
- Key parameters affecting autogas vehicle demand:
 - Price premium of autogas vehicles
 - Fleet average CO₂ limits regulation
 - Improving fuel economy of conventional vehicles
 - Uptake of electric vehicles

Rebuilding Australia's Autogas industry



New Autogas Vehicle Forum - 27 July

- hosted by Society of Automotive Engineers - Australasia (SAE-A)
- well attended with 36 representatives from across the automotive, autogas and fuel supply industries
- provided a valuable networking opportunity to facilitate the collaboration needed to deliver manufacturing capability

Key determinants of success

- willingness of industry participants to work together
- leadership offered by Unigas/Elgas
- Victorian Government's facilitation role

GEA's ongoing role

- continue to provide support in the form of industry information to interested parties but will not get involved in commercial negotiations to develop a new autogas vehicle project

Autogas heavy truck trial

Unigas trialling the use of autogas to displace diesel fuel in Volvo heavy duty trucks operated by Cootes Transport

- ABMARC operated Portable Emissions Monitoring System (PEMS) test program validating the technology.
- Test program also assisting in developing an Australian Standard to cover autogas diesel fuel displacement technology



Positive influences

1. Significant demand for LPG vehicles from fleet sector
 - ABMARC Report
2. Victorian Government support for new ventures in automobile industry
3. Current Federal Government focus on vehicle emissions and recognition of LPG as a cleaner fuel
 - Ministerial Forum on Vehicle Emissions
 - Sales of LPG vehicles sensitive to government policies
4. Available and existing autogas supply infrastructure, skills and automobile manufacturing infrastructure
5. Still strong fuel price equation

Levelling the playing field for gaseous fuels



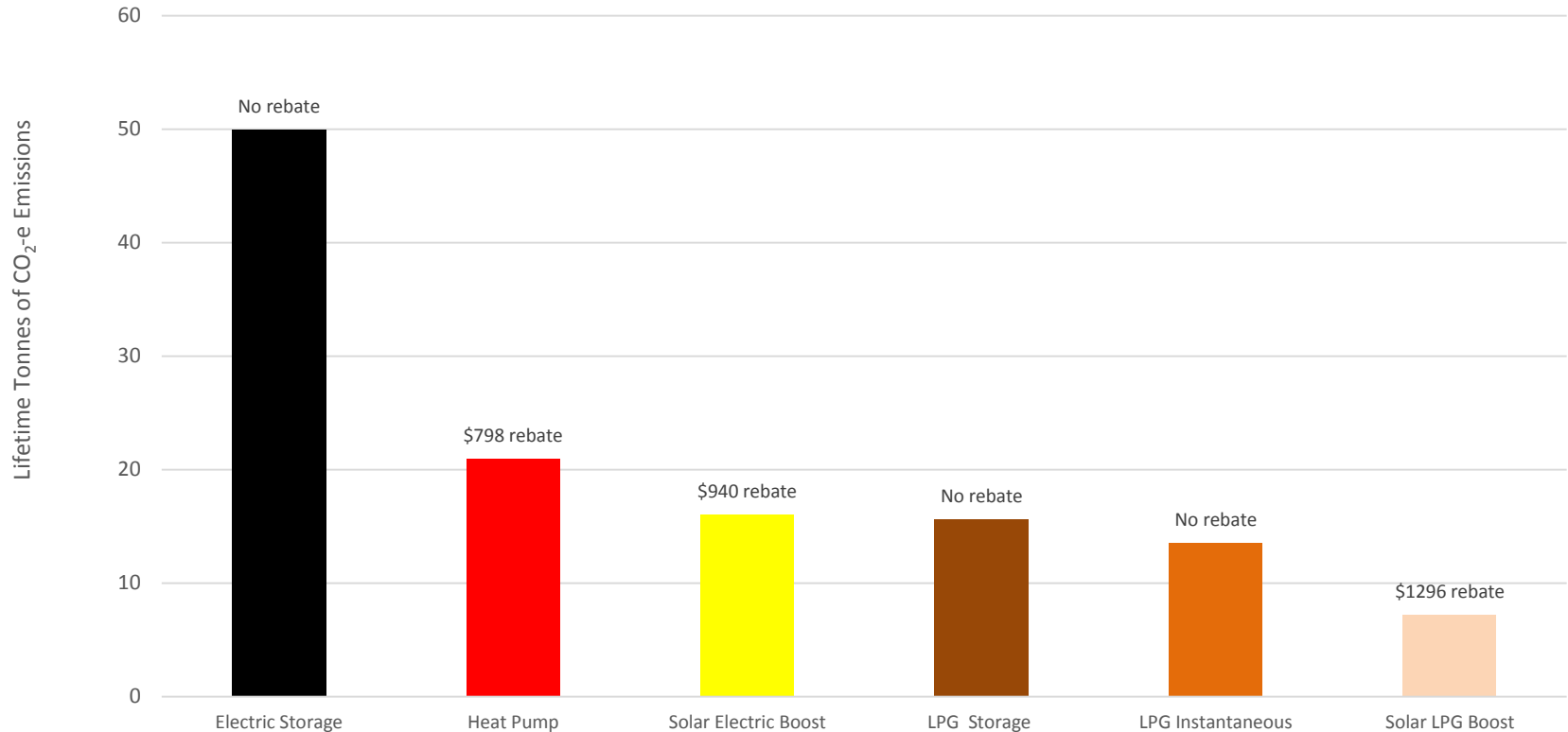
Improving policies towards gas

Background

- Australian Renewable Energy Agency (ARENA) grants provided only to renewable energy projects
- Renewable Energy Target (RET) and Small-scale Renewable Energy Scheme (SRES) exclude gas
- Many State and Territory government climate change policies and programs focus on renewables and exclude gas
 - WA Government owned Western Power investigating feasibility of electricity generation project in Kalbarri to address issues with grid reliability but only renewable technology considered
- GEA has advocated for technology neutral approach to supporting clean energy technology – need to position gas as low emission energy not just another fossil fuel

Improving policies towards gas

Water Heater Emissions and Rebates



Source: Pitt and Sherry, Greenhouse gas emissions performance of various types of residential water heaters, and emission abatement opportunities, 2015

Federal Government policies



Emissions Reduction Fund (ERF)

- Includes all abatement technologies, including gas projects
- Allows aggregation of small projects
- Carbon farming projects eg, landfill most successful

Clean Energy Innovation Fund (CEIF)

- \$1 billion CEIF will be managed by ARENA and Clean Energy Finance Corporation (CEFC) provides debt and equity for clean energy technology and has a commercial focus
- All low emission and energy efficiency projects are eligible (technology neutral) for debt and equity funding from CEIF

NSW Energy Saving Scheme



Background

- NSW Government undertook review of ESS during 2015
- GEA forwarded submission in December 2015 advocating for:
 - including gaseous fuels in the scheme;
 - allowing fuel switching to generate certificates; and
 - including distributed generation as an eligible activity.

Status update

- NSW Government finalised amendments to the ESS in April 2016
- New amendments incorporate first 2 points and off-grid electricity generation activities can be eligible under certain conditions
- Current examination of eligibility of different energy rated appliances

Collaboration with other gas related industry associations



GEA participating in GAS 2050 Vision project with

- other gas industry associations – Energy Networks Association (ENA), Australia Petroleum Production and Exploration Association (APPEA), Australian Pipeline and Gas Association (APGA) and
- companies - Jemena, Ausnet Services, Australian Gas Networks and APA Group

Collective Objectives:

- Develop GAS 2050 Vision document outlining fundamental messages from gas industry to policy makers and gas supply industry
- Articulate future role of gas in Australian economy and the policy framework required

maintaining our social licence to operate



Qld Minister and Response Agencies post Ravenshoe

Response to accidents

Ravenshoe Qld June 2015

- Ute crashes into cafe at speed
 - LPG cylinder ruptured
 - 2 dead, 21 injured
 - Political pressure for response
- 
- A photograph showing the aftermath of a vehicle crash into a green building. The building has signs for "Serves You Right Cafe" and "Breakfast & Coffee". A white ambulance with red and yellow markings is parked in front of the building. Two people are standing near the entrance of the cafe. The sky is overcast and there is some smoke or steam rising from the scene.
- GEA members worked with Qld authorities on response
 - Agreed on amendments to Australian Standard: AS1596
 - Impact protection: Recognise minimisation of vehicular impact hazards as a higher order hazard control solution (eg, locating installations away from likely or direct vehicle paths)
 - Common sense response that avoided knee-jerk responses

project Safe+Connect

- **Project:** investigate safeness of type 21 connection for portable gas appliances
- Developed and deployed common industry data collection template and guidance to categorise and quantify 4.5 & 9kg cylinder connection issues
- Based on results, research potential improvements including solutions being used overseas, including NZ
- Working closely with state gas technical regulators, firefighters and gas appliance manufacturers' association





thank you