

Number	Contract Name	Description of Works Completed	Date Awarded	Date Completed	Contract Value
1	HEL/Arcelor Mittal/Kazakhstan - Quantification of current gas emission rates during mining and implementation of cross-measures methane drainage forming of a comprehensive safety improvement scheme.	Comprehensive assessment of underground methane emission on the working coal faces at 8 coal mines operated by Arcelor Mittal in Kazakhstan. Calculation of working and surrounding seam gas contents from the measured data. Computational modelling of the next coal face using working seam and surrounding seam gas contents to determine the total gas emission during mining to aid in the design and implementation of the next coal face layout to enable effective and efficient cross-measures methane drainage. Implementation of cross measures methane drainage with very good results, currently working to roll out the technology and practices across the remaining 6 coal mines in the group.	March 2008	On going contract	£350k
2	HEL/CCC/VAM Technology Transfer - The design, development and worldwide deployment of a VAM abatement technology	The design and development of the world's first economically viable VAM abatement solution. This involved equipment design, testing and development, procurement, application integration and the design and production of a comprehensive safety monitoring system to satisfy process safety and CDM verification requirements.	January 2008	On going contract	£25M
3	HEL/CCC/Yangquan Coal Industry Group/China - Detailed Methane Resource Assessment at Yangquan Coal Industry Group - China	Methane resource assessment, technical feasibility, commercial modelling and engineering preparation work at 9 coal mines for Ventilation Air Methane abatement	December 2008	December 2008	£120k
4	HEL/CCC/Yangquan Zhongneng/China - CMM Resource assessment for CMM to Power CDM Project.	Gas resource study undertaken at Yangsheng and Yutai coal mines, measurements, historical trending, lab assessments, geological assessment	December 2008	December 2008	£40k
5	HEL/CCC/Pingdingshan Coal Group/China - CMM Resource Assessment for CMM to Power CDM Project.	Gas resource assessments and technical/economic studies, gas safety and drainage training courses performed at 5 coal mines in the PCG Group	November 2008	November 2008	£120k
6	HEL/CCC/Chong Qing Song Zao/China - Measurement of the underground methane emission from 5 underground coal mines in the group.	Assessment of methane concentration and resource at 5 mines to accurately determine the emission reduction potential at the Chong Qing Song Zao mining group.	November 2008	November 2008	£10k
7	HEL/CCC/Yangquan Coal Industry Group/Methane Emission - Measurement of the underground methane emission from 7 underground coal mines in the group.	Assessment of methane resource and methane concentration at 10 mines to quantify the methane emission from the underground mining activity and the capture efficiency of the methane drainage systems.	September 2008	September 2008	£20k
8	HEL/CCC/Qinhe Mining Group/China - Measurement of the underground methane emission from 8 underground coal mines in the group.	Measurement of the airflow rate and methane concentration at 9 mines to quantify the methane emission from the underground mining activity and the capture efficiency of the methane drainage systems. Technical and commercial feasibility of heat recovery via utilisation	August 2008	August 2008	£80k
9	HEL/CCC/Anhui Huainan Mining Group/China - Assessment of the underground methane emission from 6 underground coal mines in the group.	Assessment of methane resource at 10 mines to quantify the methane emission from the underground mining activity and the capture efficiency of the methane drainage systems. Project feasibility study for commercial and technical design installation viability	July 2008	July 2008	£40k

10	HEL/CCC/Jincheng Anthracite Mining Group/China - Detailed CMM Resource measurement and technical/economic feasibility assessment for power generation	Underground coal face and surface assessment at Chenzhuang coal mine to calculate the current and future CMM resource available, the methane emission in the ventilation air was measured and the drainage capture efficiency was calculated. The construction progress of the two power plants (54MWe) being installed as a CDM project were evaluated and the technical/economic feasibility of the project was analysed.	June 2008	June 2008	£40k
11	HEL/CCC/Shanxi Coking Coal/China - Assessment of underground methane emission + Process Safety Evaluation of newly installed CMM Power plant	Detailed review of CMM extraction plant and power plant integration and process safety with measurement of CMM resource at Du'er Ping coal mine, measurement of the underground methane emission at Bei Shi Gou surface fan installation and calculation of the emission reduction potential of a methane abatement project installed there.	May 2008	May 2008	£60k
12	HEL/CCC/Qinhe Mining Group/China - Assessment of the CMM resource for the 104MWe Qinhe CDM Power Generation Project	Underground coal face measurements were taken to quantify the total methane emission during mining. Measurements were taken on the methane drainage system to determine the current gas resource for the power generation at 3 coal mines operated by Qinhe Mining Group. The coal mine production plans, current capture efficiency and coal seam gas content were used to calculate the future gas resource and hence future project revenues for the purposes of equity investment.	May 2008	May 2008	£80k
13	HP/Ellington Colliery/UK	Measurement of the gas flow rate through the abandoned mine shaft vent to calculate the AMM resource and to ensure the safety of the former colliery site.	March 2008	March 2008	£8,000
14	HP/Stillingfleet Mine/UK	Commercial and Technical project development from start to finish and operation. Calculation of AMM resource through measuring the rate of change in void space pressure. Design, install and commission AMM extraction pumps. Specify and procure 12MWe of reciprocating gas generator sets designed to operate on AMM.	2007	2007	£4M
15	HP/Prince of Wales Colliery/UK	Assessment of AMM resource, specification and procurement of 1,500 Nm ³ /hr flare to operate on AMM, design and installation of vents	2007	2007	£20k
16	HP/Harworth Colliery/UK	Commercial and technical development from start to finish and operation. Assessment of AMM resource, design, install and commission AMM extraction pumps. Specify and procure 7MWe of reciprocating gas generator sets designed to operate on AMM. Training undertaken	2007	2007	£3M
17	HP/CCC/RCF/Russia/Kusbas	Assessment carried out on the methane drainage systems to determine the CMM resource and the technical/economic viability of utilising the CMM at a number of coal mines in the Kusbas region of Siberia, Russia	2007	2007	
18	HP/CCC/Pingdingshan Coal Group/China - Measurement of total underground methane emission to construct and improvement and implementation plan	Commercial and technical development from start to finish and operation. Assessment of 5 coal mines in the group to calculate the underground methane emission. The capture efficiency of the drainage system was calculated and an improvement and implementation plan for cross-measures gas drainage was submitted. This information was used to improve the CMM resource for a power generation project. Training undertaken.	2007	2007	£90k
19	HP/CCC/Ukraine	Assessment carried out on the methane drainage systems to determine the CMM resource and the technical/economic viability of utilising the CMM	2006	2006	£50k

20	HP/Harworth Colliery/Gobwell	Management of the boring of a 950m gob well and associated works at Harworth Colliery, UK	2006	2006	
21	HP/Riccall Mine/UK	Commercial and technical development from start to finish and operation. Measurement of the gas drainage system to determine the current CMM resource, evaluation of the future mining plans to calculate the future gas resource. Specify, procure & commission 2,00Nm3/hr enclosed flare stack fuelled by CMM. Training undertaken.	2003	2003	£125K
22	HP/Maltby Colliery/Gas Flare/UK	Design, Install & commission 2 x 2,000Nm3/h CMM enclosed flare stack equipment. Production of design risk assessment	2003	2003	£250k
23	HP/Harworth Colliery/Gas Flare/UK	Design, Install & commission 2,000Nm3/h CMM enclosed flare stack equipment. Production of design risk assessment	2003	2003	£125k
24	HP/Kellingly Colliery/Gas Flare/UK	Design, Install & commission 2,000Nm3/h CMM enclosed flare stack equipment. Production of design risk assessment	2003	2003	£125k
25	HP/Welbeck Colliery/Gas Flare/UK	Design, Install & commission 2 x 2,000Nm3/h CMM enclosed flare stack equipment. Production of design risk assessment	2003	2003	£250k
26	HP/Thoresby Colliery/Gas Flare/UK	Design, Install & commission 2,000Nm3/h CMM enclosed flare stack equipment. Production of design risk assessment and authorisation gained from Her Majesties Inspectorate of Mines.	2003	2003	£125k
27	HP/Kellingly Colliery/UK	Commercial and technical development from start to finish and operation. Measurement of the gas drainage system to determine the current CMM resource, evaluation of the future mining plans to calculate the future gas resource. Design, install & commission extraction plant. Specify, procure & commission 2.8MWe of gensets fuelled by CMM. Design,	2003	2003	£1M
28	HP/Monkton/Alkane/AMM/UK	Feasibility study of a 10MWe abandoned mine methane fuelled power plant in partnership with Alkane Energy.	2003	2003	
29	HP/Maltby Colliery/UK	Commercial and technical development from start to finish and operation. Measurement of the gas drainage system to determine the current CMM resource, evaluation of the future mining plans to calculate the future gas resource. Specify, procure & commission 7MWe of gensets fuelled by CMM.	2002	2002	
30	HP/Stillingfleet Mine/UK	Measurement of the gas drainage system to determine the current CMM resource, evaluation of the future mining plans to calculate the future gas resource. Design, install & commission extraction plant. Specify, procure & commission 4.25MWe of gensets fuelled by CMM.	2002	2002	£1.5M
31	HP/Welbeck Colliery/UK	Commercial and technical project development from start to finish and operation. Assessment of the gas drainage system to determine the current CMM resource, evaluation of the future mining plans to calculate the future gas resource. Specify, procure & commission 2.8MWe of gensets fuelled by CMM.	2002	2002	£1M
32	HP/Thoresby Colliery/UK	Commercial and technical development from start to finish and operation. Measurement of the gas drainage system to determine the current CMM resource, evaluation of the future mining plans to calculate the future gas resource. Specify, procure & commission 2.8MWe of gensets fuelled by CMM.	2001	2001	£1M
33	HP/Maltby Colliery/Waste Coal/UK	Feasibility study of a 30MWe waste coal simple cycle power plant fuelled with coal fines from number 11 lagoon. The power plant design utilised CFB boilers with a condensing steam turbo generator set.	2000	2000	

34	HP/Elyo/Cofreth/Harworth Colliery/UK	Operation and coal mine interface for the 18MWe combined cycle CMM to power plant installed at Harworth Colliery. Co-ordination of the plant decommissioning in 2007	1999	2007	
35	UK Coal/Monkton Coke and Chemical	Design, Procurement and Project management of the installation of a 12MWe coke oven gas fired simple cycle power plant utilising a Peter Brotherhood pass out condensing steam turbo generator set. The plant provided extraction steam for utilisation in the various coking plant processes.	1997	1997	£7M