



The Global Biogas Industry and Climate Change - our Undertaking on the Challenge of our Times

Introduction

We, Corporate Members of the World Biogas Association (WBA), are committed to building a circular economy in which organic wastes and feedstocks are recycled into renewable gas. Uniquely, our industry can harvest these wastes and agricultural feedstocks to transform them into renewable biogas or biomethane, biopropane, recovering and using process CO₂, producing natural fertilisers and other bioproducts, thereby developing sustainable business models and agricultural systems (hereafter we refer simply to “biogas” to include all the various products the sector produces).

Moreover, our industry can act as the renewable buffer to solar and wind power to ensure base-load energy supply 24/7 on a global scale. Reaching our full potential would enable Humanity to not only live in a cleaner world using renewable energies and create millions of green jobs but above all to reduce greenhouse gases (GHG) emissions by at least 12% globally. This ambition represents the equivalent of one third of all the coal used globally or one fifth of all electricity currently generated.

Our Declaration underlines our commitment to support the efforts of the global community to reduce GHG emissions, to contribute to the United Nations Sustainable Development Goals and to create long-term investments and new employment throughout the global economy.

The Challenge

We have read with alarm the World Meteorological Organisation (WMO)/Intergovernmental Panel on Climate Change (IPCC) report published on 22nd September 2019¹ and presented to the U.N. Climate Action Summit in New York on 23rd September 2019, which underlined “the glaring - and growing - gap between agreed targets to tackle global warming and the actual reality.”

We acknowledge findings from the report that:

1. Global temperatures are rising faster than believed and are currently estimated to be 1.1°Celsius (± 0.1 °C) above pre-industrial (1850-1900) times.
2. “Arctic summer sea-ice extent has declined at a rate of approximately 12% per decade during 1979-2018. The four lowest values for winter sea-ice extent occurred between 2015 and 2019.
3. Sea levels are rising more quickly than believed accelerating from 3.04 (mm/yr) during the period 1997-2006 to approximately 4mm/yr during the period 2007-2016.
4. Ocean acidity has seen an overall increase of 26% since the beginning of the industrial era.”
5. “Levels of the main long-lived greenhouse gases, carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) have reached new highs” not experienced for some 3-5 million years.

We have further read the United Nations Convention to Combat Desertification (UNCCD)² report of 22nd August 2019 entitled² *Realising the Carbon Benefits of Sustainable Land Management Practices*:

¹ <https://public.wmo.int/en/media/press-release/landmark-united-science-report-informs-climate-action-summit>

² <https://www.unccd.int/publications/realising-carbon-benefits-sustainable-land-management-practices-guidelines-estimation>



Guidelines for Estimation of Soil Organic Carbon in the Context of Land Degradation Neutrality Planning and Monitoring, which underlines the importance of Soil Organic Carbon (SOC) in preventing land degradation and desertification and which can be obtained as an output of biogas production.

Our Potential and our Ambition

We take note:

1. of the *Global Potential of Biogas*³ report published by the WBA in July 2019, which underlines that just 2% of global wastes and feedstocks suitable for the production of biogas are currently being used and that these feedstocks are widely and readily available (food waste, sewage, animal wastes, crops and crop residues);
2. that the report estimates that our industry is capable of treating, with existing technologies deployable immediately, much more of those feedstocks, producing enough renewable energy to meet up to 9% of current global primary energy needs or circa 14,000 TWh, equivalent to 23-32% of the world's current coal consumption;
3. that the report estimates output from the process known as digestate could substitute some 5-7% of global inorganic fertiliser use, suitable for fertilising an area of land equivalent to 82 million hectares, the combined area of arable land of Indonesia and Brazil;
4. that by treating and processing biological wastes which may otherwise decompose emitting methane to the atmosphere, especially in warmer climates, biogas installations can deliver the greatest impact in terms of greenhouse gas emission reductions of any renewable energy technology. Methane has a global warming potential 28 times higher than CO₂ and therefore its capture and use can reduce total emissions by 25 to 40 times the level of an equivalent capacity of solar or wind power.
5. that were we to achieve these targets the abatement of greenhouse gas emissions is estimated to be in the range of 10 to 13% of global emissions as calculated in 2017;

Our Commitment

Given the urgency expressed by the WMO/IPCC to reduce emissions of gases causing rising global temperatures and recognising the contribution that the production of biogas can make to reducing those emissions;

Given the urgency expressed by the UNCCD to improve the quality of soils to ensure long-term sustainability of agriculture and recognising the contribution digestate can make to soil improvement;

Given our commitments to achieve the UN Sustainable Development Goals by 2030 including through the deployment of our technologies and resources;

Using our experience, knowledge, technologies and financial capacities;

We, Corporate members of the World Biogas Association, undertake to:

1. use our best endeavours to achieve the United Nations Framework Convention on Climate Change

³ <http://www.worldbiogasassociation.org/global-potential-of-biogas/>



Paris agreement of December 2015 target to limit the rise of average global temperatures to no more than 2.0°C by 2100 and, if possible, by no more than 1.5°C;

2. employ our technologies, personnel and financial resources to capture available feedstocks where possible for the production of biogas across the world, implementing the circular economy in practice;
3. use our best endeavours to deliver our industry's maximum potential contribution to the UN Sustainable Development Goals by 2030;
4. collaborate with governments, cities, regions, the European Union and industrial partners across the globe to develop and operate biogas production facilities where possible;
5. work with partners in the agricultural community to foster understanding of the value of digestate as a complement to inorganic fertilisers and enhance the recovery of agricultural soils;
6. contribute to the reduction of food waste production and to treat and recycle unavoidable food waste into biogas;
7. contribute to air quality in cities worldwide through the use of biogas as a clean transport fuel;
8. bring renewable energy and fuel to remote communities and businesses not connected to national grids;
9. operate to the highest standards with regard to environmental protection and the health and safety of employees and local populations.
10. employ our research and technologies to improve biogas yields and cost efficiency.

What is needed to fulfil our ambition?

In order to achieve the highest possible levels of interception of wastes and feedstocks to produce biogas thereby reducing global GHG emissions, we, the Corporate members of the WBA, call upon governments and authorities in cities and regions worldwide and the European Union to:

1. include the production of biogas as a climate change mitigator in national, regional and cities' energy plans;
2. include targets for the recycling of biodegradable wastes and feedstocks for the production of biogas in Nationally Determined Contributions to the UNFCCC by 2020;
3. by 2030 adapt the flow of financial support to technologies, including biogas which enable achievement of a zero-carbon economy based on the quickest and most cost-efficient CO₂ reduction pathways;
4. facilitate the collection of wastes for treatment in biogas facilities through collection of urban food wastes;
5. facilitate the production of biogas through the installation of biogas technologies in urban wastewater treatment plants;
6. stimulate the recovery of wastes in farm environments for the production of biogas through (for example) fiscal incentives and by preventing the burning of crop residues;



7. promote the capture of landfill gas particularly in those regions where organic waste is still deposited in landfills.
8. facilitate the production of biogas through the installation of biogas technologies at agri-industry processing facilities and through the promotion of local and global biomethane markets;
9. use the fuel produced by biogas production facilities for publicly owned transport and waste collection trucks.

The Role of our Association

The WBA undertakes to:

1. assist governments, cities, regions across the globe and the European Union in understanding the role of biogas technologies in their specific contexts, including, for example, analysing national potential;
2. provide technical training, including site visits to existing production facilities on the operation and development of biogas facilities;
3. assist in the development of national standards for biogas plant operations;
4. to serve as an advisory body to assist in the criteria used for tenders and investments in projects ensuring that best available technologies are employed;
5. create networks and build partnerships among members with non-members and public authorities for the development of biogas production;
6. monitor the implementation of this Declaration and to report back to the UNFCCC periodically on the development of biogas installations globally.

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Urging governments and the European Union to act rapidly and with decision to avert the worst consequences of climate change, we, the Corporate Members of the WBA and the Association, consign this declaration to the UNFCCC on this day in Madrid, 6th December 2019.

WBA President
David Newman

WBA Corporate Members:

Asia Biogas (TH)
BTS Biogas (IT)
Cenergi (MY)
Clarke Energy (UK)
DMT Environmental Technology (NL)
Eisenmann Corporation (USA)
ENGIE (FR)
Greenlane Renewables Inc (CA)
Greve Biogas (SW)

Grissan (DK)
IES BIOGAS (IT)
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Nature Energy (DK)
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