

# Optimising Coal Seam Gas

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# Paradigms

- Traditional view
  - Coal production is the only interest and focus
  - Methane gas is a hazard that has to be diluted by large volumes of ventilation
  - Gas outbursts are serious production impediments



# Paradigms cont

- New thinking
  - Coal seam gas (methane) is a valuable resource
  - Methane gas is a “greenhouse gas”
  - Carbon taxes/credits are on the horizon
  - Concept of “incidental” and “tame” gas
  - Methane gas is only a hazard when not under control
  - Gas outbursts are a sign of a failure in the safety management system
  - Potential for better economics for coal mines



# What are some of the obstacles to improvement

1. Lack of appreciation of problems
2. Lack of infrastructure
3. Policy issues
4. Identification of possibilities



# Problems

- Tame gas
- Incidental gas



## Definitions

### ***Tame Gas***

Methane gas produced from a borehole and piped directly to its point of use or sale

### ***Incidental Gas*** (sch 3 CMSHA)

- A necessary result of coal mining
- Necessary to ensure safe coal mining
- Necessary to minimise fugitive emission of methane during coal mining operations



## Infrastructure

- Tame gas
  - Piping and compressor stations to AS
- Incidental gas
  - Escape to mine atmosphere during mining
  - Controlled release of gas to atmosphere
  - Direct flaring of methane gas
  - Gas in sealed areas underground



# Policy issues

- Coal Seam Gas legislation in Petroleum and Gas Act
- Some overlapping ownership issues
- Electricity production for sale or private usage
- Future carbon taxes or trading
- Legislation requires a Principle Hazard Management Plan for gas monitoring and outburst but NOT for utilisation





# Possibilities

- Economical gas drainage installations
- methane utilisation part of mine design
- Proactive utilisation of gas
- Improved integration between energy producers and coal miners
- Gas recovery prioritised as part of the overall resource recovery strategy



## Comments

- Mine operators and management need to be familiarised to terms of Q1, Q2 and Q3
- Promote potential for methane gas usage
- Promote benefits for mine safety
- Minimise fugitive and “incidental gas”
- Consider the need for a Recognised Standard for methane gas utilisation in coal mines



## Conclusions

- Focussed work is needed to remove the traditional paradigms related to methane gas
- Gas outbursts are an example of poor gas management and utilisation practices
- High potential for gas utilisation at mines to have significant impact on mine viability
- Current methane gas discharge practices are not sustainable with public concern long term
- Now is the best time to promote the new paradigm of gas utilisation with coal mining

