Legislative framework

Country:	France
Date start:	November 2016
Date finished:	March 2017

Substrate regulations

			Explain restrictions and/or exceptions	Source of information
Animal byproducts (ABP)	*Does the country apply ABP-legislation?*	YES/~~NO~~	Every AD unit in France needs a sanitary agreement. [1] Animal and public health rules concerning collection and transport of ABP are written in regulation CE no 1069/2009. [13]	Regulation CE no 1069/2009
Waste water treatment plants	*Is this material allowed in biogas production?*	YES/~~NO~~	The decree of 24th June 2014 made it authorized to use sewage sludge from waste water treatment as a substrate for biogas production. [2] Biogas plants handling sewage sludge has to follow the ICPE (Installations Classées pour la Protection de l'Environnement) regulations 2780 & 2781 as it may contain hazardous substances. This involves requirements on additional technical treatment [13]	Decree of 24th June 2014 ICPE 2780 & 2781
	***If yes**, are there any restrictions to spreading the digestate from that production?*	YES/~~NO~~	The digestrate from sewage sludge must follow the standare NFU 44-095. [22] Also, the digestate from sewage sludge is classified as hazardous waste. [13]	NFU 44-095 ICPE 2780 & 2781

Agricultural materials (not included in ABP)	*Are there any restrictions for this material?*	YES/~~NO~~	Agricultural materials are listed in Order of November 23rd 2011 as allowed for use as substrate in biogas production. [3] The methanisation of agricultural or vegetable waste and whey falls under ICPE heading 2781-1 and may be subject to declaration, registration or authorization depending on the quantities processed. [13]	Order of November 23rd 2011 ICPE 2781
Bio-waste / organic waste material (not included in ABP)	*Are there any restrictions for this material?*	YES/~~NO~~	Biowaste and other organic waste are listed in Order of November 23rd 2011 as allowed for use as substrate in biogas production. [3] The methanisation of bio-waste from households falls under ICPE heading 2781-2 and is subject to authorization. [13]	Order of November 23rd 2011 ICPE 2781
Monitoring	*Who takes care of the monitoring of these regulations?*	The Regional Directorate for Environment, Planning and Housing (DREAL)		

"Order of November 23rd 2011

This Order lists the feedstock that must be used to produce biomethane. Biomethane must be produced with the feedstock listed in the order of November 23rd 2011, namely household waste, household waste from landfill, biowaste, agricultural by-products (organic waste and manure), catering waste, agro-food industry waste and agro-industrial waste. The allowed inputs have been qualified as harmless by the National Agency for sanitary security (ANSES)." [3]

The Decree of 24th June 2014 updates the Order of November 23rd 2011. The list mentioned in Order of November 23rd 2011 is therefore not relevant when it comes to sewage sludge. [2]

Alternative handling

							Explain restrictions and/or exceptions	**Source of information**
What alternative	x	***Composting***	**X**	***Combustion***	**x**	***Landfilling***		

handling processes are allowed?	*Another?*			
Regulations	*Are there regulations to reduce the incentive of alternative handling? (ex. no organics allowed in landfills)*	YES/~~NO~~	There is an EU directive that states that by 2016 the maximum amount of landfilled organics should be below 35 % of the amount of organic waste generated in 1995. [4] There are taxes on incineration (without energy recovery) and landfilling of waste, to increase the recycling rate. [4] Only 'final waste', that means waste that can not be treated anymore under the present technical and economic conditions is accepted in landfills in France. [21]	Landfill Directive 1999/31/EC TGAP (taxes) ETC/SCP (2012)

Building regulations

			Explain restrictions and/or exceptions	Source of information
Guidelines	*Are there any documents of guidelines for construction of biogas plants?*	YES/~~NO~~	Several guides exist concerning the construction of biogas plats. Three examples are: A detailed guide on how to build an AD plant that got support from The State agency for environment and energy (ADEME) was published by Coop and Cuma 2011 • *Réussir un projet de méthanisation territoriale et multipartenariale* [20] The regional energy and environment agency in Rhône-Alpes has 2010 published a document to guide when wanting to build an AD plant • *Guide des démarches*	

			administratives pour la réalisation d'une unité de méthanisation à la ferme[19] Regulations and legislation concerning production of biogas and handling of organic by-products was compiled 2015 in this document from ADEME • *Le cadre réglementaire et juridique des activités agricoles de méthanisation et de compostage* [13]	
	***If yes**, Are they widely used?*	YES/NO	*Not found during research.*	
	Are there any documents of guidelines for the construction of systems for the produced gas? (Security, upgrading, gas pipelines etc.)	~~YES~~/NO	*Not found during research.*	
Permission process	*Is the permission process for small and medium scale biogas plants easier/faster?*	YES/~~NO~~	Small biogas units belong to the group declaration, which means that these will have an easier administrative management. [1]	ICPE nomenclature 2910C
	Describe the process:	• Before applying a feasibility study has to be made. • Then declaration, registration or application to operate takes about 10 to 15 months to get. - The nature of the waste and the amounts treated per day will determine whether the plant will submit a Declaration, Registration or Authorization. Depending on which group the plant belongs to, you have different regulatory framework. [1] • The process of getting a building permit takes about 3 to 6 months. • Steps concerning connection to the grid must be taken. • At the end of the planning process, incoming and outgoing flows such as raw material, sale of compost, biogas and heat must be		ICPE nomenclature 2910C

		taken care of. Finally the plant can be built. [13]	

Handling of products

			Explain restrictions and/or exceptions	Source of information
Digestate	*Are there any regulations for the spreading of digestate from biomethane production?*	YES/~~NO~~	The spreading of digestrate has to follow some rules described by the Nitrates Directive (period restriction, storage capacity etc.) as a farm effluent. ([1] Direct spreading of the digestate is possible, then the digestate remains considered <u>waste,</u> by law. The spreading must be conducted in accordance with an existing spreading plan, which considers the characteristics of the product to be spread, the receiving soil and the quantity of digestate. No parameters are to exceed the limits in the spreading plan. [12] If the digestate instead undergoes a maturation phase by composting, it may, depending on its composition (agronomic and safety criteria), meet the requirements written in the standard NF U 44-051 (or NF U 44-095 for sewage sludge) and be considered as a bio compost. The digestate then becomes a <u>product</u>, by law, and can in the same way as any other product be put on the market. [12]	The Nitrates Directive NFU 44-051 NFU 44-095

	Are there any regulations for transporting of digestate from biomethane production?	YES/~~NO~~	Regulation (EC) No 1069/2009 of 21 October 2009 on animal by-products, supplemented by Regulation (EU) 142/2011 lays down animal and public health rules for the collection and transport of animal byproducts and products derived thereof. [13] It is for instance stated that the substrate is to be kept in sealed packaging or in watertight and covered containers. Vehicles and containers are to be cleaned and disinfected between the various uses to prevent cross contamination. [13]	Regulation (EC) 1069/2009 Regulation (EU) 142/2011
	Is there a system for certification of digestate from biomethane production?	YES/~~NO~~	There is no certification system for digestrates, but to be able to sell digestrate as a product on the market, the substance must follow a standard. This standard regulates e.g. the name of the product and the analytic criterias of the product. [13] For organic amendments and fertilizers the standard NFU 44-051 apply, for sewage sludge it is NFU 44-095. The names and specifications for crop support with and without fertilizers are written in NFU 44-551, i.e. the NFU 44-551 explaines inter alia what is considered a fertilizer.	NFU 44-051 NFU 44-095 NFU 44-551
Electricity	*Do you need permission to sell the electricity on the grid?*	YES/~~NO~~	For a renewable electricity producer it is allowed to connect to the grid when a connection agreement with the grid operator has been concluded. The grid operator is obliged to import all renewable electricity produced. [10]	Art. L111-91 Code of energy
Heat	*Are there regulations for selling heat?*	YES/~~NO~~	The public distribution of heat is a competence of the local or regional authorities. [10]	Code of energy

			The sale of heat to a private third party is not governed by any legislation. When selling heat to a public authority the Public Procurement Code applies. [13]	Public Procurement Code
Biomethane	*Is there a standard for using biomethane in vehicles?*	YES/~~NO~~	France has two levels of requirements for upgraded biogas, which can be used in vehicles. The restrictions differ on higher Wobble index for the injection of low and high quality gas. [14]	
	Is there a standard for injecting biomethane into the grid?	YES/~~NO~~	Every biogas producer can contract with any gas supplier to sell its biomethane production for 15 years. [8] Biomethane is allowed to be fed into the gas grid if it meets the requirements of AFG specification B562-1 for the distribution grid and B562-2 for the transportation grid respectively. When injected, biomethane has priority access to the grid. [8] The grid operator sets the final conditions for injection of biomethane, in particular a minimum proportion of undesirable components to limit corrosion, physico-chemical characteristics which have to be similar to those of natural gas (at least 97% of methane) guarantee of stability of the production, both in quality and in quantity (in particular regarding the calorific value of biomethane, a safety certification regarding health hazards (bacterial proliferation for example), and odorisation of biomethane. [3]	Order of September 16th 1977 Order of March 28th 1980 Order of January 28th 1981

			It is not allowed to inject biogas into isolated networks of propane air. [9]	
	Is there a permission process for selling standardized biomethane?	YES/~~NO~~	Biomethane production units must be registered at ADEME. Within three months of the registration the biomethane produces must have signed a purchase contract covering the produced gas, if not, the registration lapses. [13]	Order of 21 November 2011

Environmental goals

			Explain restrictions and/or exceptions	**Source of information**
Climate	*What are the overall goals for reducing greenhouse gas emissions?*	The national goal, as written in the Energy Transition and Green Growth Act, is to reduce the greenhouse gas emissions with at least 40% by 2030 compared to 1990. [6] Another goal is to have renewable energies account for 32% of final energy consumption and 40% of electricity generation by 2030. [6]		Energy Transition and Green Growth Act
	Are there goals for reducing the use of fossil fuels in the transport sector?	The goal is to reduce the primary energy consumption of fossil fuels by 30% in 2030 compared to 2012. [7] A consumption target for biomethane used as fuel in transport of 0.7 TWh by 2018 and 2 TWh by 2023 was set in the act of energy transition 2015. [10]		Energy Transition and Green Growth Act
Eutrophication	*Are there goals for reducing eutrophication due to leakage of nutrients from digestate spreading?*	YES/~~NO~~	The European union has made a policy to combat water pollution by nitrates from the agriculture. [13]	The Nitrates Directive
	If yes, how does this reflect in the legislation on spreading of digestate?	The nitrogen directive regulates the use of nitrogenous substances, especially in so-called “vulnerable areas”. The amount of nitrogen in the effluent must not exceed 170 kg/ha/year. Other		The Nitrates Directive Order of 19 December

		regulations concerning spreading are stated in the Order of December 19th, 2011. [13]	2011

Other:

According to the draft Multiannual programming on Energy (*Programmation pluriannuelle de l'Energie – PPE*), Injected Biomethane should represent 1,7 TWh by December 2018, and 6 TWh by December 2023. [3]

Economic framework

			Explain restrictions and/or exceptions	Source of information
Investment	*Are there subsidies that cover a part of the investment costs?*	YES/~~NO~~	To get the support your pay-back time have to be shorter than 15 years without subsidies. Average level of public subsidy is 35 %. The levels also depend on which region the AD unit is placed. [1]	
	***If yes**, how big is it and where do you apply for it?*	Biomethane projects benefit from national subsidies and/or local subsidies, which may come from: - The State agency for environment and energy (called ADEME) or its regional antenna - The region - The FEADER or FEDER - The department (less often) - Water agencies (less often) - Public or semi-public funds, such as the Public Bank of Investment at national level, or regional funds (less often). [3] Subsidies from ADEME mustn't exceed 30% of the investment. Total subsidy amount mustn't exceed, according to EU rules, 45% of the investment for big companies, 55% of the investment for medium sized companies, and 65% of the investment for small companies. [3]		
	***If yes**, is the support larger for small and medium scale plants?*	YES/~~NO~~	Average small scale units get 40 % of the investment covered by subsidies, while the	

			largest plants only get 31 %. [1]	
	Are there other ways of financing the investment, special loans for this application?	YES/~~NO~~	In some regions financial arrangements exists for financing an AD unit. These are loans where the banks ask for a minimal guarantee. [1] You can apply for finances from private investors that exist in some regions. [1] There are also tax incentives for on-farm installations. These installations benefit since January 1st 2016 from a total exemption from Property tax on buildings (Taxe Foncière sur les Propriétés Bâties – TFPB), and Company real-estate contribution ("Cotisation Foncière des Entreprises" - CFE). [3]	
Electricity	*Is there a feed-in tariff system for electricity produced of biomethane?*	YES/~~NO~~	Distribution grid operators are obligated to conclude agreements on the purchase of and payment for electricity, at a price fixed by law, with plant operators that generate electricity from renewable energy sources. [10]	Art. 10 Law n°2000-108
	***If yes**, how is the price determined?*	The tariffs are guaranteed minimum payments, which may be increased by a premium. The tariff rate depends on the costs of investment and operation, which arise for the plant operators but are to be borne by the suppliers. In addition, plant operators may receive a premium, which depends on the amount of electricity exported and is intended to reflect the degree to which this electricity helped achieve the national energy targets. [10]		Art. 5 and 10 Law n°2000-108
	Is there any other support for producing electricity from biomethane?	YES/~~NO~~	The ministry responsible for energy invites tenders at irregular intervals to reach the	Art. 8 Law n°2000-108

			target production of electricity from renewable sources. The winner is awarded a promotional tariff. [10]	
Heat	*Is there a feed-in tariff system for heat produced of biomethane?*	~~YES/~~NO		
	***If yes**, how is the price determined?*			
	Is there any other support for producing heat from biomethane?	YES/~~NO~~	In some regions you can apply for a subsidy to finance a heating network where you can get up to 55 % of the eligible cost. [1]	
Biomethane	*Is there a feed-in- tariff system for injecting biomethane into the grid?*	YES/~~NO~~	The feed-in tariff applies to injected biomethane, regardless of the type of recovery: household gas or biofuel. [3]	Order of November 23rd 2011
	***If yes**, how is the price determined?*	A bonus payment is granted for the use of certain types of feedstock: agricultural matter and residues (including energy crops and manure), waste from local authorities and households, sludge from wastewater treatment plants. [3] Tariffs go from 6.5 to 12.5 euro cents / kilowatt hour. It increases with the use of agricultural input and agro-food waste, with the use of household waste, catering waste and public waste, and it decreases with the power. [3]		
	Is there any support for producing/selling/buying biomethane as a vehicle fuel?	YES/~~NO~~	Biomethane injected into the grid and used as vehicle fuel is eligible for feed-in tariff and subsidies. [3] The direct use of biomethane without injection to the grid (usually used as vehicle fuel), is barely developed, as there are no feed-in tariffs yet, nor guarantees of origin. [3]	Art.3 24 April 2016
	Are there taxes on fossil fuels?	YES/~~NO~~	Energetic products are subjected to a tax on polluting activities called TGAP (Taxe	Art. 265, Code of customs

			Générale sur les Activités Polluantes). The amount of the TGAP on fuels is defined until 2017. It amounts to between € 3.99 and € 67.39 in 2016 and € 6.50 and € 68.34 in 2017 according to the fuel type (Art. 265, Code des Douanes). Providers of petrol or diesel fuels are subjected to an increased rate of TGAP if they release fuel products for consumption with a lower proportion of biofuels than stipulated by law (Art. 266 quindecies, Code des Douanes). [10]	Art. 266 fifteen, Code of customs
	Are there demands or support for making biomethane available at filling stations?	YES/~~NO~~	There are several filling stations offering vehicle gas in France. The gas is mostly delivered from the gas grid, containing natural gas, but also a small proportion biomethane. [8]	
	Are there any other support systems for biomethane as a vehicle fuel, or biofuels in general?	YES/~~NO~~	There are no specific tax incentives for the injection into the grid but there are several tax incentives for the use of biomethane as a biofuel: an exemption on the cost of registration certificates for vehicles, an amortization of the purchase of a bioNGV vehicle (up to 18,300€ / year), and an extra depreciation on the purchase of bioNGV truck for a period of two years, from January 1st 2016 to December 31st 2017. [3]	
SME's	*Is there support for small and medium enterprises?*	YES/~~NO~~	There are over 250 different grants and subsidies (often referred to as 'incentives', although strictly these are financial) available to individuals for starting up a personal enterprise or small business in France, particularly in rural areas. These include EU	

			subsidies, central government grants, regional development grants, redeployment grants, and grants from departments and local communities. [18]	

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