Latvia: Getliņi EKO Ltd

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About

Case study name:
The greening of industries in the EU

Country:
Latvia

Organisation Size:
0-99

Sectors:
Energy

Getliņi EKO Ltd was created in 1997 to run the largest waste treatment project in the Baltic countries – the Getliņi waste landfill. The company is focused on three interrelated efforts: reducing air pollution by methane gas, preventing groundwater pollution and modernising the Getliņi landfill. Employment has increased from 10 low-skilled jobs at the start of the reconstruction in 1999 to 86 jobs in 2011. Introducing new technologies in power generation and waste treatment has facilitated the creation of new jobs for qualified specialists and improvement of working conditions.

Introduction

Getliņi EKO belongs to the NACE Rev. 2 sector 'Waste treatment and disposal' (a part of the energy sector in the context of this study). In 2009, 187 companies in the sector produced 0.5% of Latvia's total value added and had 3,725 employees (0.38% of total employees). Getliņi EKO is among the largest companies in the sector.

Getliņi EKO was established in 1997 as part of a project aimed at modernisation of the Getliņi refuse site. It is owned by the Riga City Council (Rīgas Dome, RD) (more than 99% of shares) and Stopiņi local authority. It is located in the Stopiņi local government area. The company has 86 employees.

Major services are waste disposal and treatment. Getlini EKO was selected for the case study because of its green business practice and dynamic approach to waste treatment. The company is focused on three interrelated effects: reducing air pollution by methane gas, preventing groundwater pollution and modernising the Getliņi landfill. The particular interest in this study is the company's activity in reducing emission of methane gas into the air and the use of collected methane gas for production of electricity. Getliņi EKO is the first company in Latvia that has introduced full utilisation of methane gas from landfill.

Drivers and motivations

The first motivation for green change, including collection of methane gas and production of electricity, was Latvia's environment policy, which follows the principles of the EU environment policy and global climate change policies (Council Directive 99/31/EC of 26 April 1999 on the landfill of waste, Kyoto Convention). In Latvia, a Waste Management Law was adopted in 2000 (new version in 2010). The law sets forth requirements for the organisation, planning and implementation of waste management for the State administration institutions, local governments and waste managers.

The second motivation was pressure, as well as financial support from stakeholders – local governments and the community around the site, which demanded that the environment be respected.

The third motivation was the availability of financial resources. Financial sources included a World Bank loan, a Global Environment Fund (GEF) grant, a Swedish International Development Agency (SIDA) grant, Riga City Council investment and the company's own investment. The majority of the international grants were directed at environmental issues. The World Bank loan was awarded on condition of fiscal sustainability provided by supplementary activities – electricity production and agriculture.

The economic crisis has not impacted the company's motivation to continue its green business practice. Special stimulus packages were not adopted in response to this crisis.

Green business practices

Getliņi refuse site has been in operation since the beginning of the 1970s. By the year 2000, approximately 30 million cubic metres of waste had been deposited in the site without any environmental protection measures being implemented. During the waste disintegration process, gas from waste is created that contains around 50% methane. The release of methane into the atmosphere is harmful to the environment and contributes to global climate change.

In 1997, two local governments founded Getliņi EKO to run the largest waste treatment project in the Baltic countries – the modernisation of the Getliņi refuse site. Since the modernisation, green business practices have been applied in the production process of the core business and in the elimination of environmental impacts from the waste treatment. The company has implemented technology for the collection of methane gas and uses methane gas for the production of electricity. Heat created in the process of energy production has been further used in company greenhouses to grow agricultural products. The project is funded by the production of electricity and the waste disposal fees.

Technological change was carried out in several steps. As the first step, vertical wells were installed and the gas collection system was organised in the old section of the landfill (32 hectares), where the landfill hill was covered with a clay layer. Secondly, new waste deposit sites were constructed as energy cells were created (20 hectares), and this process is still in progress. At the same time, the gas collection system was created in the new energy cells. As a result of the measures implemented, methane gas emissions were reduced by just under 92,000 tons of CO_2 equivalent in 2009 (compared with around 75,000 tons in 2005).

A power generation system was implemented in combination with the gas collection from the old and new landfill.

Anticipation and management of the impact of green change on quantity and quality of jobs

Impact on quantity of jobs

Getliņi EKO took over the Getliņi refuse site from a company named Getliņi 2 before the modernisation project. At the time, 10–15 people worked on the refuse site, doing basic work – receiving, registration of and compacting delivered waste using obsolete equipment (tractors and bulldozers). Monitoring of the waste field was not carried out, laboratories did not exist, and highly skilled environmental or power engineering specialists were not employed. Getliņi was not an attractive place to work.

In total, around 75 new green jobs were created, and former jobs (mainly elementary occupations) were transformed to better quality jobs through additional adjustment (improvement of technical equipment, quality control and internal training). The environmental protection and monitoring systems, methane gas collection and energy production systems, and agriculture business were started up. Elimination of jobs was not needed.

Energy production is the responsibility of the power engineering department, which includes three subdivisions: the gas division, responsible for production of methane gas; the energy block, responsible for production of electricity; and the electricity supply block, responsible for the distribution and supply of electricity. Sixteen people work in the power engineering department, of whom:

- nine are employed at the energy block (two managers and seven operators of the power block);
- five are employed at the gas division (two managers, two workers for gas equipment assembly and one gas equipment technician);
- two are employed at the electricity supply block.

Impact on quality of jobs

Creating a modern working environment and improving working conditions were among the first steps in the modernisation process. It should be remembered that the Getliņi EKO was established with the purpose of modernising and developing the existing refuse site.

First, the overall working environment was improved. The old administrative building was renovated soon after the site was taken over. Mechanical workshops and workers' premises were built. New office and laboratory equipment was installed. New heavy vehicles were obtained for work in the landfill, including collection of methane gas for energy production. The management system was also modernised and IT systems implemented for managing the production.

Second, the specifics of the business also contribute to higher quality of work. Power production by using methane gas from the landfill involves professional work with technologically advanced equipment. The educational level of the employees at the power engineering department is high. The head of the department is a university professor with a doctoral degree in power engineering, while other employees have higher and vocational education in power engineering and electric power-related occupations.

It is not the case, however, that people working with green business practices are required to pay more attention to skills development, compared with some other company employers. The company pursues an innovative approach to waste treatment and the power-generation business connected with it. This innovative approach requires attention to skills development in all areas where it is applied (perhaps slightly less in the case of elementary jobs), mostly because of technological change. Specialists working with power generation and electricity equipment require special certification and their qualifications should be constantly improved in any place where they work.

Compared with other landfills, working conditions and financial rewards are better at Getliņi EKO due to the introduction of green technologies, because more people (environmental specialists, laboratory specialists and similar) are doing work that requires qualifications and is better paid. Regarding the impact on other working conditions (career and employment security, health and well-being and work–life balance), no differences between employees working with green business practice and other company employees were indicated. The law and the company policy do not distinguish between those working with green business practices and others.

Skills development and other working conditions

The technology that provides for collection and utilisation of methane gas as an energy source was implemented in 2002, but the preparation work was started before Getliņi EKO was established. Different approaches to anticipating of greening were employed before Getliņi EKO was set up. The company was created as a result of the process of anticipation of green change; specifically for management of it.

Neither of the specialists at Getliņi EKO recalled any difficulties concerning the workforce. From the very beginning, the company added to its

staff according to its business needs. Mismatches with existing skills did not occur because this was a new activity and the necessary additional staff were hired gradually. The head of the power engineering department, Professor Aleksandrs Cars, who was lecturing in the Riga Technical University (Rīgas Tehniskā Universitāte, RTU), attracted his students to work in challenging jobs. When the first team was formed, young specialists were provided with training in relevant organisations and equipment providers in Sweden. To be able to work in the company, existing workers (mainly basic occupations working with gas collection systems) did not reject new technologies and had to improve their skills by means of internal training. In the period of modernisation, labour supply in these occupations exceeded demand.

The company has a trade union organisation, but this is not active. The social dialogue is poor and did not play role regarding green change. The insignificant role of the trade union might be explained by care that management takes of employees. This applies equally to all employees, including those involved in production of electricity by use of methane gas. Within the modernisation plan, new workshops and premises were built for workers, and work clothing was provided for all employees. Employees receive the additional benefits of medical and life insurance. Warm food is supplied for immediate use from outside. The fact that personnel change is insignificant characterises workers satisfaction.

Public authorities

Public authorities have not demonstrated specific role in facilitating development of skills and other working conditions of employees who are involved in collection and utilisation of methane gas. The entire project is run in collaboration with two local governments, but this concerns funding and rules of operation in the waste treatment business. At national level, specific preferences are established for production of electricity from alternative sources, including methane gas from the landfill.

Collaborating partners

Collaboration has been a significant part of the company's business strategy. The company collaborates with the Ministry of Environment and Regional Development of the Republic of Latvia (Vides un reģionālās attīstības ministrija, VARAM). It has participated in the EU Cohesion fund's infrastructure projects. During the project it concluded a twinning agreement and organised permanent cooperation with the counterpart company in Sweden – Nordvästra Skånes Renhållnings AB (NSR) (Helsingborg). Technological partners are SWECO International AB (industrial design), the Swedish company MG Teknik (equipment) and the Czech company Tedom (energy production). Project consultants are CRA (Canada) and Geo Consultants, Ltd (Latvia). Collaboration is focused on development of technology. Training and consultations are organised when necessary for working with new technologies obtained abroad or in order to develop technological ideas created by Latvian scientists.

Sponsors include the World Bank and International Bank for Reconstruction and Development (IBRD), GEF, SIDA, the Canadian International Development Agency (CIDA). Electricity is supplied to the SJSC Latvenergo network.

Costs of implementing green practices

Since 1997, when Getliņi EKO was established, the landfill site has practically been rebuilt, therefore it is impossible to specify 'costs of greening'. The total investment in the Getliņi project is €35.87 million. The project consists of interrelated activities, therefore it is not possible to indicate the costs of each separate activity or the employment-related costs of one particular activity.

Conclusions and recommendations

In the case of Getliņi EKO, modernisation and greening were linked processes and proved to be successful. Greening took place both in the operation of the company's core business – waste treatment – and in the elimination of side-effects of the waste treatment. Success was achieved amid strong support from national and international legislation, population needs, owners' expectations and financial support, loan availability and international collaboration. Effective business solutions also contributed to the implementation of environmentally friendly business practices.

Two local governments established Getliņi EKO in order to create the state-of-the-art landfill, serving Riga city and Riga region, by reducing emissions of methane gas as well as groundwater pollution.

In order to achieve this goal, operations have been carried out in several fields, of which one – the reduction of atmospheric pollution by methane gas and the production of electricity using methane gas collected from the landfill – was analysed in this study.

The project did not focus specifically on employment issues, yet working conditions have improved in several respects. Physical conditions of work have improved due to modernisation of the landfill. Technological change has facilitated the employment of high-quality specialists in several fields – environmentalists, energy producers, agriculture specialists and IT specialists. The work has become cleaner, smarter and more attractive for young people overall in the company. The company cooperates with the Riga Technical University in fields of education and innovation, as well as with companies with a relevant business profile in Sweden.

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