



Australian Government

Department of Industry, Tourism and Resources

Methane to Markets Coal Subcommittee

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Technology Database

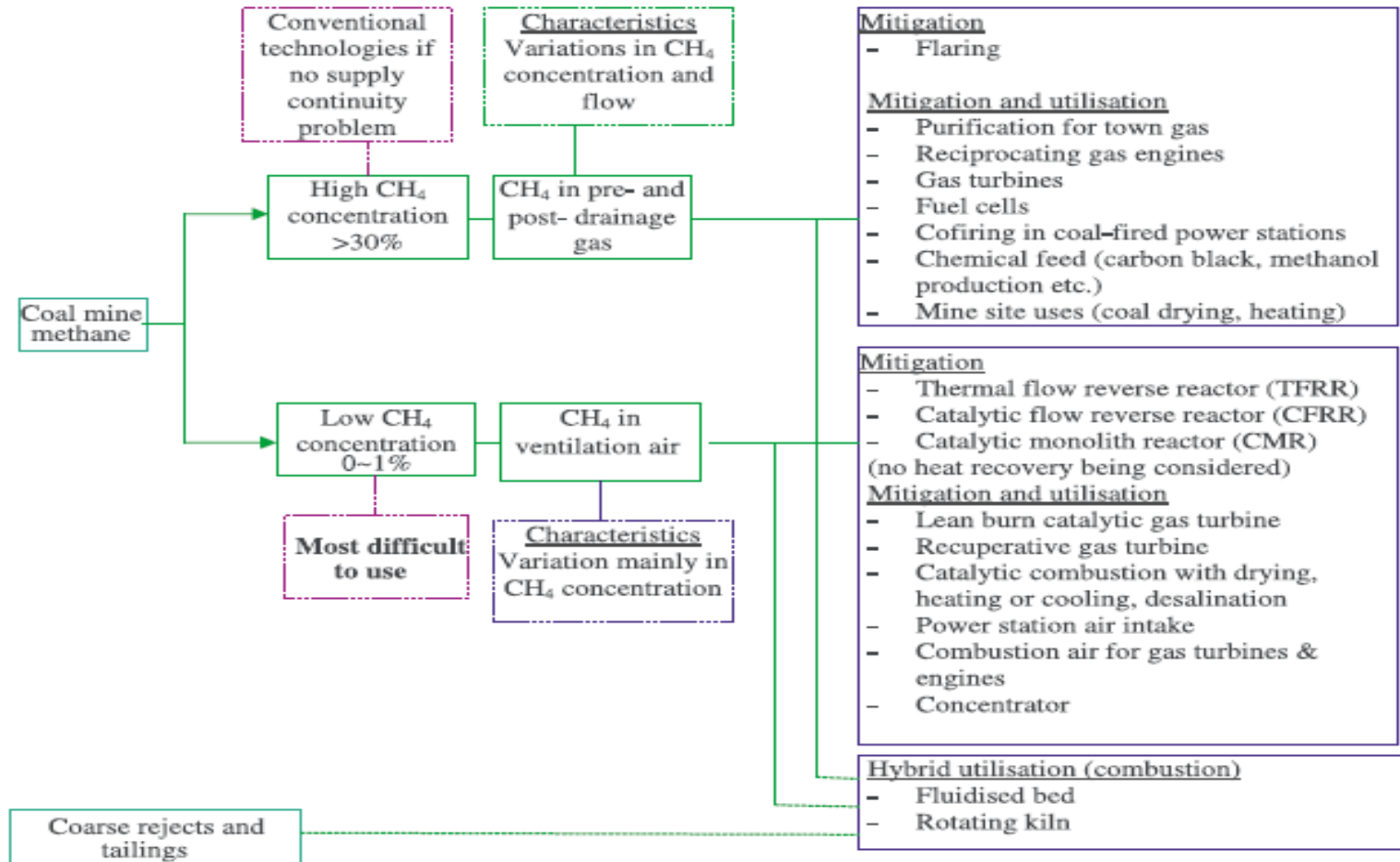


Fig. 1. Illustration of classifying mine methane mitigation and utilisation technologies.



VAMCAT

Ventilation Air Methane Catalytic Turbine

- The VAMCAT or Ventilation Air Methane Catalytic Turbine unit is powered by 1 per cent methane in Ventilation Air.
- Australian Government together with China's Shanghai Jiaotong University and Huainan Coal Mining Group will construct the first pilot-scale demonstration unit at a coal mine in China.
- The Technology has the potential sizable bite out of methane emissions with a Greenhouse effect equivalent to more than 237 million tonnes of carbon dioxide.





West Cliff Ventilation Air Methane Project (WestVAMP)

- VOCSIDIZER™ Technology developed by emissions control specialist MEGTEC Systems.
- WestVAMP will utilise 20 per cent of West Cliff's available mine ventilation air to achieve a reduction in greenhouse gas emissions of 200,000 tonnes CO₂-e per year.

The project will cost approximately AUS \$14 Million with \$6 million in coming from the Australian Government, Greenhouse Gas Abatement Program.





Hybrid Coal and Gas Turbine System

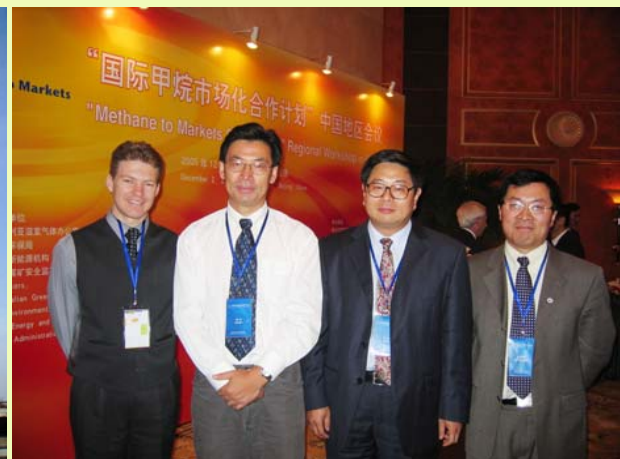
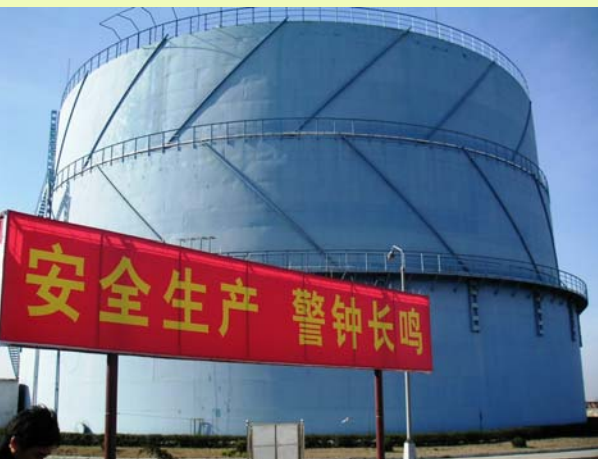
- **The Hybrid Coal and Gas Turbine System (HCGTS) uses waste fuels to generate electricity generation**
 - Ventilation Air Methane
 - Drainage Gas
 - Coal Washery rejects
- **The HCGTS run on a medium scale or 10MW to 100MW.**
- **This technology could be adapted to generate electricity from bio-mass and agricultural waste.**





M2M Regional Workshop China

- Australia, the United States, Japan and China co-hosted a Methane to Markets (M2M) regional workshop in China on 2nd December 2005.
- The workshop focused on coal mine methane project opportunities in China, including prospective areas, technologies, legal issues and markets.
- Bilateral delegation to Australia mid-2006 to develop mine methane cooperation strategy. Links in with high level coal mine safety MOU.





Coal Industry Supports Methane Reduction

- The Coal Industry is Contributing \$300 million over five years to support greenhouse gas abatement.
- A world first by the Australian Coal Industry
- This fund can support methane reduction and utilisation technology.





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Methane to Markets and the Asia Pacific Partnership





Thank you and I look forward to working with each of you.





EXPO

- Australia has been actively involved in the Project Expo Taskforce.

