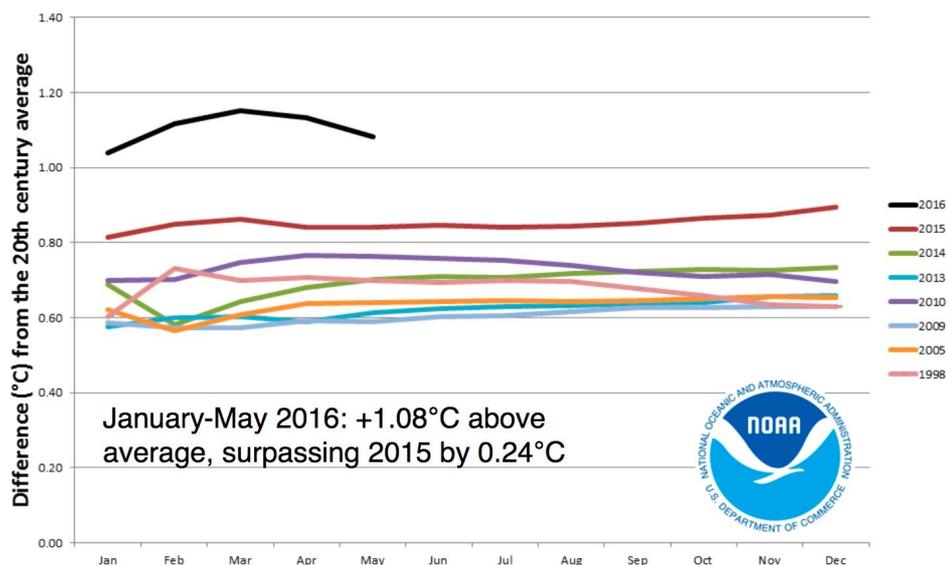




## Europe started the renewable energy revolution but is no longer its main driver

June 28, 2016 **Leave vote makes UK's transition to clean energy harder, say experts** by Damian Carrington, The Guardian. "Analysts say Brexit will create uncertainty for energy sector, which could hit £20bn investment a year needed to replace ageing, dirty power plants. Higher customer bills and delayed or cancelled projects are expected by experts, the most pessimistic of whom warn of the lights going out. The optimists argue that the global rush towards clean energy and strong domestic UK climate change targets can keep the transition to clean, green energy moving forward. However, **the leading Brexiters, such as climate change doubter and likely next prime minister Boris Johnson, will play a critical role.** If the deal they negotiate with the EU means close ties - and crucially access, like Norway, to Europe's internal energy market - the long-term dent to the UK's energy prospects may be reduced. But a more decisive break with the world's biggest single market would leave the UK out in the cold."



*If you are 30 or younger,  
there has not been a single month in your entire life that was colder than average*

June 28, 2016 **'Three Amigos' Vow to Get Half Their Electricity From Clean Power by 2025** by Climate Nexus, EcoWatch. "President Obama, Canadian Prime Minister Trudeau and Mexican President Nieto are expected to announce a joint plan to generate half the three nations' electricity from clean power by 2025 at tomorrow's **North American Leaders Summit**. The plan encompasses not only renewables, but also nuclear power and carbon capture and storage operations (...) Mexico is also expected to join the U.S. and Canada's target of cutting methane emissions 40 to 45 percent by 2025 (...) **the cooperation on climate and energy policy between the three countries "is stronger than it has been in decades ...** In all three countries, there is a significant move toward a clean energy economy (...) This is another demonstration of the international and **North American unity** behind a consensus for strong global climate action. Now more than ever, it's time we retire dirty and dangerous sources of energy like coal, oil, gas and nuclear, crack down on existing sources of methane pollution here at home, and commit toward growing a clean energy economy that creates jobs and protects our communities."

June 27, 2016. **Germany overhauls its flagship energy policy** by Arne Jungjohann, China dialogue. “**Germany promises more renewables but big utilities take back control (...)** But the **Energiewende as we know it is at a crossroads**. So far citizens, communities and new investors have been the biggest drivers for the energy transition. **If the caps and the switch from feed-in tariffs to auctions are implemented, large corporations will dominate the market (...)** Since 2010, Germany has increased the share of renewables in electricity demand by annually 3.1% on average. If this growth path continued, the country would reach more than 60% renewables by 2025. With the new proposal, however, the government wants to ensure that renewables growth does not exceed its 2025 target of 40% to 45% (...) Whether or not the reform puts Germany on track to cut greenhouse gas emissions by 40% by 2020 in comparison to 1990 remains to be seen. Either way, slowing down renewables growth to protect old coal plants is not what the world expects from a global climate leader. Germany’s next government will have to address the challenge of a coal phase-out and how to expand the Energiewende to the heat and transport sector”

### Renewable power growth faster than German government's plans

Share of renewable electricity in domestic demand and governmental targets

Source: AGEB, EEG 2014

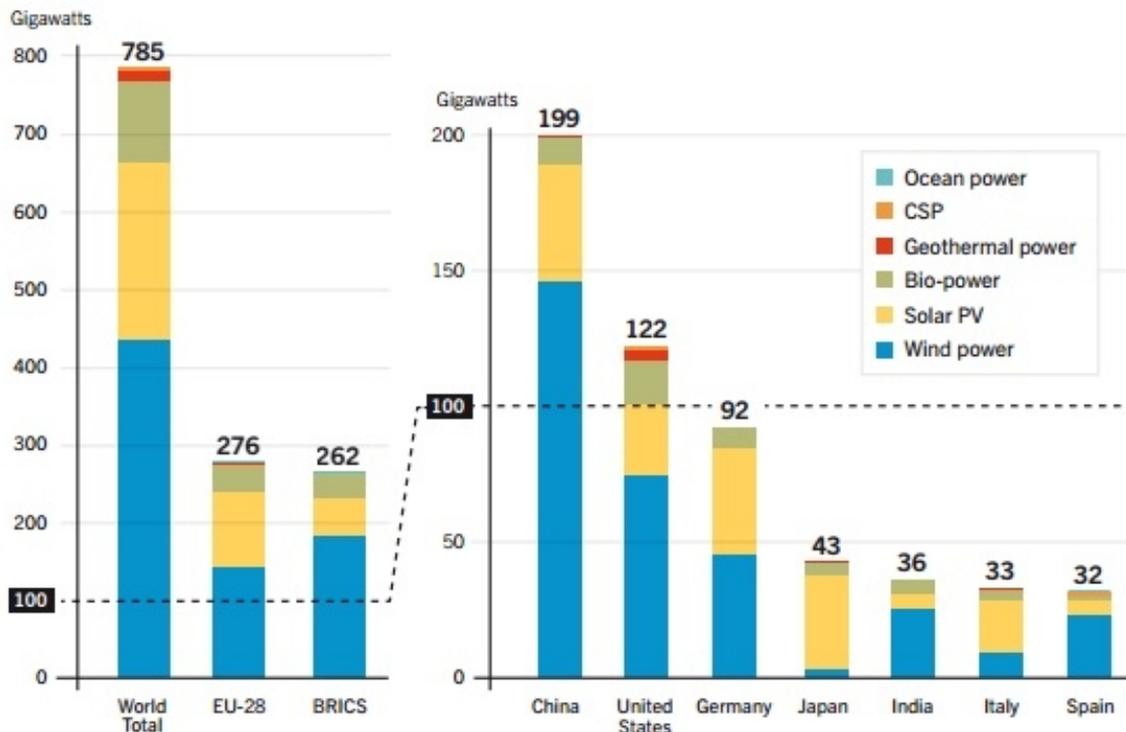


June 27, 2016. **Decreto rinnovabili: la firma libera nuove opportunità per il biogas**. “La firma del nuovo decreto sulle rinnovabili non fotovoltaiche da parte del ministro dello Sviluppo Economico, Carlo Calenda, e del ministro dell'Ambiente, Gian Luca Galletti, annunciata in conferenza stampa dal Presidente del Consiglio Matteo Renzi, **sblocca finalmente una situazione di stallo normativo** che ha impedito a tante iniziative imprenditoriali pianificate nel corso del 2015 di entrare in esercizio nel 2016” dichiara Piero Gattoni, presidente del CIB, Consorzio Italiano Biogas.”

June 25, 2016. **China has become a green energy superpower**. These 5 charts show how by Emma Luxton, World Economic Forum. “Investment in green energy is on the rise, and a world powered entirely by renewables is no longer a distant dream, with a handful of countries hitting 100% renewable electricity production. But while Portugal ran on renewable energy alone for four days and clean energy accounted for 33% of Germany’s power use in 2015, it is developing countries, and China in particular, driving this green revolution. And these charts, from the REN21 Renewables 2016 Global Status report and the United Nations Global Trends in Renewable Energy Investment 2016 report, show how China is paving the way to a clean energy future. 1 **China has**

the highest capacity for renewable power production (...) 2 China takes the lead in wind power production (...) 3 Solar power is booming in China (...) 4 China is the biggest investor in renewable energy (...) 5 China helped push developing countries into the lead.”

**Figure 4. Renewable Power Capacities\* in World, EU-28, BRICS and Top Seven Countries, End-2015**



\* Not including hydropower (→ see Reference Table R2 for data including hydropower).

The five BRICS countries are Brazil, the Russian Federation, India, China and South Africa.

June 24, 2016. **ADBA reacts to EU referendum** by Matt Hindle, UK Anaerobic Digestion and Bioresources Association. “Commenting on the UK's decision to leave the European Union, ADBA Chief Executive Charlotte Morton said: “**The policy framework for anaerobic digestion has been closely linked to European directives**, and the industry will need to work hard to ensure that we maintain and build our place in Britain’s future. The UK’s fundamental need for secure energy, waste treatment, clean water and a strong British farming sector continue. The AD sector needs to make its voice heard, and to work closely with the government to build new structures in all the areas that affect us.”

June 24, 2016 **Firma decreto rinnovabili non FV: i primi commenti**. “Le prime reazioni dal mondo ambientalista e delle associazioni all'annuncio, arrivato ieri, della firma all'attesissimo decreto con gli incentivi alle rinnovabili elettriche diverse dal fotovoltaico, in ritardo di circa un anno e mezzo e che **resterà in vigore solo fino al 31 dicembre 2016** (...) Un orizzonte decisamente troppo breve per “consentire al settore industriale di programmare la crescita e lo sviluppo sia delle tecnologie che della ricerca”, come auspica l'associazione del biogas.”



Association  
Agriculteurs  
Méthaniseurs  
-de France-

## La charte des Agriculteurs Méthaniseurs de France

En tant que membre adhérent à l'AAMF, je m'engage à :

- 1 Assurer le bon **fonctionnement** de mon unité de méthanisation et respecter la réglementation.
- 2 Contribuer au **développement durable** de mon territoire.
- 3 Réaliser avec mes **partenaires** une valorisation vertueuse des matières organiques.
- 4 Me former et associer mes collaborateurs dans une démarche **d'amélioration continue**.
- 5 Garantir la **sécurité** de mon installation et des personnes y travaillant.
- 6 Assurer la **traçabilité** pendant tout le cycle du procédé de méthanisation.
- 7 Optimiser la **valorisation agronomique** du digestat, gage de la santé des sols.
- 8 Partager mon expérience avec mes **collègues de l'AAMF** et participer aux travaux de recherche et d'innovation.

Avec le soutien de :



June 22, 2016. **Méthanisation à la ferme Un décret, une charte et de l'ambition pour les agriculteurs méthaniseurs** par Arnaud Carpon, Web-agri. "Réunis en assemblée générale mardi 21 juin 2016, les agriculteurs méthaniseurs de France attendent la publication d'un décret définissant les conditions d'utilisation de cultures dans leurs digesteurs ainsi que des assouplissements en faveur d'une normalisation du digestat. Ils lancent par ailleurs une charte de bonnes pratiques de la méthanisation pour professionnaliser leur filière. Ils le savent : la société civile française reste très opposée à l'utilisation massive de cultures alimentaires dans leurs unités de méthanisation. Réunis en assemblée générale mardi 21 juin 2016, les agriculteurs méthaniseurs de France (AAMF) **attendent cependant la définition de nouvelles règles concernant l'utilisation de cultures alimentaires ou cultures intermédiaires à vocation énergétique**. L'usage de culture restant nécessaire à la performance des unités, un décret d'application à la loi de transition énergétique du 17 août 2015 en précisera les conditions."

June 21, 2016. **La méthanisation agricole se dote d'une charte** par Vincent Gobert, La France Agricole. "Réunie en assemblée générale à Paris, l'Association des agriculteurs méthaniseurs de France (AAMF) a proposé une charte de qualité et sécurité. Stéphane Le Foll [ministre de l'agriculture] a profité de l'occasion pour annoncer un travail sur l'homologation des digestats et le maintien de l'objectif du plan EMAA (...) « **On garde l'objectif des 1 000 méthaniseurs d'ici à 2020**, il est important de rester mobilisés, on est dans les temps, mais juste ». Et Stéphane Le Foll d'annoncer que, comparé aux 50 unités de mars 2013, date du lancement du plan EMAA, le pays compte aujourd'hui 236 méthaniseurs."

June 16, 2016. **American Biogas Council supports Agriculture Environmental Stewardship Act**. HR 5489 provides a 30 percent investment tax credit for qualifying biogas and nutrient recovery systems. "House Reps. Tom Reed, R-New York, and Ron Kind, D-Wisconsin, introduced new bipartisan legislation June 16, the Agriculture Environmental Stewardship Act (HR 5489), with the support of 12 additional Republican and Democratic leaders in the U.S. House of Representatives. The American Biogas Council (ABC), a trade association for the U.S. biogas industry, applauds the bill which is designed to increase the sustainability of farms by helping to deploy new nutrient recovery and biogas systems to recycle organic material into baseload renewable energy and healthy soil products. **The act provides a 30 percent investment tax credit (ITC) for qualifying biogas and nutrient recovery systems** (...) The Introduction of HR. 5489 reflects the critical need to support economically and environmentally sustainable agricultural practices that protect waterways and enrich soils. Currently no tax incentive exists for nutrient recovery systems which farms increasingly need to properly manage the nutrients found in raw manure. Currently, only biogas projects that generate electricity are eligible for a production tax credit under section 45 of the federal tax code, omitting other energy uses like production of

pipeline quality natural gas and compressed renewable natural gas vehicle fuel.”

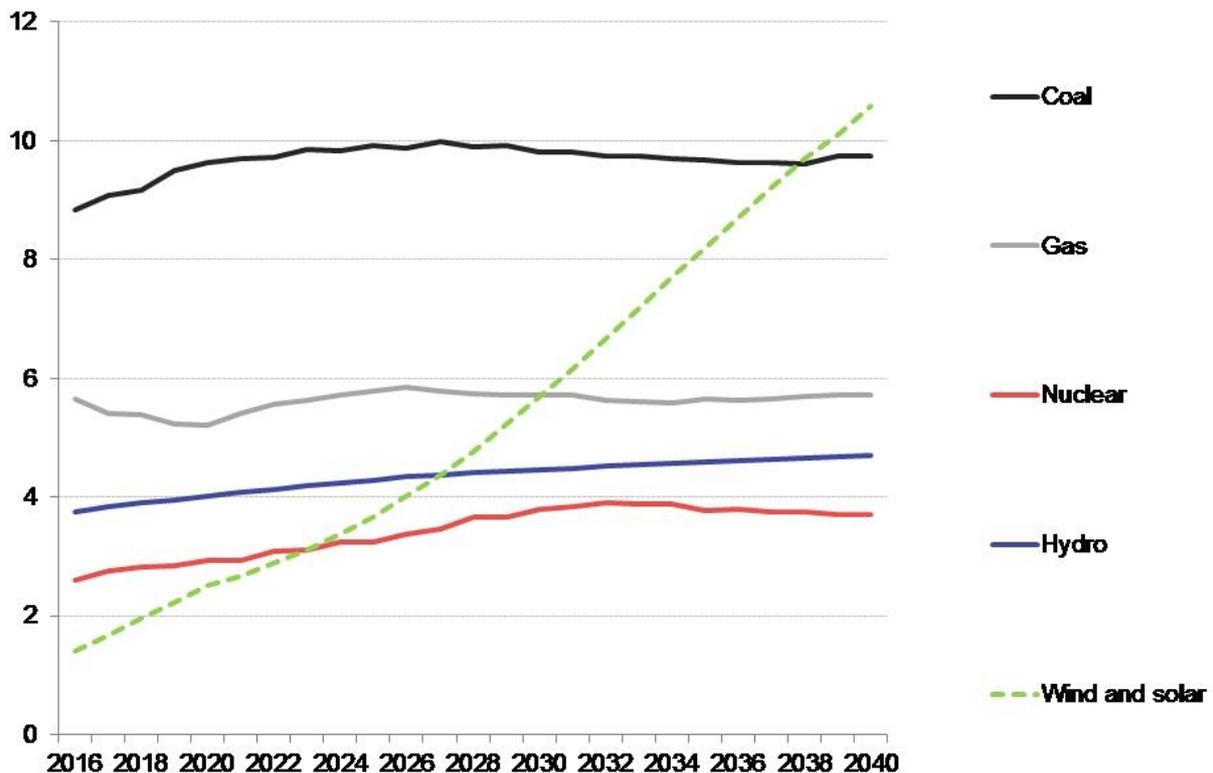
June 16, 2016. **Biogas Industry Applauds Agriculture Environmental Stewardship Act (HR 5489)**. New bipartisan legislation helps increase investment in healthy and clean soils and water. “Currently, the United States has more than 2,100 sites producing biogas, and still, the potential for growth of the U.S. biogas industry is huge. A recent industry assessment conducted with the USDA, EPA and DOE as part of the Federal Biogas Opportunities Roadmap estimates nearly 11,000 sites are ripe for development. If fully realized, these new biogas systems could produce enough energy to power 3.5 million American homes and reduce emissions equivalent to removing up to 11 million passenger vehicles from the road. It would also result in an estimated \$33 billion in construction spending, creating approximately 275,000 short-term construction jobs and 18,000 permanent jobs to operate the biogas systems and manage ongoing business activities.”

June 14, 2016 **REN21 report shows increased use of biomass in heat, power** by Erin Voegele, Biomass magazine. “REN21 recently published its annual overview on the state of renewable energy, reporting 2015 was a record year for renewable energy installations. Renewable power and renewable heat both increased, along with renewables used in transportation. According to the report, titled the “Renewables 2016 Global Status Report,” 173 countries had renewable energy targets in place as of early 2016. In addition, 146 countries had support policies in place. The report also stresses that **renewables have been shown to be cost-competitive with fossil fuels in many markets. “What is truly remarkable about these results is that they were achieved at a time when fossil fuel prices were at historic lows, and renewables remained at a significant disadvantage in terms of government subsidies,”** said Christine Lins, executive secretary of REN21. “For every dollar spent boosting renewables, nearly four dollars were spent to maintain our dependence on fossil fuels.” (...) Regarding biogas, the report shows **Asia leads the world in the use of small-scale digesters to produce gas for cooking and space heating. More than 100 million people in rural China and 4.83 million people in India have access to digester gas.”**

June 13, 2016. **Parliamentarians can revive German Energiewende** by Anna Leidreiter, World Future Council. “Last week, the German government approved some fundamental amendments to the renewable energy law (the EEG 2016). After the 16 States adopted an overhaul of the famous German Renewable Energy Source Act (also referred to as the German Feed-in Tariff law) in May, the cabinet has now also given the green light. Minister for Economic Affairs and Energy Sigmar Gabriel and his colleagues have pointed to **a paradigm shift**. Indeed, the events mark the beginning of a new phase of the Energiewende. However, contrary to the government, I do not see any reason to applaud. In fact, the EEG 2016 hampers any further renewable energy development in the country. It is the paradigm of **slowing down installations; handing back the energy system to the corporate utilities and making sure renewable energy does not become too successful in pushing fossil energy out of the system (...)** **For the first time, the German government is capping the amount of eligible new renewable energy installations, hereby putting the breaks on the Energiewende. The limitations for allowances are set per technology (150 MW biomass per year until 2020, and then by 200 MW per year until 2022) Further, the government has changed the instrument used to support renewable energy installations:** While so far, the **Feed-in Tariff (FiTs)** have provided investment security for everyone, allowing all renewable electricity producers to connect to the grid and **guaranteeing a price per produced kWh, from January 2017 onwards, the country will operate competitive bidding systems (...)** Bidding systems hereby exclude certain stakeholders who were particularly decisive for Germany's success (...) Due to its inclusive design, the German FiTs have enabled new stakeholders to enter the market and have thereby leveraged private investment over the past decade. More than 800 energy cooperatives as well as private investors, farmers, banks and enterprises own about 95% of total installed RE capacity. **Citizens are essentially the backbone of the energy transition in Germany.** Energy cooperatives alone have invested about 1.3 billion euros in RE projects, thus generating revenues

for communities, regions and citizens. The other 5% is owned by the “big four” energy providers.”

June 12, 2016. **Coal and gas to stay cheap, but renewables still win race on costs.** “This year’s edition of BNEF’s long-term forecast sees \$11.4 trillion investment in global power generation capacity over 25 years (...) **Low prices for coal and gas are likely to persist, but will fail to prevent a fundamental transformation of the world electricity system over coming decades towards renewable** sources such as wind and solar, and towards balancing options such as batteries.”



*Annual electricity output by the major generating technologies, 2016-40, thousand TWh.  
Source: Bloomberg New Energy Finance NEO 2016*

June 7, 2016. **Renewable energy: How Europe can reinforce its leadership.** “Europe started the renewable energy revolution but is no longer its main driver. A more ambitious decarbonisation policy would benefit innovative companies, boost the economy and protect the environment, writes Christopher Burghardt (First Solar’s Vice President of Business Development for EU. He also serves on the Board of Directors of Solar Power Europe). EY’s recently launched Renewable Energy Country Attractiveness Index 2016 tells a powerful story. The Index looks at the drivers behind the deployment of, and the investment in, renewables: macro fundamentals, the energy imperative, policy enablement, project delivery and technology potential. **Significantly, almost every European nation listed in the 40 country index saw a decline in its ranking as an attractive market for developing renewable energy.** The only exceptions were Denmark, ranked 15th, Finland, ranked 36th and Greece, which retained its position at 40th. **This is in sharp contrast to a decade ago, when Europe was truly at the forefront of the renewable energy revolution,** with programmes like Germany’s Energiewende establishing the foundation for the eventual global energy transition. I would go a step further and say that Europe in general, and Germany in particular, enabled the global energy transition that we see today by creating a market – albeit a subsidy-driven one – for commercial renewable energy technologies (...) Europe today faces a unique opportunity to set a new standard for the adoption of economically sustainable renewable energy that goes well beyond the current business-as-usual levels. Now is not the time for resting on

laurels. Now is the time for policy and policy-makers to reignite the region's competitiveness and passion for innovation, while reinforcing its leadership position."

June 2, 2016 **Thousands protest in Berlin to save Energiewende** by Bernd Radowitz, Recharge. "Thousands of protestors marched through Berlin today against a sweeping reform of Germany's Renewable Energies Act (EEG) that the renewables sector and green groups think endangers the country's Energiewende – its transition from nuclear to renewable energies (...) a steady growth of Germany's domestic renewables market is vital in order to be successful on a global scale and maintain hundreds of thousands of jobs. According to **Germany's renewable energies federation BEE**, 350,000 people work in the country's RE sector. Next to the BEE, **the metal workers union IG Metall Küste and the German farmers federation DBV called for the demonstration under the theme "Energiewende Retten" or "Save the Energy Transition."** Protestors also continued to criticise that the planned move to tenders will endanger the possibility for grass roots actors to participate in the energy transition. The bulk of Germany's renewable capacity that now already provides a third of the country's electricity needs so far has been installed by energy cooperatives, farmers, small IPP's or municipal utilities. "



*June 2, 2016 EnergiewENDEretten demonstration in Berlin*

June 2, 2016 **Bleak future for biogas following the Feed-In-Tariff Consultation.** "The UK Department of Energy and Climate Change (DECC) have released a consultation reviewing support for Anaerobic Digestion and microCHP under the Feed in Tariff scheme. The proposals could be a heavy blow to future growth of the AD CHP and power industry if implemented in January 2017."

June 1, 2016. **Europe remains most important market for new biogas plants by 2025.** "Throughout the world, **around 2,600 MWel of new biogas will be constructed by 2025, with RE subsidisation schemes being the most important market driver.** Europe will remain the dominating region, despite the slump on the German market. These are some of the results of a new market study by ecoprog GmbH (...) **About two thirds of all the world's biogas plants are installed in Germany**, where about 8,000 facilities were constructed based on the regulations of the German Renewable Energy Act (Erneuerbare- Energien-Gesetz, EEG). **However, Germany cut subsidies considerably in 2012 and the market, once dominating global market activities, slumped** (...) About 90% of all capacities were built in Europe in the booming years around 2011,

but the share of new constructions will decline to about 75% by 2025. Europe thus remains the by far strongest regions worldwide. **The strong biogas markets in France, the UK, Italy and Poland will at least compensate some of the considerable decrease of the German market. Asia and North America become more important as well**, as individual advantageous subsidisation schemes will produce positive outcomes, e.g. in Thailand. In the regions South America, Australia and Pacific as well as Africa and Middle East, the construction of biogas plants will remain limited to individual, sometimes very large projects. In most of the countries of these regions, lacking subsidies are the cause for the sluggish market development. Japan, by contrast, mainly struggles with gridlocked structures on the energy market and obstacles in the approval processes. **France will be the world's strongest growth market by 2025 (...)** **The reorganisation of the biogas market has also modified the market conditions for many technology providers and plant operators.** Many companies that primarily worked regional or national markets, now try to tap new sales markets by **internationalising** their business. **Many technology providers furthermore diversify their focus** also towards service features and the repowering business at existing plant sites. As the biogas plants get older and many plant operators face a toughening competition caused by low subsidies and high substrate prices, **the demand for optimisation measures is increasing.** **In terms of technological improvements, processing the biogas to biomethane quality and injecting it into the natural gas grid becomes ever more important as well.** For doing this, however, national legislations must support the grid injection of biomethane under their subsidisation systems.”

## Energy transition to energy democracy

August 21, 2016 **Energy Democracy. Germany's Energiewende to Renewables.** Authors: Morris, Craig, Jungjohann, Arne. “Focuses on Germany as a role-model for other countries to follow. This book outlines **how Germans convinced their politicians to pass laws allowing citizens to make their own energy, even when it hurt utility companies to do so.** It traces the origins of the Energiewende movement in Germany from the Power Rebels of Schönau to German Chancellor Angela Merkel's shutdown of eight nuclear power plants following the 2011 Fukushima nuclear accident. The authors explore **how, by taking ownership of energy efficiency at a local level, community groups are key actors in the bottom-up fight against climate change.** Individually, citizens might install solar panels on their roofs, but citizen groups can do much more: community wind farms, local heat supply, walkable cities and more. This book offers evidence that **the transition to renewables is a one-time opportunity to strengthen communities and democratize the energy sector – in Germany and around the world.**”

June 16, 2016 **Community Renewable Energy: Citizen Involvement in the Energy Transition** (Webinar). “The Clean Energy Solutions Center, in partnership with the Renewable Energy Policy Network for the 21st Century (REN21), hosted this webinar on community renewable energy and citizens' involvement in the energy transition. This webinar begins with an overview of REN21's newly released Renewables 2016 Global Status Report and will then look at **the role of renewables in communities.** As REN21's 2016 report shows, community energy initiatives are increasingly becoming a least-cost option for power supply for households and small businesses, and particularly in rural, off-grid locales.”

June 14, 2016. **Climate Commissioner: Age of traditional energy consumers 'almost over'** by James Crisp, EurActiv.com. “We want to empower citizens to take ownership of the energy they consume and produce,” Climate Commissioner Miguel Arias Cañete will say, “**That means incentivising citizens, energy co-operatives and local authorities to become active market players in their own right.** Ultimately that is what has to define our energy transition; consumers that take control of their energy consumption.”

June 13, 2016. **A closer look at the phenomenon of energy cooperatives: Human Energy documentary.** “First european movie about energy cooperatives. The current global energy system is impossible to sustain. With climate change becoming a dangerous reality, the unfettered burning of fossil fuels is no longer an option. It’s now time to ask, how will the energy of the future be produced? Why is it that the politicians listen to multinational fossil fuel corporations, but fail to hear the voices of the communities? “Human Energy” will be the first full-length movie attempting to show the real truth about European energy cooperatives in a comprehensive way. We will make a movie worthy of film festivals, cinemas and independent distribution channels.”



## FIRST EUROPEAN MOVIE ABOUT ENERGY COOPERATIVES

June 6, 2016 **¿Por qué dar más poder a la ciudadanía energética?** Por Sara Pizzinato, responsable de la campaña de energía de Greenpeace. “Los ciudadanos energéticos, también conocidos como “prosumidores”, son consumidores activos de energía. Pueden ser particulares, organizaciones sin ánimo de lucro, entidades públicas o pequeñas empresas que no sólo consumen energía renovable, también la producen y la venden tanto de manera individual como colectiva (...) También pueden contribuir a mejorar la eficiencia energética y la gestión del sistema energético proporcionando servicios de gestión de la demanda o inclusive aportando un valor añadido no económico a la energía, tal y como hacen algunas cooperativas de productores de energía eólica en Holanda que reinvierten directamente sus beneficios en medidas de eficiencia energética en los edificios públicos municipales. Las dificultades no son pocas ya que se trata de un cambio mayúsculo en un mercado energético en el que los consumidores solo pueden escoger el comercializador a quien compran la energía. Una ciudadanía más activa en el sector energético implica una mayor conciencia en materia que, a su vez, puede lograr un cambio en la actitud social ante los retos ambientales; incluido el cambio climático. Facultar a los ciudadanos energéticos para que tomen más protagonismo es lo que llamamos democratización de la energía. Permite a la ciudadanía participar y beneficiarse de la transición energética (...) La Comisión Europea, en su Unión Energética sugiere que la democratización de la energía es la vía a seguir. Algo respaldado por el 84% de las respuestas a su consulta para la revisión de la Directiva Europea de Renovables 2030 que apoyan “normas más estrictas de la UE que garanticen que los consumidores tengan la posibilidad de producir y almacenar su propio calor y electricidad renovable y participar en todos los mercados de la energía relevantes de una manera no discriminatoria y sencilla”.



## Rapid expansion of anaerobic microorganisms applications in the society

June 17, 2016 **Methanogenesis: A radical approach** by Caitlin Deane, Nature Chemical Biology. **“Over 90% of Earth's methane is produced by the enzyme methyl-coenzyme M (methyl-SCoM) reductase (MCR) in methanogenic archaea.** Using a nickel cofactor in the active site, MCR converts methyl-SCoM and coenzyme B (CoBSH) to methane and the mixed disulfide CoBS-SCoM.”

June 9, 2016 **Anaerobes in Industrial- and Environmental Biotechnology** by Hatti-Kaul R and Mattiasson B. “Anaerobic microorganisms present in diverse ecological niches employ alternative strategies for energy conservation in the absence of oxygen which enables them to play a key role in maintaining the global cycles of carbon, nitrogen, and sulfur, and the breakdown of persistent compounds. Thereby they become useful tools in industrial and environmental biotechnology. Although anaerobes have been relatively neglected in comparison to their aerobic counterparts, with increasing knowledge about their diversity and metabolic potential and the development of genetic tools and process technologies to utilize them, we now see a rapid expansion of their applications in the society. This chapter summarizes **some of the developments in the use of anaerobes as tools for biomass valorization, in production of energy carriers and chemicals, wastewater treatment, and the strong potential in soil remediation.** The ability of several autotrophic anaerobes to reduce carbon dioxide is attracting growing attention as a means for developing a platform for conversion of waste gases to chemicals, materials, and biofuels.”

May 24, 2016. **Deeper insight into the structure of the anaerobic digestion microbial community; the biogas microbiome database is expanded with 157 new genomes** by Laura Treu, Panagiotis G. Kougias, Stefano Campanaro, Ilaria Bassani, Irini Angelidaki. “This research aimed to better characterize the biogas microbiome by means of high throughput metagenomic sequencing and to elucidate the core microbial consortium existing in biogas reactors independently from the operational conditions. Assembly of shotgun reads followed by an established binning strategy resulted in **the highest, up to now, extraction of microbial genomes involved in biogas producing systems.** From the 236 extracted genome bins, it was remarkably found that the vast majority of them could only be characterized at high taxonomic levels. This result confirms that **the biogas microbiome is comprised by a consortium of unknown species.** A comparative analysis between the genome bins of the current study and those extracted from a previous metagenomic assembly demonstrated a similar phylogenetic distribution of the main taxa. Finally, this analysis led to the **identification of a subset of common microbes that could be considered as the core essential group in biogas production.**”

May 20, 2016. **The radical mechanism of biological methane synthesis by methyl-coenzyme M reductase** by Thanyaporn Wongnate, Dariusz Sliwa, Bojana Ginovska, Dayle Smith, Matthew W. Wolf, Nicolai Lehnert, Simone Raugei and Stephen W. Ragsdale. “A radical route to making methane. **Microorganisms are the main drivers of Earth's methane cycle. The enzyme ultimately responsible for biological methane production has an ambiguous mechanism because it involves difficult-to-isolate reaction intermediates.** Wongnate et al. used stopped-flow and rapid freeze-quench experiments to trap a methyl radical in the active site of methyl-coenzyme M reductase (see the Perspective by Lawton and Rosenzweig). Spectroscopy demonstrated that **cofactor F430 contained Ni(II),** consistent with computational results. **The final step of methanogenesis thus proceeds through Ni(II)-thiolate and methyl radical intermediates rather than an organometallic methyl-Ni(III) mechanism.**”

**What is biogasmicrobiome.com** Biogasmicrobiome.com is a repository related to the work performed in order to decipher the microbial community populating biogas reactors.