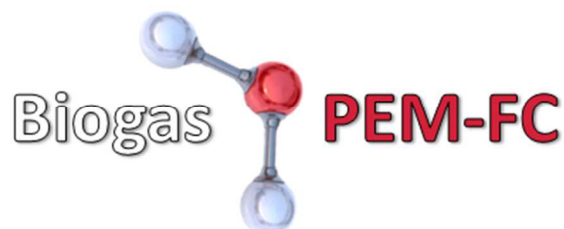


# Biogas2PEM-FC

## Biogas Reforming and Valorisation Through PEM Fuel Cells

FP7-SME-2012, Grant Agreement No. 314940



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## Deliverable D6.8

### Final Wikipedia page on the project and its results

#### Deliverable details

Deliverable version: v1.0

Date of delivery: 31/10/2014

Total pages: 6

Persons-month required: 1,18

Classification: PU

Lead beneficiary: Marches Biogas

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#### Project details

Start date: November 1st, 2012

Duration: 24 months

Project Coordinator: Powercell

Partners: Powercell, Helbio, LEITAT, IDENER, FAECA, KTH, Ingenostrum, Marches Biogas



## Abstract

A Wikipedia page summarising project concept, objectives and main work carried out has been published.

However, Biogas2PEM-FC article and consortiums account have been blocked by the Wikipedia administrators community. The consortium has tried to deal with them but the account is still blocked and no positive feedback has been received.

Old link: <https://en.wikipedia.org/wiki/Biogas2PEM-FC>

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## 1. Introduction

As part of the dissemination activities planned for this project, the publication of an article in Wikipedia website is envisaged.

Wikipedia is a free-access, free content Internet encyclopaedia, supported and hosted by the non-profit Wikimedia Foundation. Anyone who can access the site can edit almost any of its articles. Wikipedia is the sixth-most popular website and constitutes the Internet's largest and most popular general reference work. Hence, the consortium and the REA have decided to use this website as additional tool for dissemination purposes.

## 2. Wikipedia article

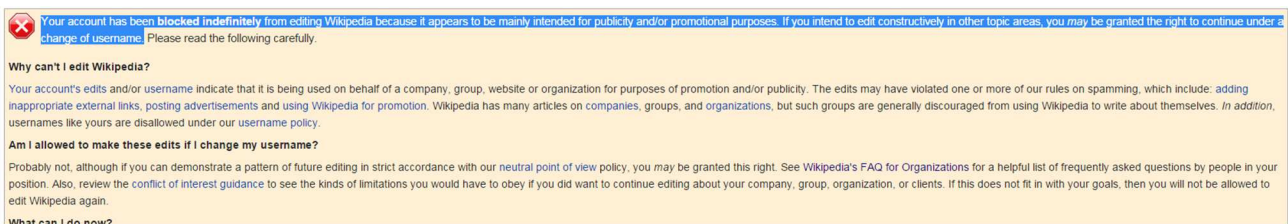
The article content that has been published is included in Annex I.

LINK: <https://en.wikipedia.org/wiki/Biogas2PEM-FC>

## 3. Publication issues

A new user has been created in Wikipedia website in order to publish the corresponding page. The name of the user is “Biogas2PEMFC consortium”.

After following the corresponding procedure for publishing the article, it went online for a few days. After that, the article and the account were blocked with the following message: “Your account has been blocked indefinitely from editing Wikipedia because it appears to be mainly intended for publicity and/or promotional purposes. If you intend to edit constructively in other topic areas, you may be granted the right to continue under a change of username.”



Since no copyright violation has taken place (the whole consortium was consulted about the article content and its publication followed the IPR guidelines addressed in the Consortium Agreement), the consortium replied the Wikipedia community informing them about the contractual obligation of the EC-GA about publishing a Wikipedia article and the dissemination purposes of it.

“We are the consortium of a European project and publishing a Wikipedia page is a request from the European Commission, an issue that has been addressed in the Grant Agreement we have signed with them. The article we produced and that has been blocked is only for dissemination purposes, not marketing or advertisement. Moreover, the picture included is a copyright from the consortium and all the partners have agreed on its content. Hence, no IPR or copyright problems are attached to the article. We would kindly ask you to enable the

article publication. If you could provide me an email address, I would be able to send you the agreement with the EU where this request is specified”.

This request has been declined by the Wikipedia administrators as last action regarding this issue.

“Decline reason:

Well that's unfortunate, since neither you nor the European Commission get to dictate what Wikipedia does and does not have articles about. There are so many violations here - a failure to understand how copyright works on Wikipedia, what constitutes encyclopaedic writing, what constitutes a suitable topic for Wikipedia, what Wikipedia considers spam, what constitutes original research, how sources should be used, what constitutes an appropriate source, how user accounts should be used (and named) and overall, a massive failure to understand what Wikipedia is and is not - that I see no merit whatsoever in unblocking this account. Aside from anything else, the fact that the users of this account clearly didn't even read the block message above gives me no confidence that unblocking would be in Wikipedia's interest”.

 **This blocked user's unblock request has been reviewed by an administrator, who declined the request.** Other administrators may also review this block, but should not override the decision without good reason (see the [blocking policy](#)). **Do not remove this unblock review while you are blocked.**

[Biogas2PEMFCconsortium](#) (block log • active blocks • global blocks • autoblocks • contribs • deleted contribs • abuse filter log • creation log • change block settings • unblock)

**Request reason:**

We are the consortium of a European project and publishing a Wikipedia page is a request from the European Commission, an issue that has been addressed in the Grant Agreement we have signed with them. The article we produced and that has been blocked is only for dissemination purposes, not marketing or advertisement. Moreover, the picture included is a copyright from the consortium and all the partners have agreed on its content. Hence, no IPR or copyright problems are attached to the article. We would kindly ask you to enable the article publication. If you could provide me an email address, I would be able to send you the agreement with the EU where this request is specified

**Decline reason:**

Well that's unfortunate, since neither you nor the European Commission get to dictate what Wikipedia does and does not have articles about. There are so many violations here - a failure to understand how copyright works on Wikipedia, what constitutes encyclopedic writing, what constitutes a suitable topic for Wikipedia, what Wikipedia considers spam, what constitutes original research, how sources should be used, what constitutes an appropriate source, how user accounts should be used (and named) and overall, a massive failure to understand what Wikipedia is and is not - that I see no merit whatsoever in unblocking this account. Aside from anything else, the fact that the users of this account clearly didn't even read the block message above gives me no confidence that unblocking would be in Wikipedia's interest. Yunshui <sup>?</sup>[?](#) 12:51, 16 October 2014 (UTC)

If you want to make any further unblock requests, please [read the guide to appealing blocks](#) first and then use the {{unblock}} template again. If you make too many unconvincing or disruptive unblock requests, you may be prevented from editing this page for as long as you are blocked.

## 4. Conclusions

A Wikipedia article about Biogas2PEM-FC project for dissemination issues have been published. Although uses for dissemination purposes and written with the approval of the whole consortium (following IPR guidelines from the Consortium Agreement), the Wikipedia administrators have decided to block both the user and the article of the project.

This consortium has tried to explain the main rationale behind the article but it seems that Wikipedia administrators do not consider Wikipedia as a tool for an EU project dissemination purposes.

## **ANNEX I: Biogas2PEM-FC Wikipedia page content**

### **Intro**

Biogas2PEM-FC is an industrial research project funded under the Capacities programme, specifically, as part of the “Research for the benefit of SMEs” call (Grant Agreement FP7-SME-2012/EC-GA 314940). Main aim is to develop the technologies that compose a novel and integrated solution for biogas valorisation through proton exchange membrane fuel cells (PEM). Such a solution will provide a modular, reliable, cost-effective and efficient combined heat & power (CHP) system suitable for a distributed, on-site power generation from agricultural wastes (specifically, from olive mill waste). This project involves four European SMEs (Powercell, Ingenostrum, Helbio and Marches Biogas), three qualified RTD performers (KTH, LEITAT, and IDENER) and one end-user (FAECA).

### **Project objectives**

Through project work programme, the following objectives are identified:

- Research for the increase of biogas production yield, using physic-chemical and biological pre-treatment technologies at laboratory scale for enhancing anaerobic digestion effectiveness. After optimization of pre-treatment technologies, different inoculates and co-substrates are investigated and used in laboratory experiments for maximization of biogas production: high methane and hydrogen content with minimum CO<sub>2</sub> and CO production ratio.
- Development and optimization of current biogas reforming technologies: new catalysts for an efficient conversion of biogas to hydrogen.
- Research for the integration of PEM technologies using hydrogen produced from biogas.
- Construction and field tests of a pilot plant located in a selected olive oil mill exploitation.
- Techno-economic and environmental evaluation of power generation using integrated Biogas2PEM-FC technology.
- Dissemination of Biogas2PEM-FC project results for the feasibility demonstration of low cost biogas reforming and power generation.

Moreover, the project objectives are not restricted to olive mill waste valorisation. Once they are achieved, project results could be extrapolated to the valorisation of other agricultural wastes just with little technological modifications, making the project potential impact and interest of European and international SMEs bigger.

### **Tackling SME research needs**

Biogas2PEM-FC project creates a framework where SMEs shows their needs for advanced research in order to obtain a novel, cost-effective, efficient and integrated system to jointly valorise SOMW and OMW:

- FAECA needs the development of an olive mill waste bioremediation and valorisation system
- INGENOSTRUM needs a cost-effective integrated modular system for energy and heat production from biowastes
- HELBIO needs to go deep into biogas reforming through the development of new catalysts, new reactor designs looking for the maximization of process efficiency for biogas conversion to hydrogen.
- POWERCELL needs the development of a novel and efficient PEM-FC able to accept hydrogen impurities at least in some degree in order to be fed by hydrogen from reforming technologies.
- MARCHES BIOGAS needs to further study anaerobic digestion optimisation when treating olive mill wastes

## **Progress beyond state-of-the-art**

The originality and innovation of the project can be summarized through the following contributions to technological progress:

- Increase of biogas generation rates using agrifood wastes as raw materials. Anaerobic digestion of this type of vegetable solid waste might be an attractive method for solid waste treatment, because the process enables excellent waste stabilization and energy recovery without any pre-treatment of the residue.
- Generation of new low cost biogas reforming technologies. Since both CH<sub>4</sub> and CO<sub>2</sub> are the main GHG, reforming of biogas not only reduces the amount of GHG emissions, but in fact it recycles and increases the usability of these GHG by producing hydrogen (H<sub>2</sub>). In addition, when endothermic reforming processes are promoted and heat recovery techniques are introduced (i.e. when the process is coupled with the engine and can utilise the heat of the exhaust gas), the increase in overall efficiency of the reforming process can be significant.
- Power generation from treated biogas by means of PEM fuel cell integrated in the system. High hydrogen concentration and reformato calorific value enable the operation of the fuel cell at a high-efficiency mode despite of the high carbon/hydrogen ratio of the bio-fuel. Due to the sharp growth in the energy consumption of the modern economy, accelerated depletion of world fossil fuel resources, growing environmental and energy security concerns, the issue of the development and commercialization of clean, renewable energy sources became crucial for the sustainable development of the modern economy and society.
- Demonstration of techno-economical and environmental feasibility of developed technologies for their implementation at small and medium agrifood companies (SMEs). This will proof the carried out optimization process, because costs would have been lowered.
- Testing of the technological competitiveness of biogas reforming and PEM technologies as renewable and integrated technological solution. By developing this process all the wastes return to the olive oil production cycle, making it more sustainable.
- Promotion of biogas reforming and PEM technologies for their industrial application in distributed power production.

## Impact

Biogas2PEM-FC system development overcomes current technological and economical barriers of on-site power generation using PEM fuel cell technologies and biogas as fuel obtained from olive oil extraction liquid wastes. Regarding the potential new markets of these outcomes, two phases olive mill waste (TPOMW) has become a critical environmental problem in the Mediterranean areas where the 2-phase extraction process of olives is used. Millions of tons of TPOMW are produced every year, most of them in Southern Mediterranean regions, as Spain, which is the world leader in the production of olives (1,200,000 Tn) and produces more than 4 million tons of TPOMW.

In addition, in other countries where other extraction techniques dominate the market (such as the three-phase techniques) the average amount of olive mill wastewater (OMW) produced during the milling process using the three stages process is 1.2-1.8 m<sup>3</sup>/t. In the olive-growing countries of the Mediterranean area approximately 30 million m<sup>3</sup> OMW effluents are produced as by-products per year, of which about 370,000 m<sup>3</sup> are produced in the Middle Eastern region. In these countries, OMW is a potential and active source of environmental pollution due to its high content of polyphenols, tannins, and lipids, which exhibit phytotoxic and antimicrobial activities, as well as a high potential to contaminate surface and ground water. In these countries Biogas2PEM-FC technology also represents a challenging opportunity to introduce new waste valorisation processes.

Not only limited to olive mill waste energy valorisation, Biogas2PEM-FC technology can also be extrapolated to other digestible agricultural wastes in the EU in order to expand the related existing markets.

## SIDEBAR

Project acronym: Biogas2PEM-FC

Project full title: "Biogas Reforming and Valorisation through PEM Fuel Cells"

Grant agreement no: 314940

Keywords: biogas, anaerobic digestion, reforming technology, PEM-FC, fuel cell, hydrogen, olive mill waste, waste valorisation

Funding Agency: European Union

Project Type: Research for the benefit of SMEs

Reference: FP7-SME-2012/EC-GA 314940

Participants:

Powercell Sweden AB (Sweden) – Project coordinator

Elvio anonymi etaireia systimatou paragogis ydrogonou kai energieias - HELBIO (Greece)

Acondicionamiento tarrasense asociacion - LEITAT (Spain)

Optimizaci3n orientada a la sostenibilidad S.L. - IDENER (Spain)



Federación andaluza de empresas cooperativas agrarias - FAECA (Spain)

Kungliga tekniska hoegskolan - KTH (Sweden)

Ingenostrum SL (Spain)

Marches biogas limited (United Kingdom)

Duration: from November 2012 to October 2014

Budget: 1,495,040.20 €; EU funding: 1,135,999.75 €

Website: [www.biogas2pemfc.eu](http://www.biogas2pemfc.eu)