



## Legislative framework

<b>Country:</b>	Spain
<b>Date start:</b>	February 2017
<b>Date finished:</b>	March 2017

## Substrate regulations

			Explain restrictions and/or exceptions	Source of information
<b>Animal byproducts (ABP)</b>	<i>Does the country apply ABP-legislation?</i>	YES/NO	They follow the European legislation with some normatives at national level (Real Decreto 894/2013)	(EU) 142/2011 (EF) 1069/2009 Real Decreto 894/2013
<b>Waste water treatment plants</b>	<i>Is this material allowed in biogas production?</i>	YES/NO		
	<i>If yes, are there any restrictions to spreading the digestate from that production?</i>	YES/NO	The EU (86/278) is applied but the maximum values of heavy metals in the sludge vary according to soil pH (under or over 7)	EU (86/278) Real Decreto 1310/1990,
<b>Agricultural materials (not included in ABP)</b>	<i>Are there any restrictions for this material?</i>	YES/NO	Information not found	
<b>Bio-waste / organic waste material (not included in ABP)</b>	<i>Are there any restrictions for this material?</i>	YES/NO	Biogas plants need a permit to treat residues	Ley 22/2011
<b>Monitoring</b>	<i>Who takes care of the monitoring of these regulations?</i>		Inspection bodies at regional level (Comunidad Autonoma) and Nature Protection Service (SEPRONA)	



## Alternative handling

				Explain restrictions and/or exceptions			Source of information
What alternative handling processes are allowed?	X	Composting	X	Combustion	X	Landfilling	
	Another?			Manure can be used as a fertiliser			
Regulations	Are there regulations to reduce the incentive of alternative handling? (ex. no organics allowed in landfills)			YES/NO	The amounts of municipal organic waste disposed in the landfill are supposed to be only 35% of those disposed in 1995		Royal Decree 1481/2001

## Building regulations

			Explain restrictions and/or exceptions	Source of information
Guidelines	Are there any documents of guidelines for construction of biogas plants?	YES/NO	For the construction of a plant applies the individual standards for each component (gas lines, emissions, waste treatment, etc.)	Biovec. Personal communication
	If yes, Are they widely used?	YES/NO		
	Are there any documents of guidelines for the construction of systems for the produced gas? (Security, upgrading, gas pipelines etc.)	YES/NO	For the construction of a plant applies the individual standards for each component (gas lines, emissions, waste treatment, etc.)	Biovec. Personal communication
Permission process	Is the permission process for small and medium scale biogas plants easier/faster?	YES/NO		



	<p><i>Describe the process:</i></p>	<p>There is no clear directive, in case of treating only pig manure the city council could give an authorization, but in general as they do not want to be responsible for the authorization, they send it to the regional authority. Every regional authority has its own procedure. In general if less than 10 tons waste per day are treated only an environmental license is needed, if it is more an Integrated Environmental Authorization is required. It takes 2 years to obtain the permits</p>	<p>Biovec. Personal communication</p>
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### Handling of products

			<b>Explain restrictions and/or exceptions</b>	<b>Source of information</b>
<b>Digestate</b>	<p><i>Are there any regulations for the spreading of digestate from biomethane production?</i></p>	<p>YES/<del>NO</del></p>	<p>The use of digestates is regulated according to the maximum amount of N applied /ha and year (170 kg in vulnerable areas) and limits for heavy metals (according to pH).</p>	<p>Law 22/2011 Royal Decree 261/1996</p>
	<p><i>Are there any regulations for transporting of digestate from biomethane production?</i></p>	<p>YES/NO</p>		
	<p><i>Is there a system for certification of digestate from biomethane production?</i></p>	<p>YES/NO</p>	<p>The use of digestate in Spain is not widespread for several reasons, firstly because anaerobic digestion is not a generalized treatment of residues, and secondly because the quality of the digestate from sludge or from not well separated organic residues is low</p>	<p>[1]</p>
<b>Electricity</b>	<p><i>Do you need permission to sell the electricity on the grid?</i></p>	<p>YES/<del>NO</del></p>		



<b>Heat</b>	<i>Are there regulations for selling heat?</i>	YES/NO		
<b>Biomethane</b>	<i>Is there a standard for using biomethane in vehicles?</i>	YES/NO	There is no special regulation that indicates the characteristics required to the automotive natural gas	
	<i>Is there a standard for injecting biomethane into the grid?</i>	YES/NO	The gas quality required is the same for all non conventional sources [2]	BOE-A-2011-15496
	<i>Is there a permission process for selling standardized biomethane?</i>	YES/NO	In the case of the injection of biogas to the natural gas network, there projects have a demonstrative character or are the result of a bilateral agreement between the gas company and the producer of biogas to develop the project. There is a protocol for a normative for injecting to the grid gas from non conventional sources but it is not clear if has been approved [2]	

### Environmental goals

		<b>Explain restrictions and/or exceptions</b>	<b>Source of information</b>
<b>Climate</b>	<i>What are the overall goals for reducing greenhouse gas emissions?</i>	They are in line with the European Union goals	
	<i>Are there goals for reducing the use of fossil fuels in the transport sector?</i>	A global mandatory annual minimum for biofuel sales or consumption is set to 4.3 % 2016, and 5, 6, 7 and 8.5% for 2017, 2018, 2019 and 2020 respectively, all of which are energy-related. Also by 2020 the percentage of biofuels produced from cereals and other crops rich in starch, sugars, oilseeds and other crops planted on agricultural land as the main crops primarily for energy purposes may not exceed 7 %.	Royal decree 1085/2015
<b>Eutrophication</b>	<i>Are there goals for reducing eutrophication due to</i>	YES/NO	It is not specific for leakage of nutrients from digestate. The Royal Decree 261/1996 is



	<i>leakage of nutrients from digestate spreading?</i>		related to the protection of waters against pollution caused by nitrates from agricultural sources	
	<i>If yes, how does this reflect in the legislation on spreading of digestate?</i>			

## Economic framework

			Explain restrictions and/or exceptions	Source of information
<b>Investment</b>	<i>Are there subsidies that cover a part of the investment costs?</i>	YES/NO		
	<i>If yes, how big is it and where do you apply for it?</i>		There was a plan for digestion of pig manure which covers 40% of the costs. At regional level. Today the only support available is through Proyecto CLIMA, but it covers a very small oart of the costs.	[3][4]
	<i>If yes, is the support larger for small and medium scale plants?</i>	YES/NO		[3]
	<i>Are there other ways of financing the investment, special loans for this application?</i>	YES/NO		
<b>Electricity</b>	<i>Is there a feed-in tariff system for electricity produced of biomethane?</i>	YES/NO		[4][1]
	<i>If yes, how is the price determined?</i>			
	<i>Is there any other support for producing electricity from biomethane?</i>	YES/NO		
<b>Heat</b>	<i>Is there a feed-in tariff system for heat produced of biomethane?</i>	YES/NO		
	<i>If yes, how is the price determined?</i>			



	<i>Is there any other support for producing heat from biomethane?</i>	YES/NO		
<b>Biomethane</b>	<i>Is there a feed-in- tariff system for injecting biomethane into the grid?</i>	YES/NO		
	<i>If yes, how is the price determined?</i>			
	<i>Is there any support for producing/selling/buying biomethane as a vehicle fuel?</i>	YES/NO		
	<i>Are there taxes on fossil fuels?</i>	YES/NO	The taxes are lower than in most of the other countries in the EU. At the time this information is collected the EU has criticized Spain tax system for fossil fuels [5].	
	<i>Are there demands or support for making biomethane available at filling stations?</i>	YES/NO		
	<i>Are there any other support systems for biomethane as a vehicle fuel, or biofuels in general?</i>	YES/NO	On the contrary, in 2013 biodiesel is not longer exempt from vehicle fuel taxes	
<b>SME's</b>	<i>Is there support for small and medium enterprises?</i>	YES/NO	Focus has been on the co-digestion of pig manure which is big problem today in Spain. Co-digestion plants are in average smaller than 500 kW.	

## General comments

*Biogas is not a priority in Spain. 70% of the biogas produced is coming from landfills.*

*The main use is for internal combustion engines for the production, mainly of electricity. The electrical performance of these engines is not high (around 35%) and the generated heat normally is only destined to the process of biogas generation, through the heating of the digesters.*

*It seems like rules are changing all the time and information gets obsolete quite fast.*

## References



[1] Plan de Energías Renovables (PER) 2011-2020. Acuerdo del Consejo de Ministros. 2011. Available at: [http://www.idae.es/uploads/documentos/documentos\\_11227\\_PER\\_2011-2020\\_def\\_93c624ab.pdf](http://www.idae.es/uploads/documentos/documentos_11227_PER_2011-2020_def_93c624ab.pdf)

[2] Resolución de 22 de septiembre de 2011, de la Dirección General de Política Energética y Minas, por la que se modifica el protocolo de detalle PD-01 «medición» de las normas de gestión técnica del sistema gasista. Available at: <https://www.boe.es/boe/dias/2011/10/03/pdfs/BOE-A-2011-15496.pdf>

[3] Situación y potencial de generación de biogás. Estudio Técnico PER 2011-2020  
([http://www.idae.es/uploads/documentos/documentos\\_11227\\_e16\\_biogas\\_db43a675.pdf](http://www.idae.es/uploads/documentos/documentos_11227_e16_biogas_db43a675.pdf))

[4] <http://www.mapama.gob.es/es/cambio-climatico/temas/proyectos-clima/que-es-un-proyecto-clima/default.aspx>

[5] Newspaper [http://elpais.com/elpais/2017/02/07/inenglish/1486458200\\_710646.html](http://elpais.com/elpais/2017/02/07/inenglish/1486458200_710646.html)

[6] El sector del biogás agroindustrial en España. 2010. Documento elaborado por miembros de la mesa de biogás. Available at: [http://www.mapama.gob.es/es/ganaderia/temas/requisitos-y-condicionantes-de-la-produccion-ganadera/DOCBIOGASVersion21-09-2010\\_tcm7-5925.pdf](http://www.mapama.gob.es/es/ganaderia/temas/requisitos-y-condicionantes-de-la-produccion-ganadera/DOCBIOGASVersion21-09-2010_tcm7-5925.pdf)