FIRST IMPLEMENTATION OF A NEW WASTE RECOVERY TECHNOLOGY CONVERTING THE MSW FROM A REPRESENTATIVE URBAN REGION INTO SYNTHETIC DIESEL FUEL

Demonstration KDV TECH

LIFE09 ENV/ES/000484
PROJECT'S CHARACTERISTICS

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<td>Coordinator</td>
<td>GRIÑÓ ECOLOGIC, S.A.</td>
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<td>Duration</td>
<td>39 months. (01/09/2010 – 31/12/2013)</td>
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<td>Budget</td>
<td>4,871,800 €</td>
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<td>Financing LIFE+ programme – European Commission</td>
<td>2,338,400 €</td>
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BENEFICIARY

STAKEHOLDERS

Agència de Residus de Catalunya
APLICAT
Universitat Rovira i Virgili
Ajuntament de Torredembarra
Ajuntament de Constantí
Mare Terra
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The DIESEL R project (Demonstration KDV Tech) was conceived with the aim of presenting to administrations, private companies, academic world and civil society in general an environmental efficient solution in waste management.

It has been developed a first DIESEL R plant with a production capacity reaching 1,800 liters/hour of synthetic fuel.

The demonstration plant was built in the Center of Waste Treatment of Constantí (Tarragona, Spain). This plant treats municipal waste from the regions of Baix Penedès, Tarragonès, Alt Camp and Barcelonès.

There have been realized communications and outreach activities to propagate the technological results achieved in different mediums like academic, business, public and society in general.
“FIRST IMPLEMENTATION OF A NEW WASTE RECOVERY TECHNOLOGY CONVERTING THE MSW FROM A REPRESENTATIVE URBAN REGION INTO SYNTHETIC DIESEL FUEL” has contemplated applying the first demonstration of catalytic depolymerization technology for the treatment of non-recyclable fractions (Diesel R technology).

More specifically, the project proposes the development of a demonstration plant based on Diesel R technology for the treatment of residual fraction generated by a representative urban area, equivalent to a core of 180,000 inhab.

The innovative technology developed by GRIÑÓ ECOLOGIC, S.A. it is capable of converting the waste fraction contained in the rejection of a mechanical MSW selection process, into a synthetic diesel fuel. Diesel R allows the production of a fuel with high added value, which gives a great economic viability and a high environmental value.
The project provides an innovative technology solution that facilitates compliance with the guidelines established by the European waste legislation. Diesel R provides significant advantages over other alternatives:

- Environmental efficiency.
- Economic profitability of the process.
- No public rejection.

The pilot plant has developed in Constantí. Today, the production capacity goes up to 1,800 l/h of fuel from enriched CSR (which is obtained from non-recyclable fractions of MSW).

The facility is able to absorb 30,000 tons of CSR generated by mechanical treatment plant (an amount of waste generated by an equivalent urban area of 180,000 inhabitants).

Current production capacity of the facility (70% hours available) allow higher than 11,000 m³ of annual fuel production. The use of this fuel as a substitute for fossil fuels represents an annual saving of 30,800 tons of carbon dioxide.
A TECHNOLOGY WITH A HUGE REPLICATION POTENTIAL

The Diesel R technology has a high potential of replication due to its environmental, energy and social benefits that presents.

The project has reduced the existing technological gap to a fully commercial application in the treatment of urban waste fractions. The technological principle of Diesel R allows its application in any industrial application that generates non-recyclable organic waste.
A MAJOR PROJECT IN THE EUROPEAN ENVIRONMENTAL FRAMEWORK

DISSEMINATION PLAN

COMMUNICATION ACTIVITIES

The dissemination and promotion of Diesel R technology has been one of the main objectives of the project during the implementation. In this sense, the project was planned to present and publicize the new technology developed by GRIÑO ECOLOGIC, S.A. to institutions, business sector, academia and society in general. There has been implemented an ambitious information campaign in order to show the environmental and technologic advantages of Diesel R technology in order to promote its replication. The dissemination plan has been laid out:

- Developing a media plan and a corporate identity project
  It has developed a corporate identity project aiming to increase the visually between citizens and stakeholders and create a brand that the market appreciates. It also has set a planned appearance on media strategy.

- Website
  It is been developed a dedicated website for the project with multilingual translations (Catalan, Spanish and English). The website has been an essential tool for the promotion of technology and for the dissemination of the project. The website has allowed stakeholders worldwide contact easily.

- Development of audiovisual materials
  Demonstration videos have been developed and showed during other project dissemination activities.

- Informative panels about the demonstration plant
  Several informative panels have been installed in the demonstration facilities. This action has allowed the visibility of the project and the Life program among the local population.

- Layman report
  It has been compiled and edited the Layman project report in 2 languages (Spanish and English). This report has allowed explain clearly, and to the general public, the extent and form of the project and its environmental relevance. The document has been distributed among visitors to the plant.
Appearance in print media

The project has been featured in local, national and trade publications, as well as in international and digital press.

Relationships with administrations

- During the implementation of the project GRIÑÓ has maintained contact with authorities by organizing technical seminars and demonstration activities with technical departments responsible of waste management. Some administrations that have participated in these visits are:
  - Lleida Deputation.
  - Tarragona Deputation.
  - Barcelona Fair.
  - Barcelona city council.
  - Tarragona city council.
  - Vila-Sele city council.
  - Constantí city council.
- This is an activity that will continue after the project ending as aims to disseminate the technology among agencies responsible for waste management in the area, as well as promote its replication.

Relationship with citizens

Includes actions to promote and disseminate among the community, such as the preparation of leaflets, promotional calendars or contact with civic actors (NGOs, schools).

Conferences and seminars

Contact with several companies interested in the application of technology. As a result of these contacts, GRIÑÓ has organized several demonstration visits and workshops into the plant.

Demonstrative visits

During the execution of the project have been made more than 50 demonstration pilot plant visits. In total over 300 people have visited the pilot plant. Technicians from interested companies, administration staff and schools have been the main visitors during the whole period.
FUTURE ACTIVITIES

Dissemination and promotion of Diesel R technology will remain a key objective for the company. This will continue through outreach in order to show the environmental and technological advantages of Diesel R technology and promoting its potential replication. The main actions planned to be taken are:

- **Website maintenance.**
  
  *The website will continue being updated with new information and latest project results.*

- **Appearance in print media.**
  
  *It is planned to continue appearing in local, national and trade publications, as well as in international and digital media.*

- **Relationship with administrations.**
  
  *It is planned to pursue making new contacts with authorities and organizing technical seminars and demonstration visits with technical departments responsible of waste management.*

- **Relationship with citizens.**
  
  *It is planned to promote and disseminate the project among the citizenry through the communication material developed. All generated publicity materials (leaflets, brochures, layman report) will be delivered to the visitors.*

- **Conferences and seminars.**
  
  *It is expected to intensify contacts with several companies interested in the application of Diesel R. From these contacts it is foreseen to organize several technical sessions and demonstration activities into the plant. These visits will be adapted to the needs of each participant.*

- **Demonstration activities.**
  
  - *Are expected to maintain plant visits for the promotion of technology. Target visitors will be technical and business leaders interested in technology, administration staff, and schools located near the area.*
  
  - *It is expected to have an exhibition room that combines environmental awareness issues with engineering aspects.*