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Promotion of biogas production in Latvia

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Promotion of biogas production to generate energy is associated with several EU policy initiatives such as increasing the production of electricity and thermal energy, energy independence, and the reduction of GHG emissions. Besides, one of the topical problems is the increasing amount of organic waste and residue from agriculture, industry, and households, thereby making waste management, recycling, and waste reduction one of the government policy priorities. Therefore, energy production from biogas that forms in the fermentation process of various waste, including agricultural wastes, provides environmental, social, and economic gains, and it plays a significant role from both the bioeconomic and energy policy perspectives.

To reach both the international and the national policy targets in renewable energy production, all EU member states use several support mechanisms. In Latvia four support mechanisms are used for production of electricity and heat from renewables – obligatory state purchase of electricity, guarantee of a set price, release from paying the electricity tax for the energy, produced from the renewable resources and public (EU structural fund) funding for investments, and one support mechanism for production of biofuel.

In few recent years in Latvia, the support mechanisms described above have created a motivating support system for joining the biogas production sector, but due to the pressure of the manufacturing enterprises and households the government intends to change the support policy and the amount of the support for electricity production from biogas. It creates instability and increases political risks for biogas producers thus obstructing the development of the sector.

The current article reviews the former and current support policy for biogas production in EU and Latvia and gives an insight to the significance of political risks in the production of biogas from agriculture biomass.

Key words: biogas production, energy policy, support measures, political risks

INTRODUCTION

The term renewable energy is understood as energy produced in a way that does not exhaust natural resources or harm the environment. The term renewable energy focuses on the generation and uses of renewable energy; it is obtained from resources that are able to regenerate, thus can never be completely exhausted. Renewable energy is the energy that does not depend

on the deposits of resources on the Earth, i. e. wind, solar, wave, tidal, hydro, and geothermal energy, as well as gases and biogases from waste deposit areas and sewage purification facilities, and biomass (the biodegradable fraction in food products, industrial and household waste, agricultural substances, including those of plant and animal origin, as well as production residues from forestry and related industries) [1, 2].

Historically, economic development has always been closely associated with the availability and price of the energy resources. Yet, in the period from the end of the 20th century to the present, sustainability of energy resources – gradual replacement of fossil energy resources with renewable sources and higher efficiency in the use of energy – has been also emphasised. In the EU, including Latvia, the need for more extensive use of local renewable energy sources is also affected by the wish to reduce energy dependency. Tackling the problems related to a wider use of renewable energy is integrated in the policy and legal documents of the EU and Latvia, which involves introducing feed-in tariffs for selling the electricity generated from renewable energy sources at higher prices and co-financing the construction of energy production facilities.

The mentioned support instruments have significantly promoted the use of renewable energy sources, including biogas, for energy production in Latvia since 2008 when the first production plant for producing biogas from agriculture biomass was built. Owing to the support mechanisms for biogas production in the EU and Latvia, 53 biogas facilities with a total capacity of 55.42 MW_{el} operated in Latvia in 2014; 45 of these facilities produced biogas from biomasses of agricultural origin. However, an analysis of the development of such energy facilities in Latvia suggests that producers of renewable energy have faced both institutional and technological problems, as well as problems with selling the produced electricity, which all cause risks. The aim of this paper is to assess the impact of the renewable energy policy on the biogas production in Latvia. To reach this aim the author reviewed support mechanisms and amounts for the renewable energy production, estimated the impact of political risks comparing to other risk groups.

METHODOLOGY

To analyze the political measures in promotion of biogas production in Latvia the author used monographic analyses and synthesis methods, the materials and information from the Latvian Ministry of Economics (MoE), European Commission and specific scientific literature, and the statistical data from the MoE about the amounts of produced biogas. The empirical data about the risks in the biogas production process was collected via an expert survey from February to April 2013 and included responses of 15 biogas producers.

RESULTS AND DISCUSSION

Support for the use of renewable sources has become an important component of the EU policies and is specified in the EU's political priorities. However, not only a wider use of renewable energy sources but also problems with a sustainable and balanced uses of resources have become topical at the EU political level. It is also evidenced by the 2012 European Commission (EC) strategy and action plan "Innovating for Sustainable Growth: a Bioeconomy for Europe" [3]. The strategy aims to find balance among such factors as sustainable agriculture and fisheries, food security, and the use of renewable biological resources in industry, while at the same time preserving biodiversity and the environment. The EU Member States follow the common EU policy, integrating the EU's policy priorities, set targets and support instruments mentioned in the EU policy documents in their national policy documents and legal acts.

At the national level, the key document that highlights the goal of the Republic of Latvia in the use of renewable energy is the Guidelines for Energy Sector Development 2007–2016 [4]. To date, a common regulation for the use of renewable energy sources did not exist in Latvia's legal acts, dividing it between the legal acts for electricity production and biofuel production. Over the recent years, it was planned to make a separate law for the use of renewable energy sources – the Renewable Energy Law (developed by the MoE in 2010); it was completed in 2010, but at present the adoption of this law is stopped. As an

alternative to the mentioned law, the MoE proposed establishing a new support system for renewable energy production. Considering the current support system an excessive burden on consumers, in the period from 10 September 2012 till 1 January 2016, MoE closed the qualification for obtaining the right to sell the electricity under the mandatory electricity purchase obligation and the right to be paid a guaranteed charge for the electric capacity installed at cogeneration power plants in accordance with Cabinet Regulation No. 221 of 10 March 2009. In addition, in the period from 26 May 2011 till 1 January 2016, the MoE will not hold tenders to grant the right to sell the electricity produced at biomass, biogas, solar, or wind power plants under the mandatory electricity purchase obligation in accordance with Cabinet Regulation No. 262 of 16 March 2010 [5, 6].

Along with the new Renewable Energy Law, the MoE also works on the sectoral policy document "Energy Sector Strategy 2030" (a strategy draft), but since no further sectoral policy documents are presently approved, the national long-term goals are unclear.

SUPPORT INSTRUMENTS FOR STIMULATING RENEWABLE ENERGY PRODUCTION

To reach the targets set in both the international and national policy documents regarding the production and use of renewable energy, all the EU Member States use support instruments to contribute to reaching these targets. In the world, a government policy aiming to promote the production of renewable energy is set at least in 83 countries (41 developed / transitional economy countries and 42 developing countries) [7]. Regarding regulatory policy measures, in EU all countries, except Malta and Slovenia, apply biofuels obligation for the produced biofuel. The second most common instrument is feed in tariffs or premium payments that are used in all EU member states, except Belgium, Poland, Romania, Spain and Sweden. Only five states – Germany, Ireland, Italy, Portugal and United Kingdom – use renewable heat obligation.

There are also several fiscal and public financing incentives used for promotion of renewable energy production, most commonly capital subsidy (in 19 EU member states), reductions in sales, CO_2, VAT or other taxes (in 18 EU member states) or public investment loans (in 18 EU member states) are used. But only five EU member states use energy production payment.

Regarding the number of regulatory policies and fiscal incentives used in EU, Italy leads with a total of 7 regulatory policies and 4 fiscal or public financing incentives. On the average there are 3 regulatory policies and 3 fiscal or public financing incentives used in the EU member states, but the lowest number of support policies and incentives is reached in Croatia.

To promote the production of renewable energy four support mechanisms for general renewable energy production and one for production of biofuel are employed in Latvia (Table 1). That makes a total of 3 regulatory policies and 2 fiscal or public financing incentives. Along with the mentioned guaranteed price under the mandatory electricity purchase obligation [8] or the so-called feed-in tariffs, tax relieves for electricity from renewables [9], public (EU) co-funding for investment, and public tenders for the construction of new power plants or the reconstruction of existing ones [8] are also used as support mechanisms in Latvia. Compared to the support measures used in the other EU member states, in Latvia tradable REC are not employed. Also in the group of fiscal incentives and public financing Latvia is not using capital subsidies that are widely used in the other EU member states.

Among the Baltic States the number of applied support measures is similar, some of the measures are applied in all three Baltic States, for example, feed-in tariffs, biofuels obligation and public investment loans. But some measures differ – in Lithuania renewable energy producers are subjected to the electric utility quota, but in Estonia they can apply for the energy production payment.

Compared with the other EU Member States (in terms of maximum price limits), the prices for electricity produced from biomass and biogas as well as for electricity produced at hydro power plants under the mandatory electricity purchase obligation are relatively high in Latvia – the fourth and third highest price, respectively, among the EU Member States (Table 2). The mandatory

Table 1. **National support to the renewable energy production in the EU member states**

State	Regulatory policies							Fiscal incentives and public financing				
	Feed-in tariff / premium payment	Electric utility quota obligation / RPS	Net metering	Tradable REC	Tendering	Heat obligation / mandate	Biofuels obligation / mandate	Capital subsidy or rebate	Investment or production tax credits	Reductions in sales, CO_2, VAT or other taxes	Energy production payment	Public investment, loans or grants
Austria	x	–	–	x	–	–	x	x	x	–	–	x
Belgium	–	x	x	x	x	–	x	x	x	x	–	–
Bulgaria	x	–	–	–	–	–	x	–	–	–	–	x
Croatia	x	–	–	–	–	–	x	–	–	–	–	–
Cyprus	x	–	x	–	x	–	x	x	–	–	–	–
Czech Republic	x	–	–	x	–	–	x	x	x	x	–	–
Denmark	x	–	x	x	x	–	x	x	x	x	–	x
Estonia	x	–	–	–	–	–	x	–	–	–	x	x
Finland	x	–	–	x	–	–	x	x	–	x	x	–
France	x	–	–	x	x	–	x	x	x	x	–	x
Germany	x	–	–	–	–	x	x	x	x	x	–	x
Greece	x	–	x	–	–	–	x	x	x	x	–	x
Hungary	x	–	–	–	–	–	x	x	–	x	–	x
Ireland	x	–	–	x	x	x	x	–	–	–	–	–
Italy	x	x	x	x	x	x	x	x	x	x	–	x
Latvia	x	–	–	–	x	–	x	–	–	x	–	x
Lithuania	x	x	–	–	–	–	x	–	–	–	–	x
Luxembourg	x	–	–	–	–	–	x	x	–	–	–	–
Malta	x	–	x	–	–	–	–	x	–	x	–	–
Netherlands	x	–	x	x	–	–	x	x	x	x	x	x
Poland	–	x	–	x	x	–	x	–	–	x	–	x
Portugal	x	x	–	–	x	x	x	x	x	x	–	x
Romania	–	x	–	x	–	–	x	–	–	–	–	x
Slovakia	x	–	–	x	–	–	x	–	–	x	–	–
Slovenia	x	–	–	x	x	–	–	x	x	x	–	x
Spain	–	–	x	x	–	–	x	x	x	–	x	–
Sweden	–	x	–	x	–	–	x	x	x	x	–	x
United Kingdom	x	x	–	x	–	x	x	x	–	x	x	x

Source: Taxes and Incentives for Renewable Energy, 2014, edited by the author.

purchase component (MPC) or the so-called "green component" affects electricity consumers in the most direct way; there were a lot of discussions at both the political and public levels about its size and the procedure of setting it (currently in Latvia for final consumers it amounts to 0.02679 Euros per kWh). The amount of MPC is determined based on the price of electricity set in accordance with the mandatory purchase obligation, which depends on the type of the energy source used for the production of electricity, the electric capacity installed, the number of hours the plant has operated, as well as the natural gas sales price. A difference between the price of electricity produced under the mandatory purchase obligation and the market price is compensated by the electricity consumers. It secures a certain purchase price for electricity producers regardless of the market price [10].

As regards this support mechanism, problems arise from the number of permits, issued by the

Table 2. **Feed-in tariff for the electricity produced from the renewable energy sources in selected countries, euro cents/kWh**

Country	Feed-in tariff for electricity, euro cents/kWh				
	Biogas	Biomass	Hydro	Sun	Wind (on shore)
Austria	5–20	6–20	3–11	17–20	9
Bulgaria	6–24	9–15	5–10	9–20	5–8
Croatia	15–19	12–17	8–16	15–35	9–10
Czech Republic	11–17	6–19	5–15	22–65	9–14
France	8–14	12	6–10	11–46	3–11
Germany	6–25	6–17	3–13	14–20	5–9
Greece	10–22	15–23	9–11	30–33	9–25
Hungary	4–12	4–12	5–12	5–11	4–12
Ireland	8–15	9–14	8	–	7
Latvia	**19–21**	**15–21**	**17–20**	**43**	**10–17**
Lithuania	12–19	11–14	6–8	12–46	8–11
Luxembourg	12–15	11–15	9–11	37–42	8
Malta	–	–	–	20–28	–
Portugal	10–13	10–13	9–13	26–38	7–26
Slovakia	9–15	11–17	6–11	12	8
Slovenia	6–16	19–25	8–11	14–29	10
Spain	7–15	6–18	8–9	12–27	7–8
Switzerland	līdz 20	15–38	10–30	18–36	11–18
Turkey	10–13	10–12	6–7	10–17	6–9
United Kingdom	12–8	–	6–27	9–19	6–45

Source: EM, Par elektroenerģijas..., 2013.

MoE for increasing the electricity production capacities or for the installation of new production equipment. If all the planned projects are implemented, it would cause a large burden on electricity consumers in terms of MPC and raise the price of electricity. In its turn, it would reduce the competitiveness of enterprises, especially energy-intensive enterprises and decrease the purchasing power of households. To solve this problem, the Cabinet of Ministers agreed on introducing a tax on subsidised electricity in 2013, thus taxing the amount of subsidies paid to electricity producers under the mandatory purchase obligation [11]. At present, the size of the tax is set at 10% of the subsidies paid to renewable energy producers under the mandatory purchase obligation; for producers of electricity from natural gas in cogeneration, the tax rate is set at 15%, while a 5% tax rate is set for heat producers supplying heat to a district heating system [12]. For biogas production, the tax rate is differentiated depending on the electric capacity installed at the facility, the kind and origin of biomass, as well as the ratio of useful heat efficiently utilised. Since the tax actually reduces the revenue for the electricity sold under the mandatory purchase obligation, the author considers that this measure does not comply with the principle of legitimate expectations thus promoting distrust in political decisions and initiatives; however, a positive trait is that the law sets a differentiated rate in favour of the facilities that make use of by-products produced on the farm and efficiently utilise the generated heat.

The amount of the support and its mechanisms for the promotion of renewable energy (inc. biogas) production are often questioned in the society and by the policy makers having contracting arguments for or against supporting the production of renewable energy. Therefore, the author combined arguments about micro and macro level gains and the criticism of the biogas production.

Micro-level gains are mainly associated with economic factors: revenues from selling the

electricity produced; revenues from selling the heat generated in the cogeneration process and unused by the bioreactor or gains from using it on the farm, thus replacing fossil resources or gaining revenues from selling heat; use of the digestate obtained in the process of biogas production in fertilisation of fields, thus reducing the farm's dependence on artificial fertilisers and improving the quality of soil. A considerable fact is also the possibility to diversify the farm's income and reduce the seasonality of the income by selling the electricity if state support is accessible. Overall, it can be concluded that the integration of biogas production into the farm's production processes provides positive effects both directly (direct income, reduction of expenses on fossil fuel, fertilisers, waste processing) and indirectly (improvement of the quality of agricultural land, income diversification, reduction of seasonality, etc.).

Main **macro-level gains** from biogas use are associated with the implementation of the EU targets in the use of renewable energy sources, as well as economic factors: production and processing of biogas creates new jobs and generates tax revenues for the national and local governments (personal income tax, VAT, real estate tax, etc.). It is important that the mentioned economic effects are regional, thus contributing to decentralising economic activities and developing rural territories in a sustainable way. The use of local resources allows decreasing the dependency from the imported energy.

A criticism of biogas production is often referred to the high price of electricity, which is presently paid by consumers, compensating for the MPC. It affects the competitiveness of Latvia's national economy and especially energy-intensive industries. The price of electricity also affects households, increasing the size of the social group being at risk of energy poverty [13, 10]. Also the fact that biogas production competes with food and feed production is criticised [14]; therefore, it is important not only to produce energy from renewable sources but to do it in accordance with the principles of sustainability and, at the political level, to support the production of energy mainly from local agricultural and forestry residues, by-products of processing and related industries, as well as organic waste, by using efficient transformation technologies [15].

Biogas production development risks and prospects in Latvia

For risk assessment, the experts (15 biogas producers) assessed 24 risks that were divided into 6 groups: personnel, production, property, logistics, environmental, and political risks (Table 3). The risks were defined based on the author's review of scientific literature [22–25] together with two biogas producers and the Latvia Biogas Association representative.

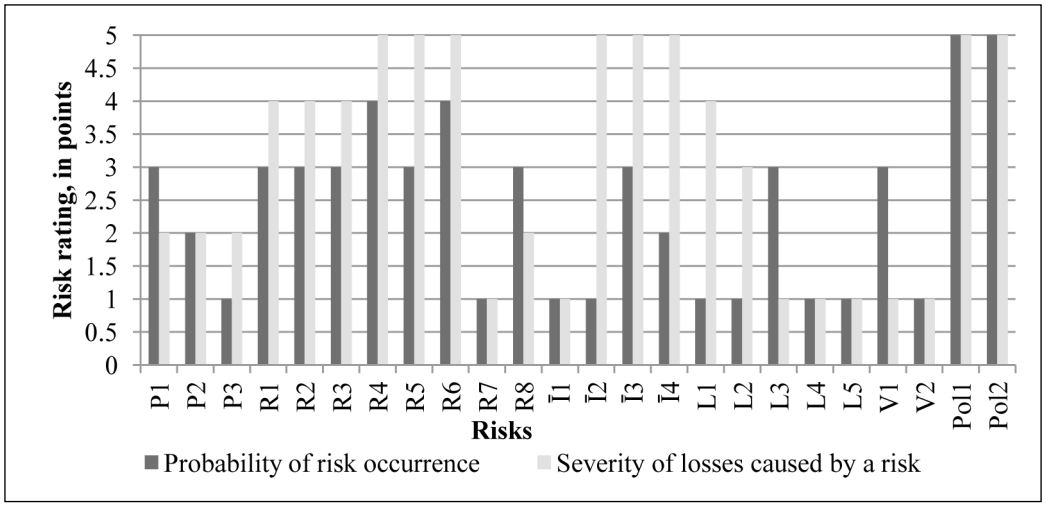
Experts evaluated significance and probability of the risk occurrence that allowed calculating the risk level. According to the experts (Fig. 1), both risks in the political risk group were recognised as very significant: changes in the energy policy, and changes in purchase prices of heat or electricity. Among the production risks, the most significant ones were failures in the operation of cogeneration equipment, interruptions in the consumption of biogas, and interruptions in the connection to the electricity distribution network. Among the property risks, the most significant ones were fire and lightning risks, and risk of unavailability of financial resources, including loans, for investment in the farm, and financial obligation risk (problems with covering existing financial obligations).

Also in the rating of risk occurrence (Fig. 1), both political risks were recognised as the most probable ones: changes in the energy policy and changes in the purchase prices of heat or electricity. It is a negative fact as it reflects the instability of political decisions and legislation process in Latvia. Even objectively knowing that the legal acts and political decisions binding upon biogas facilities do not cause risks so often, the higher level managers and professionals engaged in the field of biogas production have such an opinion. This risk assessment reflects subjective opinions of the experts, as described in the risk assessment theory – if semi-quantitative and qualitative risk assessment approaches are employed, i. e. data are obtained from experts, it has to be taken into account that experts use the rational choice approach to risk assessment – the rational choice theory is based on an assumption that individuals are able to act strategically, associating their decisions with consequences [16, 17]. The experience in tackling a specific risk is accumulated; however, the negative aspects of such an assessment

Table 3. **Risk classification for the assessment of risks in biogas production from biomass of agricultural origin**

Risk code	Characteristics of the risk	Risk group
P1	Personnel's lack of responsibility	Personnel risks
P2	Personnel's low qualification and lack of experience	
P3	Violations of occupational safety rules	
R1	Low quality of biomass	Production risks
R2	Instability of microbiological processes in the bioreactor	
R3	Operational problems of the machinery servicing the biogas facility	
R4	Failures in the operation of cogeneration equipment	
R5	Interruptions in the consumption of biogas	
R6	Interruptions in the connection to the electricity distribution network	
R7	Interruptions in the consumption of heat	
R8	Delayed equipment service and availability of spare parts	
Ī1	Low external security of the bioreactor and other equipment	Property risks
Ī2	Fire and lightning risks	
Ī3	Risk of unavailability of financial resources, including loans, for investment in the farm	
Ī4	Financial obligation risk (problems with covering existing financial obligations)	
L1	Irregular supply of biomass	Logistics risks
L2	Problems with digestate storage	
L3	Problems with biomass storage	
L4	Accidents when transporting biomass	
L5	Accidents when transporting digestate	
V1	Problems with utilising digestate as a fertiliser for fields (effect of weather conditions, complaints by the local residents, etc.)	Environmental risks
V2	Environmental risks in utilising digestate as a fertiliser for fields	
Pol1	Changes in the energy policy	Political risks
Pol2	Changes in purchase prices of heat or electricity	

Source: Author's construction.



Source: Author's construction based on the author's risk assessment in 2013.

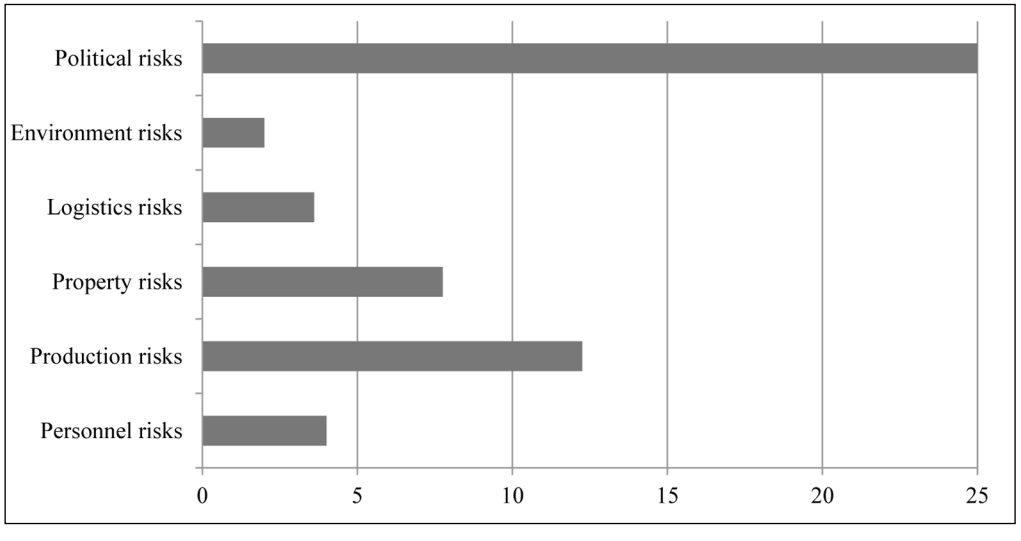
Fig. 1. Severity and probability of risk occurrence in biogas production, on a scale from 1 to 5, for the surveyed biogas farms in Latvia in 2013

are the effects of subjectivity and stereotypes on experts' opinions, thus their negative experiences in other fields are transferred to an assessment of specific risks.

By multiplying the levels of probability and significance, the risk level for each risk was estimated. Using these risk levels the average risk level for each risk group was calculated. The summary data show (Fig. 2) the lead of the political risks over other risk groups, which is followed by production and property risks. The low score of personnel and environmental risk groups could be related to the short period of operation of biogas facilities, as no accidents occurred in relation to the particular risk groups at the time when the survey was done, the potential severity of these risks has not been comprehended.

The data obtained in the risk assessment survey reflect the roles of political risks and affecting factors in entrepreneurship and its further development. Without creating a stable, well-structured, and predictable sectoral policy, entrepreneurship, according to the experts, is subject to very significant risks. Such results indicate the sector's great dependence on political decisions, as this sector receives national and international financial aid through support mechanisms, the operation of the biogas production sector's enterprises significantly depends on political priorities that are presently unclear. The latest changes in applying a tax on subsidised electricity set a precedent for the reduction of income from electricity without reducing the mandatory purchase prices, thus increasing uncertainty about future political decisions, as the tax rate may be relatively easily changed and cannot be controlled from the perspective of producers in contrast to the mandatory purchase obligation, under which a contract on electricity sales is concluded.

The recent communication from the MoE indicates that the future development of support to biogas production will focus on the maximisation of utilisation of heat, which is also evidenced by the MoE informative report "A Complex Solution to the Problems of the Electricity Market" [19], the proportionality and the amount of the support, especially in the aspect of maintaining the level of MPC without increasing it to energy consumers as well as the maximisation of utilisation of waste and production residues for biogas production [20]. For this reason, the construction of new biogas facilities, if it restarts, has to be especially supported for biogas facilities that are located next to processing enterprises and large livestock, especially pig and poultry, farms, thus setting the observance of the principles of bioeconomics and the tackling of problems with manure and production waste, rather than electricity production, as the main priority. Still these changes in the support policy, although necessary, are threatening the already existing biogas production facilities that were developed based on



Source: Author's construction based on the author's risk assessment in 2013.

Fig. 2. Risk level in biogas production, on a scale from 1 to 25, for the surveyed biogas farms in Latvia in 2013

the initial support policy, which did not restrict the choice of biomass or the utilisation of heat. Therefore, in the future policy planning, it would be necessary to evaluate the effects on the initially developed biogas production plants.

CONCLUSIONS

- The legal documents of the energy sector of the EU and Latvia emphasize the need to produce competitive, sustainable, and safe renewable energy. In biogas production the need to combine biomass of agricultural origin with agricultural by-products and waste is stressed, thereby reducing competition between energy and food production as well as efficiently using heat generated at cogeneration power plants. Although included in the legal documents, the mentioned traits were not stated in the initial support policy for renewable energy production. It promoted a relatively fast development of the sector, but in many cases the sustainability of the energy production is lacking.
- In the risk assessment, the highest risk level was obtained for the political group risks, reaching a score of 25, thus pointing to the high dependency of biogas production facilities from the state support and wherewith the distrust in the stability of political decisions. The results of the risk assessment survey reflect the role of legislative and political factors in entrepreneurship and its further development. Without a stable, well-structured, and predictable sectoral policy, entrepreneurship, according to the experts, is subject to significant risks. Such an assessment indicates the sector's great dependence on political decisions due to the historically evolved support system.
- The latest communication from the MoE indicates that the future development of support to biogas production will focus on the maximisation of utilisation of heat, the proportionality and the amount of the support, especially in the aspect of maintaining the level of MPC without increasing it to energy consumers as well as the maximisation of utilisation of waste and production residues for biogas production. But the change in the support policy and uncertainty about the future of the sector threaten the existing biogas production plants that were developed according to the initial support policy.

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BIODUJŲ GAMYBOS SKATINIMAS LATVIJOJE

Santrauka

Biodujų, skirtų energijai gaminti, produkcijos skatinimas yra susijęs su keliomis Europos Sąjungos politikos iniciatyvomis, pavyzdžiui, elektros energijos ir šilumos energijos gamybos padidėjimu, energetinės priklausomybės bei šiltnamio efektą sukeliančių dujų išsiskyrimo sumažinimu. Be to, viena iš svarbiausių problemų yra organinių žemės ūkio, pramonės ir namų ūkių atliekų kiekio didėjimas. Todėl atliekų apdorojimas, perdirbimas bei atliekų kiekio mažinimas tapo vienu iš vyriausybės politikos prioritetų. Tokiu būdu energijos iš biodujų gamyba, kuri formuojasi įvairių atliekų, įskaitant žemės ūkio atliekas, fermentacijos proceso metu, suteikia aplinkosaugos, socialinę ir ekonominę naudą bei vaidina svarbų vaidmenį bioenergetikoje ir energijos politikoje.

Norint pasiekti nacionalinės ir tarptautinės politikos tikslus atsinaujinančios energijos gamybos srityje, visos ES narės taiko įvairius paramos mechanizmus. Latvijoje naudojami keturi paramos mechanizmai elektros ir šilumos gamybai iš atsinaujinančių energijos išteklių – privalomi viešieji elektros pirkimai, fiksuotos kainos garantija, atleidimas nuo elektros mokesčio už energiją, pagamintą iš atsinaujinančių išteklių, ir viešasis investicijų (ES struktūriniai fondai) finansavimas bei vienas paramos mechanizmas, skirtas biodujų gamybai.

Per pastaruosius kelerius metus Latvijoje anksčiau minėti paramos mechanizmai suformavo motyvacinę sistemą, skatinančią prisijungti prie biodujų gamybos sektoriaus, bet dėl gamybos įmonių ir namų ūkių spaudimo vyriausybė ketina keisti paramos politiką ir paramos apimtį, skirtą elektros energijos gamybai iš biodujų. Tai sukuria nestabilumą ir padidina biodujų gamintojų politines rizikas, taip stabdoma sektoriaus plėtra.

Šiame straipsnyje apžvelgiama ankstesnė ir dabartinė biodujų ES ir Latvijoje gamybos paramos politika, taip pat analizuojama biodujų gamybos iš žemės ūkio biomasės politinių rizikų reikšmė.

Raktažodžiai: biodujų gamyba, energetikos politika, paramos mechanizmas, politinės rizikos