

Deliverable D5.6:**Report on technical round tables**

<i>Work Package:</i>	<i>WP5 – Overcoming regulatory and administrative barriers</i>
<i>Task/s:</i>	<i>WP5.2 - Overcome local administrative barriers for development of biogas</i>
<i>Responsible Partner:</i>	<i>CVB</i>

Document history

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Premise

Chimica Verde Bionet (CVB) in ISAAC project is involved in obtaining correct valorization of by-products in AD process as important issue for circular economy development.

Firstly we acted on regulatory level to clarify the interpretation of the ambiguities concerning the same definition of by-products, as referred in Italian Testo Unico Ambientale (TUA - General Environmental Law - article 184 bis).

For the correct solution of the problem, useful also for a proposal to the Ministry of the Environment, a Technical Committee (TC) was created with some of the main national experts on the subject.

1. Technical Committee

The members selected for the “By-products and Emissions into atmosphere” Technical Committee are: Sofia Mannelli and Simona Buonandi (CVB association); Matteo Monni (Itabia, Italian Biomass Association); Vito Pignatelli and Nicola Colonna (ENEA); Roberta Papili (Confagricoltura); Cosetta Viganò (Assorinnovabili); Giuliana D’Imporzano (Gruppo Ricicla – University of Milan); Massimo Centemero (Consorzio Italiano Compostatori); Christian Curlisi and Lorella Rossi (CIB, Consorzio Italiano Biogas); Massimo Monteleone (University of Foggia).

In the meeting of the TC of 2016 September 21st, two recent regulations of Italian Ministry of the Environment were analysed, checking points of strength and weakness:

- **By-products Regulation** (13 October 2016, n.264 “*Regolamento recante criteri indicativi per agevolare la dimostrazione della sussistenza dei requisiti per la qualifica dei residui di produzione come sottoprodotti e non come Waste*”) published in Gazzetta Ufficiale and entered into force in 2017 March 4th.
- **Emissions into atmosphere Regulation** (19 May 2016, n.118 “*Regolamento recante aggiornamento dei valori limite di emissione in atmosfera per le emissioni di carbonio organico TOTAL degli impianti alimentati a biogas, ai sensi dell’articolo 281, comma 5, del decreto legislativo n. 152 del 2006*”) published in Gazzetta Ufficiale and entered into force in 2016 July 15th.



2. By-products Regulation, 13 October 2016, n. 264

Premise

A regulatory definition of “by-product” was introduced firstly from Directive 2008/98/EC (Waste Framework Directive) art.5, and it was transposed in Italian legislation by the Regulation 3 March 2010 n. 205, which defines univocally the main conditions which must be met by a substance or object to be classified as a by-product. This regulation updates the art.184 bis, subparagraph 1 of the Decree 152/06 which declares: “is a by-product and not a waste according to the art. 183, subparagraph 1, letter a), every substance or object which meets all the following conditions:

- a) the substance or the object results from a production process as an integral part of it, the primary aim of which is not the production of that item;
- b) further use of the substance or object is certain, during the same or another production process from the producer himself or from third parts;
- c) the substance or the object can be used directly without any further processing other than the **normal industrial practice**;
- d) further use is lawful, i.e. the substance or object fulfils for its specific use all preeminent requirements concerning products and environmental and health protection and will not lead to overall adverse environmental or human health impacts”.

In conclusion by-products, to avoid becoming waste, have to meet all these four statements, also if some of them are not completely clear. For instance:

- a) It’s not clarified what is the criterion distinguishing a by-product from a primary product: Quantity or Economic value?
- b) ‘further use is certain’: on this point Italian regulation has deviated from the text of EC Directive, specifying that the object or the substance can be used in every production process and from everyone. This way the sphere of ‘by-products’ is remarkably amplified despite the one of waste;
- c) The concept of ‘normal industrial practice’ is perhaps the most controversial in by-product definition. Without a clear framework of this type of practices, there are many interpretations in conflict about the correct classification of a substance. According to many jurists ‘normal industrial practice’ can be defined as the complex of operations which characterizes – as well consolidated practice in an industrial branch - a process of production of a specific good. These operations cannot modify the identity and the merchandise and environmental properties that define the by-product since its production (therefore in a previous phase of life).

There is also the category of ‘Animal By-products’ (Reg. 1069/2009), which are defined as entire bodies or parts or animal products not aimed to human consumption.

Text analysis

At the end of June 2016, the Ministry of the Environment, after all national law approvals sent to Bruxelles the draft of DM “By-products”, in accordance with information procedure imposed by Directive 1535 (9 September 2015). After Bruxelles approval without changes on 2016, October 4th, the Decree came into effect on 2017, March 2nd.

The text of the Decree didn’t change from the first draft of April 2015, despite the attempts to ameliorate it. In the following text we expose the main doubts of our Committee about the Decree.

Art. 3 “Field of application”

Subparagraph 1, letter b): “the substances or objects listed in art. 185 of the General Environmental Act are excluded from field of application (*of waste*)”. Animal By-Products are listed in art 185, so they cannot be considered waste. But since they are listed also in the attachments of the Decree, there can be ambiguities about their nature. It is therefore necessary to clarify the link with that Regulation, avoiding duplication of rules by excluding from the scope of this decree animal by-products.

The committee considers also unclear the term “residual from consumption activities” used at subparagraph 1 letter c) and since it is used for the first time, it proposes a deeper confrontation.

Furthermore the Committee considers wrong to have attached to the text a positive list of by-products exclusively related to energy use (biogas and biomasses), excluding the opportunities for Green Chemistry industries.

Art 6 “Direct use without any further processing other than the normal industrial practice”

This article causes the main misgivings. They are related to the definition of “*normal industrial practice*” in case of by-products. This formulation was already unclear in the art. 184 bis of the General Environmental Law and the new regulation don’t clarify it. Such formulation could generate new problems not only to the energy sector, but also to the whole Green Chemistry sector. In detail, in subparagraph 1, if a producer uses a treatment to make “safer” (for human and environmental sake) a by-product, this one is not considered a waste; but if the same treatment is made from another user, this is not a normal industrial practice.

Since subparagraph 1 declares that treatments adopted to conform a by-product to environmental standards are not considered normal industrial practices, it creates new concern. If the decree aims to exclude the actions of removal of toxic or harmful substances this ought to be explicitly written, distinguishing these actions from other legal physical

treatments, as for instance pasteurization. In the case of whey, which has to be pasteurized by law before its use in a digester, it could be not utilized any more in anaerobic digestion, with a serious damage for dairy and biogas industry.

There are also doubts about the types of treatment: the physical treatments are admitted, but not the ‘extraction’, as it is not listed in the attachments, also if it is largely used in Green Chemistry sector.

Furthermore subparagraph 2 of art.6 doesn’t clarify if the “production cycle of a by-product” must be completed inside the site of production or can be completed also outside. It would be better to clarify that every treatment that can be done inside the production site can be also done elsewhere, especially if the production scale is small and cannot justify an investment in cleaning technologies. The treatment of the by-product could instead be done in special platforms of collection, processing and trade of by-products.

Probably the choice of confining the treatments strictly inside the production site means for the legislator to state without ambiguities that a substance or a material, once outside that site, becomes a waste.

It would be very important to assure to the farmers the possibility of temporary storage of a residual material until they can send it to a specific chain of treatment, because often it’s very difficult to classify it as a by-product from the moment of its production.

Attachment 2 “Residual Biomasses designated to Energy Production”

Section 1 of the attachment doesn’t cite dairy by-products between agro-industrial by-products. It would be better to reconsider art.8 of EC Regulation n.1069/2009 about dairy products. Furthermore, it ought be cited also the treatment of drizzling.

Section 2 since it refers only to “residual biomasses designated to Energy Production by Combustion” excludes important energy processes like gasification.

Amendment proposal

Our Committee wrote an amendment to submit to the Ministry of the Environment which could give a possible solution to the problems of definition contained in art.6:

“A correct definition of “Production Cycle” could be the following: the ensemble of the various phases of a process to obtain a specific economic asset. This process is a sequel of operations, automated or manual, with the aim of obtaining from raw materials semi-finished or end products and which generates also by-products and waste. These operations can be accomplished in a unique site or in different sites and in different firms.”

3. Emissions into atmosphere Regulation – 19 May 2016, n.118

Operators have some difficulties in dealing with the limits of emissions of cogeneration plants because of a system of rules different from area to area. We make the following comments:

- Biogas cogeneration plants with installed power less than 1 MWe respect the limit of 3 MWt, so they can be considered, according to European regulation, harmless;
- The emissions balance of a biogas plant anyway generally ameliorates, compared to the direct use or disposal of its raw materials. In fact, especially in a farm, the plant implies the closure of collection tanks and consequently the reduction of emissions from fermentable materials;
- Furthermore some regions like Lombardia (Regional Decree 6 august 2012 - n. IX/3934 “Rules for installation and management of energy plants in the region”) and Emilia Romagna (Regional Decree 1495/11), the Total Organic Carbon (TOC) emissions limit is not applied to those related to methane. We ask other regions to adequate their regulations in order to avoid competitive disadvantages;
- Finally we remember that Dlgs 152/2006 in the third section, “Emissions Values for specific types of plant”, paragraph 1.3, declares that the emission limit is complied if the fuel is Methane or LPG. So we don’t understand why this derogation cannot be applied to biogas plants, at least to those with installed power less than 1 MWe, as the entrepreneurs have asked for years.

In order to solve these problems, the Ministry of Environment enacted the Regulation 19 May 2016, n.118 about “the limits of TOC emissions from biogas plants” excluding the methane emissions from the sum, except in the cases indicated in art. 271, subpar. 3 and 5, of the Decree 152/2006. Furthermore the emissions limit is reduced from 150 mg/Nm³ to 100 mg/Nm³.

The plants installed before the date of the Decree must respect these limits by 31 December 2016.

The Committee believes that the Emission Regulation has solved the main problems of the sector and it has no amendments to propose.

A concern remains about the role of the Regions which maintain competence on the subject, according to Title V of Italian Constitution. The Regulation in fact provides that the regions give the authorization for the emissions in atmosphere and, in the case of plants for which authorization is not required, they can establish more severe limits than those declared in the Regulation text.

4. Nimby Case

We continue in this paragraph the analysis of Nimby case begun in D2.4 about Best Practices. From our study on sentences and recourses concerning anaerobic digestion, we conclude that most part of recourses was made from citizens committees worried about the lack of information on plants.

The term NIMBY, "Not In My Back Yard", was created to describe the reaction of local communities whenever it is planned to install new infrastructures or plants in a given territory; it also applies to the rejection of any change that should be brought into a consolidated social frame.

In Italy this phenomenon has been carefully monitored since 10 years by the Nimby Forum Permanent Media Observatory, a national project acknowledged throughout the territory which received the patronage of the Prime Minister, the Ministry of the Environment, the Ministry of Infrastructure and Transport and the Ministry of Economic Development.

Since 2004 this project has witnessed a constant growth in terms of episodes of opposition from the part of local communities against industrial installations and public utilities (power plants, infrastructures, waste disposal plants, etc.), as well as a widespread distribution of such opposition throughout the Country.

For the collection of information and the creation of a refusal database, the "Nimby Forum" has to watch on hundreds of news from national, regional and local newspapers, general and special-purpose magazines and major international press agencies web sites. Following pieces of information are given particular importance:

- > Chronicle on episodes of rebellion to works in progress or in the design phase;
- > Protests against the installation or enlargement of plants operating in production fields such as "**Power**", "**Infrastructures**", "**Waste Disposal**", etc.;
- > Procedural contrasts and situations of political conflict.

Initial data collection activities follow a search procedure intended to get deeper details about specific points listed below:

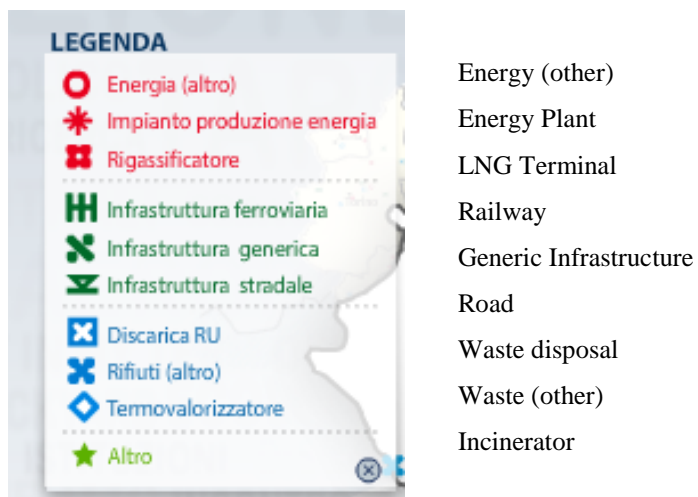
- > Demographics (identification of plant concerned: owner, location, scope);
- > Project (sizing, progress, difficulties encountered, mitigation initiatives);
- > Opponents (classification of social categories, motivations and forms of dispute)
- > Supporters (classification of social categories, motivations);
- > Motivational analysis (collection and analysis of reasons for refusal/acceptance of project concerned);
- > Communications (collection of communications in favor or against something),

The number of NIMBY cases shows a remarkable tendency to rise until 2014. 355 NIMBY cases were registered in 2014, that means a 5 % increase with regard to 2013, where 336 NIMBY cases were counted.

5. Regional Map of disputes



Figure 1 Map of Disputes. Source Nimby Forum



6. Survey on Court decisions

During its first meeting, Isaac Technical Committee decided to deepen the analysis of reasons of disputes about biogas plants with a survey on Court decisions. Firstly we analysed the main causes of the judicial disputes. The recourses can be divided in the following categories:

- Recourses against authorizations
- Disputes about law interpretation
- Environmental impacts
- Use of Digestate

It resulted that the main disputes concern the issue of authorizations. In this case generally the recourses are made before the plant construction and the reason is often tied to the fears about unknown technologies and to the lack of previous information about them.

Finally we studied possible relations between areas with the greatest NIMBY phenomenon and Court decisions about Biogas plants.

This survey, not forecasted at the beginning of the project, was very useful and we concluded that a law on public debate is no more postponable, not only for structures with great local impact but also for new technologies, little known from most part of citizens.

<i>Region</i>	<i>Number of Recourses</i>
<i>Campania</i>	TOTAL: 17. Of which: Energy: 5, Waste: 1
<i>Emilia Romagna</i>	TOTAL: 28. Of which: Energy: 19, Waste: 0
<i>Friuli-Venezia Giulia</i>	TOTAL: 14. . Of which: Energy: 6, Waste: 0
<i>Lazio</i>	TOTAL: 18. . Of which: Energy 8, Waste 3
<i>Lombardia</i>	TOTAL: 62 Of which: Energy 17, Waste 16
<i>Marche</i>	TOTAL: 18. . Of which: Energy 10, Waste 0
<i>Piemonte</i>	TOTAL: 18. . Of which: Energy 2, Waste 1
<i>Puglia</i>	TOTAL: 16. . Of which: Energy 5, Waste 0
<i>Toscana</i>	TOTAL: 38. . Of which: Energy 19, Waste 6
<i>Umbria</i>	TOTAL: 14. . Of which: Energy 10, Waste 1
<i>Veneto</i>	TOTAL: 47. . Of which: Energy 15, Waste 10

7. Conclusions

With the two last decrees previously discussed, the Ministry of the Environment tried to solve the problems deriving from rules badly formulated which have caused multiple discussions and interpretations. But the two decrees had different success. The regulation on by-products maintains substantially the ambiguities of previous acts, whereas the regulation on emissions into atmosphere basically has solved the problem, unless the Regions will ask more severe limits. For this reason the Technical round table proposes to modify only the regulation on by-products with the amendment proposal described in paragraph 2 of this document.