11th International Conference on Renewable Electrical Power Sources

PROCEEDINGS

Editor Dr Milica Vlahović

Belgrade, November 02–03, 2023

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11th International Conference
on Renewable Electrical Power Sources

Chamber of Commerce and Industry of Serbia,
Belgrade, November 2 and 3, 2023

Publisher
Union of Mechanical and
Electrotechnical Engineers and
Technicians of Serbia (SMEITS)
Society for Renewable Electrical
Power Sources
Kneza Miloša str. 7a/II,
11000 Beograd

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Tiraž
50 primeraka

CD umnožava
MT-KOMEX doo, Beograd

ISBN
978-86-85535-16-1

CIP - Каталогизација у публикацији - Народна библиотека Србије, Београд

MEĐUNARODNA konferencija o obnovljivim izvorima električne energije (11 ; 2023 ; Beograd)
Zbornik radova pisanih za 11. Međunarodnu konferenciju o obnovljivim izvorima električne energije [Elektronski izvor]: [Beograd, 2. i 3. novembar 2023.] / [urednik Milica Vlahović] = Proceedings / 11th International Conference on Renewable Electrical Power Sources : [Belgrade, October 2 and 3, 2023] ; [editor Milica Vlahović]. - Beograd : Savez mašinskih i elektrotehničkih inženjera i tehničara Srbije SMEITS, Društvo za obnovljive izvore električne energije = Union of Mechanical and Electrotechnical Engineers and Technicians of Serbia (SMEITS), Society for Renewable Electrical Power Sources, 2023.

Sistemski zahtevi: Nisu navedeni. - Nasl. sa naslovne strane dokumenta. - Tiraž 50. - Bibliografija uz svaki rad.

ISBN 978-86-85535-16-1

a) Енергетски извори - Одрживи развој - Зборници

COBISS.SR-

Organizer

Savez mašinskih i elektrotehničkih
inženjera i tehničara Srbije (SMEITS),
Društvo za obnovljive izvore
električne energije

Co-organizer
Institut za arhitekturu i urbanizam Srbije,
Beograd

Privredna komora Srbije,
Beograd

Sponsors

Interplast, Greece

MS Kablovi, Paraćin

Endorsement

MT-KOMEX, Beograd

Održavanje 11. MKOIEE finansijski je pomoglo
Ministarstvo nauke, tehnološkog razvoja i inovacija
Republike Srbije

Република Србија
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<u>Energetska efikasnost u kontekstu primene RES:</u>

ULOGA KUPCA-PROIZVOĐAČA (PROZJUMERA) U PRIMENI OIEE U SRBIJI: PREPREKE I MOGUĆNOSTI

THE ROLE OF THE BUYER-PRODUCER (PROSUMER) IN THE IMPLEMENTATION OF RES IN SERBIA: OBSTACLES AND OPPORTUNITIES

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Apstrakt

Vlada Srbije je 2021. godine usvojila set zakona iz oblasti energetike, od kojih je najznačajniji: Zakon o korišćenju obnovljivih izvora energije. Ovaj zakon je omogućio javnu prodaju električne energije iz obnovljivih izvora energije u skladu sa smernicama o državnoj pomoći. Novina koju ovaj zakon uneo je pojam kupac-proizvođač (prozjumer), označavajući krajnjeg kupca koji je poseduje sopstveni objekat za proizvodnju električne energije iz OIE, pri čemu se proizvedena električna energija koristi za sopstvenu potrošnju, a višak proizvedene električne energije isporučuje u distributivni sistem. Prema ovom zakonu nisu postojala ograničenja koja se odnose na instaliranje elektrane maksimalne snage za domaćinstva i pravna lica, međutim u aprilu 2023. godine došlo je do promene zakonske regulative s Zakonom o izmenama i dopunama Zakona o korišćenju obnovljivih izvora energije, na osnovu koga su kupci-proizvođači ograničeni da instaliraju elektrane maksimalne snage do 10,8 kW za domaćinstva, odnosno do 5 MW za pravna lica. Od stupanja zakona iz 2021. godine do jula 2023. godine u Srbiji je preko 1300 domaćinstava i više od 450 pravnih lica dobilo status kupaca-proizvođača, sa ukupno instalisanom snagom od oko 20 MW.

Rad istražuje ulogu prozjumera u primeni obnovljivih izvora električne energije na području Srbije, osvrćući se na prepoznate prepreke i mogućnosti. U uvodnom delu daje osvrt na evropska iskustva i iskustva zemalja u okruženju, gde je nakon toga rad kroz formu anketnog upitnika ispitivao trenutne probleme prozjumera na teritoriji Srbije, mapirajući konkretne proceduralne, finansijske i druge problematične aspekte, ali i motivacije aktivnih prozjumera. Takođe rad ispituje stav prozjumer, kao i nadanja, u odnosu na postojeću i buduću zakonsku regulativu, gde se ističe negativan odnos ka procedurama koju prozjumeri prolaze u registraciji, inertnosti sistema, ali i delimično pozitivan odnos ka unapređenju zakonske regulative iz 2023. godine. Sprovedeno istraživanje predstavlja polazni poligon za planirano masovnije ispitivanje posledica zakonodavnih promena i iskustava kupaca-proizvođača, a u cilju unapređenja celokupnog procesa u budućnosti.

Ključne reči: *OIEE, kupac-proizvođač, prozjumer, tržište električne energije, zakoni za OIE*

Abstract

In 2021, the Government of Serbia adopted a set of laws in the energy field, the most significant of which is the Law on the Use of Renewable Energy Sources. This law enabled the public sale of electricity from RES following state aid guidelines. The novelty introduced by this law is the term customer-producer (prosumer), denoting the end customer who owns his facility for the production of electricity from RES, using the produced electricity for his consumption, and the excess electricity is delivered to the distribution system. Law posed no restrictions related to the installation of a maximum power of a solar plant for households and legal entities; however, in

April 2023, the Law on Amendments to the Law on the Use of Renewable Energy Sources limited the prosumers' installing maximum power to 10.8 kW for households, or up to 5 MW for legal entities. From 2021 until July 2023, over 1,300 households and more than 450 legal entities in Serbia received buyer-producer status, with a total installed power of more than 20 MW. This paper researches consumers' role in the RES application in Serbia, focusing on recognized problems and opportunities. In the introductory part, the paper gives an overview of European experiences and the experiences of countries in the surrounding area, after which the paper examines the current problems of prosumers in Serbia, emphasizing specific procedural, financial and other potentially problematic aspects as well as the motivations of active prosumers for the use of the OIE, through the form of survey research. The paper also examines the attitude of prosumers, as well as hopes, concerning existing and future legislation. The paper points out the partly negative attitude of prosumers towards the procedures that prosumers go through in the registration process, and the inertness of the system, but also a positive attitude towards improving the legislation from 2023 is highlighted. The conducted research is a starting point for the planned further mass examination of the consequences of legislative changes and buyers-producers' experiences, intending to improve the entire process in the future.

Keywords: *RES, buyer-producer, prosumer, electrical energy market, RES laws*

1 Introduction

The role of prosumers, recognised as a fusion of "producer" and "consumer", encouraged individuals, communities, and even businesses to consume energy and actively contribute by generating renewable energy. Technological advancements, policy incentives, and a growing consciousness about environmental sustainability in Europe have catalysed this evolution. Prosumers have emerged as pioneers in using solar panels, wind turbines, hydro-energy, and other renewable technologies to generate added energy, which can be fed back into the grid or shared within their local communities. This dynamic role has decentralised energy production and empowered consumers as they become active contributors to the green energy revolution. By engaging in energy production, prosumers have reduced their carbon footprints and collectively played an essential role in driving the transition toward a cleaner and more resilient energy future.

The experience of prosumers is multi-faceted, encompassing both financial and non-financial incentives. Practically, prosumers often witness reduced energy bills or even generate revenue through selling and bringing excess energy back to the grid. This financial incentive and the satisfaction of minimising dependence on fossil fuels have created a profound sense of ownership and responsibility. Moreover, prosumers often find themselves at the heart of tight-knit, sustainable communities that share resources and knowledge, fostering a culture of collaboration and eco-consciousness. Beyond the economic benefits, prosumers also have an essential role in fighting climate change and driving local energy autonomy. However, how does the reality bring light to prosumers' prosperous hopes in countries such as Serbia?

After adopting a set of laws in the energy field in March 2021, the Government of Serbia passed a series of regulations supporting these laws. The Law on the Use of Renewable Energy Sources [1] enabled the public sale of electricity from RES. The Regulation on the criteria, conditions and method of calculating claims and obligations between the buyer - manufacturer and supplier [2], adopted in the same year, applies to households, residential buildings and individual apartments in buildings and companies. From the entry into force of this law until July 2023, over 1,300 households and more than 450 legal entities in Serbia received buyer-producer status, with a total installed power of more than 20 MW [2–5]. Change in the legal regulations from April 2023 introduced the Law on Amendments to the Law on the Use of Renewable Energy Sources [6], as well as the new Regulation based on which buyers-producers are limited to install power plants with a maximum power of up to 10.8 kW for households, or up to 5 MW for legal entities [6], which adds one more thing to the limitations of the prosumers' benefits and future motivation to be one.

The topic of this paper is primarily the directed role of the buyer-producer (prosumer) in the application of RES, which is followed by the law and accompanying legislation regulating this area.

The main focus is on obstacles and possibilities of the prosumers' role in Serbia regarding RES implementation.

2 Implementation of RES through prosumers: European and Balkan experiences

European Union (EU) and Europe, in general, are directly committed to fulfilling the Paris Agreement's goals on climate change and becoming climate neutral by 2050. Under current and planned policies, GHG emissions in the EU are expected to decrease by up to 41% by 2030 and by 54% by 2050, compared with 1990 [7, 8]. That is insufficient to meet the -55% target for 2030 and carbon neutrality in 2050; substantial additional effort is necessary. The European Union's Clean Energy Package, adopted in 2019, aimed to facilitate the uptake of prosumer-driven renewable energy. It emphasised provisions for self-consumption, collective self-consumption, and renewable energy communities.

Thus, the European energy system needed to be drastically transformed by increasing efficiency and boosting the deployment of renewable energy. Millions of EU citizens support this transformation by actively reducing their energy use, switching to renewable energy providers, or taking prosumer activities. The prosumer can be one household, a group of tenants, a multi-family building, or an energy cooperative with participants from the local community. Prosumers can apply different ownership structures and business models, which may be run by volunteers or, in the case of larger projects, by paid staff [9].

Europe has a relatively short experience in prosumer activities, although they made a remarkable revolution in the existing energy-use setting. Throughout Europe, prosumer concepts exist in numerous types and forms. Furthermore, prosumer projects can have different ownership structures and use other technologies. As countries try to fulfil the imperative of transitioning towards sustainable energy systems, prosumers have become one of the most essential links in the energy chain. The experience of prosumers in Europe is characterised by a confluence of economic benefits, environmental consciousness, and social collaboration. Financial incentives, such as feed-in tariffs and net metering schemes, have made renewable investments more attractive and translated into reduced energy bills and revenue generation for prosumers. This has brought about a tangible return on investment, motivating more individuals and communities to embrace renewable energy production.

The cost of RES production has decreased in recent years, and the number of prosumers has increased in many EU countries. This is also driven by increasing interest from citizens and businesses to contribute to the energy transition and reduce their impact on the climate [10].

The number of prosumers in the EU Member States and the EU is still unknown [11]. There is no centralised database, and many prosumers' concepts use different technologies and ownership structures. This makes it difficult to define homogeneous categories for EU-wide monitoring [9].

Solar prosumers are the most widespread among the share of the different RES in Europe and energy production. Solar photovoltaic (PV) installations on residential and commercial properties increased. In 2020, Europe had an estimated 139 GW of installed solar PV capacity [12], with a substantial portion coming from small-scale rooftop installations, making homeowners and businesses prosumers. While solar prosumers were more common, wind energy prosumers were also starting to emerge. Small wind turbines were being adopted by farms, communities, and rural businesses, allowing them to generate their electricity and potentially feed excess power into the grid.

Many European countries have implemented feed-in tariff schemes, net metering, and other incentives to encourage prosumers to invest in renewable energy systems. These schemes helped prosumers recover their investment costs and earn income by selling surplus energy back to the grid. There are data for individual countries, which must be taken conditionally because they cannot adequately represent the European achievements, taking into account the diversity of the renewable energy sources potential. For example, the number of PV prosumers in the Netherlands has increased from less than 500,000 in 2015 to over 1 million in 2020, and the number of PV prosumers in Portugal has increased from 3,000 to over 30,000 in 2019 [13]. In Poland, prosumers grew from 51,000 in 2018 to 847,000 in 2021, with an installed capacity of almost 6 GW (URE, 2022). The technical potential of presumption in the EU was also the subject of several studies [9, 14], which estimated

that a quarter of EU electricity consumption (680 TWh) could be generated from rooftop solar photovoltaic systems alone, based on existing building stock. Depending on the local weather conditions, climate, urbanisation, geological properties, accessibility of the rooftops and possibilities for installation, a large number of European citizens and communities could be future prosumers (Fig. 1). Biggest potential of electricity production by prosumers in 2050 could have Cyprus, Bulgaria, Italy, Hungary and Croatia [15]. Windpower prosumers could be empowered in Denmark, Romania, France, and Ireland. Hydropower could be produced by the prosumers in Estonia, Lithuania, Slovenia and Hungary.

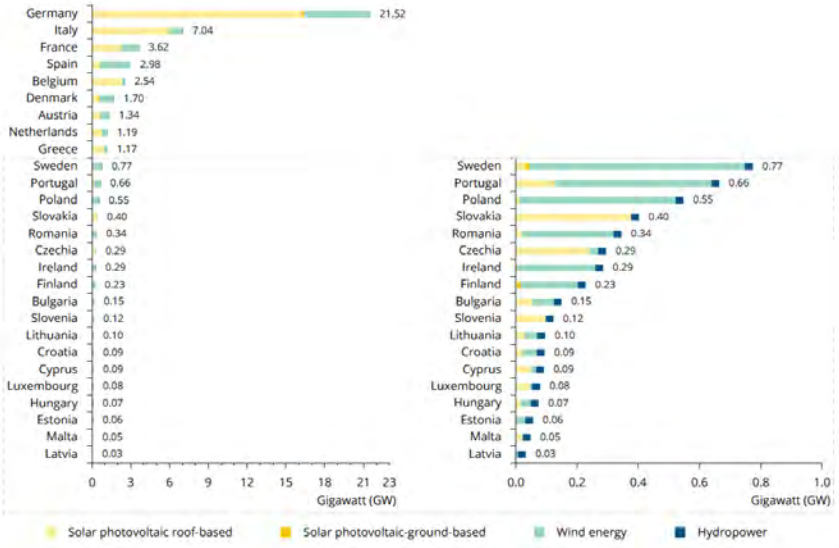

Figure 1. Installed capacity for electricity production by prosumers in the EU in 2015 [15]

The Balkan countries, including those in southeastern Europe, have shown varying degrees of engagement with prosumers in the renewable energy sector. Similar to other parts of Europe, prosumers in the Balkans encompass individuals, communities, and businesses that both consume and produce renewable energy. The adoption of prosumer-related policies and incentives varies across Balkan countries. Some countries may offer feed-in tariffs, net metering, or other financial incentives to encourage prosumer participation in renewable energy generation. In certain Balkan countries (Slovenia, Croatia, Hungary), community-based renewable energy projects have emerged, where groups of individuals come together to invest in and operate renewable energy installations.

3 Overview of EE regulations in Serbia

In 2021, the Government of the Republic of Serbia adopted a set of laws in the energy field, one of which is the Law on the Use of Renewable Energy Sources [1]. In the same year, a legal framework was adopted that regulates the status of the buyer-producer (prosumer) and which includes the Law on Energy [16], the Law on the Use of Renewable Energy Sources [1], the Decree on Criteria, Conditions and the Method of Claims and Obligations Calculation between Buyers - Producers and Suppliers [2] and several regulations.

By introducing the consumer-producer system, citizens and legal entities, as end customers, are enabled to produce electricity for their own needs and thus reduce electricity bills while at the same time becoming active participants in the energy transition process (Fig. 2).

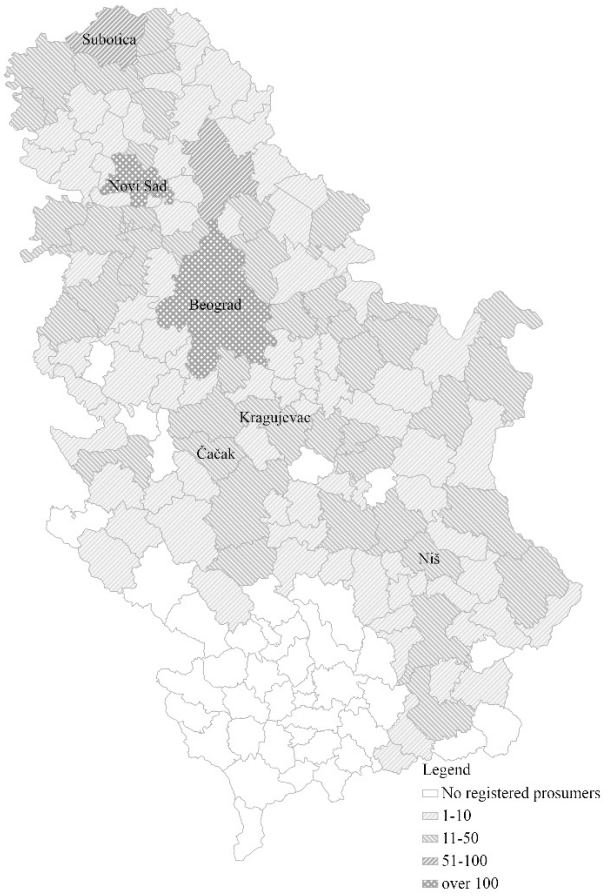

Figure 2 – Number and disposition of prosumers in Municipalities' areas (April 2021-July 2023) Authors [3–5]

The customer-producer (prosumer) is the final customer of electricity who has the right to build a production facility and produce electricity for his own needs, to store it and to sell the excess electricity, i.e. deliver it to the transmission system, distribution system, i.e. closed distribution system a system in which the surplus is stored and withdrawn at the moment when the customer-producer cannot produce a sufficient amount of electricity for its needs. The end customer acquires the status of the customer-producer by entering into the register of customer-producers performed by the system operator after fulfilling all the necessary conditions.

In the same year, the Regulation on the criteria, conditions and method of calculating claims and obligations between the buyer-producer and supplier was adopted [2], which refers to households, residential buildings and individual apartments in buildings and companies. This Regulation prescribes the criteria, conditions and method of calculating claims and obligations between the customer - manufacturer and supplier. With the adoption of this Regulation, the procedure for becoming a buyer-producer is significantly simplified, and the entire process can be completed in less than a month.

After the end customer acquires the meter, he electronically sends a request to the electricity distribution company for adjustment of the metering point to obtain the status of buyer-producer. Along with the completed application, documents for adjustment of the measuring point, proof of the paid tax and the manufacturer's statement on the product's conformity with the EPS requirements are submitted. Also, it is necessary for the end customer to build a production facility, and the installed power of the production facility cannot be greater than the approved power of the end customer's connection.

If it is a household, a Request for the conclusion of a full supply contract with net metering is submitted. If the end customer is not a household or a housing association, a Request for the conclusion of a full supply contract with net billing is submitted. After the contract is concluded, the supplier

notifies the system operator, who then connects the end customer's facility to the power system within five days. In the next step, the operator registers the end customer in the Register of Buyer-Producers within five days, which officially acquires the status of buyer-producer, i.e. consumer.

In April 2023, the Law on Amendments and Supplements to the Law on the Use of Renewable Energy Sources [6] was adopted, which limited buyers-producers to install power plants with a maximum power of up to 10, 8 kW for households, and all other customers up to 150 kW, maintaining priority access to the system, without balance responsibility. According to the explanation of the Government of Serbia, the new legal solution introduced limits for the connection of capacities for the production of electricity from renewable sources to avoid overloading the distribution and transmission networks. It was also pointed out that it is necessary to integrate more green energy while ensuring the stability of the electrical energy system. With the amendments to the Law on Value Added Tax, a more favourable tax calculation began for households that are consumers, that is, buyers and producers of electricity at the same time, which partially improved the application of this law.

In accordance with the Law on the use of renewable energy sources and the Regulation on the criteria, conditions and method of calculation of claims and obligations between the customer-producer and supplier, Joint-stock company "Elektroprivreda Srbije" (EPS), as one of the suppliers on the electric energy market in the Republic of Serbia, participates in the process of concluding a contract with a complete supply with net metering, i.e. net settlement with customers-producers. According to the new legal solutions, EPS will assume balance responsibility only for pro-producers entitled to a market premium or feed-in tariff (privileged producers).

The duty of the EPS ends (i) at the end of six months from the date of the merger of the organized intraday market of the Republic of Serbia with the single European organized intraday market or (ii) at the end of 30 months from the day of the establishment of the organized intraday market in Serbia Other producers will have to regulate their responsibility for balancing according to market conditions. The amendments introduced a principle that will protect the financial stability of EPS - including the obligation of producers who are entitled to market premium to pay fees to EPS [17] (amounts determined in the public call for auction) as compensation for the transfer of balance responsibility).

The Government of Serbia adopted the Regulation on Amendments to the Regulation on Criteria, Conditions and Method of Calculation of Claims and Obligations between Buyer-Producer and Supplier of Electricity [18], which additionally simplified the procedure for the production of energy for own needs from renewable energy sources.

Changes in the Regulation should make it possible to shorten the procedure further and reduce costs for buyers-producers who use the entire produced electricity only for their consumption and do not deliver excess energy to the transmission, distribution, or closed distribution system. In this case, citizens or business entities with buyer-producer status are required to submit a request to the supplier for the conclusion of a complete supply contract or a supply contract with predetermined amounts of electricity for each billing period during the supply period.

By including consumers who consume their energy from renewable sources, losses in the network are reduced and contribute to increasing energy independence and security and preserving a healthy environment. The Government also adopted the Decree on the conditions and procedure for acquiring the status of privileged electricity producer, temporary privileged producer and producer of electricity from renewable energy sources [19].

In addition, the Government of the Republic of Serbia adopted at the beginning of June 2023 the Plan for the incentive system for the use of renewable energy sources for the period 2023-2025, according to which the total capacity for which the right to incentives in the market premium system can be acquired in the next three years amounts to 1,000 MW for wind power technology and 300 MW for solar power technology.

Based on Article 61, Paragraph 3 of the Law on the Use of Renewable Energy Sources [1], the Ministry of Mining and Energy issues a Rulebook on the manner of keeping the Register of Buyers - Producers connected to the transmission, distribution, or closed distribution system and the methodology for evaluating the produced electricity in the production facility of the customer-pro-contractor

[20], which prescribes the way of keeping the Register of customers-producers connected to the transmission, distribution and closed distribution system, as well as a methodology for evaluating the produced electricity in the customer-producer facility.

4 Survey of use of EE in Serbia by prosumers

The law and its recent amendments motivated many prosumers to dive into efficient energy production and are driven by its announced and anticipated potential benefits. However, as a lot of new and innovative things, from firstly seen as a win-win situation, the procedure and process have shown more levels of complexity, which were not entirely anticipated or welcomed by new prosumers in Serbia which showed pros and cons of regulations, procedures for applying for buyer-produced permits, level of information or readiness of bureaucratic system overall, prolonged timelines of these prosumer registration processes and much more.

For this research paper, authors developed a questionnaire for active and registered prosumers in Serbia based on the Law from 2021 [1] and its amendments from 2023 [6], technical specification of PV systems, general current problems and focus that prosumers have introduced on the prosumers' forum [21], etc.

The survey consisted of 14 questions regarding location (Municipality/City), the type of the prosumer, application procedures for a prosumer's permit with the state enterprise (duration of application, paperwork complexity, level of financial demanding process, etc.), knowing more about prosumers and their motivation to produce clean energy, their knowledge of the law and amendments, technical specifications such as type of panels, position of panels on the roof, and specific advantages and disadvantages of using PV panels as prosumers.

The survey was mostly done with predefined answers (one answer applicable or multiple selection) and two questions for freeform written answers. The questionnaire via Google Forms was distributed online through the Viber page and Viber group "Prosumers of Serbia", leading platforms between active, officially registered prosumers in Serbia. Twenty-two of the group members (active prosumers) filled out the survey.

Consistency of the answers was seen not only in questions with predefined answers but also in free-form responses, which led to the conclusion that the prosumers see similar advantages but also very similar problems regarding the process, especially the critique regarding the experience with the state enterprise EPS.

Most survey respondents were Household prosumers (91%), and others were residential community and prosumers that were neither. The main part of prosumers were primarily informed through websites or other online systems about the needed information (Fig. 3). The process of getting the permit is followed by an application to the state enterprise after the PV panel system is installed and operational and usually follows with a bidirectional meter and taxes needed to be paid. Prosumers mostly answered that the process was between 2-3 months, or more than three months (Fig. 4), and they rated the process from intermediate (45%) to complicated (27%) as an overall experience and financially demanding (Fig. 5).

Most prosumers were pretty informed about the Law, at least partly when going into the procedure and its amendments, which medium meets their needs today. Most prosumers (over 95%) hadn't had PV panels before the Law mentioned above from 2021.

Most prosumers positioned PV panels according to their roof geometry rather than just the sun-location position, as expected, which eases the montage process. Most prosumers choose the PV panels according to their efficiency, financial aspect, and other characteristics (Fig. 6). Users selected different types of monocrystal panels, usually 450-460W power per panel.

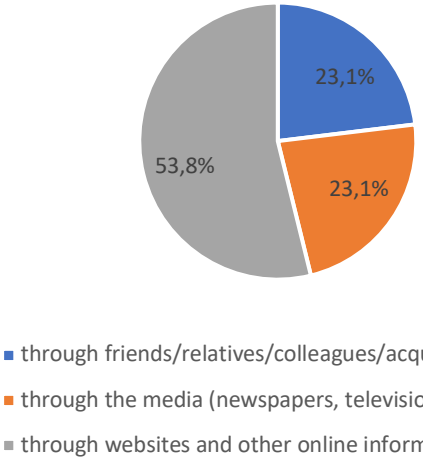

Figure 3 – Prosumers source of information regarding the interest in the topic and application later (left)

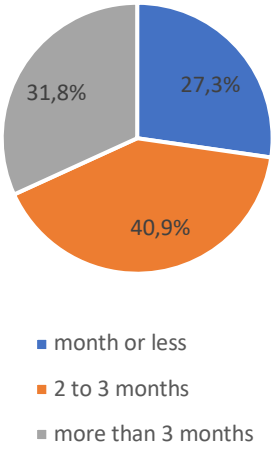

Figure 4 – Length of paperwork (until the permit) process application (right)

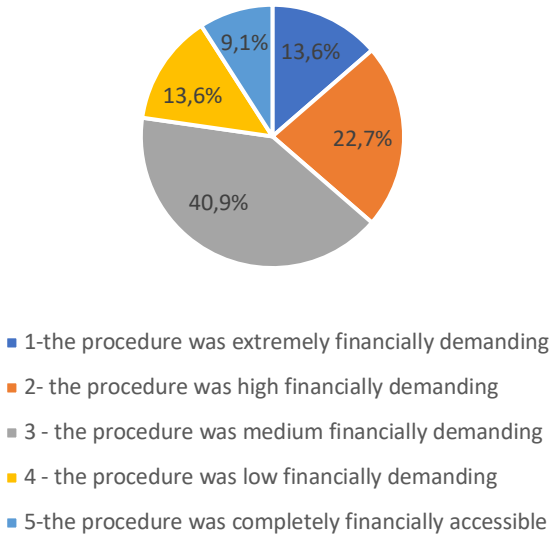

Figure 5 – Extent of the procedure for obtaining the permit and equipment as a financial burden (left)

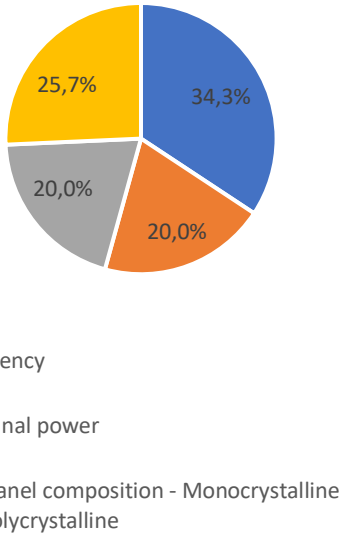

Figure 6 – Factors that influenced prosumers on the choice of selecting specific photovoltaic panel model (right)

Some of the points that surveyed prosumers consider as the most significant advantages of using renewable energy sources were:

- decarbonisation, green EE production, pollution remediation - many users pointed out the more ecological solution of using EE as an advantage (reduction of pollution, etc.),
- own EE production (more extensive EE independence from Electrical distributor of energy),
- material savings- the financial aspect as a significant advantage (EE bill, etc.)[1],
- advantage of a positive psychological effect on each monthly reduced EE bill, no matter the significant initial money investment in the individual project.

[1] usual practice is to turn on significant consumer devices in homes during the night because EPS during that period taxes less the consumed energy compared to during the daytime. this way, produced energy can be mainly used during the day when there is a more prominent need for that

Prosumers also expressed different shortcomings in the process of obtaining buyer-producer status:

- the unwillingness of EPS to adapt their procedures to the changing demands/needs of prosumers,
- price of papyrology for prosumers' registration process,
- inconsistency, slowness, deliberate procrastination (overall bureaucratic system inertia),
- insufficiently informed state entities regarding the regulation from 2021 and even non-compliance with regulations by the state,
- no way of tracking the actual state of the documentation process and its phases,
- lack of information for potential and current prosumers – the possibility of finding some counselling body, as now the potential prosumers are only connected to construction companies that built PV systems,
- there is insufficient information about the procedure's financial benefits and expenses (bidirectional meter's price, replacement and EPS tax for processing the application).

4.1 Recommendations

The energy potential of solar energy in Serbia is 30% higher compared to central Europe, where there are already numerous solar power plants on the roofs of private houses. In Serbia, since the beginning of the application of the newly introduced "customer-producer" institute of electricity, over 300 households have already decided to independently start producing electricity for their own needs [22].

With the introduction of the legislation, many questions and doubts arose from citizens about the construction and operation of solar power plants, connection procedures, subsidies and loans for financing the introduction of renewable energy sources in households. To help citizens better understand the possibilities of building a solar power plant on the roof of their family home, the Center for Environmental Improvement has published a new guide that contains detailed information on the entire procedure "from idea to green kilowatts" [23]. When the "customer-producer" institute was introduced into the domestic legislation, producing electricity through solar panels aroused great interest from the general public, and many citizens decided to try to produce electricity independently.

The buyer-producer system foresees electricity production for its own needs, and all the surpluses are transferred to the power system, which has the function of a "virtual battery". When the consumption of electricity in the household is higher than the production of the solar power plant, the surplus of our production is "withdrawn"; thus, we again use the electricity we have produced ourselves. In this way, we reduce our electricity costs, which will be increasing, but we also reduce the need to burn fossil fuels to a certain extent, thereby improving air quality.

The biggest obstacle to the mass adoption of the "buyer-producer" system by interested citizens is the current way of calculating VAT, excise duty and other associated costs, which are calculated on the entire household consumption instead of only on the "net difference" between the electricity received and delivered. as defined by the Regulation that regulates the issue of this calculation. This situation arose due to the non-recognition of the "buyer-producer" institute by other laws, such as the VAT Law and the Excise Law. It is a good circumstance that the "buyer-producer" talks with the Ministry of Mining and Energy, the Ministry of Finance and the EPS have started.

5 Conclusion

After more than two years since the first version of the Law on the Use of Renewable Energy Sources was passed, specific experiences have been gained in this area. Current laws clearly define the long-term goals of the Republic of Serbia when it comes to the use of energy from renewable sources: reducing the use of fossil fuels and increasing the use of renewable energy sources, long-term reduction of dependence on energy imports and creation of new jobs in the field of renewable energy sources. However, the Law on Amendments and Supplements to the Law on the Use of Renewable Energy Sources, which was adopted two years later, limited the production of renewable

energy, both for households and for the economy, which caused great controversy because the primary purpose of this Law is to encourage and promotes the production of energy from renewable sources. The proposed changes contradict the defined goals, and the appearance of each new buyer-producer directly reduces the need to import electricity. The average size of the installed solar power plant was 8.2 kW, with which the citizens made a joint investment in the production of clean energy of almost 10 million euros and started the cycle of civic energy production—participation in the energy transition, but also recognition of their role in the electricity market.

Buyer-producers, who are legal entities, built 296 solar power plants with a total capacity of 6936 kW in the first year, which makes this investment estimated at an additional 8.5 million euros. Limiting the production of electricity for one's own needs will also have a significant impact on the economy and agriculture, which will also lead to the payment of higher tax rates on carbon dioxide when exported to the European Union through the CBAM mechanism (Carbon Border Adjustment Mechanism), whose transition national implementation begins on October 1 of this year.

Another argument in favour of the thesis that prosumer production should not have been limited is the fact that the installation of power plants from renewable energy sources contributed to the budgets of local self-government units and the budget of the Republic of Serbia, given that, on all the equipment installed, paid the total amount of customs duties and value-added tax, as well as other fees. In addition, the data from the local communities speak of increased employment by establishing new installation companies. In this way, different branches of the economy are involved in the energy transition and the local production of clean energy.

In addition, the Republic of Serbia has committed itself to having a share of 40.7% of renewable energy sources in gross final energy consumption by 2030. it is a signatory to the Paris Agreement, as well as the Sofia Declaration, and the proposed changes to the Law are entirely contrary to the interests of all households and businesses in Serbia, as well as the interests of the Republic of Serbia in terms of fulfilling international obligations [23].

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