

GAMAA CHRISTMAS LUNCH

Date: Friday 29 November 2019

Venue: Sandringham Yacht Club (SYC) - Jetty Road Sandringham

- 12noon to 4pm - Christmas Lunch - Olympic Room
- Registrations will close Friday 22 November at 12 noon.
- Free parking

Register through Eventbrite [here](#) using the password GAMAA2019

If you have any questions please contact jon.onley@aigroup.com.au

GAMAA Technical Committee Meeting

Date: Friday 29 November 2019

This meeting will precede the Christmas lunch.

- 9.30am - 12 noon SYC Training Room
- An Agenda will be sent prior to the meeting to those who register

GAMAA Future Fuels Technical Committee meeting 30 October 2019

Over 30 GAMAA members attended this industry critical meeting which focused on the injection of Hydrogen into the existing natural gas networks.

David Norman, CEO Future Fuels CRC spoke about the operations of the Future Fuels CRC and GAMAA's role. He told the group that our participation was critical to validate the theory and outcomes of the various Research projects that are embedded within this program. GAMAA's appliance testing program on new appliances has already thrown up some interesting results still leaving questions around the managing the existing appliance stock already in situ.

Other key points from David's presentation:

- 80% of the activities of the FF CRC are focussing on Hydrogen
- Electricity supplies only 20% of world energy
- 5 current trial projects around Australia introducing 2-5% of a gas /hydrogen blend
- Key Operational and Research Streams:
 - Safety of supply
 - Community – Social acceptance
 - Appliance testing and compatibility
 - Life Cycle Management – Infrastructure
- Australia exporting Hydrogen will eclipse LNG and Australia has the opportunity to become positioned as world leader
- The future.... Electricity production could be diverted from supplying domestic and commercial energy to powering the production of hydrogen
- The total cost to electrify everything will be greater than using both renewable electricity and gas. Costs are to do with peak energy demands, not averages (Deloitte report)

Member's Comments:

- Sooting maybe an issue with a hydrogen mix
- Durability of materials (hydrogen embrittlement)
 - Heat exchangers
 - Plastics
 - Stainless steel
 - Carbon steel
 - Any material in contact with the combustion products

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**Gas Appliance
Manufacturers
Association of
Australia**

**GAS
Connections**

Member's Comments continued

- Pipe sizing given the relative density of hydrogen compared with NG and the MJ per m³
- Calorific value
- Gas supply pressure to appliances (2 or 1 kPa makes a big difference)
- Flame picture
- Condensation in the appliance and flue systems
- Burner design
- Flame detection (flame rectification won't work on 100% H₂)
- Costs – changes in running and capital costs
- Gas mixes – what % mix?
- Standards development
- Cost effective hydrogen
- What will be the nature of the transition?
- Effect of 100% hydrogen on gas components vs Towns Gas
- Will LPG bottles/appliances be affected?
- The effect of Hydrogen embrittlement medium to long term on product components/materials – mild steel, tubing, chrome facias, stainless steel rubber seals diaphragms, o rings and more
- What will be the supply pressure to appliances, assuming 100% H₂. Should we switch to 2.0 kPa to achieve commonality with overseas? Also a lot less challenging for 'light-back'
- There are other costs in the transition:
 - Costs of re-regulation
 - Cost of new Standards ('in kind' time donated by GAMAA members in development of such Standards)
 - Training and accreditation of gasfitters
 - Test laboratories (new test standards and equipment).

GAMAA will continue to put forward evidence based information to ensure both members and community interests and safety concerns are best met as we transition to decarbonised energy environment.

Members will receive a full set of the meeting notes early next week.

Ai Group Leading the Australian Performance Indices

Each month Ai Group releases real-time performance indices for the manufacturing, services and construction sectors. These national indices are constructed from survey data collected from businesses Australia-wide, on a representative sample basis.

View the September performance data [here](#)