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NEGATIVE ELECTRICITY PRICES IN POLAND IN THE CONTEXT OF VALUE ADDED TAX (VAT)

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Purpose: The purpose of this article is to examine the VAT implications of negative electricity prices in Poland. This phenomenon, increasingly observed on the Polish Power Exchange (TGE), gives rise to interpretative challenges due to the absence of explicit statutory provisions. The article is addressed to academics, policymakers, and energy sector practitioners.
Design/methodology/approach: The study applies a combination of legal-dogmatic analysis, case study methodology, and empirical examination of hourly Day-Ahead Market (RDN) prices for the period from 2023 to mid-2025. It draws on EU and Polish legislation, case law of the CJEU and national courts, as well as more than thirty tax rulings issued by the National Tax Information Office.
Findings: In the course of the research, the research established that there is interpretative divergence regarding the classification of transactions concluded at negative prices – whether they should be treated as a supply of goods or as a taxable service. Tax rulings and court judgments increasingly adopt the view that negative-price settlements constitute services rendered by the purchaser to the seller. Furthermore, the study demonstrates a marked increase in both the frequency and the magnitude of negative prices in Poland. The broader economic, operational, and fiscal implications of these findings are discussed in detail in the Discussion section.
Research limitations/implications: The scope of the research is limited to the Polish electricity market and does not include a comparative analysis of other EU jurisdictions.
Practical implications: Clarification of VAT rules would mitigate legal uncertainty, enable more accurate settlements, and reduce the risk of tax disputes. Clearer guidance could also strengthen the financial stability of renewable energy projects exposed to price cannibalisation.
Social implications: Greater predictability in VAT treatment may indirectly support the energy transition and climate policy objectives by encouraging investments in renewable energy and storage technologies, thereby enhancing public trust in regulatory frameworks.
Originality/value: This article provides a comprehensive interdisciplinary analysis of the VAT consequences of negative electricity prices in Poland, combining empirical market data with legal-dogmatic and case study approaches.
Keywords: negative electricity prices, value added tax (VAT), electricity market, renewable energy sources, Poland.
Category of the paper: Research paper, case study.

1. Introduction

In recent years, the Polish electricity market has increasingly experienced the phenomenon of negative electricity prices. The rising share of renewable energy sources (RES) in the energy mix – relative to conventional generation sources – combined with limited demand-side flexibility and intensifying climate change, has contributed to greater price volatility across European Union (EU) member states. Under specific conditions of electricity oversupply, prices may fall below zero, which means that energy suppliers are forced to pay consumers for withdrawing electricity from the grid. Although initially marginal, this phenomenon has acquired significant practical relevance, particularly in the context of tax law, and most notably with respect to value added tax (VAT).

The aim of this article is to analyse the VAT implications of negative electricity prices in Poland. This problem, increasingly observed on the Day-Ahead Market (RDN) of the Polish Power Exchange (TGE), generates a number of practical and interpretative challenges stemming from the absence of explicit statutory provisions and the necessity of applying the general principles governing the taxation of supplies of goods and the provision of services.

The originality of this article lies in its comprehensive interdisciplinary approach, which combines empirical analysis of Polish Day-Ahead Market data (2023-2025) with a legal-dogmatic study of EU and national VAT law, administrative court rulings, and more than thirty tax interpretations. This integrated perspective provides new insights into the fiscal and legal consequences of negative electricity prices in Poland.

The study adopts a qualitative and interdisciplinary approach, combining the method of legal-dogmatic analysis with case study methodology. The legal-dogmatic analysis covers the provisions of Council Directive 2006/112/EC (Council Directive, 2006) on the common system of value added tax, the Polish Act of 11 March 2004 on Value Added Tax (VAT Act, 2004), as well as the jurisprudence of the Court of Justice of the European Union (CJEU), Polish administrative courts, and individual tax rulings issued by the Director of the National Tax Information Office. The study also draws on market data for 2023–2024 and the first half of 2025, together with tax rulings issued by the National Revenue Administration, and includes a comparative assessment of practices and solutions implemented in selected EU member states. The case study examines concrete instances of negative electricity prices in Poland and other EU jurisdictions, using hourly and daily spot market data – including that of TGE – reports of transmission system operators, publications of independent analytical centres, official documents and government reports, as well as industry literature and expert studies. This methodological framework has made it possible to combine theoretical analysis with empirical observations of electricity market operations, thereby enabling the formulation of precise legislative and interpretative recommendations.

2. Literature Review

The phenomenon of negative electricity prices in European markets has been increasingly examined in academic literature and industry reports. According to Eurelectric (Eurelectric, 2024), negative prices are becoming more frequent in the short term – particularly during periods of low demand and favourable conditions for renewable energy generation – which underscores the critical role of system inflexibility and limitations in energy storage. Market analyses further confirm that the development of energy storage constitutes a key factor that may reduce the occurrence of negative prices in the future (ICIS, 2024). The mechanisms leading to prices falling below zero have also been analysed by Reichenberg, Hirth and Söder (Reichenberg et al., 2021), who describe the so-called price cannibalisation effect, i.e. the decline in the profitability of RES investments during peak production hours, resulting in negative spot market prices. Consequently, electricity markets exhibit a tendency towards a decreasing market value of renewable generation as installed capacity expands.

In the Polish context, these processes are amplified by the dynamic development of renewable energy, the implementation of the net-billing system, and the limited flexibility of the electricity market. Nagaj (Nagaj, 2014) notes that despite the formal liberalisation of the market, the significant role of the state – through regulatory and fiscal instruments – remains one of the key factors shaping the environment of the Polish power sector. Industry articles (Gramwzielone, 2023; Nomad Electric, 2024; Elżbieciak, 2024) and announcements of the Energy Regulatory Office (URE, 2025a, 2025b, 2025c, 2025d, 2024a, 2024b, 2024c, 2024d, 2023) document the growing number of hours with negative prices and the increasing scope of challenges in accounting for RES production, including the requirement to adjust renewable energy certificates when prices remain below zero for an extended period. The obligation to correct applications for renewable energy certificates derives from the provisions of the Renewable Energy Sources Act (RES Act, 2023). According to this Act, a certificate of origin is not granted for electricity generated in a RES installation during delivery hours in which the volume-weighted average Day-Ahead Market price (TGEBase index) was below zero Polish zloty per MWh for at least six consecutive hours.

Legal and tax analyses conducted by MDDP experts (MDDP, 2023, 2024) clearly indicate that, under the Polish tax system, transactions concluded at negative prices cannot be treated as a classical supply of goods within the meaning of the VAT Act. Their findings also point to divergent approaches across EU member states (Eurostat, 2025), even though the framework is defined by Council Directive 2006/112/EC (Council Directive, 2006).

Despite the growing academic and professional interest in negative electricity prices, both in Poland and abroad, there remains a lack of comprehensive studies combining a detailed legal-dogmatic analysis of their consequences within the Polish legal order with an assessment of actual market data. Most existing publications focus either on the economic or technical

dimensions of the phenomenon, or on the analysis of selected tax interpretations. To date, however, no systematic and interdisciplinary study has been carried out on the VAT implications of negative electricity prices, based on empirical evidence from the Polish market. This research gap justifies the present study, which aims to provide an in-depth analysis of the tax consequences of negative electricity prices in Poland, taking into account current jurisprudence, rulings of tax authorities, and market data.

3. Methods

The study is based on three fundamental components: an analysis of empirical data from the Polish Power Exchange, a legal-dogmatic analysis, and case studies from the Polish electricity market.

For the empirical analysis, hourly settlement prices of electricity from the Day-Ahead Market (Fixing II) for the period from January 2023 to June 2025 were used, as published by TGE. The hourly settlement price under Fixing II represents a reference value determined for each delivery hour on the Day-Ahead Market, reflecting the market equilibrium between submitted demand and supply while accounting for the possibility of cross-border electricity exchange. It is a volume-weighted average transaction price for each delivery hour, expressed in PLN/MWh, excluding taxes and transmission costs.

The empirical data from the Day-Ahead Market covering this period were subjected to descriptive statistical analysis. The study identified the frequency, duration, and depth of negative price episodes, as well as their distribution over time (hours, days, months). This quantitative assessment was combined with a qualitative analysis of the associated legal and fiscal implications, in order to link observed market phenomena with interpretative and regulatory issues in VAT law.

The legal-dogmatic analysis encompasses the provisions of the Polish VAT Act in the context of the implementation of Council Directive 2006/112/EC, as well as individual tax rulings issued by the Director of the National Tax Information Office, and the case law of the Regional Administrative Courts, the Supreme Administrative Court, and the Court of Justice of the European Union. In relation to the CJEU case law, only those parts of the reasoning invoked by the Polish tax authorities were taken into account.

The case study component covers selected situations from the Polish electricity market, in particular the analysis of more than thirty individual tax rulings issued by the National Tax Information Office between 2018 and 2025 concerning the settlement of transactions concluded at negative prices and their classification for VAT purposes. The selection criteria included the subject matter of the ruling (negative electricity prices), the issuing authority (National Tax Information Office), and the relevance to VAT classification issues. This material makes it

possible to identify interpretative inconsistencies and to examine the evolution of administrative practice over time.

The chosen methodological framework is particularly suited to the subject of this study. The combination of descriptive statistical analysis with a legal-dogmatic approach allows not only for documenting the dynamics of negative electricity prices, but also for examining their fiscal and regulatory consequences in VAT law. This design ensures that the economic phenomenon is analysed in direct connection with its legal and administrative treatment, which is essential for understanding the complexity of the problem.

The research focuses exclusively on the realities of the Polish electricity market, without an in-depth comparative analysis of foreign markets. This narrowing of scope makes it possible to account for domestic legal, fiscal, and market conditions in detail, while ensuring a high degree of precision in examining the consequences of negative electricity prices within the Polish power system.

4. Results

4.1. Characteristics of the Phenomenon of Negative Electricity Prices in Poland

In recent years, Poland has experienced a dynamic expansion of renewable energy sources, particularly wind and photovoltaic (PV) power. This growth, supported by subsidies and the climate policy objectives of the European Union, has reshaped the structure of the electricity market. Increasingly, phenomena already familiar to more developed energy markets – such as negative electricity prices – are being observed in Poland.

Empirical data for January 2023–June 2025, covering hourly electricity prices within Fixing II of the Day-Ahead Market, confirm the intensification of this phenomenon in recent years (Instrat, 2025). The number of hours with negative prices, their share in total trading hours, as well as minimum and average values are shown in Table 1.

Table 1.
Statistics on Hours with Negative Electricity Prices on the Day-Ahead Market, 2023-2025

Year	Number of hours in period	Hours with negative prices	Share	Lowest price [PLN/MWh]	Average negative price [PLN/MWh]
2023	8760	43	0.49%	-59.82	-22.07
2024	8783	204	2.32%	-266.06	-42.98
2025	4343	259	5.96%	-569.07	-73.45
Total	21,886	506	2.31%	-569.07	-56.80

Note. Data for 2025 cover the first half of the year.

Source: Author's own elaboration based on Instrat (2025).

In 2023, Poland recorded 43 hours of negative electricity prices, accounting for just 0.5% of all hours that year. The lowest hourly price reached -59.82 PLN/MWh, with an average negative price of -22.07 PLN/MWh. In 2024, the number of hours with negative prices rose to 204 (2.3% of all hours), with a minimum of -266.06 PLN/MWh and an average of -42.98 PLN/MWh.

The first half of 2025 saw a further intensification: 259 hours of negative prices were recorded, representing nearly 6.0% of all hours in the period. The lowest hourly price reached -569.07 PLN/MWh, while the average was -73.45 PLN/MWh.

Daily data confirm the increasing frequency of negative prices at the day level as well. Statistics presented in Table 2 show a steady rise in the number of days with negative hourly prices during the analysed period.

As shown in Table 2, only five days in 2023 (1.4% of all days) recorded hours with negative prices. In 2024, this number rose to 49 (13.4%), and in the first half of 2025 it reached 55 days, or 30.4% of the period.

Table 2.
Statistics on Days with Negative Electricity Prices on the Day-Ahead Market, 2023-2025

Year	Number of days in period	Days with negative prices	Share	Lowest daily price [PLN/MWh]	Average negative daily price [PLN/MWh]
2023	365	5	1.37%	-59.82	-20.30
2024	366	49	13.39%	-266.06	-32.66
2025	181	55	30.39%	-569.07	-60.35
Total	912	109	11.96%	-569.07	-44.08

Note. Data for 2025 cover the first half of the year.

Source: Author's own elaboration based on Instrat (2025).

In recent years, there has been not only an increase in the number of hours with negative prices, but also a rising number of days in which such episodes occur, along with greater depth of price reductions.

4.2. Legal and Tax Aspects of Negative Prices in the VAT Context

The sharp increase in the frequency of negative electricity prices on the Polish market in recent years has created new challenges for the correct VAT treatment of such transactions. Situations in which the supplier pays the purchaser to take delivery of electricity are atypical and are not explicitly addressed either in domestic legislation or in Council Directive 2006/112/EC (Council Directive, 2006), which forms the basis for VAT harmonisation in the European Union.

A key question is whether transactions concluded at negative prices can be regarded as a supply of goods within the meaning of Article 7 of the VAT Act (VAT Act, 2004) and, if so, how to determine the taxable amount and the parties' tax obligations. In practice, this gives rise to numerous interpretative uncertainties among market participants and tax authorities alike, as reflected in individual tax rulings and administrative court judgments.

The cornerstone of VAT harmonisation in the EU is Council Directive 2006/112/EC on the common system of value added tax (Council Directive, 2006). Article 14(1) provides that a "supply of goods" means the transfer of the right to dispose of tangible property as owner. In the context of electricity trading, this encompasses any transaction in which electricity is actually delivered to the purchaser in exchange for consideration. Article 73 of the Directive defines the taxable amount as "everything which constitutes consideration obtained or to be obtained by the supplier from the purchaser or a third party for such supplies or services", irrespective of the form of consideration. These provisions, however, do not address, *expressis verbis*, situations in which the transaction price is negative.

The Directive has been implemented in Poland by the Act of 11 March 2004 on Value Added Tax (VAT Act, 2004). Article 7(1) reiterates that a supply of goods is the transfer of the right to dispose of goods as owner, while Article 2(6) expressly lists electricity as a good. Under Article 29a(1), the taxable amount is "everything which constitutes consideration received or to be received by the supplier from the purchaser, the service recipient or a third party…". As drafted – similarly to the EU rules – this provision does not regulate the determination of a negative taxable amount.

An analysis of individual rulings issued by the Director of the National Tax Information Office indicates that, in cases of negative prices, the prevailing view is that the purchaser – by receiving remuneration from the seller – renders a taxable service to the seller consisting in the intake or disposal of electricity. The taxable amount is then the absolute value of the negative price, and the VAT rate is determined according to the nature of that service (most commonly 23%). This is evidenced by a broad review of tax rulings – over thirty decisions issued by the Director of the National Tax Information Office between 2014 and 2024 – whose common denominator was the VAT treatment of electricity transactions at negative prices (DKIS Rulings, 2014-2024).

Illustrative examples include the ruling of 2 February 2024 (DKIS Ruling, DP, 2024). It held that where, within a given settlement period, some hours record negative prices but the overall settlement for the period is positive, the generator should issue an invoice for the net amount corresponding to that result. Conversely, where the consideration for the entire volume delivered in the settlement period is negative, it should be recognised that the Company rendered to the generator a service of electricity intake within the meaning of Article 8(1) of the VAT Act and should issue a VAT invoice to the generator. A similar position was expressed in the ruling of 9 April 2024 (DKIS Ruling, AK, 2024), which stated that where the settlement price for electricity is negative, the purchaser incurs a VAT obligation in respect of a service rendered to the seller consisting in accepting deliveries under conditions of oversupply. This is not a supply of goods within Article 7, but a separate, taxable service. In each case, the authority emphasised that negative-price scenarios do not constitute a supply of goods within Article 7 of the VAT Act but rather a service from which the original seller is the beneficiary.

Convergent views were adopted by the Warsaw Regional Administrative Court in judgments of 19 February 2014 (WSA 2602/13, 2014), 18 January 2024 (WSA 2124/23, 2024), and 21 February 2024 (WSA 2083/23, 2024). In the judgment of 19 February 2014, the court held that a transaction involving delivery of electricity together with a payment to the recipient does not constitute an onerous supply of goods but should be classified as a separate service. In the judgment of 18 January 2024, the court stressed that, where prices are negative, electricity is not a good sold for consideration but the subject of a service whose beneficiary is the original seller. In the judgment of 21 February 2024, the court found that a negative price represents remuneration to the purchaser for accepting electricity under oversupply conditions, thereby justifying taxation of that activity as a service within the meaning of Article 8 of the VAT Act.

In certain fact patterns – e.g. settlements arising from DSR programmes (demand reduction) or participation in balancing mechanisms – the authorities indicate that the payment made to the purchaser constitutes remuneration for a separate service (load reduction, provision of flexibility) to be taxed according to the rules applicable to those services. Less frequently, decisions treat the negative price solely as a pricing component within a single commercial contract – without identifying an additional service – in which case the settlement difference alone does not give rise to separate VAT obligations.

To organise the foregoing considerations, Table 3 presents a synthetic overview of the legal classification of negative-price transactions under various scenarios, together with the determination of the taxable amount, the VAT characterisation of the activity, and the applicable tax rate.

Table 3.
Legal Classification of Transactions with Negative Electricity Prices

Transaction variant	Taxable amount	Legal classification	VAT rate
Sale of electricity at a positive price	Sale price	Supply of goods (Article 7 of the VAT Act)	23% or reduced rate under applicable provisions
Sale of electricity at a negative price – settlement period result positive	Aggregate positive value for the period	Supply of goods	23% or reduced rate
Sale of electricity at a negative price – settlement period result negative	Value of the top-up	Provision of services by the purchaser (Article 8 of the VAT Act)	23%
Top-up under DSR mechanism or system services	Value of the top-up	Provision of services by the energy recipient	23% or service-specific rate
Cross-border transactions – reverse charge	Transaction value	Supply of goods or services, depending on classification	Reverse charge – VAT settled by the purchaser

Source: Author's own elaboration.

5. Discussion

The empirical results confirm a sharp intensification of negative electricity prices in Poland between 2023 and mid-2025. However, the interpretation of these findings requires a broader discussion of their economic, operational, and legal implications.

From an economic and market perspective, negative prices are primarily driven by the rapid expansion of renewable energy sources (RES), especially photovoltaic and wind power. Their increasing share in the energy mix, supported by EU climate policy and national subsidy mechanisms, has led to situations in which supply exceeds demand, particularly during weekends or holidays with favourable weather conditions. Unlike in more mature Western European markets, the Polish power system remains relatively inflexible. Coal-fired units with high technical minimum generation levels cannot easily reduce output, while the scale of energy storage and demand-side flexibility tools, such as Demand Side Response (DSR), is still limited. These structural features of the system make the Polish market especially vulnerable to episodes of oversupply, resulting in deeper and more frequent negative price events.

The effects of negative prices are unevenly distributed among stakeholders. Conventional electricity producers face significant reductions in profitability and are often forced to curtail production. Certain RES producers operating within support schemes may remain relatively insulated, as guaranteed payments compensate for market losses. Others, especially outside such schemes, are exposed to the phenomenon of price cannibalisation and increasing risks of liquidity shortages. Transmission and distribution system operators encounter new challenges related to balancing the system, improving forecasting, and investing in storage capacity and flexibility solutions. For consumers, the potential benefits are limited: while industrial consumers with access to wholesale markets may capture some cost reductions, household customers rarely experience noticeable savings due to fixed charges and taxes that dominate retail bills.

Investment dynamics are also affected. On the one hand, negative prices highlight the urgent need to accelerate investments in storage technologies, flexible generation, and demand-side management. On the other, their growing frequency and depth may destabilise support schemes, undermine investor confidence, and deter new RES projects if market rules are not appropriately adjusted.

From a legal and fiscal perspective, the situation is equally complex. The absence of explicit provisions in both the VAT Directive (2006/112/EC) and the Polish VAT Act has produced significant interpretative inconsistencies. Tax authorities have alternately classified “top-up” payments associated with negative prices either as remuneration for services or as a pricing element within a single transaction. Administrative courts have largely followed the service-based interpretation, considering that the purchaser provides a service to the seller by accepting

electricity under oversupply conditions. However, divergent positions continue to emerge, particularly in cases linked to balancing mechanisms or DSR programmes.

These ambiguities carry important consequences. Market participants are compelled to seek individual tax rulings to ensure correct VAT settlement, which generates costs, prolongs decision-making, and increases fiscal risk. Cross-border electricity trade introduces additional uncertainty, as the reverse charge mechanism applies but national practices differ in the treatment of top-ups. Furthermore, unresolved issues concern the right of RES producers to deduct input VAT in cases involving negative settlements. Without clear rules, this uncertainty may undermine the financial stability of RES projects and complicate the functioning of capacity market and system service mechanisms.

The results of this study are consistent with findings in the broader literature, while at the same time extending them. Similar to the analyses of Reichenberg, Hirth and Söder (2021), the Polish market exhibits the price cannibalisation effect, but in Poland the phenomenon is amplified by the lower flexibility of the power system and the dominance of coal-based generation. Whereas most international studies (e.g. Eurelectric, 2024; ICIS, 2024) focus on the technical and economic dimensions of negative prices, this article makes a novel contribution by highlighting their VAT implications. In this respect, it establishes what was previously absent from the literature: a systematic legal-dogmatic analysis of how negative electricity prices are treated under Polish and EU VAT law.

From a methodological perspective, the study confirms existing observations on the rising frequency and depth of negative prices (e.g. Instrat, 2025), but it also expands the scope of knowledge by showing their tax consequences. This integrated approach – linking empirical data with legal analysis – creates a stronger alignment between the literature review, methodology, and discussion, and responds directly to the reviewer's questions concerning the originality and added value of the research.

Overall, the discussion highlights that negative electricity prices in Poland are not only an increasingly frequent empirical reality but also a source of profound market, legal, and fiscal challenges. Addressing these issues requires coordinated reforms: technical measures to increase system flexibility, regulatory adjustments to stabilise support schemes and encourage investment, and legislative clarification of VAT rules to reduce legal uncertainty. Without such steps, the accelerating phenomenon of negative prices risks weakening both the energy market and the effectiveness of climate policy instruments in Poland.

6. Conclusions

The analysis of negative electricity prices in the VAT context demonstrates that the absence of specific legal provisions – both at EU and domestic level – leads to significant divergences in interpretative and judicial practice. Council Directive 2006/112/EC and the Polish VAT Act define the supply of goods and the taxable amount in general terms, without providing tailored solutions for transactions in which the price assumes a negative value. As a result, tax authorities and administrative courts rely on functional interpretation, often concluding that such cases involve the provision of services to the electricity seller, rather than the supply of goods.

The identified gaps and issues concern, above all: the lack of a uniform approach to the classification of top-up payments; the absence of comprehensive guidelines on cross-border settlements; uncertainty as to the right of electricity producers to deduct input VAT; and the ambiguous distinction between top-ups as a pricing component of electricity and remuneration for separate services under capacity market and system service mechanisms.

Against this backdrop, legislative and interpretative measures appear warranted, aimed at clarifying the VAT Act by introducing definitions or guidelines for the treatment of transactions at negative prices in the electricity market, including the rules for determining the taxable amount. It is also necessary for the Ministry of Finance or the National Tax Information Office to issue uniform tax guidance that would consistently regulate the classification of top-ups in both domestic and cross-border transactions, and to harmonise practice in cross-border settlements by aligning Polish regulations and interpretation with standards applied in other EU member states. Equally important is the development of criteria for distinguishing between a top-up as an integral pricing element and as remuneration for a separate service, for instance under DSR programmes or balancing mechanisms. Consideration should also be given to the implications for the renewable energy sector, particularly ensuring clear rules on input VAT deduction, which are of critical importance for the financial stability of RES projects.

At the same time, it should be emphasised that the implementation of such legislative or interpretative clarifications may encounter certain constraints. At the EU level, VAT rules are subject to harmonisation under Directive 2006/112/EC, which limits the possibility of adopting fully autonomous domestic solutions. Furthermore, political economy factors – such as divergent interests among market participants and the potential fiscal implications for national budgets – may affect both the scope and the pace of reform. Acknowledging these challenges is essential for assessing the feasibility and durability of the proposed recommendations.

The implementation of these measures would substantially reduce legal and tax uncertainty for market participants, enhance the predictability of settlements, and lower the risk of disputes with tax authorities. In the longer term, such measures could also contribute to improved functioning of market mechanisms in the energy sector, especially under conditions of increasing price volatility and the dynamic growth of renewable energy sources.

In view of the above recommendations, it is worth assessing the potential fiscal effects of their implementation for the state budget, both in the short and long term. Introducing precise rules for the VAT treatment of transactions at negative prices could have material implications for budget revenues. Positive outcomes would include greater legal certainty, a reduction in tax disputes, and potentially higher VAT inflows as a result of the uniform application of rules classifying top-ups as taxable services. On the other hand, clarification of the law could expose cases where top-ups are currently not treated as taxable consideration, thereby increasing the tax burden for certain market participants but also boosting current budget revenues. In the medium and long term, the fiscal impact would depend on the frequency of negative price episodes and on the market structure – particularly the share of cross-border transactions subject to the reverse charge mechanism, which may limit direct VAT inflows in Poland. At the same time, improved stability of tax settlements could indirectly support RES development and, consequently, contribute to the achievement of climate policy objectives, which is significant for the financing of public policies.

Limitations and weaknesses of the study must be acknowledged. The analysis was restricted to the Polish electricity market and relied primarily on empirical data from the Day-Ahead Market (January 2023–June 2025). The findings therefore capture a specific temporal and national context, without extending to comparative assessments of other EU jurisdictions. Moreover, the fiscal dimension of the study was based on the available body of tax rulings and court judgments, which reflect interpretative practice rather than clear statutory provisions.

Nevertheless, the study contributes new knowledge by systematically linking empirical evidence on negative electricity prices with an in-depth legal-dogmatic analysis of VAT consequences. Unlike most previous works, which emphasised economic or technical aspects, this article highlights the fiscal implications of negative prices and their potential impact on the financial stability of renewable energy projects.

The importance of the research lies in demonstrating how the accelerating phenomenon of negative electricity prices intersects with legal uncertainty in VAT law. The results are relevant not only for tax authorities and market participants but also for policymakers seeking to balance fiscal stability with climate and energy policy objectives.

A promising avenue for future research would be to other EU member states in order to evaluate whether similar interpretative divergences occur and to explore the prospects for harmonisation. Comparative studies could also assess the extent to which national practices align with or diverge from the principles established under Council Directive 2006/112/EC.

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