The EU's START mechanism and the Hungarian Trade Union of Mining, Energy and Industrial workers (BDSZ) analysed the impact of the Transition in Heves County.

Edited by industriAll Europe.

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From June 2023 to March 2024, a team from the EU Coal Regions in Transition's initiative, under the START technical assistance programme, collaborated with the Hungarian Trade Union of Mining and Industrial Workers (BDSZ) to identify and address issues related to economic and labor market transitions in Heves County.

The phase-out of lignite-fired electricity generation at MVM Mátra Energy Ltd., anticipated for 2025, is expected to have significant economic and labor market impacts on the region. The communities dependent on the Visonta and Bükkábrány coal mines are expected to be the most affected. With 1,800 members in the mining sector, BDSZ aims to anticipate the changes and create new local opportunities for workers who are likely to be made redundant.

The joint analysis conducted by START and BDSZ focuses on three principal areas:

1. Comparing EU approaches to early retirement and support packages for older miners and power workers.
2. Exploring opportunities related to green economic diversification, adaptation strategies for SMEs, and potential employment opportunities for affected workers.
3. Identifying project ideas that could assist local SMEs in the process of green diversification, adaptation, and job creation.

Based on the experiences of other EU coal regions, the sooner stakeholders—such as affected workers, communities, and local enterprises—are involved and prepared for the transition, the less severe the impact will be. In this case, approximately 7,100 workers across the entire supply chain are at risk.

MVM Mátra Energy aims to remain a key local company and has a range of green and low-carbon-oriented plans, including repurposing mining land for solar energy, introducing a waste-to-energy facility, and further developing its industrial park to accommodate green activities, such as manufacturing renewable energy components and insulation materials. The company has successfully attracted talent from other parts of Hungary to support its transition plans.

In addition to MVM's efforts, other measures should be implemented, including reskilling and upskilling training for workers, support for local SMEs to innovate with new business processes and green jobs, and early retirement initiatives.

The report can be found below.

European Commission

Just Transition in Heves County

An analysis of challenges and opportunities

This report was developed by the EU CRiT initiative's START mechanism in co-operation with the Hungarian Trade Union of Mining, Energy and Industrial Workers (BDSZ).

Energy

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Preface

From June 2023 to March 2024, a team from the EU Coal Regions in Transition Initiative's technical assistance programme (START) worked with the Hungarian Trade Union of Mining, Energy and Industrial Workers (BDSZ) to identify and consider issues relating to economic and labour market transition in Heves County.

BDSZ's application for START support was a response to the imminent phase-out of lignite-fired electricity generation at MVM Matra Energy Ltd , foreseen for 2025, and its anticipated labour market consequences, particularly for the communities dependent on the power plant and the Visonta and Bükkábrány mines for employment and income.[1] Given BDSZ's mission to protect and represent the interests of its members, 1,800 of whom are involved in mining activities, the Union wanted to gain a better understanding of the potential demand for workers, who are made redundant through this transition process, in the local economy.

Since the application was approved in early 2023, the timeline for the phase-out of lignite has become less clear, arguably making the sense of urgency amongst Hungarian stakeholders less pronounced. Nonetheless, to fulfil Hungary's commitments to decarbonisation, phase-out will have to occur in the next few years, thus detailed and timely planning and preparation are still required. The Hungarian Government expects that lignite-fired electricity generation will end after the commissioning of the new gas-fired power plant, planned for 2027.

The joint analysis undertaken by the START team and BDSZ relates to three principal areas:

- comparing EU approaches to early retirement and support packages for older miners and power workers;
- opportunities in relation to green economic diversification and adaption for SMEs in Heves County and the opportunities to create employment for affected workers; and
- identification of project ideas that could assist local SMEs in this process of green diversification and adaption and employment creation.

The analysis was based on extensive desk-based research and local engagement via surveys, interviews and two sets of round table discussions with local and national stakeholders conducted at the Károly Róbert Campus in Gyöngyös.

The work was undertaken in a constructive partnership between the START team and BDSZ. Despite the uncertainty regarding the timeline for lignite phase-out, BDSZ's professional approach to this work and commitment to securing a just transition for affected workers and their communities is commendable.

1. The Visonta mine is adjacent to the power plant, whilst the Bükkábrány mine is about 50km away.

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Section 1: Introduction and Executive Summary

Introduction

Based on the analysis undertaken by START and BDSZ, this final report aims to synthesise key findings and outputs of this joint work. The report also aims to foreground the issues, challenges and opportunities that should be addressed to engender a successful transition for affected workers in Heves County. Given the Hungarian Government's stated ambitions regarding decarbonisation of the national energy system and economy, additional attention is given to green economic adaptation and diversification in Heves County's economy.[2]

This final report aims to be a point of reference for several key groups who have a stake in a fair and managed energy transition in Heves County: affected employees, particularly those employed in the power plant and associated lignite mines; local employers, including SMEs and MVM Mátra Energy Ltd and its supply chain; national and local policy makers; and industrial associations.

To make the report accessible to a wide audience, the document is relatively concise compared with the scale of the topic. Further detailed information on the process of transition and the outputs of the joint START BDSZ research can be accessed at the EU'S Coal Regions in Transition website here.

The report opens by establishing the context of energy transition in Heves County and the probable challenges that the area will face, before considering the scale and characteristics of the workers who will be directly affected by transition. There is then consideration of the types of local economic activities that could provide alternate job opportunities for affected workers. In turn, additional attention is given to the employment opportunities linked to the green economic diversification and adaptation of local SMEs. This preceding analysis sets the scene for consideration of how affected workers could be more effectively matched with these opportunities. Recognising that many of the affected older workers may have problems in accessing these opportunities, there is then a brief analysis of the EU experience regarding support for older workers and lessons for Hungarian for policy makers. In closing, the report offers a concise set of conclusions. In advance of these sections, an Executive Summary is provided below.

2. Green economic diversification and adaptation relates to the greening of economic activities through the adoption of green products, processes and practices.

Executive Summary

Although the timescale for the cessation of the burning of lignite at the Matra Power Plant and the related extraction of lignite at the Visonta mine and the Bükkábrány mine, in neighbouring Borsod-Abaúj-Zemplén County, is not definitive, the probable termination of these activities within a few years means that planning and preparation for this eventuality should gather pace now. From the experience of other EU coal regions, the sooner that stakeholders, such as affected workers, communities, and local enterprises, are involved in a process of managed change, the greater the likelihood of a fair and organised transition. Conversely, if a co-ordinated multi-stakeholder response to these changing realities in Heves County is delayed, the potential for an unjust transition is higher.

Regardless of the specific date for the phase-out of lignite use at the power plant, energy transition will inevitably have significant economic consequences for Heves County. The lignite power plant and its mining operations directly employ about 2,100 relatively well-paid workers, the majority of whom live in Heves County. Additionally, it is estimated that the related supply chain which provides products and services to MVM Mátra Energy, employs nearly 5,000 people. Therefore, the direct, indirect, and induced economic presence of the power plant and its mining operations in the local economy and surrounding region is significant.

Given MVM Mátra Energy workers will be affected adversely by decarbonisation, they should also have the chance to benefit from the employment opportunities created by the decarbonisation and greening of current and future local economic activities. For example, MVM Mátra Energy Ltd aims to remain a key local company and has range of green and low carbon orientated plans, including the repurposing of mining land for solar energy, the introduction of a waste to energy facility adjacent to its biomass facility, and the further development of its industrial park to accommodate green activities in areas such as manufacturing renewable energy components and insulation materials. In addition, Heves County, especially along the Hatvan-Gyöngyös-Eger axis, has been particularly successful in attracting and developing export-oriented multinational and Hungarian companies. As these existing and future investors green their activities, new job roles will be created that could be accessed by workers adversely affected by energy transition.

Notably, the primary research undertaken for this study revealed the importance of SMEs as a source of potential employment for workers made redundant by energy transition. The research surfaced important SME perspectives regarding the need for green investments to improve their company performance via

cost reduction, entering new markets, and modernising business processes, and the relationship with company sustainability and future growth prospects. Indeed, the process of green diversification and adaptation by local SMES, is a key means to address the unbalanced nature of the Heves County, in terms of an over-dependence on large foreign owned employers.

Critically, there is an imminent requirement for labour market measures (counselling, training, job search etc.) to ensure that affected workers can successfully be matched with/compete for new job opportunities whether they relate to MVM Mátra Energy Ltd, other large investors or local SMEs. Moreover, more must be done to promote the process and opportunities of green economic diversification and adaptation in the Heves County company base, especially amongst local SMEs where knowledge, capacity and funding for a green transition are limited. To this end, the Just Transition Fund and EU funds more broadly represent a critical resource.

Finally, given the significant number of older MVM Mátra Energy Ltd workers who have been involved in mining and other physically demanding activities over a sustained period, their health and employability are likely to be impaired. As in other EU coal mining regions, early retirement will most likely be the only viable option open to many of them. As a priority, an early retirement scheme needs designed and adequately resourced, in consultation with BDSZ.

Section 2: Context

National policy developments

In March 2021, at the Powering Past Coal Alliance's annual summit, Hungary indicated that it would exit coal by 2025. This phase-out deadline for both lignite-firing and mining was subsequently included in Hungary's Territorial Just Transition Plans[3], that were approved by the European Commission at the end of 2022. The adoption of these Plans is a condition for the release of a planned allocation of EUR 250.6 million from the Just Transition Fund, together with EUR 10.4 million in technical assistance, which is intended to provide support targeted to those geographical areas that face serious socio-economic challenges in the process of transitioning to climate neutrality; namely for Hungary, the counties of Baranya, Borsod-Abaúj-Zemplén and Heves. Specifically, the objective of Just Transition Fund is to ensure a fair and 'just' transition by mitigating impacts of transition, including on employment, through support for economic diversification and reconversion of the territories concerned.

At the end of August 2023, the Hungarian government submitted a draft updated national energy and climate plan (NECP)[4]. The draft updated NECP assumes phasing out coal and lignite from domestic electricity production in Mátra Power Plant by 2030 at the latest, conditional on the finalisation of a new combined cycle gas turbine (CCGT) plant.[5] Furthermore, the draft updated plan neither makes reference to the commitments made in the TJTPs. In October 2023, a procedure was opened for a full review of the single environmental permit to produce electricity at the Mátra Power Plant, aiming to extend the permit until the end of 2029. This permit was granted in March 2024.[6] Furthermore, a new government resolution in mid-November 2023 mandated that the phase-out of the lignite-firing units would only occur once a combined-cycle gas turbine (CCGT) power plant is built, which is projected to be by mid-2027 at the earliest.[7]

Moreover, the draft updated NECP indicates that the Hungarian government wants to ensure that lignite-based electricity production remains available as a strategic energy reserve, while also raising the possibility of alternative uses of domestic coal assets, such as in chemicals, agriculture or construction materials or so-called (and undefined) 'clean coal' technology, if it is cost-effectively sustainable. It is unclear how these intentions tally with the cessation of lignite mining for Heves County, or eventually by the 2030 deadline that has been set by the Hungarian government in the draft updated NECP. In response, the European Commission has stated that by postponing the commitment to close the Mátra Power Plant's lignite-fired units, the commitments made in the adopted Territorial Just Transition Plans (TJTPs) and the draft updated NECP are not consistent.

Irrespective of current uncertainties, which can be partly traced back to geopolitical developments (e.g. Russia's unprovoked invasion of Ukraine in 2022) and consequential energy security and supply concerns, coal has become a source of energy that is less and less economic and with a view to fossil fuels phase out in the EU, also unwanted. EU countries committed to a legally binding net zero greenhouse gas emissions by 2050 at the latest when they adopted the European Green Deal. Since the EU countries have a right to their energy mix, enshrined in Art. 194(2) of the Treaty of the Functioning of the EU, the commitment to phase out of coal cannot exceed the year 2050. The Climate Law incorporates mechanisms for monitoring advancements and modifying Member States' actions correspondingly, encompassing a governance process for this.

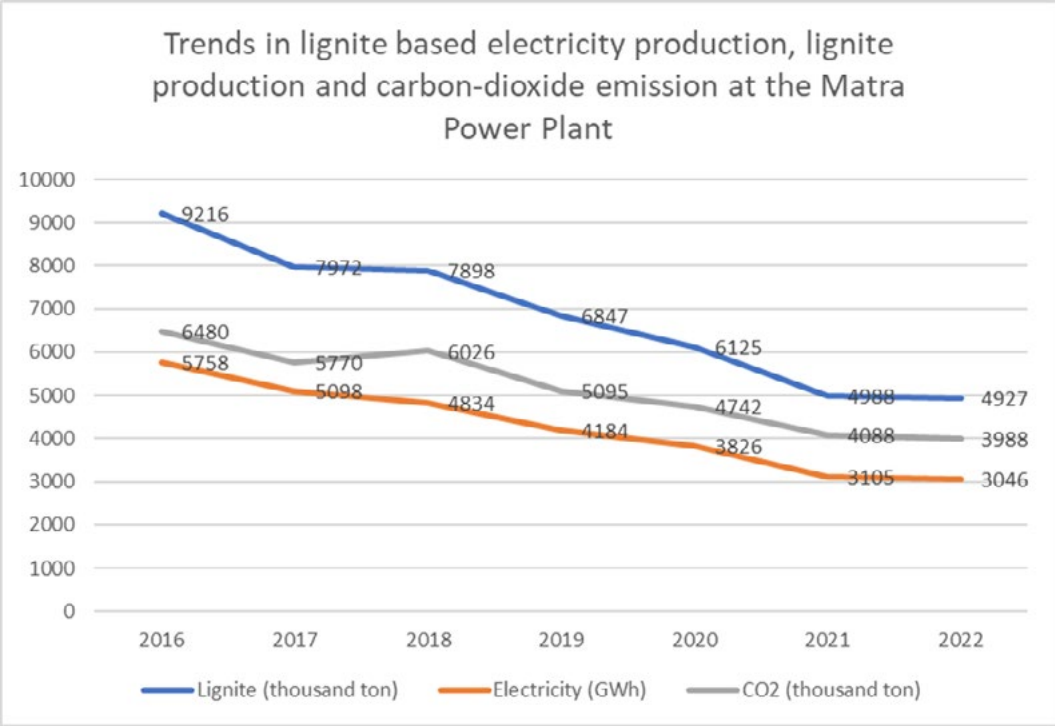
Local lignite production and power generation

The Mátra Power Plant (MPP) located in Heves county, operating under the official name of MVM Mátra Energy Ltd., is a predominantly lignite fired power station owned by Hungarian Electric Works Ltd. (Magyar Villamos Művek Zrt., MVM) that is supplied with coal fuel by two MVM owned open-cast mines – Visonta mine in Heves county and Bükkábrány mine in Borsod-Abaúj-Zemplén County – that jointly account for 99% of lignite mining in Hungary. MPP is the last remaining coal-based electricity power plant in Hungary, and the second largest Hungarian power plant (after the Paks Nuclear Power Plant), providing around 9% of domestic electricity production in 2022, and 7,2% in 2023.[8] MPP previously accounted for around 10% of domestic CO2 emissions 50% of CO2 emissions of the whole Hungarian electricity sector, and 8% of overall domestic GHG emissions. CO2 emissions of the Mátra Power Plant have decreased significantly in recent

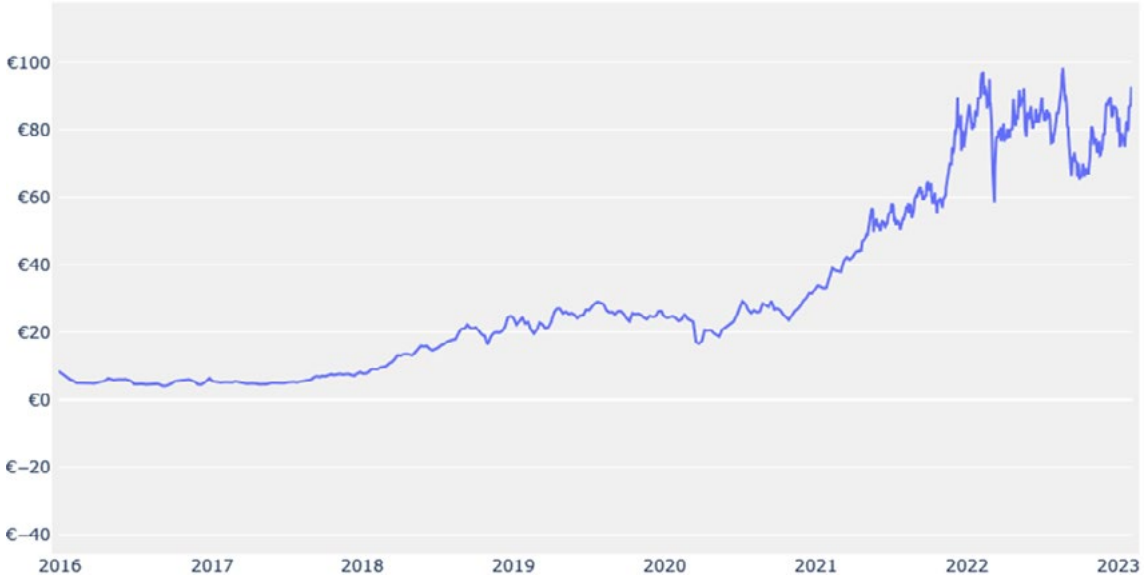
3. Hungary produced three Territorial Just Transition Plans, one each for Baranya, Borsod-Abaúj-Zemplén and Heves counties. The Plans were developed as an annex to the Environment and Energy Efficiency Plus Operational Programme Plus (KEHOP Plusz).
4. Draft updated National Energy and Climate Plan of Hungary – revised version 2023
5. Source: Draft updated National Energy and Climate Plan of Hungary – revised version 2023 and European Commission, Assessment of the draft updated National Energy and Climate Plan of Hungary, SWD(2023) 916 final (December 2023).
6. The single environmental permit of MVM Mátra Energia Zrt is valid until 31 May 2025. In September 2023, the company submitted an application for the extension of this permit to the Heves County Government. According to the decision of 12 March 2024, the power plant was granted a single environmental permit for the production of electricity on the site. The licensed capacity is 950 MW. According to the decision, the licensee has 2 coal-fired power generating units with an installed electrical capacity of 100 MW, 1 coal-fired power generating unit with an installed electrical capacity of 220 MW and 2 coal-fired power generating units with an installed electrical capacity of 232 MW, and 2 natural gas-fired power generating units with an installed electrical capacity of 33 MW.
7. Source: CEE Bankwatch Network, Following the money: Hungary - What is the Just Transition Fund going to finance? (December 2023).
8. https://www.mekh.hu/download/1/79/51000/Energiastatisztika_2022v.pdf

years (see Figures). One important factor in this trend has been the cost of carbon dioxide emissions allowances under the Emissions Trading System (ETS) that has risen substantially after 2020, increasing the relative cost of lignite-based electricity generation and, consequently, reducing production at the Mátra Power Plant.

As noted previously, it was anticipated that MPP would cease lignite burning in 2025 but this has been extended by the Hungarian Government until a replacement combined-cycle gas turbine (CCGT) plant with a maximum installed capacity of 650 megawatts (MW) is operational, which is not expected until 2027 at the earliest. The intention is for this plant to be responsible for regulating the cyclicality of renewable energy production.



HISTORICAL PRICE OF EUROPEAN ALLOWANCES (EUA), I.E. THE PRICE OF EMITTING 1 TONNE OF CO2-EQUIVALENT FOR A EUROPEAN INDUSTRIAL INSTALLATION OR AIRLINE COVERED BY THE EMISSIONS TRADING SYSTEM



Source: Sandbag – Carbon Price Viewer

Economic and social implications of lignite phase-out

Energy transition will inevitably have significant economic consequences for Heves County. The lignite power plant and its mining operations directly employ about 2,100 relatively well-paid workers, the majority of whom live in Heves County. Additionally, it is estimated that the related supply chain which provides products and services to MVM Mátra Energy Ltd., employs nearly 5,000 people. Therefore, the direct, indirect, and induced economic presence of the power plant and its mining operations in the local economy and surrounding region is significant.

As MVM Mátra Energy Ltd. downsizes its workforce, those that are younger and have transferable skills, can be readily re-employed, although not necessarily on similar pay and conditions, in the wider local economy. However, for those that have limited transferable skills, many of whom are miners, reskilling and finding alternate jobs will be more challenging. Moreover, 734 employees, representing over half of the combined workforce at the power plant and mining operations is aged over 50, with an even higher proportion (63%) for at the two lignite mines; see Section 3 for more details. By 2025, about 300 workers are expected to retire, while a similar number will be aged over 60. This older cohort of workers are similarly likely to find it very challenging to reskill and find alternate employment, regardless of their willingness to compromise on pay and conditions. Therefore, a solution to permit a just transition for older workers needs to be identified.

Additionally, it is estimated that of the approximate 900 companies in MVM Mátra Energy's supply chain, around fifty companies are highly dependent on the power plant and its related mining activities for their revenues. Moreover, many are specialised in their related activities, thereby presenting challenges for diversification. Also, several companies in the MVM Mátra Energy's neighbouring business park are dependent on inputs from the power plant.

Critically, the economic impact of the phase-out of lignite for electricity generation will be concentrated in specific Heves County communities, such as Abasár, Detk, Domoszló, Gyöngyös, Halmajugra, Kisnána, Markaz and Visonta, where employment relating to electricity generation and mining is a dominant source of employment and income. Moreover, given the reliance on the use of lignite for domestic heating purposes of many households already affected by energy poverty in the Heves and Borsod-Abaúj-Zemplén counties, removing lignite as a source of energy for heating may increase energy poverty in these communities, and the wider region.

The phase-out will not only be felt economically in these communities but will also weaken local cultural affiliations and social cohesion. For example, in one community, Halmajugra, over 80% of the population is Roma, and local companies linked with the MPP's lignite operations employ 120 residents. There will also be demographic consequences, as residents of these communities, especially the young, choose to leave; thereby aggravating Heves County's overall population decline, which fell by 6.7% between 2009 and 2022.

The viability of these communities will also be challenged by the associated contraction in business rates for local municipalities and their provision of services. In eight local municipalities located around the power plant and its lignite mines, 90% of local business taxes are associated with lignite utilisation.

The Territorial Just Transition Plan of Heves County

The general purpose of a Territorial Just Transition Plan (TJTP) is to identify the territories expected to be the most negatively impacted by the transition to a climate-neutral economy, to set out the transition challenges in each territory, as well as their development needs and objectives to be met by 2030. It also identifies the types of operations envisaged and specifies governance mechanisms for achieving a fair and just transition. Approval of the TJTP is a pre-requisite for access to the EU Just Transition Fund (JTF) and opens the doors to dedicated financing under the other two pillars of the Just Transition Mechanism, namely the InvestEU "Just Transition" scheme and Public Sector Loan Facility.

The TJTP for Heves County that was adopted in 2022[9], alongside those for Borsod-Abaúj-Zemplén (BAZ) and Baranya counties, captures the economic and social implications of the phasing out lignite use at the Matra Power Plant that are outlined in the previous section. It also raises additional challenges, notably with respect to weaknesses in economic structure of Heves County, which is arguably over-reliant on manufacturing and whose small and medium-sized enterprises are typically not innovative and are not engaged in green economic activities. The TJTP also recognises the need to restore the areas left after lignite mining and for regional water management interventions to address the negative effects of open pit mining on regional hydrological conditions.

9. https://archive.palyazat.gov.hu/download.php?objectId=1096607

In this context, the TJTP for Heves County outlines the following key interventions areas.

1. **Training and retraining of the workforce** through the provision of training programs adapted to the competences of the workers and the labour demand in the region and targeting the estimated 1,300 workers in declining or transforming sectors. Additionally, support will be needed for the estimated 500 workers nearing retirement age that are unlikely to be suitable or willing to undergo retraining.
2. **Green economic diversification, technological change, and promotion of research and development, and innovation**. This foresees support primarily targeting small and medium-sized enterprises (SMEs) for investments to reduce emission and improve energy efficiency while contributing to enhanced competitiveness; support for start-up businesses provided through a combination of consulting, mentoring and start-up incubation centres; green economy R&D and innovation-based collaborations between academia/research centres and SMEs; and support for green economy diversification (e.g. relating to value chains for solar energy, battery production and recycling, energy insulating materials, etc.) and development of circular economy solutions.
3. **Development of renewable energy infrastructure**, specifically pilot projects for innovative energy storage technologies.
4. **Environmentally friendly household energy production and consumption** through the creation of energy communities, support for purchase and installation of systems that use energy from renewable sources (e.g., solar systems that support the replacement of residential coal burning), energy renovation of residential buildings, etc. Together with activities to raise awareness-and acceptance of green transition (e.g., advisory network development, counselling, youth engagement).
5. **Mitigation of the effects of mine drainage** and the long-term negative impact of lignite mining on groundwater sources. This requires effective management of extracted and drained water during mine dewatering following cessation of lignite mining and the replenishing of groundwater and surface water resources to improve local water balance.
6. **Sustainable land use** focussed on recultivation and reuse of lignite mining areas (approximately 3,000 hectares) to bring them back into economic and social use for the benefit of local communities (e.g., through investments in tourism and cultural heritage, recreation and sport, nature conservation, water conservation, agriculture)

The wider context of European regional transitions – Some lessons for Heves County

Many EU coal and industrial regions have gone through the process of transition that Heves County is embarking on. Although, there is a need to address the short-term employment and social consequences of energy transition, cumulative evidence from across the EU indicates that if affected localities do not also begin to address longer term challenges, the disruption caused by transition will be persistent. The TJTP for Heves County already picks-up on some of the areas that have proved important components of change in the longer term – industrial structure, environmental rehabilitation and repurposing, new energy technologies, and social resilience. With respect to these, previous analysis and examples collated by the EU Initiative for Coal Regions in Transition[10] provides noteworthy lessons for Heves County.

Industrial structure

Coal phase out presents longer-term challenges, particularly in re-orientating the industrial structure of a local economy. EU coal regions are heterogenous, so there is no 'one-size fits all' policy prescription for addressing industrial change. However, past and present examples of regions that have undergone successful industrial restructuring demonstrate the requirement to link local assets with external economic demand and technologies, in a planned and co-ordinated manner, to create a balanced, sustainable economy. Examples of industrial transitions can be found here.

Environmental rehabilitation and repurposing

Rehabilitation and repurposing of former mining sites is vital for creating safe and healthy communities, biodiverse ecosystems, and an asset for future economic and social use. As demonstrated in other parts of the EU, restoring and finding new uses for degraded land fosters diversification and new employment, restored environments, and community pride and belief. For open cast mines this process relates to securing site safety, environmental rehabilitation of large areas (land and water) and the subsequent creation of new uses, including forestry, agriculture, water management, tourism and renewable energy (particularly solar). Examples of brownfield site rehabilitation and repurposing practices can be found here.

10. https://energy.ec.europa.eu/topics/carbon-management-and-fossil-fuels/eu-coal-regions-transition/publications_en

New Energy Technologies

Most EU coal regions want to maintain a national role in generating electricity, among others for security reasons, and sustain energy related employment, whilst reinventing the region's profile as a clean energy hub. In many regions, a diverse set of green energy technologies are being introduced to meet National Energy and Climate Plans, including solar, storage and hydrogen (although developing a supply chain for these new green energies is difficult in the short term). Given their expertise and resources, local power companies can remain major actors to enable green energy transition. Additionally, local infrastructure associated with power generation and national transmission can represent a notable asset. Examples of such green transitions can be found here.

Social resilience and inclusion

It is important that a just transition is achieved not only for affected workers but also for their families, communities and key social groups, such as women and minorities, in the longer-term. To engender legitimacy and broad support, transition needs to be an inclusive process. An example of building such legitimacy and inclusion can be found here.

Effective and transparent governance

Finally, it should be stressed that effective and inclusive transition in EU coal regions is contingent on effective governance arrangements. These include a detailed and commonly understood timeline of phase-out, engagement and dialogue with affected stakeholders, and transparent co-ordinated planning and partnership working between the local and national levels. Such features are currently not that apparent in Heves County. An example of developing governance arrangements for a just transition can be found here.

Section 3: MVM Mátra Energy's affected workforce

As noted, the Matra power plant and related lignite mining has a significant impact on the economy of Heves County and the Northern Hungarian region. Directly, MVM Mátra Energy Ltd provides jobs for 2,100 employees, of which nearly two thirds are in its mining operations. Over half of the company's workforce is in fields relating to the operation and maintenance machinery: about 30% of the workforce are operators, handling the mineral excavation machines; and about 20% are operators of machinery relating to energy production, machinery maintenance workers, and metal workers.

In terms of the educational level, more than 70% of MVM Mátra Energy Ltd workforce has secondary level vocational technical certificates. Tellingly, only 4% of its employees has a tertiary level educational degree. Of the approximate 2,100 employees, approximately two thirds can be classed as 'blue-collar' workers, and one third as non-physical workers (e.g., administrative, auxiliary, clerical and managerial). It is in this latter group that those with a tertiary education are found.

Concerning the age structure of the labour force, over half of the employees are more than 50 years old (see Box). It is the prevalence of this older cohort in the workforce age profile which indicates that provision for early retirement could have notable financial implications for MVM Mátra Energy Ltd. In addition, counselling and reskilling and upskilling will need to be tailored to the specific characteristics of this older cohort to meet employment demand in the local economy. Especially considering that 43% of workers have 25-or-more years of services at the company, and a further 15% have 10-or-more years, meaning that they are likely to be unfamiliar with the whole process of searching for new employment. Even among workers aged below 50, there is likely to be a significant proportion in need of counselling and training to enable them to adapt and transfer their skills for use in the local economy.

For the older cohort of 800 'blue collar' workers (50 years plus), of whom approximately 300 will be over 60 by 2025, there are many that have been occupied in mining activities with a highly physically demanding working routine and whose health is likely to be impaired. Thus, early retirement will most likely be the only viable option open to workers with poor health. Even so, for able individuals, a training programme for older workers (miners over 50 years old) conducted in 2021 positively demonstrated a willingness and aptitude for personal development and future retraining and skills development.

In terms of labour mobility, the workforce the Heves County is relatively intolerant to commuting, particularly in relation to lower skilled employment opportunities. This disposition is pronounced in the affected mining communities, where residents expect employment to be nearby and for transportation to places of employment to be provided. For example, half of MVM Mátra Energy's workforce is concentrated in nearby communities, such as Gyöngyös, Domoszló, Mezőkövesd, Kisnána, Markaz and Abasár, from where the employer provides transport to their workplaces.

A range of renewable energy, primarily solar, and manufacturing investments are anticipated in close proximity to the power plant (e.g., in its adjacent industrial park) which are estimated to have the potential to create 800 jobs. In addition, further inward investment in the County's economy will create significant employment opportunities. In common with experience in other coal mining regions, those with skills and competences relating to mechanical and electrical engineering and maintenance, ICT, administrative and managerial roles are expected to find jobs more readily in the local labour market or be retained by the energy company as it evolves into new commercial activities and markets. However, there may be only a limited match between job opportunities and the skills, competences, and aspirations of other segments of the workforce, especially the less skilled and older.

Profile of the employees of MVM Mátra Energia Zrt.

MVM Mátra Energia Ltd. has a long history as a major employer in Heves County and the surrounding the region. At the end of 2023 it employed 2,053 persons, nearly all working full time. With the addition of persons employed by the subsidiaries that are also affected by the mining closures, the size of the workforce reaches approximately 2,400. Reflecting the main activities of MVM Mátra Energia Zrt., the workforce is predominantly male with women representing only 11% of employees, mostly in non-manual positions.

As shown in the table below, over one-third (35.8%) of employees are aged 55 or above, with only than one-fifth (20.1%) aged below 40.

Age group	Power Plant	Visonta mine	Bükkábrány mine	Management & administration	Total	Share of Total
18 - 29	53	60	28	39	**180**	8.8%
30 - 39	72	48	30	81	**231**	11.3%
40 - 49	129	100	92	152	**473**	23.0%
50 - 54	102	117	108	108	**435**	21.2%
55-59	106	115	101	102	**424**	20.7%
Over 60	61	100	75	74	**310**	15.1%
Total	**523**	**540**	**434**	**556**	**2053**	**100.0%**

Source: LIFE-IP North-HU-Trans project

The company has always paid special attention to the retention of its employees, providing them with stable long-term employment and higher incomes than the average in the region (which is justified by the physical jobs and working conditions requiring specialised skills and difficult working conditions). This is reflected in the length of service of employees, with 43% of them having worked for MVM Mátra Energia Ltd. for more than 25 years, as shown in the table below.

Length of service (completed years)	Power Plant	Visonta mine	Bükkábrány mine	Management & administration	Total	Share of Total
0 - 2	149	111	59	182	**501**	24.4%
3 - 5	48	19	6	31	**104**	5.1%
5 - 9	75	50	33	93	**251**	12.2%
10 - 14	23	5	21	33	**82**	4.0%
15 -19	29	56	28	38	**151**	7.4%
20 - 24	21	12	24	25	**82**	4.0%
Over 25	178	287	263	154	**882**	43.0%
Total	**523**	**540**	**434**	**556**	**2053**	**100.0%**

Source: LIFE-IP North-HU-Trans project

Section 4: Where is demand? Potential alternate sources of employment for affected workers

The economic development of Heves County has been driven by manufacturing, which accounted for 35% of the county's gross value added in 2021, well above the national average of 20%. The County, especially along the Hatvan-Gyöngyös-Eger axis, has been particularly successful in attracting and developing export-oriented multinational and Hungarian companies, with the volume of industrial production in Heves County regularly outstripping that of the national economy. New investments have pushed up the number of job vacancies in the county, while the employment rate has increased by more than 15 percentage points over the past decade, and the unemployment rate had fallen from a peak of over 14% in 2012 to less than 3% by 2019. Coupled with a declining population, this points to strong labour demand and a current shortage of labour in Heves County.[11]

From an employee perspective, the current labour market situation in Heves County suggests that it is likely that the local economy could absorb significant numbers of workers that may be displaced by the energy transition, although these job opportunities may not necessarily come with wage rates and employment conditions commensurate with those currently enjoyed by workers in the lignite mining and power generation sector.

However, the apparent positive employment situation belies structural imbalances in the Heves County economy. As suggested in the TJTP, the predominance of the manufacturing industry in business sector production may pose a risk due to the possible transmission of the impacts of energy (and digital) transition through supplier values chains. More generally, this predominance may disproportionately expose the economy to external shocks and developments that affect manufacturing activity levels and associated labour demand. For this reason, an ancillary strategic ambition for economic diversification and development of Heves County is to reduce the weight of the manufacturing industry through strengthening of other sectors, thereby enhancing longer term economic resilience.

A further structural weakness in the Heves County economy concerns the apparent low level of entrepreneurial and innovation capacities of local SMEs, and the tendency for large enterprises to absorb or divert workers from SMEs. In this regard, the local SME base tends to be very weakly integrated into the supplier values chains of larger export-orientated businesses located in or around the region. This is reflected in local SME business strategies based on following and adapting to the needs of large companies, rather than actively shaping the market. It is notable, in this context, that R&D expenditures (as a share of GDP) and R&D personnel (as a share of the active population) are around half of the Hungarian national average. Accordingly, as proposed in the TJTP, modernisation and strengthening of the technological, innovation and entrepreneurial capacity of local SMEs is an important dimension for economic diversification and development. This goes together with the TJTP's proposed support for promoting the creation of innovative start-ups, especially spin-off enterprises.

While the transition towards carbon neutrality clearly presents specific challenges to the economy of Heves County and its workers and communities, it also presents opportunities for economic reconfiguration and revitalisation that can go some way to addressing the structural imbalances and weaknesses mentioned above. These opportunities are coupled with the potential availability of EU financial instruments that can support transition, both in the form of dedicated instruments targeting coal and carbon intensive regions (i.e., the Just Transition Fund, together with the InvestEU "Just Transition" scheme and Public Sector Loan Facility of the Just Transition Mechanism)[12] and, also, other financial and technical support instruments for energy transition, industrial modernisation, R&D and innovation activities, employment and skills, and environment, etc.

The following section of this report will look specifically at opportunities arising from greening of the local economy and the related employment creation potential. Although green and circular economy development are a key focus for this report, there are multiple approaches for economic diversification and employment creation of which we mention a couple below.

Investment attraction and technology transfer. As noted at the beginning of this section, Heves County has already proved successful in attracting inward investment from large export-oriented companies, although arguably it has been far less successful in mobilising these investments to secure the transfer of technology into the local economy. Inward investments and technology transfer can be key mechanisms for reinventing or reorientating the economy to create new development paths and jobs. It is an approach that has been used successfully in former mining areas and regions suffering decline of traditional industries, often by leveraging residual mining and industrial assets or territorial assets,

11. For a more comprehensive overview of the economy of Heves County, see the START report Identification of green economy opportunities and barriers in Heves County: Situation assessment and review of EU experiences.

12. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

which may be physical, cultural or knowledge based. The kind of investment appropriate for a specific region depends on types and combinations of assets available but notable inward investment sectors observed in other coal regions include renewable energy and storage; agri-food; tourism, recreation, and culture; and the green economy.[13]

It should also be noted that the relocation of public services can represent an effective means for government to directly invest in a local economy to stimulate wealth and job creation, diversification and the transfer of new technologies and practices. In several EU coal mining localities, government investments have related to the establishment of national training centres (e.g., wind turbine technician training academy in the Jiu Valley (RO) and police training academy in Karlovy Vary (CZ).[14]

Social enterprise development. The social economy[15] offers a very different approach to regional development and job creation. While social enterprises aim to be commercially viable, the primary motivation for their commercial activity is to contribute to social or environmental goals, especially but not exclusively for the benefit of the local community. The goals pursued by social enterprises are highly varied, but they can resonate with the environmental and social challenges present in Heves County. Equally, there is an employment focus to many worker-owned social enterprises that have been set-up to secure jobs for workers threatened by business closures or to offer improved working conditions to workers in precarious and exploitative employment situations. Currently, faced with the cessation of lignite mining and power generation in the region, Eastern Wielkopolska intends to implement a social enterprise pathway as one option for assisting workers affected by the energy transition. The intention is to provide support to help such workers to set-up their own social enterprise or to join an existing social enterprise.[16]

13. For illustrative examples of inward investments and development projects in these areas see the START report Building on local assets to create a new economy: A report on the municipality of Megalopolis and eligible area (Chapter 8) and the START presentation Sokolov East: Local Development and Employment Creation (Section 3). For a more theory-based description of regional approaches to industrial transition, including examples of applied transition strategies see the START report Good practice examples of regional and sub-regional strategies in coal regions in transition.
14. Ibid.
15. Essentially, the social economy refers to any business activities that, while striving to be economically viable, are also driven by a strong social, or increasingly environmental, mission. Generally, the basic aim of social economy entities (hereafter "social enterprises") is to provide goods and services to their members – which can include the workers, themselves – or to their community, while pursuing social and other general interest goals.
16. For a review of international experiences of development of social enterprises, lessons learnt, and examples relevant to job creation and continued labour market participation of workers displaced by industrial transition see the START report Social Economy and Social Enterprises: observations from international experience.

Section 5: Greening the local economy and related employment potential

As the greening of the Heves County economy gathers pace, the opportunities that this process generates for employing affected workers needs actively considered. Given MVM Mátra Energy workers will be affected adversely by decarbonisation, they should also have the chance to benefit from the employment opportunities created by the decarbonisation of current and future local economic activities.

Therefore, this section considers the scale and nature of green diversification and adaption opportunities in Heves County's company base that could create employment for affected workers. It will initially consider the opportunities created by larger companies, particularly MVM Mátra Energy Ltd, before considering in greater detail opportunities created by local SMEs. The challenges and opportunities of matching such demand with the particularities of the affected workforce, as detailed in Section 3, will be considered in the subsequent section.

For the purposes of this report, local green economic diversification and adaptation relates to the greening of economic activities through the adoption of green products, processes and practices, including the move to a circular economy, enhancing energy efficiency, adopting renewable energy, developing energy storage, ensuring water efficiency etc. A report on the greening of the Heves County economy and related definitions and concepts, developed by the EU Coal Regions in Transition START team for BDSZ, can be found here.

As noted, many EU coal regions aim to maintain a national role in generating electricity by becoming a green energy hub. Given their expertise and resources, power companies often remain major local actors to enable green energy transition, such as Bord na Móna in Ireland, PPC in Greece, ZE PAK in Poland.

Similarly, MVM Mátra Energy Ltd has plans to remain a key company in the Heves County economy. These plans include repurposing former mining land for PV installation and the introduction of a waste to energy facility. Additionally, the company is driving the development of the industrial park adjacent to the power plant to accommodate green activities in areas such as manufacturing renewable energy components and insulation materials, and the recycling of construction materials. The scope for matching the affected workforce with the jobs created by these planned activities merits further analysis by MVM Mátra Energy Ltd, in association with BDSZ. For example, the repurposing of brownfield land could create hundreds of jobs for affected workers in the short to medium term, whereas the expected employment demand from the manufacture of renewable energy components will be markedly lower but will be more sustainable in the longer term.

More broadly, the Heves County economy has demonstrated the ability to attract large manufacturing investments, notably in Gyöngyös. These existing investors and future ones will need to green their products, processes and practices and related supply chains. Although the associated employment opportunities will be more readily accessed by affected workers with skills and competences relating to technical, managerial, administrative and ICT roles, the tightness of the local labour market implies that these companies could represent an employment opportunity for a wider cohort of affected workers, if they are willing to reskill, accept a probable wage differential and change their commuting patterns.

In terms of SMES in Heves County, the broad benefits of green economic diversification and adaptation and the development of green products, processes and practices, relate to:

- reducing costs via energy efficiency & new green energy technologies
- modernising business processes to create more value-added
- entering new markets

Primary research undertaken by BDSZ and supported by the START team, sheds some light on SME perspectives of the importance of green investments to company performance; and green opportunities for reducing costs, entering new markets, and modernising business processes. Notably, a survey of local SMEs attitudes and priorities undertaken by BDSZ[17], finds that:

1. Half of respondents are interested in making investments (in the next three years) in green technologies that could reduce costs, for example via adoption of renewable energy technologies (particularly solar), green heat generation systems (i.e., heat pumps) and energy efficiency investments in buildings. In addition, more than a third of respondents are interested in making investments in energy storage to manage cheaply generated electricity from renewable energy sources more effectively.
2. The interest in cost reducing green technology investments reflects the findings that two-thirds of respondents believed that energy costs are an important part of overall production costs, and almost all respondents believed that high energy costs have a negative impact on their profitability.
3. There is limited interest in making green investments (in the next three years) to modernise business processes (e.g., only a quarter of respondents were inclined to invest in the energy efficiency of production systems) or enter new markets (e.g., almost two thirds have no plans to make circular economy or R&D investments).
4. The limited investment sentiment towards green-related modernisation is underpinned by the fact that over three quarters of survey respondents do not consider themselves as being engaged in any green or circular economy activities.
5. In terms of employment, although approximately a quarter of respondents think the above noted investments would have a positive impact, nearly two fifths of respondents had no view on potential employment impacts.
6. The Just Transition Fund (JTF) was seen as a catalyst for investments in renewable energy and energy efficiency by a majority (circa two-thirds) of respondents. However, even with the possibility of JTF support, just over a third of respondents would be encouraged to make an investment in circular economy activities, and only a fifth would be interested in R&D and innovation-based collaboration with education and research centres.

Key messages for future Just Transition Fund utilisation in Heves County coming from the survey are that:

- Awareness needs to be raised on how the JTF can be used to not only reduce SME costs but also to modernise SME business processes to create more value and to encourage SMEs to enter new markets.
- Awareness needs to be raised on the employment creation potential of SME green economy investments, not only among SMEs but also to raise awareness of this link among policy makers.
- Collaborative approaches to innovation and R&D need to be promoted. Engaging SMEs in collaborative efforts will likely require pro-active active involvement of local, regional and national business associations, and mobilisation of relevant educational and research centres.
- Given the above, there is a requirement to shape funding calls accordingly and for targeted promotion to stimulate relevant project ideas and demonstration projects

In addition to the survey, two sets of round table discussions with local and national stakeholders at the Károly Róbert Campus in Gyöngyös, along with a series of interviews with industry and business associations, were undertaken to identify project ideas and potential demonstration projects. Notable suggested ideas are indicated in the table below.

17. The survey was undertaken between November and December 2023.

Reducing costs via energy efficiency and green energy	Modernising and 'greening' business processes to create more value-added	Entering new markets
• Widespread adoption of solar energy by SMES to reduce costs, utilising battery storage and regulators to promote reliability and efficiency • Introducing heat pumps into integrated systems (combined with RES e.g., solar and storage) for SMEs • Replacing local domestic gas and lignite heating systems with RES (e.g., heat pumps) • Integrating wastewater heat pumps into district heating systems • Improving efficient use of wood for generation of local power to SMEs and residents (e.g., improved wood chip performance, biomass) • Improving energy efficiency in seed drying processes	• Promoting heat waste recovery and circularity in food manufacturing SMEs • Improving green performance of heat pumps (e.g., noise mitigation of heat pumps installed in apartments or enclosed spaces) • Training of technicians specialised in the installation of heat pumps with new types of refrigerants • Establishing a heat pump refrigerant recycling plant • Recycling construction waste for future application	• Establishing a competence centre for the national battery industry in Heves County • Developing local supplier base component and sub-systems for heat-pump systems (e.g., to supply the production facility in Nyíregyháza being developed by the Swedish Qvantum company and that is planned to produce one million heat pumps per annum) • Building prefabricated housing that demonstrates effective use of materials and minimises energy consumption; potentially with financial support from the national Recovery and Resilience Facility • Developing an agri-pellet boiler for making use of agricultural by-products
Cross-cutting themes		
• Knowledge transfer between companies and educational / research bodies, • Utilising the knowledge of MPP to promote green diversification and adaptation (e.g., knowledge transfer to battery industry); • Improving the local electricity distribution network.		

Of the project ideas and potential demonstration projects noted above, a number were selected for development as illustrative project fiches. These related to a battery competence centre, the recycling of construction waste, food manufacturing circularity and heat pumps. These were selected given their potential to demonstrate how the Just Transition Fund can be used to modernise SME business processes to create more value and encourage SMEs to enter new markets (not only to reduce SME costs).

In terms of potential EU financial support for greening the local economy and related employment potential, work is ongoing for the development of a call for proposals to be covered using the Just Transition Fund. The Financial Instrument for Economic Diversification, which can provide for an interest-free loan combined with a non-repayable grant to SMEs, has two sub-components that are of relevance[18]:

- **5.2.2 GHG-reducing technology change in SMEs**, increasing energy efficiency, significant GHG emission savings, reducing energy and emission intensity of production, accelerating the transition away from fossil energy.
- **5.2.4 SME diversification** through creating or expanding manufacturing or service environments related to green industries, with job creation.

The intervention logic of the envisaged call is based on supporting small-scale development of vulnerable enterprises in the transition towards a climate-neutral economy. The call aims to encourage enterprises to adopt modern technologies and advanced production processes that will improve their resource efficiency and/or the quality of the products/services produced, leading to higher productivity levels. The call also emphasises the principle of environmental sustainability (e.g., spread of circular economy processes, the substitution of polluting products and the development and implementation of sustainable product policies), the improvement of energy

18. There is a third sub-component covering '5.3.1. Innovative energy storage',

efficiency and the wider use of renewable energy sources. However, as indicated in Table 1, the call currently under development seemingly falls short of covering all the relevant economic diversification intervention operations identified in the TJTP and will impose limitations on eligibility that may impact on overall effectiveness.

To conclude this section, the greening of the Heves County economy is likely to create a range of commercial and development opportunities for large companies and SMEs. Moreover, this latter group of enterprises can be aided in creating these via the Just Transition Fund. It is anticipated that such opportunities, when realised, will lead to an additional demand for labour of sufficient magnitude to absorb a significant proportion of the affected workers at MVM Mátra Energy Ltd. However, in order that they benefit from these opportunities, active support must be provided. It is to this matter that the report now turns.

TABLE 1: CORRESPONDENCE BETWEEN GREEN AND CIRCULAR ECONOMIC DIVERSIFICATION NEEDS IN HEVES COUNTY AND PLANNED CALLS FOR PROPOSALS UNDER THE ENVIRONMENTAL AND ENERGY EFFICIENCY OPERATIONAL PROGRAM (KEHOP PLUSZ)

Economic development and diversification challenges and needs identified in the TJTP	Economic diversification intervention operations identified in the TJTP	Status of potential calls for proposals to support economic diversification supported through KEHOP Plus (Priority 5)	Comments (including identified gaps in coverage)
• Low economic weight of SMEs • Low entrepreneurial activity and no business incubation centre. • SMEs are not able to move towards a green economy under their own initiative.	**5.2.1 Business incubation centres for existing and start-up SMEs that are viable in the green economy, business mentoring programmes.**	**Call(s) for proposals not yet drafted.**	Current information suggests that a call under this intervention area will be drafted. However, financial instruments for economic diversification (e.g., soft loans and grants) under the JTF are not expected to be used to support new business start-ups
• Significant untapped energy efficiency potential of SMEs • Need for support to SMEs for investments in energy efficiency improvements.	**5.2.2 Support for investments in technology change and energy efficiency improvements that enable SMEs to reduce energy consumption, lower GHG emissions, and accelerate the transition away from fossil energy.** Includes installation of renewable energy production systems and renewable energy storage systems.	**Call(s) for proposals being developed** (draft prepared and shared with KEHOP Monitoring Committee) The call will cover the deployment of GHG-reducing technology and energy efficiency improvements of SMEs. However: ✓ The call will open only to enterprises engaged in specific activities, based on a list of eligible NACE codes (still under preparation) determined by the Hungarian national authorities. × Start-ups will not be eligible for loans under the proposed call.	Using a NACE-based approach may be problematic if the actual economic activities of enterprises do not correspond to their registered NACE code. A NACE-based approach as advocated by the managing authority may exclude enterprises in the supply chain of declining sectors but with activities that do not match with a NACE code on the eligible list. The call does not explicitly exclude investments to improve efficiency that, in effect, support prolongation of fossil-fuel intensive activities rather than promoting decarbonisation and adoption of zero or low carbon alternatives.
• SMEs are typically not innovative and do not engage in green economic activities. • Need to promote R&D activities that support economic diversification across the spectrum of existing enterprises (including inward investors) • Need to strengthen innovation capacity of SMEs, particularly, through innovative new business (e.g., innovative start-ups, including spin-off businesses). • Need to promote R&D activities should be linked to existing enterprises as well as to start-ups and inward investment.	**5.2.3 Support for R&D and innovation-based collaborations between education and research institutions and businesses** (mainly SMEs) to promote R&D activities with green economy innovation potential and/or increase efficiency, thereby reducing GHG emissions. Covers • Basic and applied industrial research or experimental development and related construction, equipment procurement that supports R&D activities and competence development. • Establishing and developing infrastructure to support business, innovation, and R&D activities.	**No call(s) for proposals expected**	Current information suggests that a call under this intervention area will not be drafted. This is despite the TJTP emphasising the need to link R&D activities in research and education institutions to existing businesses and to start-ups, particularly in economic activities that require innovation and foster decarbonisation. Given the low weight of R&D and innovation intensive industries in the Heves County economy, failing to promote such collaborative actions activities may further widen the gap between the County and more innovative and technologically advanced regions.
• The break-out points for SMEs are the renewable energy industry (solar energy industry, heat pump industry), industrial activities in energy storage technologies (e.g. battery production and recycling, acquisition of related competences) and industrial activities to improve energy efficiency (e.g. production of environmentally friendly insulation materials). • The circular economy is also relevant, as manufacturing is the most important industrial sector in Heves County. Furthermore, the OECD has identified construction is one of the priority areas that are deemed critical to the Hungarian circular economy transition alongside biomass and food, and plastics).[19]	**5.2.4 Support for green economy diversification and the creation and adoption of circular economy businesses activities and practices**, especially among SMEs. Covering: • Purchase of productive assets, infrastructure investments and consultancy related to green and circular economy activities • Creation of renewable energy value chain (e.g., solar energy, battery production, complex recycling of energy storage devices, biomethane production). • SME investments in tangible or intangible assets in the field of circular solutions for the production of goods or services.	**Call(s) for proposals being developed** (draft prepared and shared with KEHOP Monitoring Committee) The call(s) will cover SME diversification: creating or expanding a manufacturing or service environment linked to green industries (i.e. linked to a value chain of technologies/ business solutions that promote the green economy), with job creation. Eligible areas include the purchase of productive assets, investments in infrastructure, other investments in tangible or intangible assets. ✓ The call will be open only to enterprises engaged in specific activities, based on a list of eligible NACE codes (still under preparation). × Start-ups will not be eligible for support under the proposed call, despite support to start-ups being included in the TJTPs.	The rationale for using a NACE-based approach (i.e. limiting the call to specific sectors/ activities) is not clear. Introduction of green and circular economy activities and practices / models can be relevant across virtually all sectors. Rather than being limited to certain past or current economic sectors, green economy investments and introduction of circular economy models should be encouraged throughout the economy. All enterprises making these types of investments to diversify their activities and create jobs are contributing to diversification and increased reliance of the regional economy. Similarly, new start-up businesses could be an important element for green productive investments and the development of circular economy activities and job creation. Both the JTF regulation and the TJTP recognise this potential of start-ups, and the need to promote the creation of innovative start-ups, in particular spin-offs, as part of economic diversification efforts. The rationale for start-ups not being eligible is, therefore, not clear

19. OECD (2023), Towards a National Circular Economy Strategy for Hungary.

Section 6: Matching affected workers with employment opportunities

There is general recognition that the existing skills of many workers at risk of being displaced by transition – especially lignite miners in manual occupations – do not match with the current demands of the labour market in Heves County. As recognised in the TJTP, these workers will need to be supported to find new employment opportunities, through training programs adapted to their competences and reflecting labour demand in the region. In this context, an employee competence survey, covering the whole MVM Mátra Energy Ltd. workforce was carried out in 2022 under the LIFE programme[20], and training plans were developed for 40 % of the employees. The survey and the training plans represent valuable resources for matching labour supply with these future opportunities.

Although the phase-out of lignite at the Mátra Power Plant is uncertain in the short-term and is conditional on a new CCGT plant coming into operation, projected to be by mid-2027 at the earliest, it remains important that this time is used for planning and preparing necessary interventions to support workers through the closure period and beyond, at the appropriate moments of industrial restructuring. In this regard, experience from other transition regions distinguishes two planning horizons for support:

- **Short-term measures** that seek to address immediate support needs in the pre-closure and closure period for workers facing the loss of their jobs. Such measures should ensure that MVM Mátra Energy workers and those in its supply chains facing acute situations will be able to access the help that they need, depending on their situation. These measures represent an immediate response to closure, akin to treating symptoms, but should recognise that engagement may be needed over a period of time rather than being addressed by a single intervention.
- **Medium-term measures** that aim to assess and respond to the longer-term skills needs of the region. For example, taking a five-to-ten-year horizon, rebalancing of the Heves County economy requires a shift from manufacturing towards services provision that should be built into training and skills development interventions. Looking beyond those already in work, it is also important to build the foundations for transition within schools, for example by encouraging interest in areas such as STEM subjects, IT, and future-orientated subjects such as robotics.

20. LIFE-IP North-HU-Trans project (LIFE19 IPC/HU/000009); see https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE19-IPC-HU-000009/secure-and-start-implement-an-effective-roadmap-for-the-low-carbon-transition-of-the-single-largest-coal-region-in-hungary and https://igazsagosatmenet.eu/en/home-2/

In terms of the development of support interventions, especially covering the short term, previous experience suggests some key elements to address the challenges and make the most of the available opportunities for workers facing loss of jobs due to the phase-out of lignite related activities. These elements include:

- **Engagement and dialogue**. It is important that there is meaningful dialogue between the affected workers and their representatives on the one hand, and the network of support institutions on the other. The support network includes MVM Mátra Energy itself, the regional employment office, training providers and counsellors, and local public administrations.
- **Clear and transparent governance**. It is important that the lines of communication are clear and that the governance arrangements are transparent, so that all parties know who is responsible for which elements. The involved parties can contribute most effectively when they are working as a team within a structured approach. For example, there should be clarity concerning who will be responsible for overall coordination of delivered support and what are the roles assigned to each main partner in the support network. Tin turn, this will facilitate the development of effective packages of support.
- **Building collaboration**. Looking beyond the immediate support network, collaboration with other partners such as regional chambers of commerce and local or national business associations can be important for identifying current and future laboured market needs and opportunities. From which, they can help to develop, provide and align tailored support (e.g. counselling, consulting, training and educational programmes for individuals and companies).
- **Tailoring support to groups and individuals**. Developing a holistic and tailored approach to engaging with different subgroups should increase the effectiveness of support. Needs and competences vary considerably depending on the circumstances of individuals; there is a clear difference between workers in their 20s and 30s, who have the bulk of their working lives ahead of them, those who are in mid-career in their 40s and early 50s, and those coming towards the end of their working lives in their mid- and late 50s. Consequently, rather than one or two broad support measures, a wider range of smaller activities could be more effective. Moreover, it should be recognised that needs are not limited to finding alternative employment or skills development. The process of transition is an emotive issue both collectively and for individuals and, for example, there should be recognition of possible concerns for mental health of workers that may be negatively affected by the loss of occupation, daily routine and the social interactions.
- **Helping vulnerable workers**. Particular attention should be given to identifying and working closely with vulnerable workers (e.g., with low skills and education levels who may find it especially difficult to adapt to new ways of working) and ensuring that they are aware of all that is on offer, for example in terms of skills development programmes.
- **Managing expectations**. It is important to sensitively manage the expectations of workers, so that they are realistic about future employment prospects; for example, in terms of recognising that alternative job opportunities may not offer employment terms and conditions and pay-levels that workers are currently used to.
- **Employer cooperation**. There needs to be cooperation on the part of employers to ensure that workers are released for counselling and training purposes, even if the training is not directly relevant to their current employment. This may be especially pertinent for business in the supply chain of the Mátra Power Plant that may be less informed on timeline for phase-out and impacts on their own activities and workers.

Support packages can include a range of active labour market measures, including skills development, welfare support, advice and guidance on job-search and entrepreneurial support. Potential elements of support could include:

- **Skills audits** which may be conducted collectively or for individuals.[21] Skills audits are used to map the skills and competences present in the workforce (particularly among those who have low levels of formal qualifications) and are vital for ensuring that offered skills and training support reflects needs of the workforce and is relevant and adapted to the specific local context. Such audits can also highlight prior learning and may lead to initiatives to formalise that learning.
- **Matching jobseekers to vacancies** through, for example, a support programme to help workers to find new employment by connecting them to potential employers and offering them requalification courses. This may also cover outplacement programmes – typically provided as an employer-sponsored benefit as part of a severance package –designed to help them transition to another position or industry by

21. As already noted, a competence survey covering the MVM Mátra Energy Ltd. workforce was carried out in 2022 under the LIFE programme, with training plans subsequently developed for 40 % of the employees.

providing necessary knowledge, guidance, and training to find a new job (e.g. through career coaching, resumé writing, interview coaching, use of job searching tools, etc.)

- **Skills training programmes** which should reflect current market needs but, more importantly, likely future growth and job creation opportunities. These may be in manufacturing but, given the focus of regional development strategies on economic diversification, may be found in other sectors (e.g., service sectors, tourism, hospitality, green and circular economy, etc.) Overall, future employment opportunities are likely to come from a patchwork of these sources, rather than from large outside investments into the region. There may be specific needs to train workers for further deployment within MVM Mátra Energy, for example based on new energy production portfolio (gas, biomass, solar), or in relation to lignite mine restoration works. However, taking a broader perspective, enhancing the competitiveness of local businesses – especially SMEs – will require addressing skills needs relating to the green and digital transition agendas, for example in fields such as renewable energy, environmental sectors, automation, and digital and information technologies. The timing of such programmes needs to be synchronised with the transition timeline and align with the company's operational requirements.

In addition to active measures to support workers to find alternative employment, various other types of interventions could be considered. Section 7 of this report looks specifically at support for older workers. Leaving older worker aside, examples of other (passive) support measures may include:

- **Financial support for displaced worker**. Typically, employees who will be made redundant will be entitled to severance pay that may be a significant amount for workers with a long length of service, which is the case for many workers employed at the power plant and lignite mines (as regulated in the Company Collective Agreement). This may provide some peace of mind in the short term and may be adequate to bridge the gap between leaving their employer and finding alternative employment. However, workers receiving a one-off lump-sum severance payment may require financial management advice on how to manage this payment wisely. Additionally, tailored financial support may be provided in the form of periodic (e.g. monthly) financial contributions to former workers; for example, since 2016, the Czech state offers financial support to former workers of coal and uranium mining businesses who have lost their jobs due to restructuring and the reduction in mining activities.[22]
- **Financial incentives for business that recruit displaced workers employers**. For example, such incentives could be provided in the form of a contribution to businesses to support wage payments to newly hired who have lost their jobs because of the phasing out of mining and power generation. For example, in Karlovy Vary (CZ) employers that hire workers through the outplacement project set up to help workers to transition from the lignite mining and electricity production receive a monthly contribution of up to EUR 550 to support the salary for the first nine months of the new hiring.[23]
- **Financial incentives or other measures to promote mobility of labour**. One of the characteristics of the workforce the Heves County is a relative intolerance to commuting, particularly in relation to lower skilled employment opportunities. In this context, consideration may be given to measures, such as a travel subsidy paid to former mining and power plant workers to cover costs of commuting to new jobs outside their immediate location or, eventually, to the provision of subsidised public transport to facilitate such commuting behaviour.

22. This public financial support is available under 342/2016 Government Order on the Contribution to the Mitigation of Social Impacts Related to Restructuring or Reduction of Activities of Legal Entities Engaged in Coal or Uranium Mining. See: https://www.zakonyprolidi.cz/cs/2016-342
23. https://energy.ec.europa.eu/document/download/2760a3f2-75ea-486f-b33d-4d2de3b3b599_en?filename=employment_and_skills_in_karlovy_vary_-_part_i.pdf

Section 7: Older workers

As stated, MVM Mátra Energy Ltd's workforce is ageing, with about 300 workers expected to retire by 2025 and a similar number being over 60 by 2025. For older workers, those over fifty years old and especially those over sixty, the opportunities for finding secure and rewarding alternate employment will be limited in many instances. Moreover, given that many miners have been subject to physically demanding work routines, their health is likely to be impaired. Therefore, the issue of early retirement support for older workers is a very important one.

Given the significance of this issue to secure a just transition, in 2021, BDSZ submitted to the Hungarian Government a proposal for the establishment of a social fund for the employees of MVM Mátra Energy Ltd. This was to be financed through the Recovery and Resilience Facility (RRF) and would have created an early retirement benefit scheme to support eligible employees until they reached the standard legal retirement age. The BDSZ proposal had notable support amongst employees. Such a scheme still does not exist.

To place this significant matter in a broader EU context, the START team undertook for BDSZ a comparative analysis of retirement and support packages for older workers in the EU coal sector, primarily in Czechia, Germany, Poland and Spain. The report can be found here.

The report notes that "early retirement has been and will be an essential instrument for socially responsible coal phase-out or a just transition" in the EU. Moreover, the report found similarities across the four early retirement schemes examined. All gave older workers, with a suitable number of years of service, the possibility to opt for early retirement with an appropriate income and/or with additional benefits (e.g., a suitable redundancy payment) to support them until they reach the legal pension age threshold.

Another identified commonality among the four comparator states is that early retirement schemes are usually not standalone measures but are part of a wider transition strategy and programme of measures which combine passive and active actions (e.g. retraining, reskilling or upskilling, subsides for establishing businesses) as well as investments aimed at supporting diversification of the local economy. Furthermore, a condition for the success of early retirement initiatives is their integration with other social policies, especially efficient and effective welfare measures.

Since the report was published in October 2023, the European Commission has approved, under EU State Aid rules, a €300 million Polish scheme to support workers affected by the closure of coal- and lignite-fired power plants and lignite mines. Under the measure, the support will take the form of a one-year severance payment for employees, which they can choose in place of the severance payments foreseen in the applicable collective labour agreements. Critically, regarding older workers, Poland also notified the European Commission of paid leave up to four years for employees close to pension age until their retirement. The scheme will run for a period of 10 years until February 2034 and Poland may request a prolongation after that period.

The Polish arrangements, noted above, are seen by BDSZ as an acceptable option for adaptation and application to the Hungarian context. An alternate option, also advocated by BDSZ, is to apply the MVM Group Collective Agreement to the affected older cohort of workers. Under the Group Collective Agreement, employees can be placed in a reserve pool for 60 months before retirement. Given the need to identify financial resources to allow a solution to be progressed, BDSZ has proposed to IndustriALL Europe that the European Commission be engaged on the potential for creating a European support fund for workers facing retirement in these circumstances, which employers could access through a tendering process.

Finally, not all workers over 60 may want to retire and, if their health and circumstances permit, they may choose to stay in the labour market and/or contribute to their community, albeit with a less intense work regime. Alternate models of employment, such as social enterprises (see Section 4), could be appropriate in these instances, as will targeted and tailored support, such as outplacement and training. In the previous Hungarian deep mine closures, representatives of the BDSZ had one-on-one meetings with workers to consider options and preferences. Those who wanted to participate in training/retraining programmes were financially supported by the employer.

Section 8: Conclusions

Based on the research undertaken, six overarching conclusions are provided below.

Raise awareness and understanding amongst affected groups and local stakeholders - despite short-term postponement, the phase-out of lignite burning at the power plant and associated impact on mining activities will have notable socio-economic consequences for Heves County. A systemic, sustained approach to identifying and raising awareness amongst affected groups, communities and local stakeholders of transition should be introduced.

Build capacity for transition at the local level and link it with national policy making and resources – more should be done to build capacity for a just transition at the local level, this relates to inclusive governance and adequate resourcing and developing capacity at a local level to utilise just transition funding when available. There is also an opportunity to improve co-ordination and engagement between the local and national levels. The activities of the LIFE-IP North Hungary programme could be amplified in this regard.

Prepare workers for alternate employment through targeted support – the needs of affected workers vary and so support (e.g. counselling, outplacement, reskilling etc.) needs to be tailored to their specific circumstances and opportunities relevant to them. Moreover, the timing of such support needs to synchronise with the transition timeline and align with the company's operational requirements. Such support then must align with the intervention scope, timeline and areas of the Just Transition Fund. This targeted support can utilise and be informed by BDSZ's experience of Hungarian deep mine closures, where representatives of BDSZ had one-on-one meetings with workers to consider options and preferences. There is an opportunity for greater collaboration between the Union and MVM Mátra Energy Ltd., especially its HR department, on this matter.

Enable workers to access employment opportunities of decarbonisation - given MVM Mátra Energy workers will be affected adversely by decarbonisation, they should also have the chance to benefit from the employment opportunities created by the decarbonisation and greening of current and future local economic activities. This will require labour market measures to ensure that affected workers can successfully be matched with/ compete for these new job opportunities in MVM Mátra Energy Ltd, other large investors and SMEs.

Encourage and support SMEs to deliver their potential to be a vital element of the greening the Heves County economy and for creating new jobs – given the structural imbalance of the local economy and the need for more innovation, the role of local SMES, including start-ups, in green economic diversification and adaptation is critical. Moreover, greening of SME activities will allow SMEs to reduce costs, enter new markets and modernise, whilst creating employment opportunities. The Just Transition Fund should be used to encourage a wide range of SMEs, including start-ups, to enter new markets and modernise their products, processes, and practices, not only reduce costs, and optimise related sustainable employment creation.

Recognise the specific circumstances of older workers - given the significant number of older workers who have been involved in mining and other physically demanding activities over a sustained period, their health and employability are likely to be impaired. As in other EU coal mining regions, early retirement will most likely be the only viable option open to many of them. Such a scheme needs co-ordinated at the national level and designed in consultation with BDSZ and properly financed. It is appropriate that the report ends on this conclusion, considering that a just transition can only be achieved if the needs of also older workers are addressed.

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