



La Ribera in biodiesel Agència Energètica de la Ribera (AER), Spain

Summary

The Agència Energètica de la Ribera (AER) is an autonomous organisation of the Consorci Mediambiental de la Ribera, which is formed by the county councils of the Ribera Alta and Ribera Baixa. It is a SAVE Agency that is working from July 2001. The funds of the Agency correspond to the SAVE program of the Energy and Transport DG of the European Commission and the county councils of the la Ribera Alta and Ribera Baixa. Thus, the work scope of the Agency includes to 47 villages with a population of 270.000 inhabitants of the Valencian counties Ribera Alta and Ribera Baixa. One of the main aims of the AER is to promote renewable energies in our region, reducing our petrol dependency. In this frame the AER created "La Ribera in biodiesel" a project that consists of recycling domestic waste vegetable oil into biodiesel.

End-user area

- New buildings
- Refurbishment of buildings
- Transport and mobility
- Financial instruments
- Industry
- Legal initiatives (regulations, directives, etc)
- Planning issues
- Sustainable communities
- User behaviour
- Education
- Other

Target Audience

- Citizens
- Households
- Property owners
- Schools and universities
- Decision makers
- Local and regional authorities
- Transport companies
- Utilities
- ESCOs
- Architects and engineers
- Financial institutions
- Other

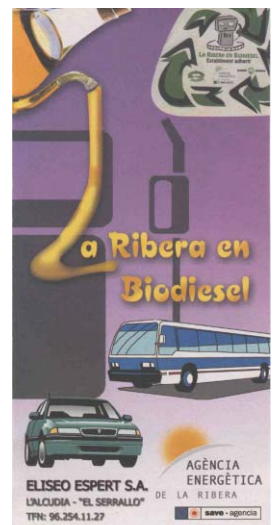
Technical

- Energy efficiency
- Heating
- Cooling
- Appliances
- Lighting
- CHP
- District Heating
- Solar energy
- Biomass
- Wind
- Geothermal
- Hydro power
- Other

Context



The goals of the AER are the introduction of an energy saving culture, the advantage of the endogenous energy sources and to contribute, through the renewable energies, to the sustainable development of our region. Following these directives of renewable energies the AER organized "La Ribera in biodiesel". The goal of this project is recycling waste vegetal oil into biodiesel in order to achieve a sustainable development of the county.



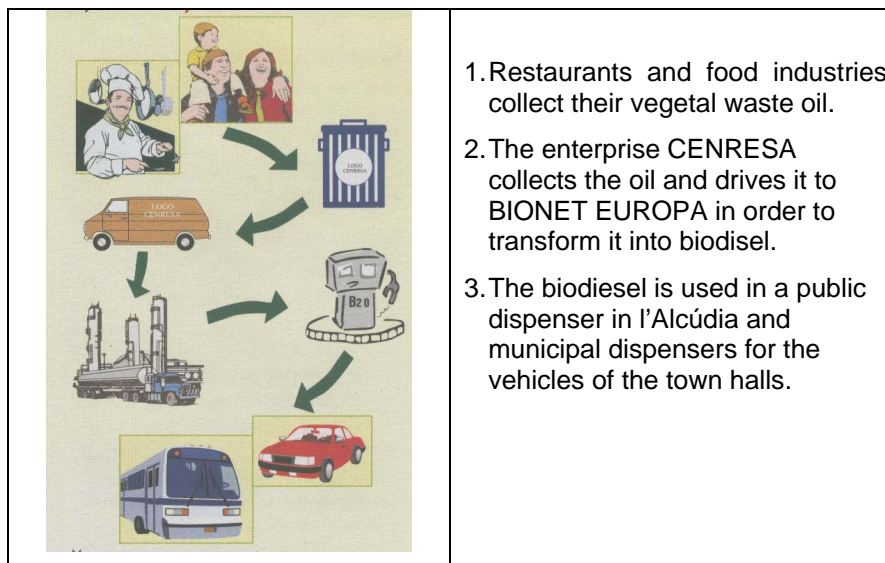


Objectives

One of the main goals of AER is to achieve a sustainable development model for our region. With this aim the AER has developed this project that consists of recycling waste vegetal oils into biodiesel. In the first phase the biodiesel obtained will be used by public transport and local government transport fleets. In the second phase all citizens will be able to use biodiesel.

Process

This project started in July 2003. An agreement was signed between the Agencia Energética de la Ribera and the company CENRESA to collect vegetal wasted oils from restaurants and food industries. Furthermore, the Agency also signed an agreement with thirty Town Councils during 2003. In 2004 the collection of industrial wasted oil was carried out and a report of the total volume collected was sent to all the Mayors. In these reports a summary of the total collected amount and the total entities involved for each town was related. During the year 2004 two new towns signed the agreement. Now the total amount of Town Councils participating in this project is 32. The waste oil collected goes to an enterprise in Reus called Bionet Europe in order to transform it into biodiesel in a chemical process. Then the biodiesel comes back to our county in a public dispenser and council dispensers for their use in municipality vehicles. The process is explained in the following figure:



The total quantity of litter collected and added entities are shown in the next table. The number of restaurants and industries added to the program at the end of the year was 418 with 260,698 l collected.

During 2004, a new biofuel dispenser was installed in the petrol station of "El Serrallo" in l'Alcúdia. This dispenser is available for all the Town Councils and common population. The commercialised biofuel is B10 (10% biofuel). European directory 2003/30/CE related to biofuels settles 2% of bioethanol and biofuel for the year 2005. This percentage is increased up to 5,75% for December 2010.

During the year 2005, a collecting plan will be designed for home wasted oil. Besides, a biofuel dispenser is thought to be installed in each town

The main problem of the project is to design a home wasted oil plan. AER encountered many problems with waste oil tanks because of the danger of fire and accident. At the end these tanks will be situated in public places under administrative control.



Filling up with biodiesel a municipal car the day of the project presentation



Presentation of the project in Alzira

Financial resources and partners

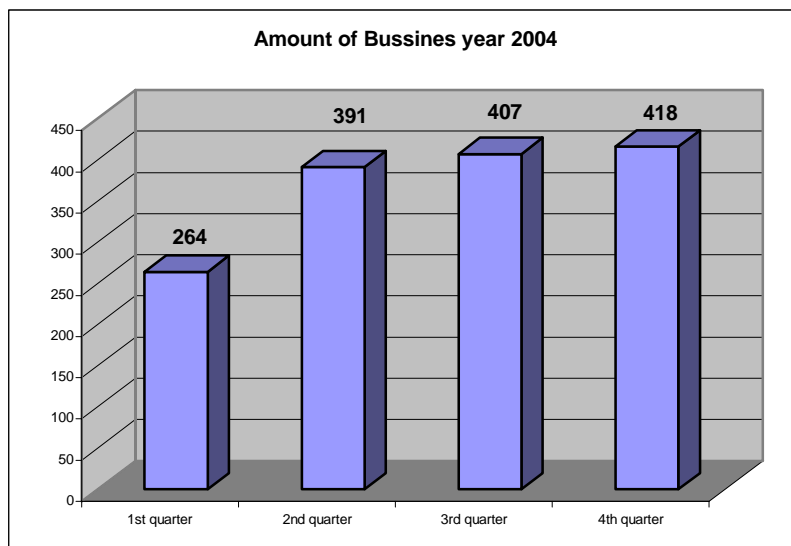
The Agència Energètica de la Ribera, entity co financed by the Mancomunitat de la Ribera Alta and La Ribera Baixa and the European program SAVE II-2000, stood for all the expenses associated to the organization and management, material, in total order of 2,000 €.

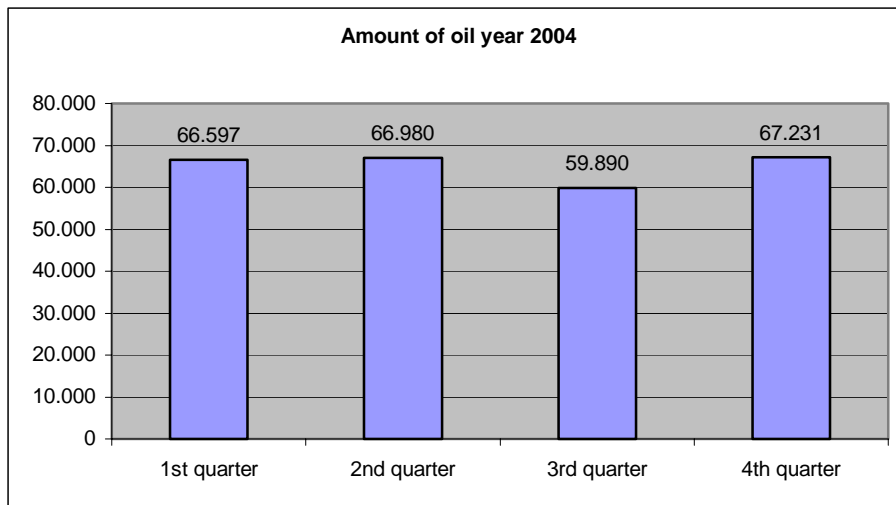
CENRESA (collecting wasted oil enterprise) pay wasted oil collecting tanks, on the order of 10,000 €. Each municipality pays their biodiesel tank storage, on the order of 70,000 €.

Results

Before 2005 AER was only collecting wasted oil from industries and restaurants, and the results are shown in the next figures. During 2004, 418 enterprises collaborated with the AER collecting wasted oil and 260,698 l of wasted oil was collected.

It can be seen in the table that the total amount of entities collaborating with this project was increased by 58 % during the year 2004.





The activity has been quite successful because the number of restaurants and industries is increasing and also the volume of oil collected, avoiding it to be thrown to the sewer with the consequent environmental improvement and the energy saving.

We are studying the domestic waste oil collection but it is really complicated because the town hall do not want to put the tanks in the streets because of accidents. So we are looking for collaborating entities to have the oil tanks so people could go to throw their oil in.

Lessons learned and repeatability

This project is a very positive step but it is not easy to develop because the energy agency is the intermediate between different interests. There are many different partners with the problems involved. Nevertheless, it is not very difficult to repeat in other places. The question is to find a waste oil collecting enterprise which provides the oil collecting tanks and be sure that this oil goes to an enterprise in order to transform it into biodiesel. Then, the coming back of the biodiesel is more complicated because the enterprise does not do the distribution. So, we solved it through a home carburant distribution enterprise that buy the biodiesel to the enterprise and distributes it through all the councils and also it sells biodiesel in a public petrol station.

About the council dispenser, we have four councils that uses biodiesel and the rest at some times, because they are small councils with a very small consume of carburant in order to get their own dispenser. Our objective data were all the town halls of La Ribera an as much number of industries and restaurants as possible. We have got the 68% of the town halls and a quite big number of restaurants, so we are quite satisfied with our results, but we will go on working to have all the town halls and villages of La Ribera and a bigger number of restaurants.

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