GGAS Newsletter

Issue 11, March 2009

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Introduction

Welcome to the first GGAS Newsletter for 2009. It promises to be a very interesting year for all involved with emissions trading and energy efficiency. As has been widely discussed, GGAS is expected to end on the commencement of the Carbon Pollution Reduction Scheme (CPRS), currently scheduled for 1 July 2010.

The Commonwealth Government appears confident that it will be able to pass the legislation required to establish the CPRS in time for that start date. Should that date slip it is anticipated that GGAS will continue until the CPRS does commence.

The GGAS team at IPART is continuing to assess outstanding applications for accreditation, although the flow of new applications has slowed significantly. We anticipate that a key focus in 2009 will be working to establish the energy efficiency extension of GGAS announced by the NSW Government. This is intended to run beyond the cessation of the balance of GGAS and will allow the creation of a new class of tradable certificates for organisations undertaking specified activities to improve energy efficiency.

Energy efficiency

The NSW Government has announced an energy efficiency scheme intended to build on the energy efficiency achievements of GGAS. The Scheme, to be known as the Energy Savings Scheme (ESS), will commence on 1 July 2009 and will continue until 2020 unless replaced by a national scheme.

IPART will act as Scheme Administrator and compliance regulator for the Scheme as it has done for GGAS. Much of the architecture of GGAS will be carried forward into the ESS.

The ESS will require that electricity retailers meet an energy savings target for each year which is a percentage of liable electricity sales. The target starts at 0.4% and increases to 4% by 2014.

Work is currently underway within the relevant policy agencies, the Department of Water and Energy and the Department of Environment and Climate Change, to develop the required legislation, regulation and rule for the Scheme in time for the 1 July start date.

It is anticipated that many of the energy savings activities and calculation methodologies from the GGAS Demand Side Abatement Rule will be carried forward into the ESS. Organisations already accredited under this GGAS Rule for energy efficiency activities should be able to have their accreditation transferred into the ESS.

The Director General of the Department of Water and Energy wrote to key stakeholders in early January asking for proposals for new energy efficiency activities for inclusion in the new scheme rule. Ideally industry proposals for further activities and energy savings calculation methodologies that are simple and robust can be considered for inclusion.

The Department of Environment and Climate Change has already commissioned work to review the scope for and develop methodologies for some additional areas of energy efficiency activity. It is anticipated that a consultation session will be held in early April to allow for further stakeholder input on all areas proposed for inclusion in the new rule.

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(02) 9290 8452
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www.greenhousegas.nsw.gov.au

GGAS

Methane Energy Uncertainty Methodology

We have all heard the saying “one man’s rubbish is another man’s treasure”, and this is certainly the case for a number of the Scheme’s participants. Each week, when we throw our garbage out, it ends up in landfill. As the waste decomposes, it releases a substantial amount of methane (an energy-rich yet harmful greenhouse gas with a Global Warming Potential 21 times higher than CO2). Over the years, a number of Scheme Participants have captured this waste methane and combusted it to create electricity and as a by-product of combustion, Carbon Dioxide. The Scheme rewards this methane destruction activity under Equation 16 of the Generation Rule. The Scheme also rewards the similar capture of fugitive methane from coal mines (waste coal mine gas) under Equation 13 of the Rule.

Measuring the energy content of waste methane is difficult, and given the growing number of Scheme Participants wishing to do so, the Scheme Administrator has released a new methodology for Abatement Certificate Providers (ACPs) seeking to use the actual energy content of waste methane for the purposes of Equations 13 or 16 of the Generation Rule. Known as the Methane Energy Uncertainty Methodology, or MEUM, the methodology was developed in consultation with industry, with the expert assistance of SKM Pty Ltd, and was peer-reviewed by Connell Wagner Pty Ltd. The MEUM represents a major piece of innovative work in what is a very difficult and complex subject area. It is a pioneering approach to applying uncertainty in a practical way.

The MEUM provides ACPs with a mechanism to determine the uncertainty associated with the measurement of the actual energy content of waste methane. It has been developed in accordance with the ISO Standard – Guide to Uncertainty Measurement (“GUM”).

At a minimum, three components are required to determine actual energy content. These comprise:

- a flow meter;
- a gas (methane) analyser; and
- a flow computer (the flow computer integrating volumetric flow over time).

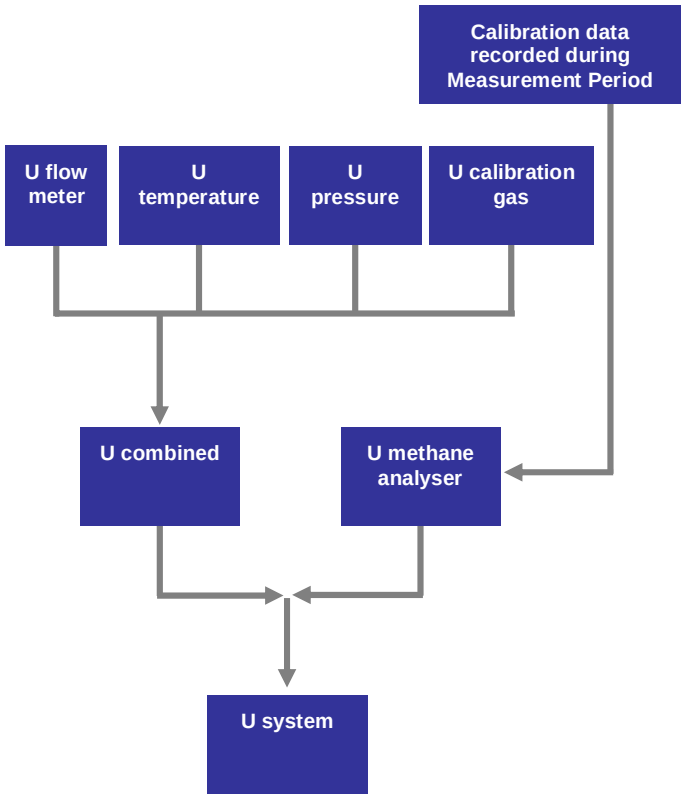
Of these components it is the methane analyser which returns the largest source of error. This is due to the analyser’s sensitivity to other hydrocarbons, temperature, pressure and moisture. While the MEUM does consider the performance of the other components, the principal focus is the methane analyser. This is because landfill gas is not a clean gas; rather it is a gas which has no consistent chemical composition, and one that can contain contaminants which can foul instrumentation. Accordingly, the analyser’s performance requires a great deal of monitoring, and this is invariably achieved through site maintenance and testing regimes.

The MEUM utilises the results of methane analyser calibrations recorded on a weekly (or other agreed periodic) basis by maintenance staff of the ACP. The calibration results provide a snapshot of how the analyser is performing in reference to a NATA-certified test gas of known methane concentration.

These calibration results are then statistically assessed using an expanded uncertainty (95% confidence limit). The influence of the flow meter, pressure and temperature are also considered, yielding the overall uncertainty in the measurement of actual energy content over the Measurement Period.

This uncertainty is then incorporated into the ACP’s calculation of NGACs, where the number of NGACs to be created are adjusted by the uncertainty determined under the MEUM.

Uncertainty calculation process



Proposed treatment of forestry under the CPRS

In December 2008, the Commonwealth Government released its White Paper on the proposed Carbon Pollution Reduction Scheme ("CPRS"). While the scheme covers the six major emitting sectors and excludes agriculture, it makes provision for the inclusion of forestry on an 'opt-in' basis.

As outlined in the White Paper, eligible forest entities (i.e. landholders, certain leaseholders and owners of carbon property rights) will be eligible to claim free emission permits in respect of their reforestation activities.

To be eligible, the reforestation must be Kyoto consistent (the forest must be planted on land greater than 0.2 ha that was non-forested on 31 December 1989 at a density that will give a crown cover of 20% and be of a tree species capable of reaching 2m in height at maturity).

The White Paper has adopted the use of the National Carbon Accounting Toolbox as the mandatory carbon sequestration estimation methodology with the rate of sequestration to be calculated on an average basis over a 70 year period. Credits will be issued in arrears at the end of each reporting period.

An exposure draft of the CPRS legislation (including the forestry sections) is expected to be released in March 2009 (see the Department of Climate Change website for more details: www.climatechange.gov.au).

Staff changes at GGAS

There are a few changes of personnel within the IPART GGAS team. The Scheme Administrator General Manager, Chris Spangaro, is taking up a position at the AEMC from early March after four years leading the GGAS team. Chris's development and management of GGAS has been innovative and visionary and he will be sorely missed. Margaret Sniffin, Program Manager with the team, will take on the role of Executive Manager of GGAS.

We are also losing Ian Watt, one of the team Analysts who has taken up a position with a carbon verification organisation in the UK. Ian has made a significant contribution to addressing some of the more technical engineering issues around emissions measurement during his three years with the GGAS team

Registry statistics

Abatement certificates created since the Scheme commenced:

DSA	28,829,071
Generation	51,585,972
Carbon Sequestration	2,001,867
Large User	2,526,061

Current accreditations as at 28 February 2009^:

DSA	78
Generation	128
Carbon Sequestration	7
Large User	9

New accreditations in the last 3 months (1 December – 28 February)*:

DSA	1
Generation	1
Carbon Sequestration	0
Large User	0

**Figures in the 'New accreditations in last 3 months' table are included in the 'Current accreditations' table.*
^Note, accreditation totals include multiple projects.
Data as at 28 February 2009