

Green Gas Connect

December 2009



Welcome!

This first issue of the quarterly newsletter marks a milestone in ensuring better information flow and communication within the Green Gas group.

Overall, 2009 has been a momentous year. It marks the deepest and most significant recession since the 1930's, leading to unprecedented government support for banks and significant political fallout associated with the unstable economic environment. Green Gas did not go unscathed by these events as demand for our products and services declined.

Despite the downturn, Green Gas had a good year due to the hard and innovative work of our people, guided by committed management. No clearer testament could be given to the Green Gas team than, on the 18th November, receiving the two Cleantech Connect 2009 awards for Best Management and Best Execution.

The operating results of the group, year to date, are satisfactory. We expect to produce 272 GWh of electricity and to have eliminated some 3 million tonnes of CO₂ equivalent during 2009. I would like to congratulate Antonin Kunz and his team at Green Gas DPB in particular, for a very good performance under difficult circumstances.

Continual growth of the Green Gas group remains a key priority. Our project development effort is focussed on China, Colombia, Mexico, Ukraine and the USA where we have signed up new relationships during 2009. We launched the Coal Mine Methane Services (CMMS) business focussed mainly on China and Ukraine and expect CMMS to be making a contribution to profits in 2010. Elsewhere, Hofstetter is expanding into new markets including Australia and Asia.

As we look back at 2009 and forward to 2010, Green Gas remains well positioned for growth and has the prospect to be building at least three new projects by the end of 2010. However, 2010 is still expected to be a tough year and we need to continue to be frugal with our resources.

Overall, the safety record of Green Gas is excellent but during the year we regrettably lost a colleague, Mr. Zdeněk Koranda, in a car accident near Ostrava. Our hearts go out to his friends and family. This reminds us to always be vigilant and aware of the risk in our workplace and elsewhere.

I thank each member of the Green Gas team for their hard work and dedication during 2009 and wish you and yours a wonderful festive season. Enjoy it, but keep safe.



Chris Norval
CEO

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Green Gas Wins The Cleantech Connect 2009 Awards

By Michaela Brngalova



We are proud to announce that Green Gas has won the Cleantech Connect 2009 awards for Best Management and Best Execution and came second in the Fastest Growing Company category. These awards are a tribute to the Green Gas team and set the baseline from which to continually improve what we do.

The Cleantech Connect 2009 awards, organised by GP Bullhound with Schroders Private Banking as the premium sponsor, is presented to Europe's top clean technology companies with exceptional growth potential. Companies were ranked by their annual revenue growth rate, between 2006 – 2008. Green Gas entered the competition in October and was one of the five companies shortlisted from over 200 of Europe's clean technology companies. The shortlisted companies competed in five categories of which Green Gas won two.

Chris Norval, the CEO of Green Gas commented: *'We are proud to accept these awards. They reflect the hard work of the Green Gas team and support of our shareholders, allowing us to build a strong company in the clean energy sector in partnership with our customers.'*

The judges of the Cleantech Connect 2009 awards, who represented companies such as GP Bullhound, Schroders Private Banking and MTI, regarded Green Gas as a company with a high growth potential and were impressed by our development so far. The judges said: *'Green Gas has seen focused, methodical growth since it was established at the end of 2005 with the objective of reducing harmful greenhouse gas emissions through methane utilisation. It has grown from a standing start, through organic growth and acquisitions, to revenues of over €50 million and is trending towards an EBITDA margin of 25%. With 500 employees and operations across nine countries, the judges felt that the management team has successfully demonstrated its skill in integrating new businesses as well as managing expansion across multiple jurisdictions. This has been made possible by bringing together a first class team from the resources and engineering sectors led by Chris Norval. Furthermore, in order to bring the service to market Green Gas has had to build complex partnerships with mine owners, gas/waste owners and the carbon market. The result is that all participants in this ecosystem have and continue to benefit from their projects. The judges believe that the company is a worthy winner of both the Best Execution and Best Management awards.'*

The winners of the five categories are as follows:

- Best Management: Green Gas
- Best Execution: Green Gas
- Fastest Growing Company: ClimateWell (runner up Green Gas)
- Uniqueness of Offering: MBA Polymers
- Vision & Future Growth Potential: Greenroad

More information about the Cleantech Connect 2009 awards is available on: <http://www.cleantech-connect.com>

The Road to Copenhagen

By Karl Schultz

This month Copenhagen will host negotiations to define the structure and set limits on greenhouse gas emissions for the period after the Kyoto Protocol expires in 2012. The implications could be far reaching as the meeting aims to set national emissions targets and outline incentives for future emission reduction projects. For Green Gas, the outcome impacts are pivotal for our business as they will define what projects we may undertake. However, achieving a strong agreement is going to be difficult.

Scientists believe that averting 'dangerous climate change' will mean limiting future global warming to 2° centigrade. To achieve this, emissions would have to reach a peak in the next 10 – 15 years and decline by 50 – 80% from 1990 levels by 2050. In response to the situation, developed countries agreed an international environmental treaty in 1992, known as the UN Framework Convention on Climate Change that set non-binding limits on greenhouse gas emissions for individual countries; and in 1997 negotiated the Kyoto Protocol, which went into force in 2005. Despite all these efforts, however, global emissions have increased by over 30%. Clearly, current actions to limit emissions are not going far enough to meet the science-based targets.

While the Kyoto Protocol is much criticised, it has produced tangible results by setting up a system of national emission targets and mechanisms to credit actions to limit emissions. It spurred the European Union to create an emissions 'cap and trade' scheme, to limit emissions on over 12,000

facilities that allows companies to decide how to comply. This can be by: either limiting emissions directly; buying allowances from other companies that limit emissions beyond their caps; or even buying carbon credits from projects around the world that reduce emissions, such as the Green Gas' Medellin flaring project in Colombia.

Under the Kyoto Protocol, Green Gas creates sanctioned carbon credits from its landfill methane flaring projects in developing countries. Similarly, in Germany and the Czech Republic, Green Gas benefits from favourable feed-in tariffs for power from landfill and coal mine methane, that were set up to encourage emission reductions. These feed-in tariffs benefit from a guaranteed fixed price for the sale of electricity from projects using landfill and coal mine gas, which is generally higher than electricity from conventional fossil fuel plants. These tariffs are the direct result of policies by the national governments that are part of each government's climate actions to fulfil their international climate obligations.

The aim of Copenhagen is to step up international efforts to combat climate change, to follow on the first phase of the Kyoto Protocol, which expires in 2012. According to the U.N., the agreement reached at Copenhagen does not need to resolve all details, but it must provide clarity in the following four areas:

- Emission reduction targets for developed countries
- National appropriate mitigation actions in developing countries
- Scaling up financial and technological support; and
- Effective institutional framework with governance structures.

A number of countries, ranging from Japan through EU nations to Brazil, have already offered non-binding emission commitments. Unfortunately, the targets are not enough to limit future global warming to 2°C.

The negotiations will be about agreeing the relative contribution to mitigating climate change from the developing and developed world, respectively. The developing countries make the correct point that they have not made the emissions that created the problem: 75% of cumulative emissions came from a handful of wealthy countries. Whilst on the other hand, developed countries state correctly that most future emissions growth will be from the developing countries. Getting the U.S. to join a future agreement is important as it emits about one fifth of all greenhouse gases.

A legally binding treaty is not expected but the current objective is to reach a non-binding “political agreement” that would include rich country targets to cut greenhouse gases by 2020, measures for developing countries to limit future emission growth, as well as avoiding deforestation; financing cleaner technology and the adaptation to climate change.

The outcome will resonate around the world, impacting consumption patterns, national energy and trade policies and creating opportunities for Green Gas to make green energy around the world.

Green Gas Commissions First US Project

By Ted Dunchak

The Green Gas – Pioneer Crossing landfill project, which converts landfill gas into electricity, is the first project for the Group in the USA. This also provides Green Gas with the platform for further projects in the USA.

Pioneer results in significant overall environmental benefit; making use of greenhouse gas as a fuel to displace electricity usage, which would otherwise be generated by conventional fossil fuels.

Located in Exeter Township, Berks County, Pennsylvania, Pioneer Crossing powers about 4,000 homes and will result in reducing CO₂ emissions equivalents by about 173,000 tonnes per year. As a Professional Engineer, with extensive experience in solid waste management, I was made Project Manager for the Pioneer construction. Landfill gas to electricity projects are especially challenging as construction contractors, landfill operators

and local utilities usually have limited experience with such projects, and therefore its success required the education of all stakeholders.

Pioneer consists of four Caterpillar 3520C gensets in individual enclosures, each rated at 1.6 MW giving the facility a gross rating of 6.4 MW. Electricity is generated at 480 volts and is exported into the local utility transmission system at 69,000 volts. Production up-time in both September and October 2009 exceeded 96%, and each genset averaged 1.54 MWh of power exported during those months.



Colombia's First UNFCCC Registered Landfill Gas Project

By Catalina Bedoya

Located in Medellin in Colombia, The Curva de Rodas and La Pradera landfill gas management project is the first project of its type in Colombia to be registered with the United Nations Framework Convention on Climate Change (UNFCCC). This project has been developed in partnership with the University of Antioquia, contributing to education and research in the area of the emerging carbon market. It will also help fund university research and scholarships for students who would otherwise not be able to afford their studies. This registered and operating plant provides a key reference for Green Gas in the South American market.

The project consists of two landfill sites, Curva de Rodas and La Pradera. A controlled methane capture and flaring system was installed at both sites in order to reduce greenhouse gas emissions. As a result, the quality

of life of the surrounding communities has improved significantly. It has improved the air quality, brought benefits to agriculture and generally improved the climate. The hazards and risks at the landfills such as fire or landslides have also been eliminated.

Milena Ramirez, the Field Engineer involved in the project implementation commented 'Being the first in Colombia to implement this type of project allowed us to work alongside world class experts and to receive first-hand training. More importantly, Green Gas gained new expertise due to the diverse local conditions which meant we had to reconsider the construction and operating concepts. The technical concepts applied in Europe for example can not be applied in countries with tropical climate such as Colombia.'

The construction began in January 2007 at the Curva de Rodas landfill followed by La Pradera in January 2008. Each site consists of one HOFGAS® high temperature flare with a gas flow rate between 40 – 3'000 Nm/h. The project was registered with UNFCCC in February 2009 and has the potential to reduce emissions by some 167,000 of tonnes of CO₂ equivalent per year.

Looking Good!

By Michaela Brngalova

Focussed branding differentiates Green Gas to its customers and stakeholders. The corporate brand reinforces the fact that Green Gas is a strong and growing company operating in the international clean energy markets. With this in mind, we have enhanced the group's corporate identity both internally and externally and have introduced new identity guidelines.

The new Corporate Identity Guidelines are important to create consistency in how the group is presented to the world. The design is 'clean' but clearly shows our engineering and industrial pedigree. We have streamlined the way the company logo is used, set the standards for internal communication, created a new and more exciting corporate colour palette and much more. As a clean company, we used simple clean white background including colours from our new colour palette, a subtle but colourful strip and corporate photos showing our key activities.

This new look works well in our Corporate Brochure and Presentation. The brochure has been produced in four languages – English, Chinese, Spanish and Russian and includes photographs of our people and plants. Should you wish to have a copy of the brochure, you can download it from our website.

The new Corporate Presentation has not only gained a completely new look but also contains new and updated information on Green Gas, including details on each business unit and case studies.

Last but not least we have expanded our corporate website to provide Russian, German and Spanish versions in addition to the current English and Chinese sites, thus presenting the group's global ambitions. Green Gas DPB will soon redesign its website to be inline with the corporate site, which will help to unify the group identity.

There is more on its way from our marketing team in the future so watch this space!



Improving IT Performance

By Jimmy Norgate

The Company is investing in a new IT system that will resolve the current problems with Citrix whilst providing additional benefits. The new CISCO WAAS technology, provided by Dimension Data, is designed to optimise our client-service traffic, improve the network performance and eliminate problems in the current system, such as slow connection speeds or network congestion.

The major benefit of CISCO WAAS is that it will allow us to work locally from a PC or laptop, without sharing processor power with other users. As a result, delays in typing or document processing will disappear. The new system is not as dependent on the Internet and, even without an Internet connection, you will be able to access recent documents you have worked on.

The transition to the new system is planned for the first quarter of 2010 and measures are being put in place to provide plenty of help both on and off-site. Although Citrix generally is the ideal solution to a global network connection, the system did not work for Green Gas because of Citrix's dependence on the Internet. We have had to look at other solutions that will bring benefits to our global organisation. CISCO WAAS will offer the required benefits as well as providing faster processing, whilst also covering the gaps left by Citrix.

We have asked our people

Antonin Kunz MD of Green Gas DPB



What does your role at Green Gas DPB involve?

As the Managing Director of Green Gas DPB a.s., I manage the day-to-day running of the company as well as ensuring the implementation of the group's long term objectives according to the agreed business plan. My interest is also to promote good teamwork and working environment within the company. We manage 100 million m³ per annum of methane and in 2009 we expect to produce 180,000 MWh of electricity and 142,000 GJ of heat. Since 2007, when Green Gas and DPB joined, we have installed 23 MW CHP plants gaining a total of 25 MW by the end of 2009.

What aspects of your experience make you suitable for the role?

I have 23 years of experience in the mining industry and have been involved in this field since the start of my professional career. I studied Management at Swinburne University of Technology in Melbourne, Australia. Since the entire Czech Republic was going through political and economic transformation at that time, such studies were practically unavailable at local universities.

What are your main priorities as MD of DPB for 2010 and beyond?

The most important objective is to provide good conditions for further development of the Group in accordance with the corporate strategy. This will include, completing the CHP project to 40 MW of electricity capacity, completing the restructuring process and ensuring the continuing development of Green Gas DPB. This will specifically include looking at expansion into the Polish market and supporting development of the Coal Mine Methane Services business.

What projects have recently been implemented and which are in the pipeline?

Another stage of installation of CHP units at Jan Karel has recently been completed, and an additional unit will be ready at Paskov by January 2010. We have installed 24 MWel to date and plan to build a further 6 MWel in 2010. The most important thing is to ensure gas supplies. Green Gas DPB has also prepared surveys and projects to build new resources of gas that will guarantee supplies to CHP units and other external customers.

What positive impact has the Green Gas & DPB merger had on DPB?

The merger between Green Gas and DPB has had a positive impact on international environmental co-operation and created new opportunities for future Group projects.

What are your interests outside Green Gas DPB?

Most importantly spending time with my family. A big part of my spare time goes on sports such as skiing, cycling and yachting.

Dirk van Egeren Plant Manager of Minegas



What does your role at Green Gas involve?

As the Plant Manager of Minegas, I am responsible for the complete project and plant management of the Minegas operations in the Ruhr area. This involves ensuring that the coal mine gas engines are running well and producing energy as well as developing new sites for CHP plants.

What attracted you to Green Gas?

I have been working for G.A.S., now Green Gas, for over 17 years. I appreciate the Green Gas' working atmosphere and the autonomy I have to do my work. I also enjoy working in the international environment that Green Gas as an international group offers.

What are you working on at Minegas and what are the challenges?

The main challenge in my work is to align Green Gas' interests with our Joint Venture Partners Evonik Industries and Lambda. We all have the same goal in the end – the success of Minegas.

What are your professional achievements at Green Gas?

I have build up some 110 MWel from Coal Mine Gas, within this the Coal Mine gas plant at Haus Aden with 12 CHP plants, each at 1.35 MWel in the period of 2003-2004. Today, I'm responsible for the operation of the Minegas portfolio, covering some 77 MWel.

What are your interests outside of Green Gas?

In the first place, spending time with my dear wife. I am also very interested in technology including making aircraft models in 1:72. scale. I am a 'passionate runner' and was part of the successful Dusseldorf marathon team. When I am not running, I'm a dedicated gardener and produce red and white wine from my own grapes.

To share your news in the Green Gas Connect please Contact **Michaela Brngalova**