

# Enterprise, Innovation and Networks Committee

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**Date: 8 March 2007**

**Venue: Committee Room 3, Senedd, Cardiff Bay**

**Title: Unity Power Plc**

### Introduction

Wales, South Wales in particular, still has a very large resource of coal capable of being mined by new deep mining methods. New technology will allow coal reserves, otherwise considered to be "stranded" to be mined profitably.

Coal is an energy source that can be exploited in a number of ways: -

- Opencast mining.
- Deep mining by vertical shafts.
- Deep mining by declines
- Deep mining using spiral roadways and new technology conveyor design.
- Coal Bed Methane extraction.
- Enhanced Coal Bed Methane extraction.
- Abandoned Mine Methane extraction.
- Coal Mine Methane extraction.
- Underground Coal Seam Gasification (shallow).
- Coal Seam Gasification (deep) – Onshore or Offshore.

Other uses for South Wales coal include: -

- Carbon Dioxide sequestration beds – onshore or offshore.
- High Carbon Water Filtration Material
- Low volatile Pulverised Coal Injection for the global steel industry
- Coking Coal for the global steel industry

Unity Power Plc is an amalgamation of Horizon Mining Limited and Chian Resources Plc, an Australian owned company. The combined company is soon to be listed on the Alternative Investment Market of the London Stock Exchange. The company's main assets are the Unity Mine in the Neath Valley and associated railhead that currently handles Energybuild's coal loading to rail for Aberthaw power station. The company has plans for three further new drift mines for which it is currently negotiating land rights. It has recently secured High Court permission for a Judicial Review in relation to The Coal Authority's offer of the Margam Mine Licence to Corus in preference to a wholly owned subsidiary of Unity, (Abbey Mine Limited). The company also has plans to build four small-scale Clean Coal Power Stations in the South Wales area.

## **Exploration and Utilisation Plans for South Wales Coal.**

In addition to Unity Power Plc, Gerwyn Williams is the Chairman and main shareholder of UK Onshore Gas Limited (UKOG), a group of companies that holds Petroleum Exploration and Development licences in South Wales covering some 430 Sq Km.

Exploration for Coal Bed Methane: -

- Proves up coal reserves for mining purposes
- Degases the mining area before mining takes place making mining safer
- Mining operations increase permeability in unworked seams producing more gas

Composite Energy (now partnered by British Gas) has a similar CBM operation in Scotland with less and lower coal quality operating with great success.

The methane when produced can be blended with Hydrogen to create Hythane (a patented fuel) which can be used as a very low emission, lower cost road vehicle fuel. UKOG has a joint venture with an Australian company to this effect.

## **Unity Coal Mine**

Information sheet attached.

## **Government Aid**

Given that Wales has substantial amounts of coal and copious amounts of Coal Bed Methane and that development of Coal Bed Methane reserves provides good geotechnical information for future coal mining operations, it is our view that some government funds ought be spent securing fuel supplies for Wales for the foreseeable future.

The on-going government Energy Review might devote more attention to issues affecting coal production and associated clean coal technologies. Government attention and if appropriate aid should be considered in the following areas: -

- Research into Combined CBM, underground mining, deep underground coal seam gasification and CO2 Sequestration Technologies.
- Combined exploration techniques including 3D seismic.
- Hythane utilisation for road vehicle fuel.
- Research into liquefaction techniques so that stranded gas can be transported by tanker from remote sites.
- Upgrading of electricity infrastructure, (Currently overbooked by potential wind farms that may never get planning permission).
- New coal tip gasification technology .

- Improving rail infrastructure for existing and new coal mine infrastructure.
- Improving port facilities for coal handling, particularly export.

## **Other Matters.**

Additionally we believe there are three policy issues that require urgent attention;

- Creation and preservation of mining skills – New training facilities and programmes are required to ensure an absence of these skills does not create a barrier to policies intended to secure Welsh and UK energy supplies.
- Developing Welsh coal reserves for Wales – consideration of the implications for Wales of the acquisition of Corus by Tata.
- The job creation potential of the emergence of a successful Welsh mining / power sector.

By

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