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Belarusian energy diversification - conclusions for Poland

Jakub Jacyszyn

Abstract: More than market laws, the Belarusian energy sector is influenced by political considerations. Good relations with the Russian Federation, access to cheap raw materials in the form of gas and oil, preferential prices, concessions or loans are the driving force behind the Belarusian economy. Therefore, events related to growing sentiments of social dissatisfaction with the current government are becoming very important in view of the future appearance and structure of energy in Belarus. The aim of this article is to present the energy sector in Belarus, the current state and the prospects and possibilities for diversifying energy sources.

Key words: Belarus, energy, cooperation, Poland, diversification, oil, gas, nuclear Energy

1.0 Introduction

The recent events in Belarus related to the presidential elections have become the subject of global debate and great interest in the political situation of the country. Therefore, it is worth looking at its structure and characteristics of the economy. An important issue of Belarusian policy is the energy sector. It is precisely its analysis which will make it possible to bring closer the subject of diversification of Belarusian energy sources, its energy security and, in the context of the Polish economy, further prospects for cooperation between countries. The article presents the area of energy in Belarus, indicating the conditions that determine it and the conclusions, taking into account possible solutions to problem situations.

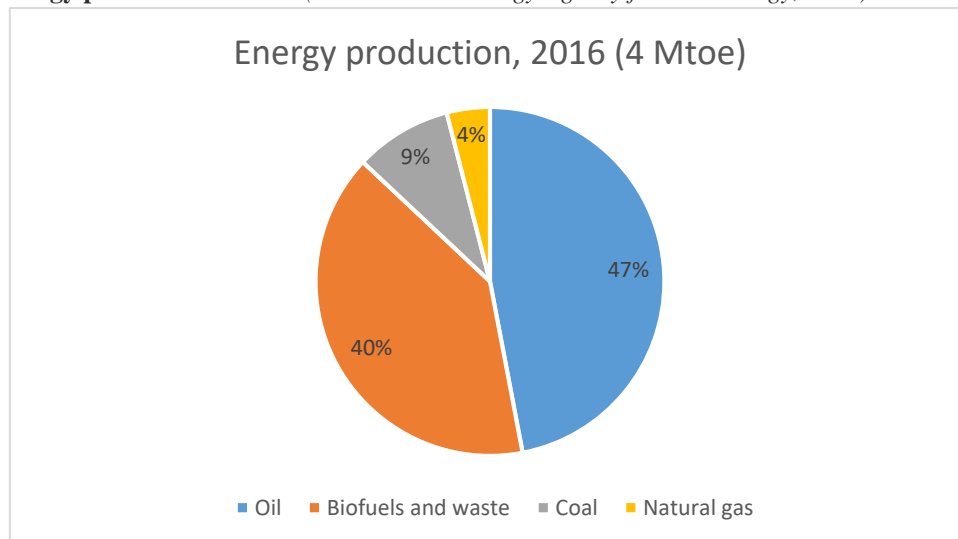
One of the most important issues affecting the policy of Belarus is the energy sector, which has been greatly influenced and influenced by the Russian Federation. However, the emerging differences and conflicts of interest between Belarus and Russia have caused the Belarusian authorities to start considering the possibilities of diversifying energy sources. The rising prices of raw materials and the reduction in subsidies to Belarus by the Russian Federation are contributing to this. Diversification can be seen as a political game with Vladimir Putin, which President Lukashenko has been playing for many years, forcing concessions from the Russian side.

2.0 Energy structure of Belarus

The energy structure of Belarus is mainly based on imports of raw materials from abroad. This is due to a lack of own resources and self-sufficiency in this area. Due to its historical intimacy, neighbourhood and closeness to relations, the Russian Federation is the main partner in supplying fuels and energy resources. Its own energy resources are mainly based on wood, peat, lignite and hydro energy. However, they represent only around 15% of demand, which makes Belarus one of the least self-sufficient countries in the world in terms of Energy

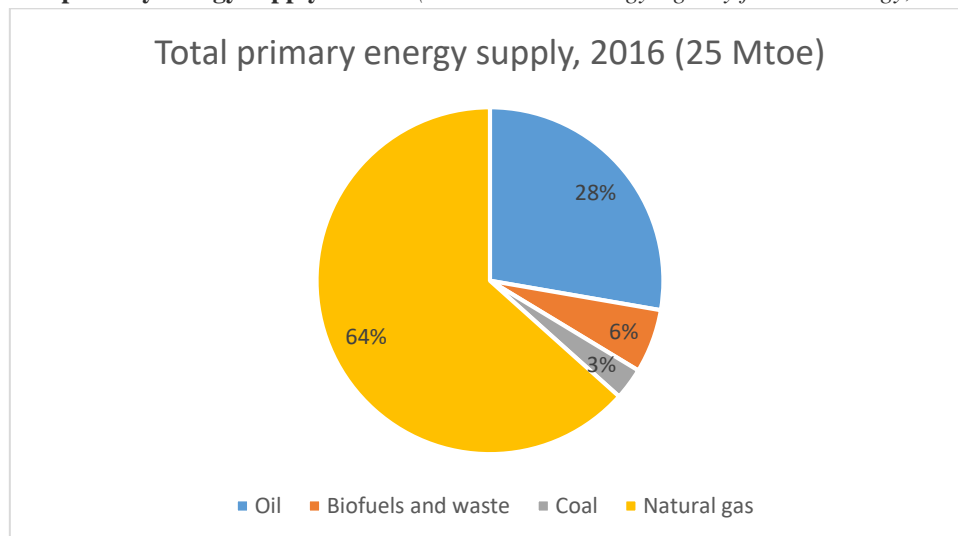
(International Energy Agency, 2020) The rest is imported hydrocarbons. For this reason, more than 97% of electricity in Belarus is produced by means of natural gas, mostly in cogeneration plants and power stations. (Novikau, 2019) The remainder is imported, among others, from the Russian Atomic Power Plant in Smolensk. Below are the characteristics of the most important Belarusian energy areas and graphs based on data from 2016. The total installed capacity in Belarus is 10 069 MW. Of this, 89% belongs to the state-owned company Belenergo, which reports to the Ministry of Energy of the Republic of Belarus. (Novikau, 2019) Belenergo is a monopolist on the market for production, transmission, distribution and sale of electricity and heat. It manages the energy system and owns generation units such as thermal, hydro and wind power plants. Since 1 January 2020. Belenergo comprises 27 organisations, including 6 regional companies. (Belenergo Website, 2019) The gas used to produce energy is mainly imported from the Russian Federation. The instability of supply, rising prices and the choice of a gas supplier coming practically from only one direction make an informal link with the Russian state control system.

Figure 1. Energy production in 2016 (*International Energy Agency for EU4Energy, 2016*)



Source: Own elaboration based on: <https://www.eu4energy.iea.org/data-tools> (access: 23.11.2020 r.).

Figure 2. Total primary energy supply in 2016 (*International Energy Agency for EU4Energy, 2016*)



Source: Own elaboration based on: <https://www.eu4energy.iea.org/data-tools> (access: 23.11.2020 r.).

Figure 3. Map of power plants (*Belenergo Website, 2019*)



Source: https://en.wikipedia.org/wiki/Energy_in_Belarus (access: 23.11.2020 r.).

2.1 Oil

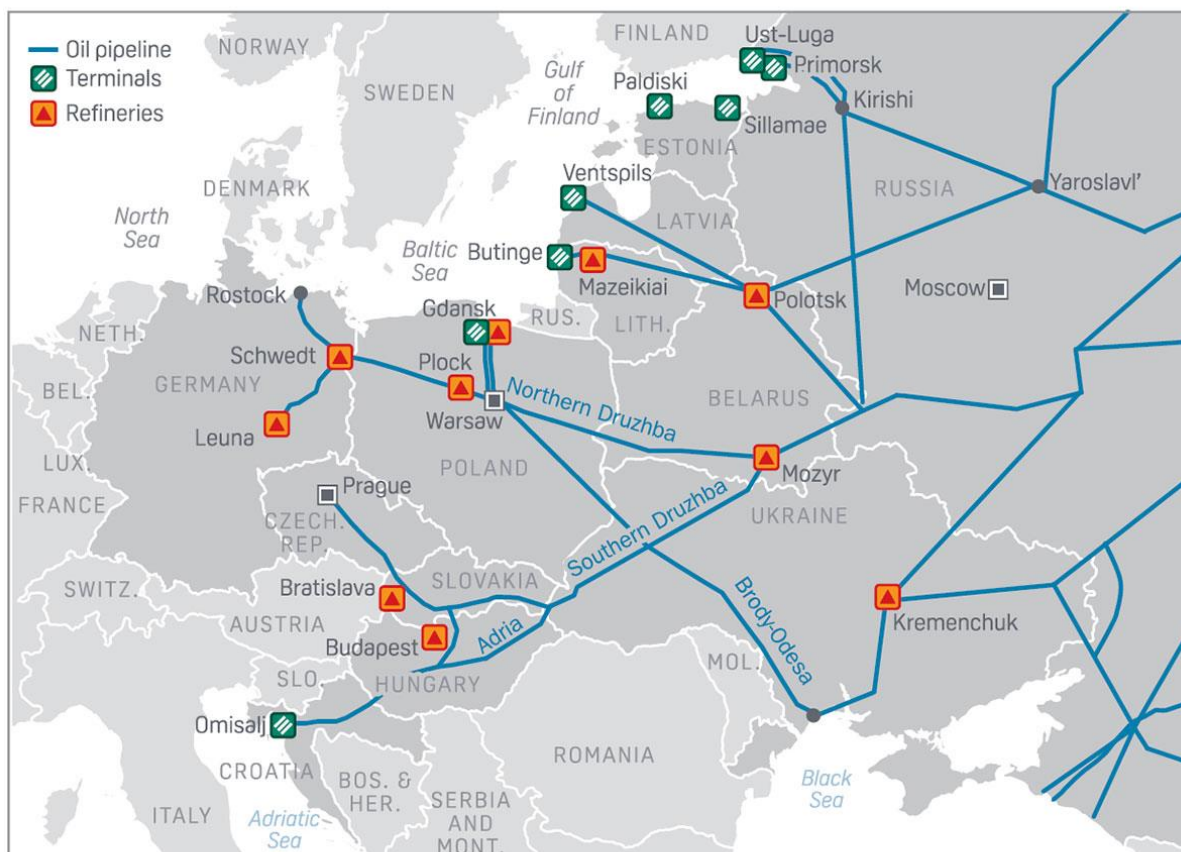
For Belarus, oil is important not only because of its own energy needs, but also as a raw material for processing, generating specific revenues for the state. The raw material is imported into Belarus in the amount of 17 Mtoe (in 2018), a significant part of which (11.4 Mtoe) is - after processing in Belarusian refineries - petroleum products intended for re-export. (International Energy Agency, 2020) It is responsible for revenues, amounting to approximately 20% of Belarusian GDP (10.5 billion USD). (Dyner, 2018) Relations with the Russian Federation, the main supplier of cheap raw material, were very important and had a strong impact on strategic sectors of the economy. Dependence on relations with one supplier is extremely risky and prone to monopoly. Adding to this the rising prices of Russian oil puts Belarusians in a difficult position. Therefore, Belarus is looking for alternatives in the form of diversification of sources of this raw material.

Previous supplies of oil from directions other than Russia were reduced to occasional, showcase cargoes from Norway, Azerbaijan, Venezuela or Saudi Arabia, for example. However, these were not long-term contracts, but often building a negotiating position in talks with the Kremlin. Belarus has two major refineries in Novopolotsk and Mozyr which process raw

materials into fuel products, including diesel and mazout. In addition to the refineries, Belarus also controls a section of the Druzhba oil pipeline running through its territory, making it a transit country. It is worth noting, however, that over 42% of Mozyr shares are held by the Russian company Sławnieft. (OJSC „Mozyr Oil Refinery” Website, 2020) This sector generates significant revenues to the state budget through taxes and the sale of products abroad, mainly to European markets and to Russia. Therefore, Belarus' strategy is to purchase cheap Russian oil, process it and sell it, generating large profits. That is why Belarusian refineries use almost all their processing capacity, amounting to 24 million tonnes per year. (CIRE, 2015) The threats that arise from such activity are the fact that Russia controls its course, because, as the main supplier of raw materials, it also controls its prices and, at the same time, how much and if at all, the Belarusian side earns from it. The entry of foreign investors, e.g. from Poland or other Western countries, would not only open up Belarus to European countries, but could also provide security against the Russian side taking over the shares, and could also make it somewhat independent of its pressure. This is both a challenge and an opportunity that could provide not only an important economic partner, but also financial gains. However, this requires willingness and openness on the part of Belarus.

Figure 4. Location of the Mozyr and Novopolotsk (Polotsk) refineries (Nadia Rodova, 2019)

CENTRAL EUROPE'S OIL INFRASTRUCTURE



Source: S&P Global Platts

Source: <https://www.spglobal.com/platts/en/market-insights/latest-news/oil/042519-russia-expects-clean-urals-crude-exports-via-druzhba-to-resume-mon-report> (access: 23.11.2020 r.).

The second aspect is deliveries. Alternatives to Belarus include importing raw materials from Poland. Both the Americans and the Polish oil operator PERN have declared their readiness to allow oil supplies to Belarus via Poland. The reverse side of the Druzhba oil pipeline and the Gdańsk oil port could be used for this purpose. An important investment which increases the chance of success of this initiative is the construction of the Homel-Gorki oil pipeline, the aim of which will be to connect the Druzhba oil pipeline with the Novopolotsk refinery, which has so far been receiving supplies by Russian oil pipeline or rail tankers. (CIRE, 2020) The first major initiatives in this area can be seen in the form of the first two oil deliveries from the USA. The Polish company Unimot had a significant share in this transaction. (Energetyka 24, 2020) (BiznesAlert, 2020) A special blend of White Eagle Blend (WEB) has arrived in Belarus via the port of Klaipeda, which is able to replace the currently used Russian blend URALS. This is a landmark step that gives a perspective on the future, in which Poland and the new Washington-Warsaw-Minsk agreement can play an important role.

2.2 Gas

The consumption of natural gas in Belarus is around 20 billion cubic metres, making it one of the largest consumers and importers of this raw material in Europe, highlighting its population of just 9 million. (BiznesAlert, 2020) A significant proportion of natural gas is used for industrial purposes. It is worth stressing that the majority of Belarusian thermal power stations are based on this very raw material. Until now, Belarus has been able to enjoy a very low price for gas supplied by Russian Gazprom. This was an important bargaining chip in political relations between both countries. With time, when market prices began to fall, those in Belarus were no longer competitive. This became the subject of difficult negotiations between Russia and Belarus. In view, too, of the fact that Gazprom has been the owner of the gas transmission system in Belarus since 2011, it puts Minsk in a difficult position when planning to diversify natural gas supplies. These factors make diversification of gas in Belarus a much more difficult subject than the oil sector. This is why Belarus is striving to make its prices dependent on quotations on European exchanges, which would in a way improve its situation.

There is an alternative in the form of using the reverse side of the Polish section of the Yamal pipeline after the expiry of the contract for the supply of gas to Poland. Then gas would be supplied on the basis of auctions, and after the technical adjustment of the transmission infrastructure, it would theoretically be possible for Poland to supply Belarus. In such a scenario, the source of gas could be the LNG terminal in Świnoujście, the Klaipeda gas port or, in the future, the Baltic Pipe or the floating FSRU terminal in the Gulf of Gdańsk. This would enable diversification of sources of this raw material and a reduction in Russian supplies, and thus a better negotiating position as regards their prices. The American side, as a potential supplier of LNG, is also strongly interested in this subject, just as it is in the diversification of oil supplies. In addition, Lithuanians are ensuring the possibility of using the Klaipeda LNG terminal to supply Belarus with gas via the Poland-Lithuania gas pipeline under construction. (BiznesAlert, 2020)

Figure 5. Gas trunklines in Republic of Belarus (*Gazprom, 2012*)

Source: <https://www.gazprom.com/press/news/2012/november/article149318/> (access: 23.11.2020 r.).

It is also possible to have a stock exchange swap involving virtual gas supplies to Belarus. Such a scenario could consist of Russian gas remaining in Belarus as part of the settlement of supplies from the West. In connection with the sale of Gazprom Bieltransgaz, the operator of Belarusian gas pipelines, to Gazprom Bieltransgaz, this operation requires cooperation with Russia, which could be extremely difficult. The same would apply to the physical reverse of the Polish-Belarusian border. Gazprom Belarus, the current owner of gas pipelines in Belarus, would have to technically adapt the system and prepare the infrastructure, including supplying it with appropriate installations such as compressor stations. The price of gas is a constant subject of talks between countries when establishing and correcting long-term contracts. Until the time when Belarus paid less for Russian gas than it did on the stock exchange, in the event of a sudden fall in the price of this raw material, it gave rise to claims against Gazprom. In February 2020, the price of gas for supply to Belarus was set at USD 127 per 1 000 cubic metres. (Energetyka 24, 2020) In view of the market drop of this raw material below USD 100, at the beginning of April, President Alexander Lukashenko called for the price for Belarus to be reduced almost threefold. Furthermore, in the search for alternatives, the Belarusian government offered to buy gas on the stock exchange at more favourable and competitive prices.

2.3 Nuclear energy

Although the Belarusian nuclear power plant in Ostrowiec will soon produce nearly 2400 MW, it is not yet included in the energy share of the current analysis. It is estimated that its establishment will enable gas imports from Russia to be reduced by up to 25%. (Kamil

Kłysiński, 2020) This is an important investment for this country, which can be an element of diversification. Unfortunately, although Belarus will import less Russian gas, Russian companies are the main contractor and lender. Furthermore, the Russians will have a major influence on energy distribution and the operation of power plants, taking control of part of the Belarusian electricity system. This leads to a degree of dependence, especially as nuclear fuel will also be supplied by Russia. Given the surplus energy to be produced in Ostrowiec, the Belarusian people have volunteered to sell electricity to neighbouring countries. This has met with a lack of interest on the part of Poland and Lithuania, as if to protest against the doubts and dangers surrounding this investment. Establishing contacts with the Belarusian side may, however, open up certain wickets for greater cooperation between the two countries. The energy surpluses that will be generated by the operation of the Ostrowiec nuclear power plant also provide opportunities for greater interest and development of electromobility in Belarus. This is an area for development which could also be of interest to Polish companies developing vehicle charging stations or manufacturers of electric cars, such as ElectroMobility Poland, the founder of the future Izera car brand.

3.0 Development perspectives

Increasing dependence on Russia is a barrier to development and a serious political and economic constraint on Belarus. Projects such as Nord Stream 2 are also unfavourable to the Belarusian economy, because they limit the influence that Belarus has through the transmission of gas through its territory. There are many threats, so in this difficult time for Belarus it is worth considering several scenarios.

Belarusian society is expressing its dissatisfaction with the 26-year-old government of Alexander Lukashenko and the dubious results of the recent presidential elections. In addition, the economic problems affecting Belarus are exacerbated by the crisis related to the SARS-Cov-2 epidemic. As a result of these events, President Lukashenko is having problems maintaining a stable situation in the country and pacifying the protesters. It is possible that Lukashenko will remain in office and that he will become more integrated with the Russian Federation. It would then be extremely difficult to establish cooperation with the Belarusian people. The option of further Alexander Lukashenko's rule and turning away from Russia is unlikely, but further slow diversification and cooperation with both Russia and Western countries is possible. In the event of a change of government and Alexander Lukashenko's resignation, the approach of the European Union, including Poland, to Belarus is extremely important. At the same time, it would be an opportunity for the Belarusian people themselves to open up to Europe and try to become independent politically and economically.

When analysing the Belarusian energy sector, it is the oil area that seems most promising in terms of diversification of supply. Disputes over the oil agreement and the turbulence around the OPEC+ group may contribute to breakthroughs and significant economic impacts. It is no secret that both Saudi Arabia and the USA are in favour of oil exports to Central and Eastern Europe, especially to the sphere of greater influence of the Russian Federation. It is precisely the price differences caused by the economic slowdown and the crisis that may intensify oil diversification in Belarus. The prospect of losing Russia's sphere of influence forces it, as it were, to fight price wars or to take other political action to maintain the dominant position on the Belarusian market. It is possible that it is precisely the destabilisation of Belarus, as in 2014

in Ukraine, that may be a deliberate action by the Russians, who want to stop the supply of raw materials from other countries. On the other hand, because of the economic crisis caused by the coronavirus pandemic and the complicated situation on the fuel market, Russia cannot afford to lose an important customer, Belarus. The determination of the Kremlin authorities and the use of various methods are therefore justified. One of these could be the appearance of a group of mercenaries from Russia before the presidential elections in Belarus, which took place on 9 August 2020. It is worth highlighting the motives of Russia, for which Alexander Lukashenko's over-strong position is not a good situation either. The President of Belarus is skilfully balancing between good contacts with Russia and negotiations on the price of raw materials and privileges for his country. He is using not only his dictatorial power, but also Western countries which are counting on the opening of the Belarusian market and greater integration with Europe. In view of the increase in competition on the oil market and problems with limiting extraction, one of the Kremlin's options is to exit the oil agreement and to gain the interests of potential and current customers by reducing raw material prices. Such a scenario is, however, unlikely. The current post-election events are becoming very important in the context of halting Belarusian diversification projects. The US, in cooperation with the European Union, is considering sanctions or restrictions on supplies of Belarusian oil products. Talks are under way on this subject, and the political option chosen may be crucial for the Belarusian energy sector.

Other important areas are investment in renewable energy sources. The maintenance of the nuclear power plant and the repayment of the loan for its construction may block the development of this sector in Belarus. The solution can be foreign entities investing in Belarus in such installations as biogas plants, photovoltaics, heat pumps or wind power plants. Electromobility is also an important sector. The prospects for these areas are large and undeveloped. In addition, they can provide a viable alternative and a gradual diversification of energy sources in our eastern neighbour. Polish companies could provide technological support and the construction of ecological installations, which would contribute to the creation of dispersed energy and gradual independence from current sources. Belarus would gain not only greater political freedom, but also an increase in the level of technological advancement, a greater share of renewable energy sources and deepening cooperation with European companies, and thus with the western economy. For Poland, this is an opportunity to gain a partner, to establish cooperation and, in the future, to become involved in European structures. This is a very crucial moment in history, not only for Belarus, so it is extremely important how Poland will behave and whether it wants to open up to help its eastern neighbour.

4.0 Conclusion

More than market laws, the Belarusian energy sector is affected by political considerations. Good relations with the Russian Federation to date, access to cheap raw materials in the form of gas and oil, preferential prices, concessions or loans are the driving force behind the Belarusian economy. Therefore, events related to growing sentiments of social dissatisfaction with the current government are becoming very important in view of the future appearance and structure of energy in Belarus.

Belarus has its own energy resources in the form of, among other things, wood, peat or lignite, which represents only 10% of its energy needs. The rest of the energy sources are imported, mainly from Russia. The Belarusian economy is based on energy-intensive industry such as the production of artificial fertilisers or fuel processing. In addition, around 90% of electricity is produced from natural gas from Russia. So does the oil, which is processed at the two Belarusian refineries in Novopolotsk and Mozyr. From there it reaches western markets, among others, which provides significant income for the Belarusian budget. Strong dependence on a single supplier threatens the country's energy security. This is why Belarus is looking for alternatives, for example, in the form of oil supplies from the USA, Azerbaijan or the reverse of the Druzhba oil pipeline from Poland. In the case of the natural gas market, it is, in principle, impossible to supply this raw material from any other direction than Russia, because the owner of the gas transmission system in Belarus is Gazprom. This fact makes Belarus strongly dependent on the Russian supplier and seriously threatens its energy security. Therefore, the Ostrowiec nuclear power plant will soon be opened, which is intended to reduce gas imports from Russia by more than 20%. As part of the diversification of energy sources, the Ostrowiec power plant could be an important step in terms of becoming independent and increasing energy security. However, the lender and contractor for this investment is the Russian Federation, which strongly limits these opportunities. This investment also raises another, equally important security issue. According to many, it threatens nuclear safety in Europe. This view is strongly supported by the Lithuanian Government, which states that there are many doubts about the safety of the emerging facility, motivated by its particularly close proximity to the Lithuanian border. As a result, both Lithuania and Poland have announced their unwillingness to purchase electricity that would be generated by Belarusian nuclear power plants, with the most obvious accent being the physical decommissioning of the power link on the Polish-Belarusian border. This therefore restricts potential customers, for the time being, to domestic and Russian customers, which could make Belarus even more dependent on its eastern neighbour.

There is no support from European neighbours for the events that have taken place in Belarus, which may turn into various types of sanctions and restrictions on cooperation with Western countries. This may hit the Belarusian economy even harder. All these aspects emphasise the importance of energy independence and make us think whether and how this may affect Poland and what its role should be.

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