



Australian  
Competition &  
Consumer  
Commission

# Draft Determination

Application for authorisation

lodged by

Mine Energy Solutions Pty Ltd

to

enter into an exclusive supply agreement  
to acquire custom made high pressure  
compressed natural gas tanks  
for storage of gas fuel

Date: 20 July 2016

Authorisation number: A91541

Commissioners: Rickard  
Court  
Featherston

## Summary

The ACCC proposes to grant authorisation to Mine Energy Solutions Pty Ltd to enter into an exclusive supply agreement of up to five years with Quantum Fuel Systems Technologies Worldwide to acquire custom made high pressure compressed natural gas tanks for storage of gas fuel.

The ACCC invites submissions on this draft determination before making its final decision.

## The application for authorisation

1. On 10 June 2016 Mine Energy Solutions Pty Ltd applied for authorisation to enter into an exclusive supply agreement with Quantum Fuel Systems Technologies Worldwide (**Quantum**) to acquire custom made high pressure compressed natural gas (**CNG**) tanks for the storage of gas fuel.
2. Under the agreement, it is proposed that Mine Energy Solutions will acquire a minimum number of custom made CNG tanks from Quantum each year and that Quantum will not supply the CNG tanks to anyone else for use in vehicles or equipment for mining in Australia (excluding vehicles which make deliveries to mines). If Mine Energy Solutions fails to purchase the minimum number of CNG tanks per year, it will lose any rights to exclusivity (the **Conduct**).
3. Authorisation is sought for the term of the proposed contract, which Mine Energy Solutions advises is still under negotiation but is expected to be between 3 and 5 years.

## Background

4. Compressed natural gas (**CNG**) is used as an alternative fuel for vehicles in many countries around the world. CNG vehicles have lower running costs and lower pollution when compared to conventional vehicles and the use of CNG vehicles is growing worldwide.<sup>1</sup>
5. However a significant factor impacting the adoption of CNG vehicles is the prohibitive cost of the fuel storage tanks. CNG must be stored in a high pressure cylinder that acts as the fuel tank. Vehicles that run on CNG need a great deal of structural support to safely house the tanks. The tanks must be reinforced if they are to meet Australian regulatory standards. This increases the weight of the vehicle, which impacts braking time and distances, and reduces the fuel efficiency and space available inside the vehicle itself. As a result CNG vehicles generally have a shorter range of comparable load capacity than conventional vehicles.
6. As the use of CNG vehicles continues to grow worldwide, economies of scale and product innovation are likely to reduce the cost of each tank.

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<sup>1</sup> Energy Supply Association of Australia, *Developing a market for Natural Gas Vehicles in Australia: Discussion Paper June 2014*.

7. Mine Energy Solutions intends to supply high density CNG refuelling services, provided through a non-evasive dual fuel system, to diesel engines for mobile mining equipment.
8. Mine Energy Solutions advises that technical limitations on the compression of gas and therefore quantities of CNG which can be carried on board a vehicle has resulted in CNG being used primarily in buses and taxis which are able to return regularly to refuelling stations. CNG vehicles have not, to date, been used in mining operations due to a number of technical challenges. In particular, it is necessary to compress the gas to a higher density in order to facilitate enough fuel storage to make the commercial use of CNG viable in a mining application.
9. Mine Energy Solutions has the use of a patented technology to overcome these technical challenges and provide sufficient volume of high density storage to enable CNG to be used in mining vehicles. One part of the componentry needed for this solution is a high pressure light weight CNG tank, which must be custom designed to fit each mining vehicle. Mine Energy Solutions advises that the cost of this custom design is significant.
10. Mine Energy Solutions is negotiating a supply agreement for custom CNG tanks with Quantum, a Californian-based company which designs and manufactures lightweight, high capacity CNG fuel tanks for supply worldwide.
11. It is proposed that Quantum will own all of the intellectual property rights in the custom CNG tank designs it produces for Mine Energy Solutions, but that it will not supply the tanks to any other party for use in vehicles or equipment for mining in Australia for the term of the agreement, on condition Mine Energy Solutions purchases a minimum number of tanks annually from Quantum.

## Consultation

12. The ACCC wrote to 16 potentially interested parties seeking comment on the application for authorisation and made the application available on its website.
13. One submission was received, from the South Australian Department of State Development, supporting the application and citing the likely availability of alternate supply sources for high pressure composite vessels globally, and the limitation of the arrangements to mine vehicles or equipment.
14. Further information in relation to the application for authorisation, including any public submissions received by the ACCC as this matter progresses, may be obtained from the ACCC's website [www.accc.gov.au/authorisations](http://www.accc.gov.au/authorisations).

## ACCC assessment

15. The ACCC's assessment of the Conduct is in accordance with the relevant net public benefits test<sup>2</sup> contained in the *Competition and Consumer Act 2010* (the CCA).

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<sup>2</sup> Subsections 90(6) of the CCA.

16. In its assessment the ACCC has taken into account:

- the application and submissions received from Mine Energy Solutions and interested parties<sup>3</sup>
- other relevant information available to the ACCC, including information from consideration of previous matters
- the likely future without the Conduct that is the subject of the authorisation.<sup>4</sup> In particular, the ACCC considers that, absent the Conduct, it is likely that Mine Energy Solutions would not develop the commercial use of dual fuel CNG and diesel mining vehicles and equipment in Australia because it could not be sure it could capture the benefit of its investment in the necessary technology and equipment
- the relevant areas of competition likely to be affected by the Conduct, particularly competition in relation to the supply of CNG tanks suitable for use in mining vehicles and equipment.
- the up to five year authorisation period requested.

## Public benefits

17. Mine Energy Solutions submits the arrangements will assist it to develop a business making use of CNG and diesel to dual fuel vehicles or equipment for mining. Mine Energy Solutions submits that its business, if successful, will:

- reduce fuel costs for its mining company customers by reducing reliance on diesel
- reduce pollutants compared to running the same equipment solely on diesel
- improve safety through reducing the number of diesel tankers required to bring diesel to the mining site
- result in operation benefits such as reduced vibrations in the mine truck cabins
- allow the beneficial use of some coal seam gas which would otherwise be of little or no commercial value to mining companies.

18. The ACCC is satisfied based on the information before it that the Conduct is likely to result in public benefit by enabling the commercial use of technologies which may reduce reliance on diesel fuels in the mining industry (with associated environmental and cost benefits), and potentially enabling the beneficial use of coal seam gas which would otherwise be released and stored as part of many mining operations, but be of little or no commercial value.

## Public detriments

19. Although CNG tanks are not currently used in mining vehicles, the ACCC accepts Mine Energy Solutions' submission that the element of exclusivity in the proposed supply agreement is unlikely to be a material barrier to entry for new

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<sup>3</sup> Please see the ACCC's Public Register for more details, including a list of parties consulted.

<sup>4</sup> For more discussion see paragraphs 5.20-5.23 of the ACCC's Authorisation Guidelines.

competitors. New entrants would need to develop high density compressed natural gas refuelling technology and engine compatibility technologies equivalent to those developed by or on behalf of Mine Energy Solutions before seeking to obtain supply of CNG tanks.

20. The ACCC notes there appear to be a number of other suppliers of CNG tanks internationally. The South Australian Department of State Development has also noted a forecast increase in global demand and production of high pressure composite vessels, and the likely availability of alternate supply sources for this type of product.

21. The ACCC considers that the Conduct is unlikely to result in significant public detriment since:

- there are alternative suppliers of CNG tanks available should other parties wish to acquire CNG tanks for the purpose of dual fuel CNG and diesel vehicles or equipment for mining in Australia, and there is likely to be an increasing number of alternative suppliers in the future
- the exclusive arrangements relate only to the use of CNG tanks in vehicles or equipment for mining and do not prevent supply by Quantum to other transport sectors in Australia, and
- the exclusivity provisions of the proposed agreement are subject to minimum purchase requirements whereby if Mine Energy Solutions does not purchase the specified minimum annually it will lose rights to exclusivity
- authorisation is sought for the exclusive arrangements for a limited period of 5 years.

## **Balance of public benefit and detriment**

22. For the reasons outlined in this draft determination the ACCC considers that the Conduct is likely to result in public benefit that would outweigh any public detriment, including from any lessening of competition. Accordingly, the ACCC is satisfied that the relevant net public benefit test is met.

## **Draft determination**

### **The application**

23. Application A91541 was made using a Form E, under subsection 88(8) of the CCA. Authorisation is sought for Mine Energy Solutions Pty Ltd to acquire, or offer to acquire, custom made high pressure compressed natural gas (**CNG**) tanks for storage of gas fuel, from Quantum Fuel Systems Technologies Worldwide (**Quantum**), on condition that Quantum will not supply CNG tanks to anyone else for use in vehicles or equipment for mining in Australia (excluding vehicles which make deliveries to mines).

24. Authorisation is sought as the Conduct may constitute exclusive dealing within the meaning of section 47(4) of the CCA.

## **The net public benefit test**

25. For the reasons outlined in this draft determination, the ACCC is satisfied, pursuant to section 90(6) of the CCA, that in all the circumstances the Conduct for which authorisation is sought is likely to result in a public benefit that would outweigh any likely detriment to the public constituted by any lessening of competition arising from the Conduct.

## **Conduct which the ACCC proposes to authorise**

26. The ACCC proposes to grant authorisation A91541 to Mine Energy Solutions Pty Ltd to acquire, or offer to acquire, custom made high pressure compressed natural gas (**CNG**) tanks for storage of gas fuel, from Quantum Fuel Systems Technologies Worldwide (**Quantum**), on condition that Quantum will not supply CNG tanks to anyone else for use in vehicles or equipment for mining in Australia (excluding vehicles which make deliveries to mines).
27. The ACCC proposes to grant authorisation for five years.
28. This draft determination is made on 20 July 2016.

## **Next steps**

29. The ACCC now seeks submissions on this draft determination. In addition, Mine Energy Solutions or any interested party may request that the ACCC hold a conference to discuss the draft determination, pursuant to section 90A of the CCA.