



“Climate change will shape the way we do business”

We welcome the focus on climate change at the 2015 World Bank Group/IMF Spring Meetings

Let's partner on climate action. Now.

We are CEOs from 43 companies and 20 economic sectors. With operations in over 150 countries and territories, together we generated over \$1.2 trillion of revenue in 2014.

In the spirit of the World Economic Forum to foster public-private cooperation, we affirm that the private sector has a responsibility to engage actively in global efforts to reduce greenhouse gas emissions, and to help the world move to a low-carbon, climate-resilient economy.

We call upon governments to take bold action at the Paris climate conference (COP21) in December 2015 to secure a more prosperous world for all of us. We are already taking action, and we stand ready to work together with the international community to help deliver practical climate solutions.

We have prepared a statement outlining our vision. Please go to medium.com/@ClimateCEOs to read our full message. #ClimateCEOs

Signatories

Olaf Persson, President and CEO, AD Voco	Bruno Lafont, Chairman and CEO, Lafarge
Pierre Nanteme, Chairman and CEO, Accenture	Marc Bolland, CEO, Marks and Spencer
José Manuel Entrecanales Domago, Chairman and CEO, Acciona	Nikolaus von Bomhard, Chairman of the Board of Management, Munich Re
Tom Böhner, CEO, Alcoa/Nibel	Torben Møgel Pedersen, CEO, PensionDanmark
Michael Diekmann, Chairman of the Board of Management (CEO), Allianz SE	Eric Rondolat, CEO, Philips Lighting
Gregory Hodkinson, Chairman, Arup Group	Felke Sijbesma, CEO and Chairman of the Managing Board, Royal DSM
Gavin Patterson, CEO, BT Group	Frans van Houten, President and CEO, Royal Philips
Niels B. Christensen, President and CEO, Danfoss	Jean-Pascal Ticoire, Chairman and CEO, Schneider Electric
Frank Appel, CEO, Deutsche Post DHL Group	Franky Oesman Widjaja, Chairman and CEO, Star Via Agriculture and Food
Henrik Poulsen, CEO, DONG Energy	Jean-Pierre Clamadieu, CEO, Solvay
Andrew N. Liveris, President, Chairman and CEO, Dow Chemical Company	Christian Rynning-Tønnesen, President and CEO, Statoil
Francesco Starace, CEO and General Manager, Enel SpA	Jean-Louis Chaussade, CEO, Suez Environnement
Hans E. Westberg, President and CEO, Procter	Takashi Ninami, President and CEO, Sumitry Holdings
Gérard Mestrallet, Chairman and CEO, GDF SUEZ	Tadai Tani, Chairman, Suzlon Energy
Bernardo Gratin, CEO, GenBio Investments	Michel M. Lüsli, Group CEO, Swiss Re
Ajit Gulabchand, Chairman and Managing Director, Hindustan Construction Company	Masashi Muromachi, Chairman of the Board, Toshiba Corporation
Stuart Gulliver, Group CEO, HSBC Holdings	Paul Polman, CEO, Unilever
Ignacio S. Galán, Chairman and CEO, Iberdrola	Andreas Frieler, Chairman and CEO, Veeva
Peter Agnefjäll, President and CEO, IKEA Group	Anders Runevad, Group President and CEO, Vestas Wind Systems
Ralph Hamers, CEO, ING Group	Anthony Pratt, Executive Chairman, Wey Industries
Sandra Wu Wen-Hsu, Chairperson and CEO, Kokusai Kagyo Co., Ltd.	David W. Kenney, Chairman and CEO, The Weather Company
	Kwok Khoon Hong, Chairman and CEO, Wimmer International

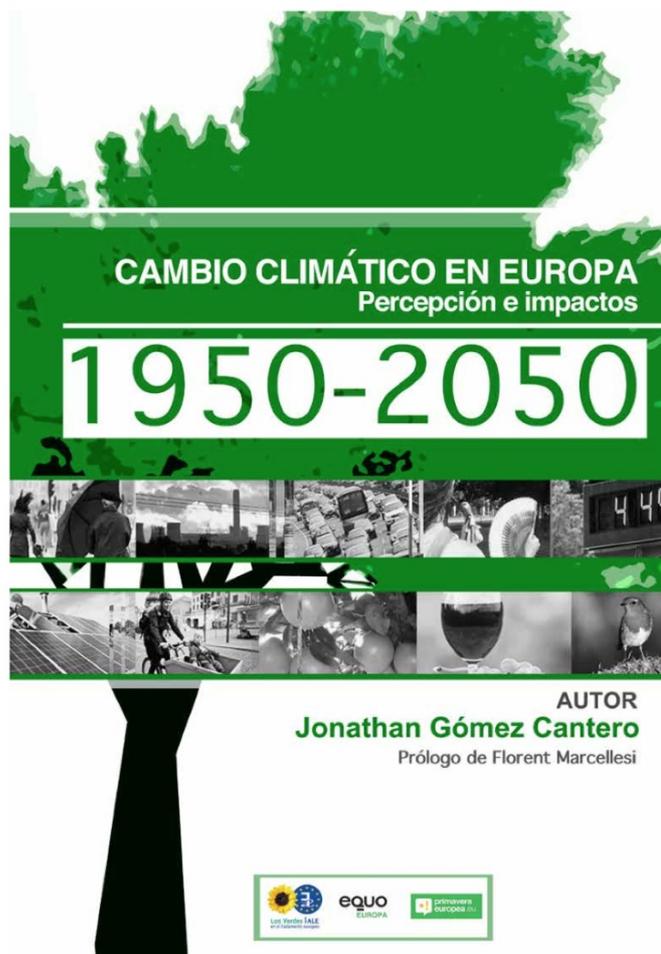
April 17, 2015. [Open Letter from Global CEOs to World Leaders Urging Concrete Climate Action](#). “Climate change is one of the biggest global challenges that will shape the way we do business now and in the coming decades (...) This coalition, comprising 43 CEOs from companies with operations in over 150 countries and territories, and facilitated by the World Economic Forum, believes the private sector has a responsibility to actively engage in global efforts to reduce greenhouse gas emissions, and to help lead the global transition to a low-carbon, climate-resilient economy. This coalition further seeks to catalyze and aggregate action and initiatives from companies from all industry sectors—towards delivering concrete climate solutions and innovations in their practices, operations and policies. The undersigned, as CEO climate leaders, urge the world’s leaders to reach an ambitious climate deal at COP21, aligned with the UN Post-2015 Sustainable Development Goals. **We extend an open offer to national governments to meet and co-design tangible actions as well as ambitious, effective targets that are appropriate for their different jurisdictions.**”

April 14, 2015. [In Landmark Case, Dutch Citizens Sue Their Government Over Failure To Act On Climate Change](#) by Natasha Geiling, Climate Progress. “For the first time ever, climate change is being taken to court over human rights. Public arguments are scheduled to begin today in the Netherlands, where nearly 900 Dutch citizens have [filed a lawsuit](#) against their government for failing to effectively cut greenhouse gas emissions and curb climate change. Hailed by Dutch press as a “landmark legal case,” it’s the **first European example of a group of citizens attempting to hold a government responsible for inefficient climate policies, and the first time that existing human rights laws have been the basis of a case** (...) The plaintiffs will ask the court to force the Dutch government to reduce its greenhouse gas emissions by between 25 and 40 percent relative to their 1990 levels by 2020 — reductions that the IPCC has said developed nations must make if the world wants a 50 percent chance of avoiding a 2 degree Celsius increase in global temperature (...) The sustainability-focused [Urgenda Foundation](#) hopes that this lawsuit will inspire others to use courts to hold countries accountable for failing to act on climate change.”

April 7, 2015. [Waste-to-energy pilot project in Osaka successfully implemented](#). “Even today, four years after the terrible disaster, **Fukushima is a memorial for a radical energy revolution in Japan and across the globe.** Together with RENAGEN Inc., a Japanese biogas company, EnviTec Biogas is supporting Japan’s green energy objectives and has just successfully commissioned its first biogas plant in Osaka Prefecture. The 250 kW EnviWaste plant is the pilot project for the strategic partnership between EnviTec and RENAGEN. The company is part of REMATEC Group, a leading waste recycling company based in Japan and South-East Asia. “With this plant we, together with EnviTec Biogas, can for the first time demonstrate the enormous efficiency of the waste-to-energy technology used here to the Japanese market”, said Daisuke Mishima, CEO of RENAGEN. For the industrial country of Japan, energy generation from waste material marks an important step towards the attainment of the country’s climate objectives. With a population of over 126 million, Japan is ranked as the tenth most populous country in the world. Before the Tsunami disaster, the island country ranked at third place among the world’s largest producers of nuclear-generated electricity, coming in after the USA and France. **An annual total of up to ten biogas plants is planned for construction in Japan within the scope of the cooperation with EnviTec.** “The initial steps for two additional plants have already been introduced”, said Roel Slotman, Chief Commercial Officer of the Lohne-based biogas all-rounder. **With the equivalent in euro of 30 cents to twenty years, the Japanese government has now introduced guaranteed feed-in compensations.** To date, oil from the Gulf region and coal from Australia have been the most important sources of energy besides atomic energy. **A vanishingly small four percent of Japan’s energy was derived from renewable energy sources.** However, the current government under Prime Minister Shinzô Abe recently advocated for renewed operation of nuclear power plants – naturally after a thorough scientific examination. Whatever the final decision might be, **a foundation stone for driving Japan’s green energy revolution has been laid with the first biogas plant project by EnviTec and RENAGEN.**”

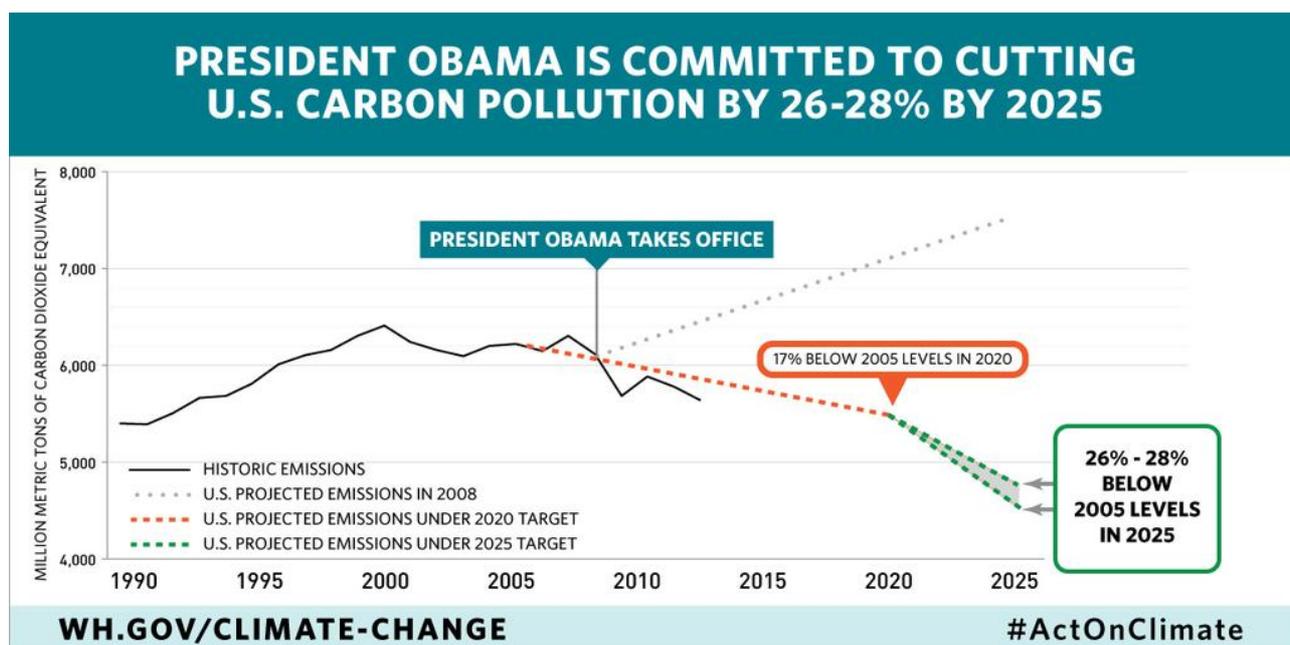
April 7, 2015. [El cambio climático en Europa: percepción e impactos 1950 - 2050](#)

de Jonathan Gómez Cantero, vocal del Colegio de Geógrafos de España y miembro del Panel Intergubernamental de expertos sobre Cambio Climático de la ONU (IPCC). “En los 70 el cambio climático era presentado como una amenaza para las generaciones futuras, hoy no hace falta. Las generaciones futuras somos nosotras y nosotros y el cambio climático es una realidad (...) **Frenar el cambio climático es un reto que determinará nuestro destino** y que favorecerá la supervivencia civilizada de la especie o la barbarie. Después de tres décadas de promesas de todos los colores, hoy sabemos que ningún milagro tecnológico nos va a salvar: tenemos que disminuir colectiva y sustancialmente la cantidad de emisiones de gases de efecto invernadero para frenar el calentamiento global. Para ello necesitamos afrontar sin dilación la transición energética de nuestras sociedades hacia un modelo energético basado en el ahorro, la eficiencia y las renovables. Así como establecer



compromisos vinculantes por parte de todos los gobiernos. Sin embargo, ante la lucha encarnizada entre países y grupos de poder, con intereses y responsabilidades tan diversos en materia de calentamiento global, hay un tremendo poder que hemos de combatir desde la ciudadanía. Para que los oligopolios energéticos fósiles, no nos lleven al peor de los escenarios climáticos posibles, **necesitamos la ciencia, la conciencia y la presión ciudadana unidas**”.

March 31, 2015. [We're taking action on climate change—and the world is joining us](#). “Last November, President Obama stood in the Great Hall of the People in Beijing alongside Chinese President Xi Jinping—and made history. The leaders of the world’s two largest economies—and two biggest emitters of greenhouse gases—surprised the global community by jointly announcing their plans to combat one of the biggest threats facing the world this century: Climate change. China, for the first time, committed to a specific date for “peaking” their emissions—and showed how they would get there by also pledging to build more zero-carbon energy generation than they currently have in coal power. President Obama announced that the United States would build on the historic progress we’ve already made to cut carbon pollution and protect public health by reducing emissions 26–28 percent below 2005 levels by 2025. **Today, the United States followed through on that joint announcement by officially submitting our target—or “intended nationally determined contribution,” in the jargon of the international climate negotiations—to the UNFCCC.**”



March 18, 2015. [5 Ways to Reduce the Drivers of Climate Change](#) by Jim Yong Kim, WorldBank. “**We have to decouple economic growth from greenhouse gas emissions**, World Bank Group President Jim Yong Kim. He spoke about development challenges created by climate change and actions to reduce the drivers of climate change and the impact. **Put a robust price on carbon. Remove fossil fuel subsidies. Accelerate energy efficiency and renewable energy use. Build low-carbon, resilient cities. Implement climate-smart agriculture and nurture forest landscapes.**”

European Biogas and Biomethane Devs

April 23, 2015. **Biogas: Italia terzo produttore al mondo dopo Germania e Cina** di Marco Mancini, GreenStyle. “La filiera italiana del biogas conferma la sua posizione da leader nel mercato globale. Lo dimostrano i dati diffusi da un recente studio condotto da Althesys. Secondo le stime degli analisti, che curano ogni anno il rapporto Irex sulle fonti rinnovabili, l’Italia è terza al mondo nella produzione di biogas (...) **Nel corso dell’ultimo anno il biogas italiano ha contribuito a ridurre l’impatto dell’agricoltura, fornendo alla filiera agricola oltre 25 milioni di tonnellate di biofertilizzanti.** Questa tipologia di concimi ottiene **diversi effetti positivi sulla salute del suolo**, migliorando la sostanza organica presente nel terreno e incidendo positivamente sulle rotazioni colturali. Grazie ai biofertilizzanti è inoltre possibile conseguire un notevole **risparmio idrico** sul fronte dell’irrigazione agricola, consentendo agli agricoltori di affrontare i periodi di siccità, di ridurre i costi e mantenere stabile la produzione. Per la filiera agricola si parla di un **risparmio di 200 milioni di euro ogni anno solo sui costi di gestione degli scarti agricoli.** I **1.300 agricoltori italiani che hanno installato un impianto per la produzione di biogas** possono inoltre contare su una nuova entrata per integrare il reddito, sopravvivendo alla volatilità dei prezzi delle materie prime agroalimentari.”

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22 APRILE 2015 | EARTH DAY

NUTRIRE LA TERRA,
PER NUTRIRE IL PIANETA.



Per nutrire il pianeta, bisogna nutrire la terra, renderla fertile e ricca di nutrienti. È questa la nostra grande sfida: sviluppare soluzioni agronomiche e tecnologiche per produrre meglio, di più e in modo più sostenibile. Utilizzare un biofertilizzante da digestione anaerobica è il modo più naturale ed efficiente per farlo.



www.consorziobiogas.it
#cibeneficianotutti

April 21, 2015. [German Biogas Association designing the future strategy](#). The German Biogas Association met in Göttingen, where they assessed the sustainability of existing installations falling away from the Renewable Energy Sources Act (EEG) from 2021, as well as the development of the industry through the construction of new biogas plants. “There are over 8 000 biogas plants in Germany that are able to meet the demands of a new electricity market design,” explains the Secretary General of the Association, Dr. Claudius da Costa Gomez. **“It would be absurd if we don’t keep using the existing installations,”** says da Costa Gomez. “After 20 years of operation biogas plants are not only reliable but also cost-effective.” To get concrete thoughts about the continued operation of their equipment, operators would need to see a clear perspective, so that investment in flexible power generation or the safety system can be feasible. But not only existing operators are concerned. Even those farmers who are new to the biogas market, need a clear framework that will help them with their calculations. Since the Federal Government favours the tendering model for the construction of new power plants, the Association has thus developed concrete proposals. These will be presented in early May to the ministries. **“We have understood what the politicians want and this led to practical proposals. Now it’s the politics that should pave the way for the power supply of the future”**, says da Costa Gomez. In order to take more part in discussions with politicians in finding a common stand, the developed measures were also presented in the Federal Bioenergy Association (BBE) and the German Renewable Energy Federation (BEE), in order to **optimize cooperation within the bodies related to German biogas**. The bodies representing the German Biogas clearly welcome these efforts towards a narrow and clearly defined cooperation among the associations. **“We want and need to talk more in the future than in the past with one common voice and also need to talk to governing bodies not only about electricity, but also heat and mobility”** summarizes da Costa Gomez.

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March 2015. [A level playing field for the European biogas and biomethane markets](#). Case of the Netherlands and Germany: policy environment, key differences and harmonisation issues

August, 2014. [Germany's Renewable Energy Act](#) (english version): Act on the Development of Renewable Energy Sources (Renewable Energy Sources Act - RES Act 2014).

April 1, 2015. [Ségolène Royal installe le Comité national biogaz](#). “Le Comité National Biogaz, qui regroupe l’ensemble des acteurs de la filière biogaz s’est réuni pour la première fois avec comme objectif de favoriser le dialogue entre les interlocuteurs d’un secteur au fort potentiel de développement et de répondre aux objectifs du projet de loi transition énergétique pour la croissance verte, actuellement en discussion au Parlement (...) Le projet de loi sur la transition énergétique pour la croissance verte prévoit de porter à 32 % la part des énergies renouvelables dans la consommation finale d’énergie de la France en 2030 ; de réduire 40 % de nos émissions de gaz à effet de serre en 2030 et de favoriser l’essor d’une économie circulaire.”

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March 31, 2015. [Comité national biogaz: Un groupe de travail pour faciliter le « déroulement des procédures](#). “Le comité national biogaz s’est réuni pour la première fois le mardi 24 mars 2015 pour son installation par Ségolène Royal, ministre de l’Ecologie. Il se répartit en quatre groupes de travail, dont le premier « Mécanismes de soutien au biogaz » aura pour but d’apporter de « la visibilité pour les acteurs de la filière sur l’évolution du tarif d’achat de l’électricité ». Le second se penchera sur la manière de faciliter le « déroulement des procédures » dans le cadre du développement des projets alors que les deux derniers auront pour thème le « bioGNV » et « l’injection du biométhane ». Cette première réunion a également été l’occasion de faire un état des lieux de la filière et « d’explicitier le rôle de la loi sur la transition énergétique pour la croissance verte », notamment à travers le lancement de l’appel à projets « 1.500 méthaniseurs ».

March 31, 2015. [Un comité national biogaz pour accélérer le développement de cette filière](#) by Sophie Fabrégat, Actu-Environnement. “**L’installation de ce comité fait partie des demandes des acteurs réunis au sein du Club biogaz, formulées dans un [livre blanc](#) publié en mai 2014.**”

March 24, 2015. [Première réunion du comité national Biogaz](#) au Ministère.

April 28, 2015 [**UK: Department for Transportation releases a new study**](#). The latest report examines the UK supply potential of biomethane from landfill and anaerobic digestion, and the feasibility for using it in transport. This reports describes the supply potential of biomethane in the UK. It considers how much of this fuel could be available for transport between 2020 and 2030 under current incentive mechanisms. Landfill sites and anaerobic digestion plants are examined on a case-by-case basis to set out a representative cross-section of this sector in the UK. Different levels of reward under the Renewable Transport Fuel Obligation are modelled. This has been done to determine the point at which it becomes economic for biogas producers to supply transport instead of the heat and electricity sectors. Overall likely supply potential for transport during the 2020 to 2030 period is estimated.

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March 24, 2015. [**Biomethane for transport from landfill and anaerobic digestion**](#) by United Kingdom Department for Transport. “Examines the UK supply potential of biomethane from landfill and anaerobic digestion, and the feasibility for using it in transport. This reports describes the supply potential of biomethane in the UK. It considers how much of this fuel could be available for transport between 2020 and 2030 under current incentive mechanisms. Landfill sites and anaerobic digestion plants are examined on a case-by-case basis to set out a representative cross-section of this sector in the UK. Different levels of reward under the Renewable Transport Fuel Obligation are modelled. This has been done to determine the point at which it becomes economic for biogas producers to supply transport instead of the heat and electricity sectors. Overall likely supply potential for transport during the 2020 to 2030 period is estimated.”

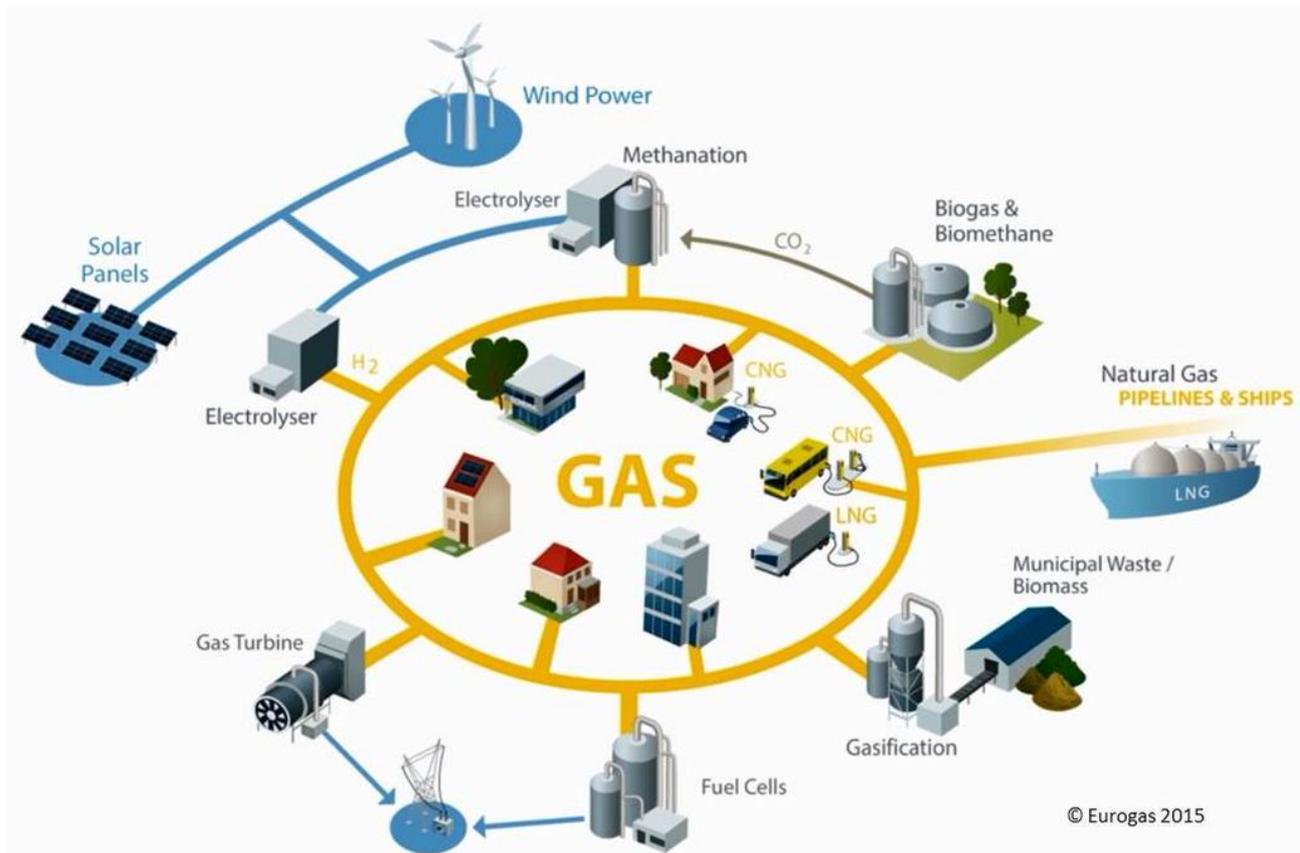
April 17, 2015. [**El Ministerio de Agricultura, Alimentación y Medio Ambiente y SEDIGAS organizan el I “Workshop Europeo sobre el biogás-biometano”**](#). “Han participado expertos europeos de países como Austria, Francia e Italia, la Asociación Europea del Biogás, el Ministerio de Industria, Turismo y Comercio, el Ayuntamiento de Madrid y diferentes organizaciones empresariales. Durante esta jornada, celebrada esta semana, se ha debatido sobre el entorno normativo actual y las posibilidades de desarrollo a nivel europeo y nacional y se han presentado diferentes casos de éxito y maneras de enfocar el uso del biometano, concluyendo que tiene un gran potencial de desarrollo tanto en inyección en red como para el uso vehicular. Además, se ha constatado que en el mercado existen tecnologías maduras con potencial para ser utilizadas a nivel europeo, si bien algunas de las posibles utilizaciones deberán esperar, en el caso de España, a la normativa europea al respecto, garantizando en cualquier caso la trazabilidad del biometano producido. Los participantes en este foro, asimismo, han subrayado la importancia de que la Administración y el sector sigan avanzando conjuntamente.”

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April 22, 2015. [**Biogás: Un gran ignorado en España, ¿Soluciones?**](#) por Alfredo Garzón Gómez. “**La situación del biogás en España no resiste la comparación con nuestros vecinos europeos**, desde países como Francia o Suiza que poco a poco van despegando, a otros como Italia, Reino Unido y Alemania que han hecho del biogás una solución de primer nivel para transformar residuos en energía y cuya contribución al mix energético alcanza niveles muy destacados. Esta comparativa ensombrece aún más el panorama cuando se observa el puesto destacado que ocupa España en cuanto a capacidad ganadera y, por tanto, al enorme potencial que tendríamos a la hora de utilizar el biogás para eliminar sus residuos y obtener a la vez energía. Esta experiencia acumulada por otros países puede ser aprovechada en nuestro país, puesto que el desarrollo tecnológico ya existe y los costes resultan competitivos, con lo que **la implantación del biogás únicamente requeriría de un impulso para establecer cierto tejido industrial que consolide esta alternativa de generación. Pero ¿qué alternativas tiene el sector?**”

April 8, 2015. [**Las energías renovables sufrieron recortes por valor de 2.261 millones de euros en 2014**](#)

Greening the Gas Grid



Infographics with the vision of Eurogas, that represents the interests of the gas industry

April 24, 2015. **GDF SUEZ becomes ENGIE**. “As the world changes, all energies change with it. That’s why GDF SUEZ is now ENGIE. **The world of energy is undergoing profound change. The energy transition has become a global movement, characterized by decarbonization and the development of renewable energy sources, and by reduced consumption thanks to energy efficiency and the digital revolution.** Today, the need is to mobilize all energies, to innovate, gather, and marshal every idea. Gérard Mestrallet, Chairman and CEO of ENGIE declares : “**The energy transition is more than ever a reality for which we have both great ambitions and a great responsibility.** To meet the new challenges of this reality and to accelerate our development, we have decided to give the Group a new name: ENGIE. It is an easy name and one that is powerful, a name that evokes energy for everyone and in all cultures, a name embodying our values and activities. We thus confirm our new ambition and the dynamics of change that drive our Group. (...) With a presence in 70 countries throughout the world and across every energy source, **ENGIE aspires more than ever to be the benchmark energy player in fast growing markets and the energy transition leader in Europe.**”

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April 16, 2015. “**Le gaz est une énergie propre**”, selon Gérard Mestrallet par Ludovic Dupin, L'Usine Nouvelle. “GDF Suez, le premier énergéticien mondial, est l’un des principaux fournisseurs de gaz de la planète. Gérard Mestrallet, son PDG, considère cette ressource comme un facteur essentiel de la transition énergétique: “Le gaz est considéré dans le monde entier comme étant l’un des vecteurs, si ce n’est le vecteur le plus puissant, de décarbonisation. Il est vu comme une énergie propre... ce qui est justifié ! Le remplacement des équipements fonctionnant au charbon par des équipements consommant du gaz naturel est le facteur le plus rapide et le plus efficace de diminution des émissions de CO2 et de dépollution des grandes villes ! L’objectif de 10 % de biométhane dans les réseaux en 2030 a été entériné par le gouvernement et les systèmes d’aides à la méthanisation sont en place. Ceci dit, dans la loi à venir, nous sommes loin de la consécration du gaz comme vecteur central de la transition énergétique. Pour

nous, cette dernière passe par les énergies renouvelables, le gaz et l'efficacité énergétique, avec le digital comme catalyseur transversal. **Comment peut-on augmenter la part du gaz ?** En France, le gaz naturel est parfois classé comme une énergie fossile classique. Fort heureusement, l'objectif de réduction de 30 % des énergies fossiles en 2030 sera modulé en fonction du contenu carbone de chaque énergie. Ce qui offre au gaz un avantage que le pétrole ou le charbon n'ont pas. Sur le fond, il n'y a pas d'hostilité vis-à-vis du gaz, il y a juste des réflexes qui peuvent changer... Prenons l'exemple du Syndicat des transports d'Île-de-France (Stif). Ce dernier a voulu décarboner les transports publics. Le premier réflexe a été de remplacer les bus diesel par des bus électriques. Nous avons rencontré les techniciens de la RATP et, en discutant avec eux, nous sommes arrivés au constat que des bus roulant au gaz sont aujourd'hui plus opérationnels et moins chers que les bus électriques et ont le même impact sur le CO2 dès lors qu'ils sont alimentés au biométhane. La RATP va remplacer 900 bus diesel par 900 bus biogaz.)

February 20, 2015. **GDF SUEZ lance un appel à projets innovants sur la méthanisation** "A l'occasion du « Forum international Agriculture et Changement climatique » GDF SUEZ lance un appel à projets méthanisation dont le but est de permettre à terme l'amélioration du rendement des unités de production de biogaz. Cet appel s'inscrit dans une **démarche globale de GDF SUEZ pour soutenir le développement du biogaz**, une énergie produite localement et 100 % renouvelable. **En s'appuyant sur les progrès récents réalisés dans les domaines des systèmes communicants et des nanotechnologies**, les porteurs de projets répondant à l'appel devront ainsi développer des capteurs innovants pour mesurer les paramètres clés de la méthanisation"

January 27, 2015. **Le biogaz bouscule le modèle de GrDF** par Guillaume Maincent, L'Express. "La filiale distribution de GDF-Suez se prépare à la transition énergétique: elle va devoir **distribuer de plus en plus de gaz naturel d'origine renouvelable et locale**. Et si on produisait nous-même notre gaz naturel? (...) Au sein du groupe GDF-Suez, GrDF est chargée d'exploiter le réseau de distribution de gaz naturel de quelque 9 500 communes. Avec l'essor du biométhane, elle épouse un nouveau métier qui va au-delà de sa mission d'opérateur de canalisations. Un métier au coeur de la transition énergétique: **GrDF estime qu'en 2020, 5% du gaz naturel circulant dans le réseau français sera en fait du biogaz. Selon l'Ademe, un taux de 50 % est même possible en 2050**, si on y ajoute le biogaz obtenu à partir d'autres ressources, comme des micro-algues en culture."

April 23, 2015. **Gas Infrastructure will be key to achieve the Objectives of the Energy Union.** In his speech today at the Gas Infrastructure Europe Annual Conference 2015 in Dublin, Jean-Claude Depail, GIE President, emphasized that gas infrastructure is key to achieve all the five dimensions of the Energy Union: security of supply and solidarity, effective internal market, decarbonisation, energy efficiency, innovation and competitiveness. GIE is willing to work with the European institutions to ensure a competitive, secure and sustainable energy future and the proper role of gas in the future European energy mix (...) **There are many innovative solutions in the gas sector: new production (biomethane), new energy storage (power-to-gas), new uses (gas for transport), new products (micro CHPs, gas heat pumps...) and CCS.** The cornerstone of these developments is the existing gas infrastructure. **Gas and gas infrastructure are key to achieve our low-carbon energy future."**

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April 27, 2015. EBA's president Dr. Jan Štambaský gave a speech at **Gas Infrastructure Europe Annual Conference 2015** in Dublin last week [on greening the gas grid](#). EBA [emphasises potential of biogas and biomethane in Europe](#). Industry already employs 76,000 people in the EU.

April 23, 2015. Sedigas (Asociación Española del Gas): **El sector gas se sigue consolidado como uno de los motores económicos de España**, con un ritmo inversor de 1.000 millones/año ([Balance 2014](#))

April 23, 2015. [Natural gas is a key part of renewable energy strategy](#) says Commissioner Arias Canete

April 20, 2015. **2015: "the year when natural gas truly announced itself as the major energy fuel source"**

March 2015. [The Natural Gas Gamble. A Risky Bet on America's Clean Energy Future](#) by Union of Concerned Scientists.

January 30, 2015. [The Renewable Energy Embraced by Traditional Fossil Fuel Industries: Renewable Natural Gas](#) By Edward Dodge, Breaking Energy. "The Canadian Gas Association, a leading industry trade group, issued a report in December 2014 **promoting renewable natural gas** in Canada. Titled, "[Renewable Natural Gas Technology Roadmap for Canada](#)," the report **offers very aggressive support for biomethane production** as a means to both reduce waste and greenhouse gases while developing an underutilized renewable resource (...) It is worth noting that renewable natural gas **is a rare example of a traditional fossil fuel industry embracing renewable energy.**"

April 23, 2015. [**Biogas in Denmark: the green alternative for natural gas**](#). “The gas transmission network can be used for transporting renewable energy in the form of upgraded biogas - so-called bio natural gas. Trading in bio natural gas in Denmark and across borders is conditional on the biogas being commercially injected into the transmission network, thus making it possible to sell bio natural gas produced in West Jutland to consumers in Zealand or Sweden, for example.”

April 23, 2015. [**Anaerobic Digestion can deliver 30% of the UK's household gas demand**](#). “Speakers at ADBA (Anaerobic Digestion and Bioresources Association) R&D Forum we held in April discussed some of the **new feedstocks which may become suitable for AD with technological advances**. These include macroalgae (e.g. seaweed) grown or collected off the coast, microalgae grown using digestate, wetland biomass (reeds) and other high-lignin feedstocks, hydrogen (produced from the electrolysis of water using ‘waste’ electricity), and organic co-products from advanced agriculture being developed such as aquaculture and the greenhouse sector. Advanced agriculture in particular has the potential to make use of the waste carbon dioxide, water and heat from biogas combustion as well as the nutrients and water in digestate to support plant growth, thus increasingly yields or reducing conventional input costs. **We’ve therefore reviewed our existing assumptions about the amount of methane the industry could produce in a supportive environment. We now believe that 80 TWh of gas is achievable**. Use of hydrogen in AD (expected to use Power-To-Gas processes) has the potential to much of the carbon dioxide produced as part of the anaerobic digestion process into more methane. If adopted (the technology already exists) – could we increase methane yields per tonne of feedstock from 60% to 90%? The answer depends on a number of factors, such as the scale at which this technology can be adopted and how the electricity market develops. If so this could be **an extra 27 TWh of gas**. Another critical area is whether pre-treatment technologies such as steam explosion, thermal hydrolysis and dry anaerobic digestion can bring high-lignin feedstocks such as straw and garden waste into the market. If so we have a lot more to offer than has previously been estimated.”

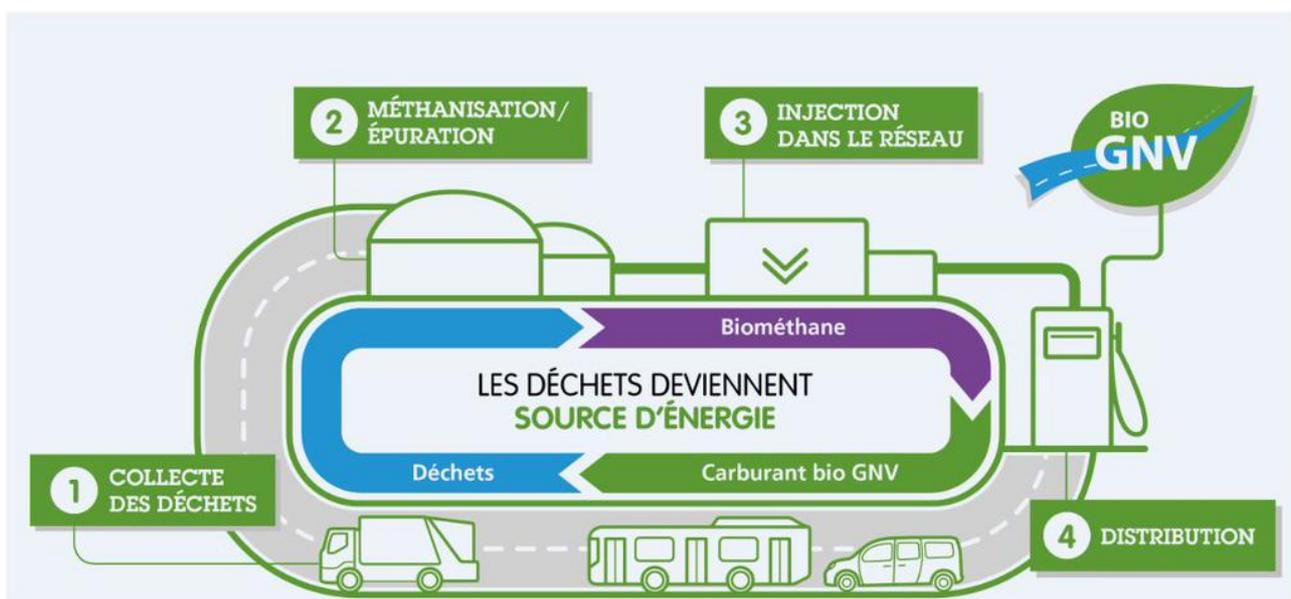
April 8, 2015. [**Galicia podría sustituir el 25% del gas natural que consume con biogás**](#) por J. Penelas, Expansión. **La fundación EnergyLab estima en 180 millones de metros cúbicos al año la capacidad potencial gallega de producción de biogás, una cifra que supone alrededor del 25% del gas natural consumido en Galicia** por industrias y hogares. La comunidad importó en 2013 gas natural por valor de 452 millones de euros, por lo que de aprovechar todo el potencial del biogás, podría reducir su dependencia energética del exterior en más de 110 millones al año. En la actualidad **existen unas 12 plantas de digestión anaerobia**, 7 a partir de lodos de estaciones depuradoras de aguas residuales (Edar) y otras 5 que producen biogás a través de residuos agroindustriales en empresas. Además, la planta de Sogama y el complejo medioambiental del Barbanza aprovechan también los residuos de sus vertederos para producir esta energía. Según el barómetro EurObserver 2014, **en España hay 113 plantas de biogás, 31 de ellas asociadas al sector agroindustrial. Galicia cuenta con el 11,5% de las plantas totales y el 16,1% de las agroindustriales del Estado**.

Restricted Expansion of Food for Fuel: Waste-Biogas, Next Generation Biofuel

April 28, 2015. [**European Parliament supports shift towards advanced biofuels**](#). “A draft law to **cap crop-derived biofuel production and accelerate the shift to alternative sources was voted** by Parliament on Tuesday. It aims to cut greenhouse gas (GHG) emissions caused by the growing use of farm land for biofuel crops. “We succeeded in getting a very technical, technological and ideological file to go ahead”, said lead MEP Nils Torvalds (ALDE, FI), after Parliament endorsed

the law (the draft had already been agreed informally by MEPs and ministers). But Mr Torvalds also wondered aloud whether the law, as amended, was tough enough. “We had much higher goals. Both in terms of greenhouse gas emissions reductions, and technological progress. If Europe doesn't move forward, it will be left behind. We also have the systemic problem of the blocking minority in Council, which sometimes develops into a dictatorship of the minority, with member states who are afraid of the future”, he added. **First-generation biofuels under scrutiny:** Current legislation requires EU member states to ensure that renewable energy accounts for at least 10% of energy consumption in transport by 2020. The new law says that: first-generation biofuels (from crops grown on agricultural land) should account for no more than 7% of energy consumption in transport by 2020; fuel suppliers must report to EU countries and the EU Commission the estimated level of GHG emissions caused by “indirect land-use change” (ILUC), i.e. freeing up more to grow food crops, in order to offset that switched to biofuel production; the Commission must report and publish data on ILUC-related emissions; and the Commission must report back to the European Parliament and the Council of Ministers on the scope for including ILUC emission figures in the existing sustainability criteria. **Boosting advanced biofuels:** EU member states will have to set a national target, no later than 18 months after the EU directive enters into force, for the share of advanced biofuels, e.g. those sourced from certain types of waste and residues and new sources such as seaweed, in total transport consumption. **Next steps:** Member states must enact the legislation by 2017.”

April 28, 2015. [As EU takes step forward on biofuels, NGOs ask for fundamental reform of all bioenergy policies.](#) “Joint press release by the European Environmental Bureau and Birdlife Europe. Today the European Parliament confirmed the deal that was agreed between the EU negotiators two weeks ago limiting the amount of crop-based biofuels that can count towards renewable energy targets in 2020. The vote ends seven years of political wrangling and marks a **breakthrough in the EU’s approach to biofuels**. Combined with the previous decision to end subsidies for first generation biofuels after 2020, today’s decision sends a clear signal to industry that **there is no future in the sort of harmful biofuels that have been promoted for the last 15 years**. **The EU now has an opportunity to support better solutions for the transport sector** such as energy efficiency, **sustainable advanced (waste-based) biofuels** and renewable electricity. Beyond transport, the EU will need to fundamentally redesign its policy on bioenergy for 2030. Ten environmental NGOs published today a [paper highlighting key policy changes needed](#) to promote sustainable bioenergy practices and avoid further negative impacts by bioenergy and a repeat of the biofuels fiasco. These include a cap on all bioenergy in the renewable energy mix coupled to environmental safeguards and an end to the zero accounting of carbon emissions from bioenergy.”

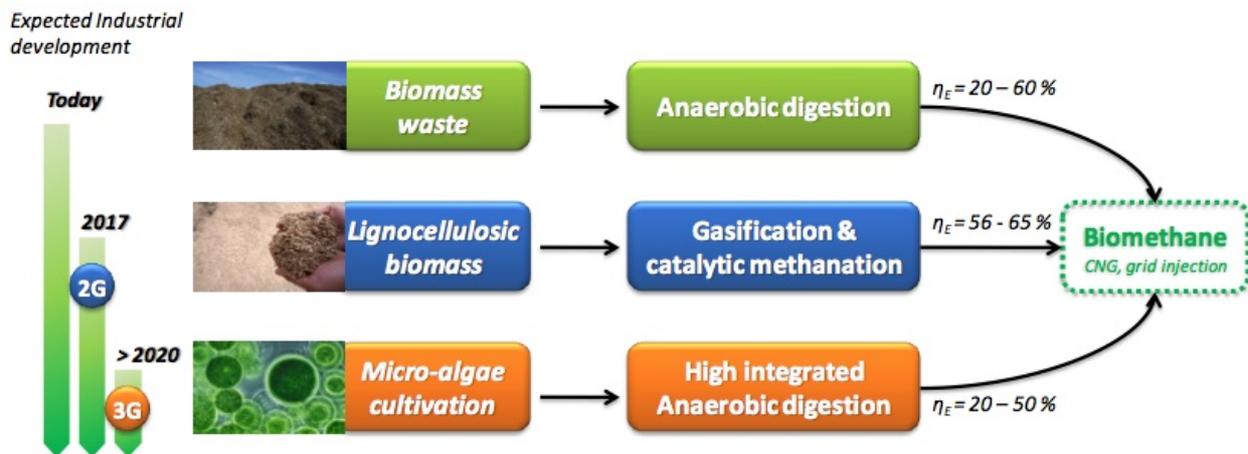


April 22, 2015. [EBA: ILUC vote and end of negotiations](#). “The ILUC file passed the ENVI committee vote last week by 51 votes to 12. The ILUC file passed the European Parliament’s ENVI committee vote on the 14th of April despite the fears that a coalition may vote to halt Indirect Land Use Change (ILUC) negotiations. The agreed text will be voted in the European Parliament’s plenary on the 29th of April, where it is widely expected to pass. After that, ILUC will be published in the official journal. In practice this means that ILUC negotiations between the Council and the European Parliament are over as an agreement was found after nearly 3 years of negotiation. Despite of the restrictive nature of ILUC’s revision, many observers believe that it is better for the European biofuels industry to have a decision at EU level, what enables trade between countries and ensures a common European standard. Even if the compromise is not perfect, the final version is more positive for the biomethane sector than previous positions. The three key points are the following: A cap of 7% on energy crops, out of the EU’s total transport consumption. Non-binding and single counted advanced biofuels target of 0,5%, where “grassy energy crops with a low starch content” such as ryegrass, switchgrass, miscanthus, giant cane, cover crops before and after main crops are included within the advanced category. ILUC factors will not be applied directly, but only be used for reporting purposes.”

April 15, 2015. [New VERBIO plant for the production of biomethane from 100 percent straw commissioned as scheduled](#). “Dr. Lüdtker, Chairman of the Management Board of VERBIO AG, said: “With our straw biomethane technology we are demonstrating that **second generation biofuels using local supply chains** are no longer a thing of the future, but are today’s reality. We appreciate the support provided by the European Union NER 300 program, and see this as a clear EU commitment to the future of biofuels.” He added, “**Our biomethane is generated using straw from local farmers. This is ‘hands-on climate protection’ for our customers driving natural gas vehicles.**” Jörg Vogelsänger, Minister for Rural Development, Environment and Agriculture in the Federal State of Brandenburg, said “The plant demonstrates that VERBIO’s innovative technology is ready for production. It also demonstrates that **we are no longer dependent on foodstuff raw materials to produce biofuels, but we can also use residual materials from agriculture for this purpose.**” DE VERBIOstraw – as the subsidy project is officially called – is one of fifteen projects funded by the NER 300 program to date, and one of the first of these which has already generated actual production volumes. VERBIO AG has been the operator of two large biomethane plants since as long ago as 2011, each with a capacity of 30 MW (...) With the volume produced **VERBIO supplied more than 100 of the 900 natural gas fuel stations in Germany, making it the unchallenged market leader in this segment.** The straw used to fuel the plant is gathered within a radius of 80km of the plant to ensure maximum economic and ecological efficiency. In exchange, the fermentation waste is provided to farmers as organic fertilizer. This local production chain is creating employment in the region’s agricultural sector and ensure maximum CO2 efficiency. The new VERBIO technology makes it possible to leverage a massive potential raw material source which has been unused to date. **In Germany alone, an annual quantity of between eight and thirteen million tons of straw that could be used to manufacture bioenergy currently remain unused** according to a study by the DBFZ (Deutsches Biomasseforschungszentrum – German biomass research center). **This energy quantity represents the fuel required annually by more than five million motor cars.**”

April 14, 2015. [European Parliament: Environment committee backs compromise on cleaner biofuels](#). MEPs and ministers moved a step closer on Tuesday to an agreement on plans to cap the production of traditional biofuels and accelerate the shift to alternative sources, such as certain types of waste and residues and new sources such as seaweed, with the environment committee's vote backing a deal struck by legislators. The plan aims to cut greenhouse gas emissions caused by the growing use of farm land for biofuel crops. Current legislation requires EU member states to ensure that renewable energy accounts for at least 10% of energy consumption in transport by 2020. **The compromise approved today states that first-generation biofuels (from crops grown on**

agricultural land) should account for up to 7% of final energy consumption in transport by 2020. Fuel suppliers will report the estimated level of emissions caused by freeing up more land to grow food crops needed when land has been switched to biofuel crop production, known as indirect land-use change (ILUC) to EU countries and the Commission. The Commission will then report and publish data about these ILUC-related emissions. Later, the Commission is expected to report back to the EP and the Council, based on best available science, on the scope for including ILUC emission factors in the existing sustainability criteria (...) Using farmland to produce biofuel crops reduces the area available for food crops. This adds to pressure to free up more land, e.g. through deforestation, to grow more food – a process known as indirect land use change (ILUC). But deforestation in itself increases greenhouse gas emissions, which may cancel out part or in some cases even all of the beneficial effects of using biofuels. Parliament called as long ago as 2008 for the ILUC factor to be taken into account in EU biofuels policy, while land-based biofuels have received up to €10 billion per year in public subsidies.”



Path toward low-carbon, resilient cities

April 12, 2015. ICLEI World Congress. New [ICLEI](#) president: **“Cities are becoming more important than nations.”** Local action & cross collaboration is critical. ICLEI - Local Governments for Sustainability “is the world’s leading network of over 1,000 cities, towns and metropolises committed to building a sustainable future. By helping our Members to make their cities sustainable, low-carbon, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure, we impact over 20% of the world’s urban population. ”

April 10, 2015. [Municipal Guide to Biogas](#). “The [Municipal Guide to Biogas](#) was created to enable Ontario municipalities to better understand the biogas opportunity in several of their operations – green bin organic material collection, wastewater treatment, and landfill. **This guide outlines the benefits of biogas for your municipality, and showcases real examples of systems across Ontario.** The business case for biogas depends on a range of variables, which are outlined in this guide. Municipalities can use the checklist in this guide to determine if anaerobic digestion should be considered, and initiate discussions with consultants and technology suppliers. Municipalities are increasingly concerned about expanding their diversion rates, treating waste within their own boundaries, reducing greenhouse gas emissions, and reducing waste treatment and hauling costs. Biogas provides solutions to these priorities. When the time comes for your municipality to review its waste management options, use this guide to assist in your analysis, and help you plan next steps.”

March 31, 2015. [Anaerobic Digestion: Fuelling the way to greener, smarter cities](#) by Charlotte Morton, Anaerobic Digestion and Bioresources Association. “The concept of a ‘smart city’ is often taken to mean cutting-edge digital technology, but it is just as important that planners and architects **embed circular economic models at the heart of our future city designs**. As well as supporting a sustainable portfolio of urban renewable energy technologies, cities need to consider how they can better incorporate refuse and recycling facilities into dense population spaces, and how segregated waste collection services can be improved. As well as overcoming barriers to changing recycling behaviour, such as odour and pest concerns, and introducing efficient compartmentalised waste collection vehicles, planners will need to assess how best to manage the resources produced from waste treatment processes. **Anaerobic digestion (AD) has been highlighted as one of the top ten vital renewable technologies for smart cities** in a Green Investment Bank report, [‘Ten ways to modernise and improve UK urban infrastructure’](#), published in March. As one of the few circular economy technologies already functioning, AD will be a vital recycling and renewable energy technology to underpin the cities of the future – and there are opportunities for the UK to take a leading role in resource-efficient urban design”

February 18, 2015. [Post-Fukushima, Japanese Companies Build Microgrids](#). Three microgrids show how diverse energy sources can supply power during disasters By Tam Harbert, IEEE Spectrum. “Multiple Input, Multiple Output: **The Kashiwanoha smart-city project uses energy from electric-vehicle batteries, biogas, storage batteries, solar panels, and the grid**. The shift to emergency energy also happened in a smart-city project, called [Kashiwanoha](#), on the outskirts of Tokyo. Kashiwanoha uses a wide variety of power sources, although it still draws most of its power—some 90 percent—from the electricity grid. The high-rise apartment buildings take advantage of natural hot springs beneath them to create a communal bathing area on the third floor. **Water for the residences is heated using biogas generated from food waste**. The town uses a bank of lithium-ion batteries that can store up to 3,800 kilowatt-hours’ worth of energy, collected from the solar panels that are distributed on rooftops throughout the city and purchased from the grid at night, when rates are cheaper. There are a few small-scale wind turbines scattered throughout the development as well. The facility has a gas cogeneration engine to provide power and heat in emergencies, and it keeps a supply of oil on hand in case the gas supply is interrupted. Communal electric vehicles can also be used to store electricity. All told, in an emergency there would be enough auxiliary energy to meet 60 percent of normal residential power requirements for three days.”