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Just Transition of Eastern Wielkopolska – Entrepreneurs In The Face of Imminent Change





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Introduction

When talking about the Just Transition of Eastern Wielkopolska (also known as Greater Poland), a great starting point would be underlining the historical significance of the energy sector for the region. Zagłębie Konińsko-Turkowskie (the Konin-Turek Area) is already a customary term for the Konin subregion, which mining tradition spans more than seven decades. The beginnings of coal mining in the Konin subregion date back to the Second World War – the Germans set up briquette plants as early as back in 1945. The first opencast mines were built in Morzysław (retaken from the Germans in 1945) and Niesłusz (operating since 1953). With this in mind it must be stated that the history of the Konin subregion has been strongly associated with the mining industry since the post-war period. In 1958, the first power plant in Poland to use lignite as an energy source fired up in Konin. A second power plant, Pątnów, was built between 1967 and 1969, and since then coal has been dug up from as many as ten open pits. The Adamów mine, on the other hand, was located in the Turek county [pl. Powiat] and had three open pits. The socialist industrialisation of the 1960s changed the regional reality. Thus, the subregion became a strategic fuel and energy centre of national importance¹.

The city flourished with an influx of population and its enrichment was directly connected with the developing opencast mining industry. The Konin brown coal mines: Kopalnia Węgla Brunatnego Konin, the Pątnów, Adamów and Konin power plants, the Huta Aluminium Konin (an aluminium smelter) and the Fabryka Urządzeń Górnictwa Odkrywkowego (an opencast mining equipment factory) are entities that determined the post-war identity of the local community as part of an industrial, mining and energy region. Today, the effects of the implementation of European Union policies have led to fundamental socio-economic changes. A watershed moment was the privatisation of Zespół Elektrowni Pątnów Adamów Konin (ZE PAK, Pątnów Adamów Konin Power Plant Group) in 2012 and the closure of the Turek power plant (2018) and mine (2021). This brought about increasingly urgent and resonating questions about how to fill the gap left by the decommissioned industrial plants. People began to meet, plan and discuss how to avoid an economic and civilizational breakdown.

On 3rd April 2019, a Memorandum of Understanding for the Just Transition of Eastern Wielkopolska was signed. Among the signatories were 70 representatives of local government, business sector institutions, businesses, residents and NGOs who played a key role in the process. It was mainly thanks to organisations such as Fundacja ‘Rozwój TAK – Odkrywki NIE’ [en. ‘Development YES – Opencasts NO’ Foundation], Fundacja ‘Miasto prowincjonalne’ [en. ‘Provincial City’ Foundation], Stowarzyszenie

¹ Stępień Miłosława, 2019, Just Transition of Eastern Wielkopolska. A Case Study, Warsaw

‘Akcja Konin’ [en. ‘Action Konin’ Association] and Stowarzyszenie Ekologiczne ‘Eko-Unia’ [en. “Eko-Unia” Ecological Association] that the problems associated with regional transition became public knowledge.

The energy transition itself is already happening. In 2020 ZE PAK adopted a strategy whereby within a decade it would abandon lignite power generation in favour of biomass², photovoltaics and onshore wind farms. Just one year later, ZE PAK built the largest photovoltaic power plant in Poland – the Brudzew farm³. As experts unanimously emphasise, for the transition to be just, it has to take place in the direction of zero-carbon, building a circular economy, and creating a space that ensures a high quality of social life and an active society.

² According to the new position of the ENVI committee, biomass should not be considered as a renewable energy source because it does not meet the zero carbon criterion. It is important to note that an exception will be made for small installations, biomass energy will be excluded from subsidies when it comes to large operators.

³ Farma fotowoltaiczna w Brudzewie [en. Photovoltaic Farm in Brudzew], 2022, <https://www.zepak.com.pl/pl/program-czysta-polska/farma-fotowoltaiczna-w-brudzewie.html>

Methodological Study Note

The aim of this report is to determine the attitudes of entrepreneurs in Eastern Wielkopolska towards the changes resulting from the just transition process. Sources of information were entrepreneurs from the energy sector and local economic experts. It is worth emphasising that the changes towards zero-emission energy production, with the aim to achieve climate neutrality, will affect all business entities. In addition, they can be analysed in relation to specific energy sources, where the following are mentioned: the planned construction of a nuclear power plant, the use of energy obtained from hydrogen, geothermal deposits⁴, the sun and wind.

Research was conducted from 14th July to 7th September 2023. This included 11 in-depth interviews with regional entrepreneurs and experts. Among my interviewees were employees of the Regional Development Agency (ARR, pl. Agencja Rozwoju Regionalnego), the Konin City Hall and the Eastern Wielkopolska Chamber of Commerce, who described their own experiences and presented their insight into the just transition process in Eastern Wielkopolska. The study therefore was centred on an analysis of the respondents' awareness, including their perception of expected changes, their knowledge about them, their assessment of expected effects and of undertaken actions. It should be emphasised that the research was essentially a reconnaissance / a probe and should not be treated as representative for all entrepreneurs in the Eastern Wielkopolska region or as completely exhaustive of the addressed issues. The natural, follow up step of the research process should be an in depth representative study for the whole group of entrepreneurs of Eastern Wielkopolska region.

⁴ To date, geothermal sources in Konin are practically only used by the municipal company for heating purposes and, due to the minor importance of this energy source from the perspective of entrepreneurs, this report merely mentions its use.

Knowledge and awareness of change

The interviewed entrepreneurs of Eastern Wielkopolska were aware of the need for reform. In their opinion, the energy transition will affect the entire region and will have a strong impact on the functioning of the local community, strongly influencing its future shape and identity. Entrepreneurs are convinced that this is necessary and, despite perceiving numerous difficulties, they see it above all as an opportunity for development. They see the transition through the perspective of a 'better future', not only for their business, but for the whole of Wielkopolska.

There are two main factors that determine the 'mindset' of entrepreneurs on the Eastern Wielkopolska Energy Transition processes.

Firstly, it is the awareness of the structural-historical roots of change. **Secondly**, the specific nature of their outlook. On the one hand, it is an individual perspective, i.e. their perception of the changes as residents and employers. On the other hand, entrepreneurs clearly perceive the transition from a group perspective, as citizens who are part of a local or more broadly regional community, and as representatives of a specific industry.

According to those interviewed, the incoming changes seem to be spectacular and increasingly tangible. Indeed – Eastern Wielkopolska has adopted and is executing a plan to achieve climate neutrality by 2040, the implementation of which is to serve as a model for other regions. The European Commission's representative Paweł Olechnowicz pushed this viewpoint. During a visit to Konin in May 2023, he indicated that Brussels would like to make Wielkopolska an exemplary case for the implementation of a just transition process. It is important to note that within the framework of the European Union's 'new financial handout', according to the decision of the Wielkopolskie Voivodeship Government, more than EUR 400 million will be allocated to Eastern Wielkopolska to mitigate the social, economic and environmental consequences of the energy transition. The implementation of the Just Transition Fund (JTF) was inaugurated in Konin by Marek Woźniak, the Wielkopolskie Voivodeship Marshal. In May 2023, he spoke about the transition from coal-based to zero-emission energy, stating that "the Eastern Wielkopolska sub-region has opened a new chapter in its history, whilst closing the glorious and very efficient, albeit environmentally devastating history of lignite mining and power plants combustion, which will be replaced by a new reality. This new chapter may perhaps be more attractive to many people and more economically comprehensive." Frans Timmermans, the then Vice-President of the European Commission, whilst visiting Konin stated that Eastern Wielkopolska's transition was well planned and active support of its implementation was all that is now necessary.

In turn, Maciej Sytek, the President of the Regional Development Agency [ARR, pl. Agencja Rozwoju Regionalnego] in Konin, which is the intermediary institution for

the management of the JST, i.e. the disbursement centre for funds available under the Just Transition Fund, spoke about the fact that this money “will serve the inhabitants, it will be invested here (...). On the one hand we will provide jobs, on the other hand this will introduce new investments.” At the same time, he stressed that despite the sizeable amount, these funds alone are not enough to meet the needs. In addition to this, he pointed out that in the coming years, thanks to these funds, Eastern Wielkopolska will already be an average European region. It is worth noting that for the voivodeship authorities, Eastern Wielkopolska has always been perceived as ‘Wielkopolska B’, i.e. a subregion characterised by lower economic development indicators, higher unemployment and a historically justified civilizational ‘lag’, especially when compared to the western part of the voivodeship, fronted by Poznań. Therefore, with the establishment of the Just Transition Fund, the importance of Eastern Wielkopolska increases significantly.

Entrepreneurs I spoke to associate the just transition process mainly to the mining and energy sectors. “Initially, business awareness of the ongoing and planned transition-related changes was relatively low. Interest in this topic was mainly shown by those who would be most affected by the energy transition, in particular ZE PAK. Over time, awareness and understanding of the whole transition process increased.” (ID/11/4)

Dissemination of knowledge and building awareness of the Eastern Wielkopolska Just Transition is carried out institutionally. Leading the way is the Regional Development Agency in Konin [ARR, pl. Agencja Rozwoju Regionalnego], which, according to their staff, undertakes a wide range of informative and promotional activities to increase the knowledge of the community, including businesses, about the just transition process and the possibility of financial support for activities undertaken in Eastern Wielkopolska. “In the most general terms, the fundamental aim of these activities is to mitigate the effects of the energy transition”. ARR staff are constantly trying to reach the widest possible audience using various means of communication. According to their declarations, instruments used include articles in local newspapers, radio and billboard information and promotional campaigns, a website, and a Facebook fanpage.

In addition, aspects that enhance the awareness of entrepreneurs regarding just transition indicated by the ARR staff were: “meetings in Eastern Wielkopolska municipalities, where a large percentage of the participants were entrepreneurs, courses for potential beneficiaries, including entrepreneurs, on how to obtain support for projects from the Just Transition Fund (JTF).” (ID/11/4)

On a wider level, the promotion of Just Transition knowledge among the local community aims to “build awareness among the public, including entrepreneurs, pointing out to them opportunities and development possibilities brought about by the transition. We have recently introduced another form of informing people (especially entrepreneurs) about the need to implement the Just Transition process and the opportunities for financing it – the Just Transition Mobile Information Points. Within

their framework, potential beneficiaries interested in EU grants obtain information from ARR consultants on the support available under the European Funds for Wielkopolska 2021-2027 (EFW), in particular from the JTF.” (ID/11/4)



Evaluation of the energy transition process

Risks and concerns

A significant number of entrepreneurs perceive the energy transition of Eastern Wielkopolska primarily through the perspective of risks and concerns. First of all, they relate to negative economic and social forecasts⁵. Entrepreneurs predict that the situation on the local labour market may significantly deteriorate. Above all, they point to a further increase in the subregion's unemployment rate, which is already relatively high⁶. Furthermore, entrepreneurs point to a general deterioration of the economic situation highlighting an increase in the scale of pre-existing social problems. In particular, they fear a growing exodus of people, especially of youth. Negative forecasts primarily relate to general development prospects – not only the activity of specific enterprises, but of the entire Eastern Wielkopolska region. Moreover, these fears refer to the external perception of the Eastern Wielkopolska area⁷ – “reduced investment attractiveness”, “unfavourable climate for doing business” (ID/11/4). The perception of threats mainly touch upon the difficulties of local residents in finding employment⁸. The commonly perceived downgrading of Eastern Wielkopolska also relates to the threat of widespread impoverishment of its population. Previously, the traditional fossil-based energy industry (lignite) in this area provided a vast array of job opportunities. Currently, as a result of the phasing out of this economical sector, the vision of loss of existing jobs, i.e. redundancies and possible unemployment, is widespread. There is also concern about the deterioration in the quality of well-paid jobs. Jobs in industry may be replaced by lower-paid and less stable jobs in services. In addition, as a consequence of the aforementioned difficulties, a “reduction in production and

⁵ Sobotka Bartosz, 2022, Analiza szkolnictwa zawodowego w koninie w kontekście rozwoju gospodarczego [en. Analysis of Vocational Education in Konin in the Context of Economic Development], in: Zeszyty Naukowe WSKM Nr 9

⁶ Hetmanski Michał, Iwanowski Damian, Kiewra Daniel, 2021, Scenariusze redukcji zatrudnienia i wsparcia pracowników w sektorze węgla brunatnego. Przypadek GK ZE PAK [en. Downsizing Scenarios and Employee Support in the Lignite Mining Sector. The Case of GK ZE PAK], Warsaw

⁷ Michalik Marek, 2022, Atrakcyjność inwestycyjna subregionu konińskiego w kontekście koncepcji Sprawiedliwej Transformacji Wielkopolski Wschodniej i obecności łódzkiej specjalnej strefy ekonomicznej [en. Investment Attractiveness of the Konin Subregion in the Context of the Just Transition Concept of Eastern Wielkopolska and the Presence of the Łódź Special Economic Zone], in: Zeszyty Naukowe WSKM Nr 9

⁸ Churski Paweł, Perdał Robert, Burchardt Martyna, 2021, Czasoprzestrzenna analiza zmian lokalnego rynku pracy podregionu konińskiego w konsekwencji sprawiedliwej transformacji [en. Temporal Analysis of Changes in the Local Labour Market of the Konin Sub-region as a Consequence of Just Transition], Poznań-Konin

employment in other sectors” outside the mining and energy industry is cited as a particular threat (ID/11/4). Facilities directly and indirectly linked to the mining and energy industry are most often indicated as being at risk.

Fears are particularly heightened when it comes to the threat of reduced community income levels as a result of the loss of well-paid jobs in the mining-based energy sector. The worst case scenario is coupled with a vision in which the lowering of consumption capacity and widespread population impoverishment reduces the overall attractiveness of the region. This in turn worsens development opportunities, e.g. in terms of attracting investors, and ultimately brings about ‘a developmental collapse’ of the local community. Thus, the pattern of negative economic and social forecasts comes full circle⁹.

Entrepreneurs in mining and energy related industries are concerned about the future of the region: “Entities cooperating with ZE PAK that use by-products of power plant and mine operations are concerned that they will have to reduce or suspend their operations as a result of the energy transition¹⁰” (ID/11/4).

In addition, it is worth pointing out that “entrepreneurs in Eastern Wielkopolska are often well aware that energy transition is associated with the need to increase the energy efficiency of production processes (thus making them less carbon and energy intensive) – for some of them, changes in this area will be a major challenge, as they will involve a significant, cost-intensive transformation of their existing business models” (ID/11/4).

The Eastern Wielkopolska energy transition is seen as costly, but ultimately profitable. However, entrepreneurs note several shortcomings of the programme. Problems include the lack of sufficient institutional support. They point out that the prices of alternative fuels are too high. This problem is clearly visible in the context of hydrogen, which is particularly relevant for the city of Konin, the first town in Poland to use public transport buses powered by this fuel¹¹. “Currently, there is no benefit whatsoever for those who care about the environment, who care about zero-emission economy. In my opinion, those who introduce zero-emission vehicles should have – please do not hold me accountable for what I say – subsidies for purchasing of electricity or hydrogen. Today we are faced with the fact that (...) the price of electricity

⁹ Czyżak Paweł, Iwanowski Damian, 2021, Energy Transition and Jobs. Scenarios for Eastern Wielkopolska, Instrat Working Paper 02, Warsaw

¹⁰ Zielone kierunki strategii ZE PAK S.A. Polska Czysta Energia [en. Green Strategy Directions for ZE PAK S.A. Polish Clean Energy], 2021, source: https://arrtransformacja.org.pl/wp-content/uploads/2020/10/kierunki-strategii_1.10.pdf

¹¹ Klyta Tomasz, 2022, Konin już z wodorowym autobusem. To pierwsze takie miasto w Polsce [en. Konin Already with a Hydrogen Bus. The First Such City in Poland], source: <https://www.portalsamorzadowy.pl/gospodarka-komunalna/konin-juz-z-wodorowym-autobusem-to-pierwsze-takie-miasto-w-polsce,388817.html>

has risen several times and hydrogen is not getting cheaper fast enough (...) There should be a subsidy for every kilogram of hydrogen or every megawatt hour of electricity used for zero-emission fleets” (ID/8/2).

A critical assessment of the energy transition processes in particular cast doubt about the functioning of state level administration. “We have been involved in renewable energy for 11 years. To a large extent my business area is the construction of photovoltaic farms. And I make no secret of the fact that I encounter a huge number of problems when it comes to simply connecting renewable energy to our power grids. For the second time, or every year now, we lose money from energy certificates. This year it was 80 billion zlotys that somehow wasted away, and last year it was 120 billion. (...) The funds appear and are allocated not to energy networks but to put it bluntly vanish somewhere centrally. The Warsaw government and those in charge manage these funds and one way or another they simply squander the money” (ID/7/1).

For small entrepreneurs, a key problem in implementing just transition projects is their limited financial capacity. The freezing of a certain amount of money with a distant time perspective for investment recoupment is often perceived as an impossible condition and as a liquidity threat. As small entrepreneurs point out, freezing the same amount of money for the same period for a large or even medium-sized entrepreneur does not have similar consequences. It is therefore not surprising that small entrepreneurs call for financial requirements to take into account the size of a company and for administrative procedures to help recover the invested capital much faster. This stance is exemplified by the statement of an entrepreneur employing nine people. “Trying to encourage micro-enterprises like mine to get involved in programmes is not very effective. From my point of view, the programmes are interesting, while the form and subsequent accounting procedures, as I have found out for myself, constitute an arduous journey. I benefitted from two programmes not related to the transition of Eastern Wielkopolska. They were programmes from the Wielkopolskie Voivodeship Marshal's Office and when I found out that current initiatives were to be implemented in a similar fashion, I pulled out. The main problem for micro-enterprises is that we first have to put our money into the programme. These are programmes, at least the ones I used, with an investment value of about PLN 400-500 thousand. And if I, as a micro-enterprise, with an annual turnover of PLN 4 million, have to put up PLN 500 000 for the implementation of a particular action, then for me it is a gigantic amount. This is also how it is perceived among my colleagues with similar sized businesses. This is a major barrier and sometimes an insurmountable task. No one is willing to invest that kind of money and wait two years for a return on investment, because in my case that's how long each action took to recoup costs. Until this changes, it will be medium-sized or large companies that benefit from this money. In the end, much of the funding is for micro-enterprises, but only in theory. Micro- and small businesses will not want to use such funds. I, for example, did not benefit precisely for this reason” (ID/3/1).

Problems

Many entrepreneurs, while seeing the energy transition of Eastern Wielkopolska as a positive and desirable change, at the same time point to specific concurrent problems or difficulties. The energy transition often appears in the context of costly negligence, which already is a burden, and further delay only generates additional costs. A negative assessment repeatedly relates to state policy being too conservative and preserving the centralist energy model, thus hindering the sectoral transition towards a distributed energy model. “Working in this industry, I am convinced that the transition away from coal must be unambiguous, rapid and that it will be very painful. Changes in the energy sector have been delayed by over a decade or even decades, we have no transition, no model for the functioning of the sector. Maintaining the existing operational system, holding onto what we already have and ‘torpedoing’ change – this has been all but too evident in recent years. Today, we are reaping what we sowed due to this state of affairs. We need to make the shift from carbon-emitting to low- or zero-carbon energy sources. And due to the existing negligence, the cost of these changes today will be higher because we need to implement them faster” (ID/9/1).

At the same time, solutions that sustain the centralist energy model based on large power suppliers have been poorly assessed. According to the interviewees, those in power treat these solutions as inevitable and ignore the changes necessary for a transition to a distributed energy model. All this is also widely criticised by the interviewees.

Another study participant spoke out in a similar vein. “Carbon emission pricing has been introduced and there is no going back. Energy derived from fossil fuels is already the most expensive and, to say the very least, it’s a problematic energy source. Any economy using it will become less and less competitive, and certain sectors will even be excluded from it altogether because of their emissions burden. We have no choice – we have to do it, even though the cost will be greater than it could be. Because of politicians who did not explain to people the consequences of not implementing these changes, today we are practically forced to do so. Even a government that is denying the reality tooth and nail is being forced to make backdoor policy adjustments. (...). And there is a huge amount of work ahead of us, because we have 70 per cent of our energy from coal, so we have to replace 70 per cent with other sources. And it’s certainly going to be a massive economic effort to bring that about” (ID/9/1).

The necessity to function within the institutional-administrative framework, even if it is deemed limiting, is indicated by the next statement. “We are not discouraged and we are applying wherever possible for funding in order to purchase a zero-emission bus fleet. We are hoping that finally someone will see that we are not applying for something that is we deem as being godsend, but for something that we are already pioneers of Poland-wide. Unfortunately, there are no points for experience, but I hope that our two submitted purchase applications – for a total of 20 hydrogen buses – will ultimately receive funding” (ID/8/2).

However the respondents believe that even the prevalent feeling of injustice with regards to evaluating implemented measures should not be a reason to undermine the adopted administrative mechanisms. “We try our best, we apply everywhere we can, to all institutions that declare support in the purchase of a zero-emission fleet, sometimes we succeed, sometimes we do not. I don't think we perform poorly when it comes to preparing applications, it's just that substantive rational doesn't always determine the awarding of funds” (ID/8/2).

Entrepreneurs recognise the need for deep restructuring of the existing energy system. **Technical difficulties regarding the outdated infrastructure and the need of modernisation** are not the only problems, or even the most important problems. According to those surveyed, the inadequate level of competence of many decision-makers is pivotal. Thus the entire structure must change. They cite the **reorganisation of the entire energy operating model** on which a just transition should be based as a key condition for success. In particular, they point to the **need to decentralise the energy system** and use the distributed energy model. “Of course, there are plenty of ideas in terms of grid development, but I would say that these are fragmented statements that do not reflect the whole picture. If we hear statements about grid modernisation costing PLN 600 billion, it begs the question: should we continue to stick to the same outdated model? If yes, then this PLN 600 billion will be needed, but if not and we are dealing with a mix of different distributed sources, then this PLN 600 billion will not be needed. From my perspective, as an experienced person in the industry, few people who speak on this subject actually understand the issues at hand. Often even politicians are clearly not knowledgeable on the subject matter. And today's technology makes it possible to generate up to 80-90 per cent of electricity from renewable sources. Naturally, by using a reasonable energy mix. But this involves changing the model of how the energy industry operates, which today is nationalised, inflexible and fortified against any change by simply arguing that it cannot be done” (ID/9/1).

When talking about the negative effects of the Eastern Wielkopolska energy transition, the first thing to consider is the loss of jobs by mine and power plant employees. Miners and power engineers, who are highly specialised professionals in their respective industries, will be forced to retrain and acquire new competences. From this perspective, the role of trade unions is important, and they should get involved for the benefit of the workers by, for example, obtaining funds that could be used for their re-training and for accessing new jobs. These funds could be earmarked for entrepreneurs for new employees (previously employed in mining and energy) – a professional reorientation programme for new workplaces.

An example of a grass-roots initiative to strengthen the obtaining of new competences was fablab (short for Fabrication Laboratory), which operated in Konin for two years. ‘Restart Lab’ was a workroom for people who wanted to pursue their hobbies and acquire competences related to modern technologies. A creative space for young people

and young adults was created in an abandoned steelwork school building. There, it was possible to use a 3D printer, tinker with tools, take part in events and workshops, but above all to establish and maintain interpersonal contacts¹².

Development opportunities

Being aware of how entrepreneurs perceive the Just Transition of Eastern Wielkopolska through the perspective of risks and difficulties, it is, however, worth emphasising that they, above all, see this process as an **opportunity for the development of both their own enterprise and the entire region**. This perception of the upcoming changes is particularly characteristic of enterprises where zero-emission energies will be possible. “Especially actors from industries related to sub-regional smart specialisation areas (RES, modern energy technologies, tourism, logistics) see the energy transition as an opportunity for development” (ID/11/4).

The perception of the Eastern Wielkopolska Just Transition as a development opportunity is linked to its social and participatory aspects. The new approach to energy has a much broader context than technological transformation and is often referred to as ‘social energy’¹³. When talking about the participatory dimension of Just Transition, the Regional Development Agency (ARR) in Konin comes to the forefront of the discussion¹⁴. This is how this institution is perceived not only by its employees but, more importantly, also by almost all entrepreneurs participating in the survey. “From the very beginning, the ARR has been trying to involve as wide a range of stakeholders as possible in the just transition, including representative businesses and institutions, such as chambers of commerce. Already at the stage of creating documents such as the Concept Paper for the Eastern Wielkopolska Just Transition¹⁵, The Territorial Plan for the Eastern Wielkopolska Just Transition¹⁶ or the Development Strategy for Eastern Wielkopolska 2040¹⁷, extensive **public participation** was foreseen, starting from the

¹² Bolczyk Bartłomiej, 2021, Unikatowe miejsce na mapie Konina. Enklawa dla młodzieży. Czym jest Restart Lab? [en. A Unique Place on the Map of Konin. An Enclave for Young People. What is Restart Lab? <https://konin.naszemiasto.pl/unikatowe-miejsce-na-mapie-konina-enklawa-dla-mlodziezy/ar/c1-8309390>

¹³ Community Energy. A Practical Guide to Reclaiming energy, 2021, Friends of the Earth Europe, Energy Cities, REScoop.eu (summary)

¹⁴ Daniel Kiewra, 2020, Raport podsumowujący konsultacje społeczne w ramach prac nad planem sprawiedliwej transformacji regionu Wielkopolski Wschodniej [en. Summary Report of the Public Consultation as Part of Plan Preparation for a Just Transition of the Eastern Wielkopolska Region], Konin

¹⁵ Concept Paper for a Eastern Wielkopolska Just Transition, 2021, ARR Transformacja Sp. z o.o. <https://artransformacja.org.pl/wp-content/uploads/2021/05/KSTWW-ost.pdf>

¹⁶ Territorial Plan for the Eastern Wielkopolska Just Transition, 2022, ARR Transformacja Sp. z o.o. https://artransformacja.org.pl/wp-content/uploads/2022/12/Terytorialny_Plan_Sprawiedliwej_Transformacji-WW.pdf

¹⁷ Development Strategy of Eastern Wielkopolska 2040, ARR Transformacja Sp. z o.o. 2022, <https://wbpp.poznan.pl/185/strategia-rozwoju-wielkopolski-wschodniej-2040.html>

diagnostic stage, through the preparation of document content and ending with consultation and adoption of final document versions” (ID/11/4).

Many entrepreneurs participated in a number of meetings and working group meetings aimed at diagnosing the key problems, development challenges and also the needs of entrepreneurs resulting from the regional transition. In addition, they were active involved in submitting comments to the previously mentioned documents. As noted by the staff of the Regional Development Agency in Konin, their objections and comments on the content of these documents were vital, e.g. in the case of the Territorial Plan for the Eastern Wielkopolska Just Transition they accounted for about one third of comments. “Activities in this area were aimed at involving all stakeholders in the creative process, which resulted in the joint development of the aforementioned documents, but at the same time was intended to increase their awareness of Just Transition and to integrate them around this process” (ID/11/4).



Problems connected with positive change

The actions undertaken by entrepreneurs are very strongly hampered by the **lack of a long-term energy strategy**. They are ad hoc in nature and are most often a simple reaction to soaring energy prices and an attempt to reduce the cost of energy generation. “As far as the awareness of entrepreneurs is concerned, it increases the moment they see their electricity bill. And they resort very often to temporary solutions, that is, for example, photovoltaics investments on short notice. It seems that there is still a very here and now approach, and not enough slightly forward thinking among entrepreneurs. There is not enough of an approach that would answer the question of how to steer one's business to be competitive in the future market” (ID/9/1).

Meanwhile, when responding to the question of the desired direction and form of change, entrepreneurs associated with the energy industry unequivocally point towards **strategic energy management**. It should, even for small companies, be based not only on technological change, but also on business planning for energy procurement, use and storage. “The energy transition will be an in-depth process and will not only concern the building itself or the power supply, but the energy availability profile in general: daily, year-round. Entrepreneurs should put deep thought into how to adapt their own businesses to use the energy obtained from the sun or wind, for example. This is why this transition is so profound, difficult and often incomprehensible to many people. The price of energy will change not only on a daily basis, but also on a yearly basis. There will also be periods of energy shortages. As a result, businesses should not believe that the old energy grid can be transformed. It should especially not put faith in the vision that gigantic sums of money will be ‘pumped’ into the existing energy system, RES sources will be connected to it and the land will ‘overflow with milk and honey’. Entrepreneurs should count on themselves, as they will at times face high energy prices that will not always correspond with their business model requirements. Therefore, the entrepreneur must not only think about photovoltaics as a short-term solution, but also consider energy storage as part of his or her business, chargers for electric vehicles, heat pumps, some kind of thermal energy storage and many other activities that are related to the energy transition. The entrepreneur needs to become more self-sufficient and his model of obtaining and using energy more flexible. Electricity use processes need to be planned. Naturally, all of this is relevant for smaller companies” (ID/9/1).

According to an entrepreneur with many years of experience in the energy industry, the **changes will be much more profound** than what is common perception, and **seen from the perspective of large companies, they may prove to be even more difficult**. “Large companies will face an even greater challenge because I expect a ‘location shuffle’. Energy-intensive companies will be leaving existing industrial parks. Companies will build in locations with renewable energy availability. I imagine it in

such a way that if there is a company 'X' that will need certain energy resources for its production processes, it will shift location to where it will be possible to connect directly to a wind or photovoltaic farm, with the option of energy storage, because such a model will be more economically efficient and more competitive than staying in the current location. There is a huge incoming shift ahead in terms of companies and their operational models. This is going to happen over the next few years and it will be a painful process, requiring funding and difficult decisions, and whoever cannot cope with it will go out of business. (...) I think a lot of people don't understand the process, they see the changes only through the severity of their bills, and this, especially as 'covered' by political actions, does not reflect the real state of the economy and the issues we are facing" (ID/9/1).

The atom and nuclear power

In the context of the energy transition, entrepreneurs also commented on plans to build a nuclear power plant in Konin. In the first stage, two APR 1400 reactors will be built, each with a capacity of 1400 MW. The first is planned to be built by 2035. The project will meet 12 per cent of Poland's current energy needs. ZE PAK, PGE and Korean contractor Korea Hydro & Nuclear Power (KHNP) are involved in the investment.

In general, the attitude of entrepreneurs to this initiative is positive, but at the same time restrained. In general, entrepreneurs draw attention to current pressing problems concerning the Polish energy system, in particular the sharp increase in energy prices. The nuclear power plant is treated as part of the distant future. “When talking about nuclear, first of all, we must answer the question when a nuclear power plant can be put into operation. In this case, the likely time horizon is 15 years. In addition, we are following the dispute between the Koreans and the Americans. Until the two sides reach some sort of settlement this project will not be able to get off the ground. Two elements are important here, one is timing and the other is cost. Both of these parameters are not favourable in relation to what is happening on the wider market. Firstly, we need the energy now, not in 15 years' time. Secondly, this power will have to compete with the cost of energy as it will be in 15 years' time, and during that time costs will fall. There will be more and more RES and their energy cost will continue to drop. Energy produced from nuclear entering the energy system will have to compete with cheap energy available on the market. Everyone predicts that up until 2030 the price of energy will rise and after 2030, with the increase of RES, it will begin to fall. In my opinion, a nuclear power plant will not work. I can imagine some kind of state contract, but the public will end up paying the bill. We can expect a price of around €140-150 per megawatt hour from nuclear power” (ID/9/11).

An obstacle to the construction of nuclear power plants is the reluctance of residents who would live in its vicinity. On the basis of available surveys, Poles are not against nuclear energy and even perceive it in an increasingly positive way, however the construction of a power plant in close proximity is not widely accepted. A different attitude can be encountered in Konin, exemplified by the statement of one businessman. “On the contrary, maybe I know different people or I come from a different background, but in fact it doesn't matter in the slightest if the power plant is 20 or 100 km away from us. It actually carries a similar risk. Well, we are all counting on new construction technologies that will protect us from possible disasters. We also count on the fact that we live in a reasonably safe area. We don't have earthquakes or major floods that could further affect safety. You know, the biggest danger here is the human factor. As far as the residents are concerned, I can see that they seem unconcerned. At least I haven't noticed anyone strongly criticising the project. Perhaps I hang around

more positively-minded people, but in terms of the construction of a nuclear power plant in Konin, I have not noticed any significant objections” (ID/1/1).

In addition, nuclear energy raises certain hopes among entrepreneurs with regards to the perspective of the nuclear power plant construction itself. It is seen as a major investment that represents a development opportunity for the region. The construction of a nuclear power plant spanning several years is seen as a job prospect for a significant number of residents, while entrepreneurs see themselves as potential contractors. “Our company has been in business for 16 years. We are currently working on the development of an industrial sector gas mine near Poznań. I am counting on the fact that together with my team we would have guaranteed employment for many years during the construction of such a large power plant. We wouldn't have to travel around Poland or the world to find work. We would be able to hook up locally for a bit longer, so that we could be at home day in, day out. Employees would also be able to permanently stay closer to their wives and families. This family, social dimension matters too” (ID/1/1).

Renewable energy resources (RES)

Entrepreneurs perceive the production of electricity from renewable sources, in particular photovoltaic cells, to be the most stable energy source. They have a very wide range of applications, are an increasingly technologically refined product with a plummeting investment price. Hopes for further technological advances, including in the energy storage technology, are cause for optimism with regards to reducing the key shortcoming of this source, which is its instability. “The development of RES will also be important in the Konin area. Our company is developing several hundred megawatts of photovoltaic sources and dozens of megawatts of wind sources. As far as photovoltaics are concerned, I see no threat to their expansion. Even if the grids do not allow us to develop solar power to the extent that we want, we will introduce energy storage and local distribution networks, as well as supply industrial consumers with direct cables. You could say that this is where the whole energy model is heading” (ID/9/1).

An important aspect of the development of photovoltaic farms is the issue of land. The decision to develop them with photovoltaic installations usually means rejecting alternative options: afforestation or designation for agricultural use. The photovoltaic farm in Brudzew is the best example of choosing a new alternative for post-mining land development path that falls in line with the energy transition. However, it is worth emphasising that Eastern Wielkopolska has in itself strong agricultural traditions, much more entrenched than the rest of Wielkopolska. “Farmers who want to develop utilize this land, and do so very actively. They are happy to buy a hectare or two to expand their production area. They are opposed to investing in photovoltaics, because it inhibits their development plans. In addition, investing in a photovoltaic farm means that the field will be blocked for nearly 30 years. Upon signing a contract, the intention is to follow through with it. But what will the future hold? Maybe after some time, in 10 or 15 years something new will be introduced, a technology that will be much more efficient, a more efficient photovoltaic panel – we don't know” (ID/2/1).

Hydrogen energy

Hydrogen is seen as the great hope for Eastern Wielkopolska's energy transition. Most of the entrepreneurs surveyed have a positive attitude towards this energy source, but only a minority of them link their future activities to hydrogen energy. Hydrogen is primarily associated with energy production for large plants and with practical applications in public and specialised transport. In the minds of respondents, it is much less relevant to the activities of small and medium-sized businesses or the operation of individual transport. Here, electric cars have the advantage.

"I rule out the widespread use of hydrogen in passenger cars for two reasons. Firstly, the development of electric vehicles has shown enormous growth recently. Today, batteries make it possible to travel distances of up to 700 km. It is less and less problematic to refuel electric cars, you can do it on your own, by using photovoltaic installations, and this is a huge argument for their use. And hydrogen technology is more complicated, more expensive and at a niche level of development. The technology in hydrogen vehicles seems like it will develop, but primarily in heavy transport, buses and trucks. In such a situation, as an entrepreneur I see no reason to invest in hydrogen cars" (ID/9/1).

Not all entrepreneurs are so clear about the advantages of electric cars over hydrogen when it comes to car transport. There are also those who see individual development opportunities precisely in hydrogen. "My company would very much like to build hydrogen refuelling stations. That is why I am also looking for solutions on how to get into this industry and I am rooting for decisions that will allow for more such sites to be built" (ID/1/1).

It is worth emphasising, however, that public transport using hydrogen buses is not just a curiosity and a publicity stunt for Konin, but is clearly part of a long-term process as part of the regional just transition. This is evidenced, among other things, by a statement by Małgorzata Przybyła, president of Miejski Zakład Komunikacji w Koninie [MZK, en. Municipal Transport Company in Konin]. "We are systematically implementing statutory requirements. The first parameter we are supposed to realise is a thirty per cent share of zero-emission rolling stock in the fleet of city bus vehicles by 31 December 2027, and we are on track to fulfil this" (ID/8/2).

Planned and implemented actions

Referring to a statement made by employees of the Regional Development Agency (ARR) in Konin, it is difficult to satisfactorily summarise the actions that the region's entrepreneurs are taking, or are planning to take, in connection with the implementation of the Eastern Wielkopolska energy transition. “We do not have full knowledge of the actions taken (and planned to be implemented) by the companies. Certainly, ZE PAK, which is a key actor in the whole process, is undertaking a number of initiatives in order to transition its activities towards zero-emission energy production, e.g. related to the reduction of lignite mining (e.g. termination of coal mining from the Józwin open-cast), diversification of its activities, including through the use of renewable energy generation technologies. In addition, a number of entrepreneurs contacting or cooperating with the ARR seem to be aware of the changes underway and the need to introduce energy efficiency, RES or closed-loop economy solutions in their operations” (ID/11/4).

Miejski Zakład Komunikacji w Koninie [MZK, en. Municipal Transport Company in Konin] is taking specific steps regarding the introduction of a hydrogen transport fleet and the development of the necessary complementary infrastructure. “We are currently at the technical design stage for a new hydrogen depot, which will be adapted to support hydrogen vehicles. We have a chance to obtain funding for this activity from the Just Transition Fund, as the project prepared by the City of Konin, of which MZK is to be the final beneficiary, has been qualified as a strategic project not subject to tenders. If we succeed in submitting all the paperwork, next year we will start the implementation and construction of a new depot, probably the first such installation in Poland adapted for hydrogen vehicles” (ID/8/2).

This is not the first attempt at implementing a regional hydrogen strategy. Until recently, the owner of ZE PAK claimed that it would build a hydrogen bus factory in Konin. Ultimately, the plant is being built in Świdnik, where it was to benefit from a higher state aid limit for entrepreneurs. This decision was perceived negatively by many local government officials and entrepreneurs in the Wielkopolska region, as the idea of building the factory in Konin was seen as compensation for ZE PAK's environmental damage and thus fitted in with the concept of a just transition.

It is also worth highlighting the institutionalised dimension of the activities undertaken for the Eastern Wielkopolska just transition. In the words of the staff of the Regional Development Agency in Konin, “August 2023 saw the end of the call for applications for funding from the Just Transition Fund as part of the framework aimed at supporting investments in micro, small and medium-sized enterprises in the Eastern Wielkopolska region. Applications for project support were submitted by nearly 200 enterprises interested in strengthening their innovative potential that would adapt them to the changing subregional development environment.” (...) In addition,

“entrepreneurs also show great interest in the EKO-energy loan granted by the ARR – approx. 60 agreements have already been signed for the implementation of investments aimed at reducing their negative environmental impact, including the improvement of air quality. (...) At the same time, entrepreneurs are preparing to absorb further JTF funds, earmarked to support the development of RES, closed-loop economy or climate neutrality” (ID/11/4).



Conclusions and recommendations

Among the principals of a Just Transition is the minimisation of the negative impacts of abandoning coal on the local community. One good practice that brings us closer to this goal is to involve the widest possible range of stakeholders in the preparation and implementation of projects funded by the Just Transition Fund. This helps not only indicate concern for the well-being of people, but also for the environment and the economy. The latter, in turn, according to just transition principles, should be diversified (in contrast to the current economic monoculture based on lignite mining and combustion) and as resilient to shocks as possible.

The monocultural economy that dominated the region for decades resulted in a low level of entrepreneurship, and the high unemployment resulting from redundancies in large industrial plants only exacerbated this phenomenon. This in turn has led to a rise in the number of residents emigrating for work. In order not to replicate this state of affairs, it is now extremely important to take care of entrepreneurs, especially in relation to micro, small and medium-sized entities. One way of achieving this is to see these businesses as the foundation for sustainable development and the stability of the local community. Consequently, these entrepreneurs should be explicitly supported financially and administratively. A special role in this respect is played by the Regional Development Agency in Konin, which has the potential to further support entrepreneurs and popularise knowledge of their role in the changes underway in the region.

This research indicates that a change has occurred in entrepreneurs' perception of the transition process over the last few years. In the beginning, they had an extremely narrow awareness and this subject was mainly present in entities directly related to the energy transition process, especially ZE PAK. Over time, entrepreneurs have learned that transition will not limit itself to the mines and power plants, and that the energy transition will affect the entire region, implying the need to embrace the region in just transition activities. During the conversations, they highlighted not only technological but also economic and social aspects. There is another aspect that the interviewees mentioned: fears. They fear an increase in unemployment, the impoverishment of the local community, a decrease in the investment attractiveness of the region and, ultimately, the emergence of an unfavourable business climate. These concerns reflect the threats posed by the transition. These should be identified and the relevant authorities (local, regional) as well as the Regional Development Agency should take action to minimise the risk of these threats materialising.

They are also concerned about the costly challenges related to production processes: increasing energy efficiency and decarbonisation. These undertakings are part of the energy transition and can therefore expect financial support for their implementation. The success of the social aspect of the transition will also, to some extent, depend on

their success, which is why both the Wielkopolskie Voivodeship Marshal's Office (as the WEF Managing Authority) and the Regional Development Agency in Konin (as the intermediary institution for the implementation of the JTF) should spare no effort to make the financial resources effectively and readily available for such activities.

Levelling the playing field among entrepreneurs is another action that respondents indicated as necessary. Entrepreneurs believe that so far the main beneficiaries of the transition have been large entities, such as power plants. Meanwhile, the smallest ones face difficulties already at the stage of submitting applications for co-financing – many of them have problems with raising their own contribution, which eliminates them from the distribution of funds earmarked for the transition and creates the risk of falling behind those who can afford it. Therefore, the **financial requirements in EU projects should take into account the company size** and adjust the required own contribution accordingly, **while the project accounting procedures should allow for the fastest possible recovery of the invested funds.**

The respondents point out that transition is not only about regional activities. On the contrary, they postulate that the transition should consist in reorganising the energy model on a national scale. This is why they criticise the central authorities' decisions, which they perceive as preserving a centralised energy model while blocking the development of distributed energy. The latter is, in their view, a necessity, and delaying it is costly both to the economy and to society.

In line with this position, comprehensive legal changes are recommended to national authorities, which would enable energy system decentralisation through the development of community and distributed energy. Faced with the inadequacies of systemic solutions, entrepreneurs are looking for individual solutions to both the energy crisis and the challenge of implementing European climate policies. Actions taken by business owners are, among other things, a reaction to the sharp increase in energy prices. Meanwhile, the state's energy policy should be shaped in such a way that entrepreneurs can accommodate their actions to fit the perspective of a systemic and long-term energy strategy, and not patch up deficiencies with ad hoc solutions.

Interviews – list of persons

- Sebastian Zaradzki, Entrepreneur, EnergoTech company
- Jacek Majewski, Entrepreneur, FiltroTech company, and Councillor of Ostrowite Municipality
- Radosław Dobrowolski, Entrepreneur, FalkeMasschinenbau company
- Adam Tycz, Entrepreneur, Energia EKO spółka ZO.O.
- Mateusz Kowalewski, President of the Eastern Wielkopolska Chamber of Commerce
- Sławek Kurek, Manager, Corporate Governance Office, Konin City Hall
- Karol Byczyk Entrepreneur, Elektric spółka Z O.O.
- Małgorzata Przybyła, President of MZK Konin
- Jacek Kosakowski, President of the Management Board, CEO at Centralna Grupa Energetyczna S.A.
- Miłka Stępień, CEE Bankwatch Network¹⁸
- Maciej Sytek, President of the Management Board and Sylwia Górniak, Senior Specialist, Agencja Rozwoju Regionalnego S.A. in Konin

¹⁸ Too little, too slow. Interview with Miłka Stępień, <https://www.kobietydla klimatu.pl/bohaterki/milka-stepien>



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Polish Green Network