

Western Sweden leading the world with its biogas project

Getting a market going was essential in finding a foothold for biogas. With this as its focus, the western Swedish project Biogas Väst has transformed the region into a global leader in the area of biogas as vehicle fuel. As an added bonus, carbon dioxide emissions in the region have decreased by 32,000 tons.

Now politicians and business representatives from around the world are making pilgrimages to the Göteborg region to learn more about biogas. Visitors can view household waste decomposing in large facilities and follow the process of upgrading the biogas formed to the filling into vehicles that run on methane fuel.

When the Business Region Göteborg-headed Biogas Väst project started, there were nine gas stations and 800 vehicles in the region. Today, Göteborg and the Västra Götaland region has the country's best infrastructure with gas filling stations, comprising 40 filling stations, approximately 8,000 vehicles and nine plants producing biogas for vehicle fuel. These figures make western Sweden the country's most advanced area in terms of biogas production and filling stations.

Bernt Svensén, previously a project manager with Biogas Väst and now the chairman, has been on board right from the start.

"During the first few years, there were few who understood the significance and the potential when we talked about converting waste material to biogas fuel. It felt like we were fighting an uphill battle when we explained the climatic benefits. But the tide has turned over the past three years. Now biogas is on the political agenda," he says.

The project began as a result of the European Commission's goal to replace ten percent of current motor fuels with renewable fuels by 2020. When this goal was set, there were few who looked at biogas as a serious alternative.

There were some, however, who saw a lot of potential for development in biogas. In the Göteborg region for example, the Borås, Trollhättan and Göteborg municipalities had already begun the process of handling household waste in order to extract biogas. Volvo Car Corporation sold vehicles with natural gas engines and the company FordonsGas, which builds filling stations, had just started up with three employees. But everyone was working separately with their own agendas.

Biogas Väst was given the task of contributing to regional market development and getting all of those involved on the market to work together. The long-term objective was to get everyone involved to drive developments forward on their own initiative.

"We wanted to create new job opportunities by focusing on the entire chain. We connected biogas production to filling stations and to the automotive industry," says Svensén.

The current project manager Hans Larsson notes that companies now see financial benefits with biogas. One recent development was the Volvo Trucks launch of a new liquid biogas-fueled truck.

When the project started, there were just over ten businesses, organizations and municipalities involved. Today, there is a well-developed cluster of market players in the region and over 30 project participants. From the beginning, efforts consisted of conducting investigations to demonstrate the potential in biogas. In this area, Federation of Swedish Farmers (LRF) representative Lars-Gunnar Johansson played an important role.

A massive public information campaign was also launched in an effort to sway companies and municipalities to choose methane gas driven service vehicles. A public relations expert was involved right from the start to ensure that Biogas Väst would succeed in getting out their message. Today, this PR expert goes by the name of Dejan Djurkovski and is responsible for everything from clear and informative information to brochures and website material.

Another important task of the project was to coordinate subsidy applications involving several participants. This has brought in a total of 125 million Swedish crowns to the region, which in turn has stimulated further financing in the amount of a half-billion Swedish crowns.

"These funds are necessary to get investments in motion. Otherwise it could just end up all talk and no action" says Hans Larsson.

He is particularly satisfied with three Climate Investment Programmes from the Swedish Environmental Protection Agency. These programs have comprised projects stimulating the production of biogas, distribution through grids and filling stations, and vehicle initiatives.

Four years ago, Biogas Väst and Lille in France joined forces to initiate the first and largest biogas project ever for vehicles within the EU - Biogasmax. The objective was to create facilities in Europe to handle the entire biogas production chain. Thirty partners from eight countries participated in the project and were able to demonstrate how waste matter is converted to biogas and vehicle fuels.

"Several important demonstrations were conducted during the Biogasmax project. For example, nine gas filling stations have been constructed between Göteborg and Stockholm in an effort to build a biogas infrastructure. Another example is the assignment from the European Commission to develop a standard for the injection of biogas into the natural gas grid," says Svensén.

When the project started, Biogas Väst set a few clear objectives and a vision for 20 percent of the vehicles in the region to be running on biogas by 2020. The project did not set any specific objectives for decreased carbon dioxide emissions. The fact that emissions decreased in the region anyway is just another happy benefit of the project.

"We knew that this would happen if we managed to bring about a market development," says Svensén.

"Working in networks was the most significant success factor. Another was to spark interest in issues surrounding biogas from municipalities, organizations, automakers, companies and - last but not least - politicians."

"We've been very active in presenting new technology and new methods," says Hans Larsson.

Business Region Göteborg has also collaborated closely with the State of California and with Calstart, an interest group for all automakers in the US. When the partnership started in 2003, many participants saw the possibility of using biogas fuel as some sort of Utopian ideal. Today the situation is quite different.

"Developments in California have taken off and now they're way out in front," says Svensén.

In 2008, Business Region Göteborg received the prestigious Blue Sky Award for the creation of Biogas Väst and in appreciation of the inspiration Biogas Väst has provided for the American biogas market.

"It is a great recognition and an acknowledgment that we have succeeded," he says.

In many ways, Biogas Väst has now fulfilled its assignment and the project therefore is entering a new phase. Biogas Väst will most likely be made permanent, but these are the sort of issues now being discussed.

Developments in the region continue to be very positive, with several interesting demo and development projects.

In one of these, 100 new Volvo trucks with cutting-edge engineering (methane-diesel engines) and which run on liquid biogas will roll out onto Sweden's roads in the spring of 2011. Simultaneously, the national infrastructure will be expanded to include public filling stations for liquid biogas. A new plant producing liquid biogas will be complete in Lidköping in spring 2011. Spring will also mark the launch of a new national project involving regional traffic buses equipped with cutting-edge technology (methane-diesel engines) and running on compressed gas. And GoBiGas continues in its distinction as the world's largest gasification biomethane production plant.

Göteborg and the Västra Götaland region are global leaders in biogas fuel. The companies, municipalities and universities of the region boast enormous expertise and

knowledge in biogas related issues. Here you will find companies with unique projects, technical engineers and products for an international market.

"I welcome cities, regions and companies within the EU to come visit us, see the new developments and make contacts. At Business Region Göteborg, we can also offer services for investments and establishments," concludes Svensén.