ANNEX II

TEMPLATE FOR TERRITORIAL JUST TRANSITION PLANS

1. Outline of the transition process and identification of the most negatively affected territories within the Member State

Text field [12000]

Reference: point (a) of Article 11(2)

1.1. *Outline of the expected transition process towards the Union's 2030 targets for energy and climate and a climate- neutral economy of the Union by 2050, in line with the objectives of the integrated national energy and climate plans and other existing transition plans with a timeline for ceasing or scaling down activities such as coal and lignite mining or coal-fired electricity production*

Bulgaria National Energy and Climate Plan (NECP) 2021-2030 is the primary document setting out objectives and measures for the implementation of the national energy and climate policies in the context the ambition for EU-wide climate-neutrality by 2050. NECP sets the national targets for five main areas: Decarbonization, Energy efficiency, Energy security, Internal energy market, and Research, innovation and competitiveness.

Currently, the ambition of the NECP has to be updated in order to speed up the transition to climate neutrality and reinforce resilience of the energy system in line with the Climate Law, Fit for 55 package and REPowerEU. The assessment of the final NECP made by the EC in February 2021 will also be taken into account. Particular efforts should be devoted to renewable energy, energy efficiency, energy security, and curbing greenhouse gas emissions to substantiate the chosen transition pathways to 2030 and to 2050 and integrate the latter wherever relevant in the five dimensions of the updated NECP.

The foreseen energy transition pathways take into account further the Recovery and Resilience Plan on Bulgaria (RRP), approved in May 2022, assuming that the coal-based electricity generation shall cease by 2038. Similar trajectory has been mandated with the decision of the National Assembly from 12 January 2023.

To facilitate the political decision - final coal phaseout date as well as overall pathway by 2026, by 2030, and beyond enshrined into a National Assembly Act in 2023, a special Energy Transition Commission (ETC) to the European Green Deal Advisory Board was established in mid-2022 to develop different scenarios for the transition and a Road map for climate neutrality. The modeling work performed as part of the ETC activities is under finalization. Preliminary results from current draft decarbonization pathways indicate as follows:

Power demand outlook: In line with European power demand decarbonisation pathways, increasing power demand is projected to 2050 with electrification of heating, transport and industry as well as production of green hydrogen.

Capacity and generation outlook: Variable renewable and low carbon capacities are projected to play a larger role towards decarbonisation. By 2030, a minimum of 7.5GW wind and solar capacity are projected to be developed. This translates into an increasing share of variable RES generation from 7% in 2020 to 25% in 2030. It is projected to increase the share of low carbon generation from 58% in 2020 to 69% in 2030. During the transition, lignite capacity and associated generation is projected to decrease significantly with major phase-out by 2035, while new gas (renewable and low carbon gases) generation is projected to play a role from 2030 onwards. According to the preliminary modeling results generation from lignite-fired power plants is expected to be ca. 8TWh in 2025 and ca. 2 TWh in 2030 with

the corresponding reduction in lignite production. The evolution of the Bulgarian generation mix allows to maintain the net export balance of Bulgaria throughout the horizon.

Carbon emission reduction and power system cost outlook: With the increasing role of low carbon generation in the transition, 80% reduction of CO2 emissions is expected in the energy sector by 2030 and above 90% of CO2 emission reduction in the energy sector from 2035 onwards.

LCOE: Besides, it is projected to have a cost-efficient power generation mix by maintaining a stable power sector levelised cost of electricity (LCOE) (below 80€/MWh) throughout the transition, providing a hedge against high commodity prices. Despite the long-term increase of power sector LCOEs, this remains well below long-term gas short-run marginal cost (SRMC) and average wholesale prices thanks to competitive new low carbon technologies.

The energy transition is considered as an orderly process, in line with the PwC analyses, which evolves gradually over the years mainly within 2030 with the remaining phase-out activities expected to be completed indicatively within 2038. During this period the following developments are expected to take place in the coal intensive regions:

- power generation from the existing lignite-fired capacities is expected to gradually reduce, following the peak production in 2022 to cover a significant portion of the demand in Southeastern Europe. Lignite production is expected to evolve in line with the needs of the domestic power plants and limited exports;

- power generation from the existing lignite-fired capacities is expected to further decrease in the second half of the decade, with the growth in renewables. Lignite production is expected to evolve in parallel with the needs of the lignite-fired power plants;

- beyond 2030 the expectation is for limited utilization of the remaining capacities and corresponding coal production to ensure the critical needs for securing of the national electricity balance under various climate and geopolitical scenarios.

To support the transition above, Bulgaria RRP concentrates 58.9% of all financial resources for green transition and transformation measures to support the climate objectives by 2026. In particular, it envisages, through reforms and investments, a tripling of RES capacity in the country by 2026, supported by new energy storage systems and support for green hydrogen pilot projects. In parallel, resources are foreseen to support the digitalisation and development of the electricity grid, supporting the integration of new renewable sources and storage systems. The plan foresees €1.7 billion investments in renewable energy sources, electricity storage and interconnection capacities and over €1 billion in energy-efficiency renovation of the building stock. Investments in transition will be further leveraged by the JTF funding. The frame for development of transition plans, considering quality job creation, job transition and anticipation of appropriate funding is provided in the current territorial plans under JTF. The Plans strengthen the planning within the transition process to ensure a fair and just transition, mitigating social and employment impacts, tackling labour and skills shortages, reducing energy poverty, and ensuring affordable access to essential services for all.

Reference: point (b) of Article 11(2)

1.2. *Identifying the territories expected to be the most negatively affected and justifying this choice with the corresponding estimation of the economic and employment impacts based on the outline of Section 1.1*

Achieving Bulgaria's targets under the EU Green Deal and climate neutrality by 2050 would be accompanied by transition challenges and critical socio-economic impact in terms of

decarbonisation and transformation of the electricity sector. It is important that the vulnerability of identified districts (NUTS 3) to the transition process is properly addressed in terms of affected stakeholders and territories[1].

Annex D from Bulgaria's 2019 European Semester Country Report identifies two regions as the most affected by the transition towards a climate neutral economy - Stara Zagora and Kyustendil. Additionally, the EC included the region of Pernik recognizing that those three are potentially most vulnerable to the transition, being key concentration areas for local coal mining and coal-based energy production, as well as the economic structure, related to these activities. The three districts have different regional spatial structures and processes.

In order to identify the territories most affected, an analysis was carried out by an independent contractor in 2021 based on a project managed by DG REFORM of the European Commission. This section highlights its main conclusions.

The analysis starts with a review of the six statistical regions in the country (NUTS 2), their 28 administrative districts (NUTS 3) and their constituent municipalities. The main indicators have been selected and analysed as they are directly related to affected jobs in fossil fuel-related industrial facilities, including:

- ETS emissions from energy industries;
- Coal production;
- Energy production.

Based on this, three regions which are most affected by the transition, have been identified, where currently coal production and energy production from coal-based resources is concentrated:

District	Total population, 2019	Share of total population, 2019	Depopulation, 2010-2015	Depopulation, 2015-2019
Main identified districts				
Kyustendil	116,915	2%	-12%	-7%
Pernik	119,190	2%	-7%	-5%
Stara Zagora	313,396	5%	-7%	-3%

Source: PwC Deliverable 3: Report on transition process towards climate neutrality

The comparative analysis of demographics, economy profile, GVA and affected jobs outlined that the three districts have been experiencing common trends and challenges (e.g., depopulation, aging population, domination of SMEs) but with different magnitudes.

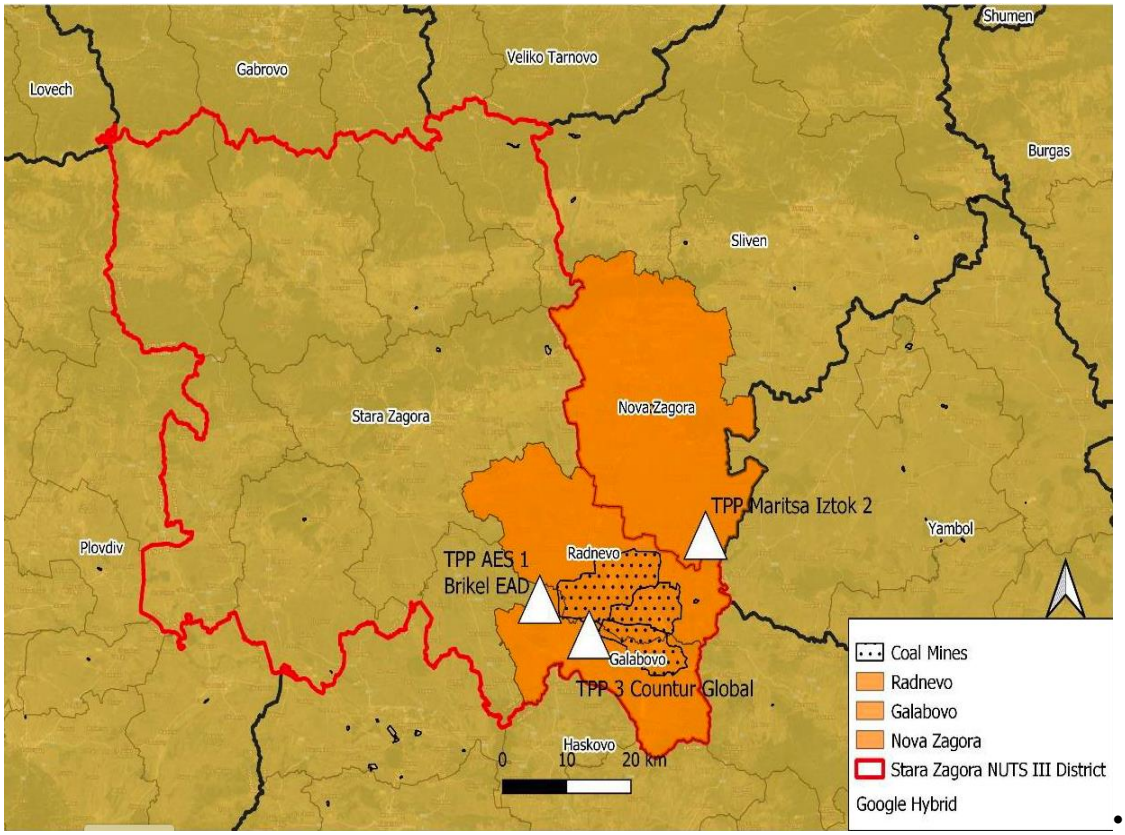
The assessment on district level for Stara Zagora, Kustendil and Pernik identified affected territories in the following three categories:

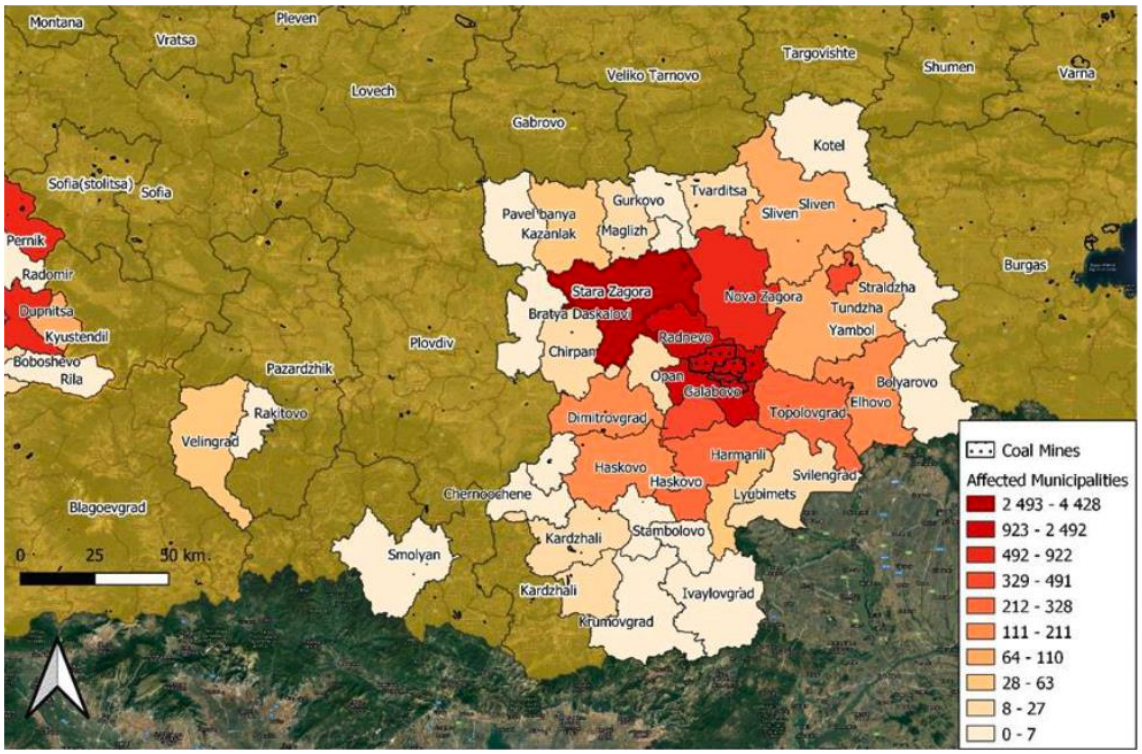
- municipalities with coal (lignite or brown) deposits and mining activities
- municipalities where coal-fired TPPs are located
- municipalities donors of commuting labour force

Stara Zagora District is identified as the most impacted from the transition since four coal-based TPPs and mines are located within the district. In terms of potentially affected jobs, Stara Zagora District also emerged as the most affected.

[1] For the purpose of this document regional analysis has been elaborated at municipal level where such data have been available, despite the focus of the JTPs is at NUTS 3 (administrative district) level.

The leading GVA position of Stara Zagora District is driven by the Maritza Iztok Energy Complex, which indicates the structural role of the coal-based industry in the district economy.





The above categorisation of the most affected territories, shows that the coal mines and TPP's phaseout affects larger area, going beyond the boundaries of the particular municipalities, where the TPPs are located. The donor municipalities of labour force

(commuters) should also be considered amongst those that will bear the socio-economic effects of the transition.

In 2020, the energy/mining companies attract workforce from the following districts[2]: Stara Zagora – 8.2 thousand; Haskovo – 1.5 thousand; Sliven – 0.9 thousand; Yambol – 0.6 thousand; others – 0.1 thousand.

Commuting workforce to the mines/TPPs on a daily basis:

Municipality	District	Commuting workforce to the mines/TPPs
Stara Zagora	Stara Zagora	4400
Radnevo	Stara Zagora	2500
Galabovo	Stara Zagora	1400
Nova Zagora	Sliven	800
Yambol	Yambol	300-400
Simeonovgrad	Haskovo	300-400
Harmanli	Haskovo	300-400
Topolovgrad	Haskovo	300-400
Dimitrovgrad	Haskovo	100-200
Haskovo	Haskovo	100-200
Elhovo	Yambol	100-200
Sliven	Sliven	100-200
Tundzha	Yambol	100-200

All these municipalities account for 11.1 thousand employees (97% of total potentially directly affected workforce).

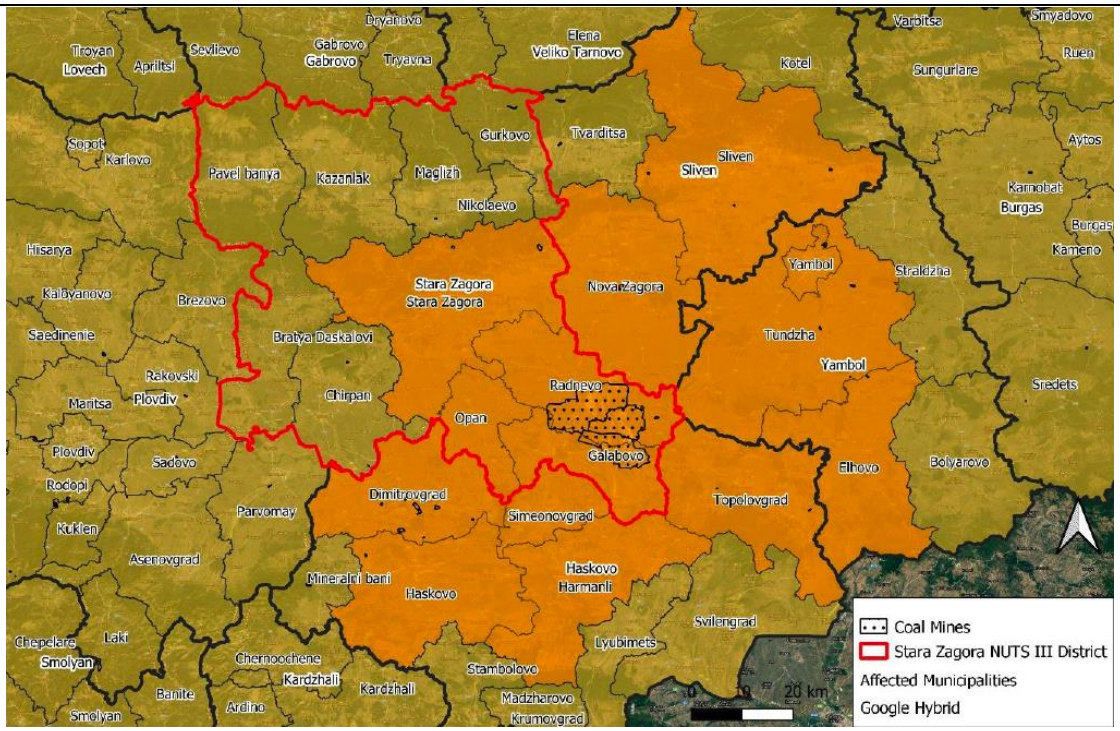
The Maritza Iztok Energy Complex is a territorial complex system, going beyond the administrative boundaries of the Stara Zagora NUTS 3 District.

Affected labour force in Stara Zagora and the neighbouring districts:

District	Indicative share of the population at working age employed in the affected companies	Total affected jobs as % of overall employed (direct + indirect)	Share of GVA from Sectors B and D as a % of total GVA
Stara Zagora	4,52 %	23,80 %	14,46 %
Haskovo	1,13 %	8,30 %	6,46 %
Sliven	0.90 %	7,30 %	5,62 %
Yambol	0,99 %	6,60 %	4,87 %

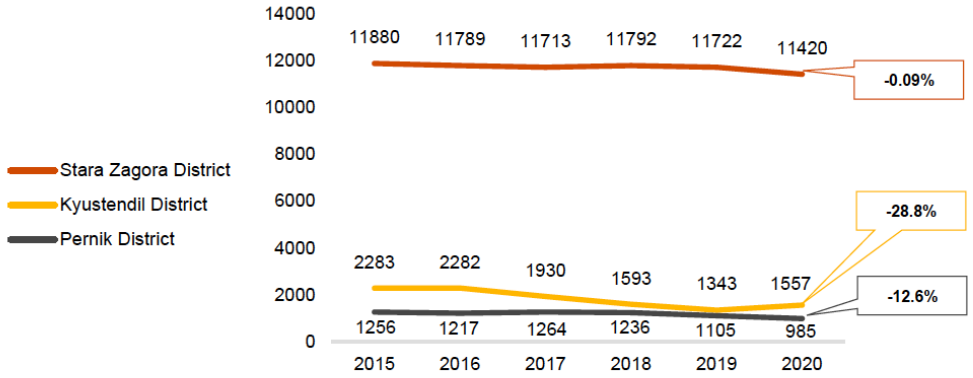
Summary of most affected municipalities donors of commuting labour force in Stara Zagora

[2] Source: Energy/mining companies in the target area



The following figures indicate that the process of phasing out of coal-based energy production in Maritsa Iztok Energy Complex has not started yet, while the process of phasing out of coal-based energy production in Kustendil and Pernik district is already in progress.

Dynamic of directly affected jobs in sectors B and D - Stara Zagora, Kyustendil and Pernik Districts, 2015-2020



Source: Energy and mining companies in the Districts of Stara Zagora, Pernik and Kyustendil, Regioplan analysis

As a conclusion, the just transition process to a climate neutral economy is envisaged to cover the entire territory of Stara Zagora district. There, the most affected municipalities are Radnevo and Galabovo alongside the main urban and economic centre of Stara Zagora. In addition, the Maritza Iztok Energy Complex (which includes the four TPPs - Maritsa Iztok 1, Maritsa Iztok 2, Maritsa Iztok 3, Brickell and Mini Maritsa Iztok) gathers commuters from other administrative districts – Yambol, Sliven and Haskovo.

The most affected territories in the South East Region are:

Territories with lignite deposits and mining activities:

- District Stara Zagora – Municipalities Radnevo, Galabovo;

- District Sliven – Municipality Nova Zagora.

Territories with TPPs facilities fueled by lignite coal:

- District Stara Zagora – Municipality Galabovo, location of TPP AES 1 (700 MW), TPP 3 Countur Global (908 MW); Brikel EAD (200 MW), TPP Maritsa East 2 (1620 MW);

- District Sliven – Municipality Nova Zagora (part of the production facilities of TPP Maritsa East 2).

Territories in which heating energy TPPs are located – Dimitrovgrad (District Haskovo) and Sliven (District Sliven), Kazanlak (District Stara Zagora)[3]

Donor territories (on the municipal level) of commuting labour force employed in the affected energy and mining companies:

- Stara Zagora, Radnevo, Galabovo, Nova Zagora, Topolovgrad, Harmanli, Yambol, Simeonovgrad, Haskovo, Dimitrovgrad, Sliven, Elhovo, Lyubimets, Kazanlak, Velingrad, Svilengrad, Tundzha, Kardzhali, Maglizh, Gurkovo, Opan, Chirpan, Nikolaevo, Pavel bania, Ivaylovgrad, Madzharovo, Mineralni bani, Stambolovo, Krumovgrad, Momchilgrad, Chernoochene, Straldzha, Kotel, Tvarditsa, Rakitovo, Smolyan.

Kyustendil district is the most vulnerable in terms of socio-economic and demographic trends because the process of phasing out the coal and lignite mining and coal-fired electricity production could be traced back to the last two decades. Meanwhile, no planning of new jobs and economic activities has taken place.

In Kyustendil district the most affected are Bobov dol, Dupnitsa and Kyustendil municipalities. However, the just transition to climate neutral economy is envisaged to cover the entire territory of Kyustendil district with a focus of a coal and energy sector.

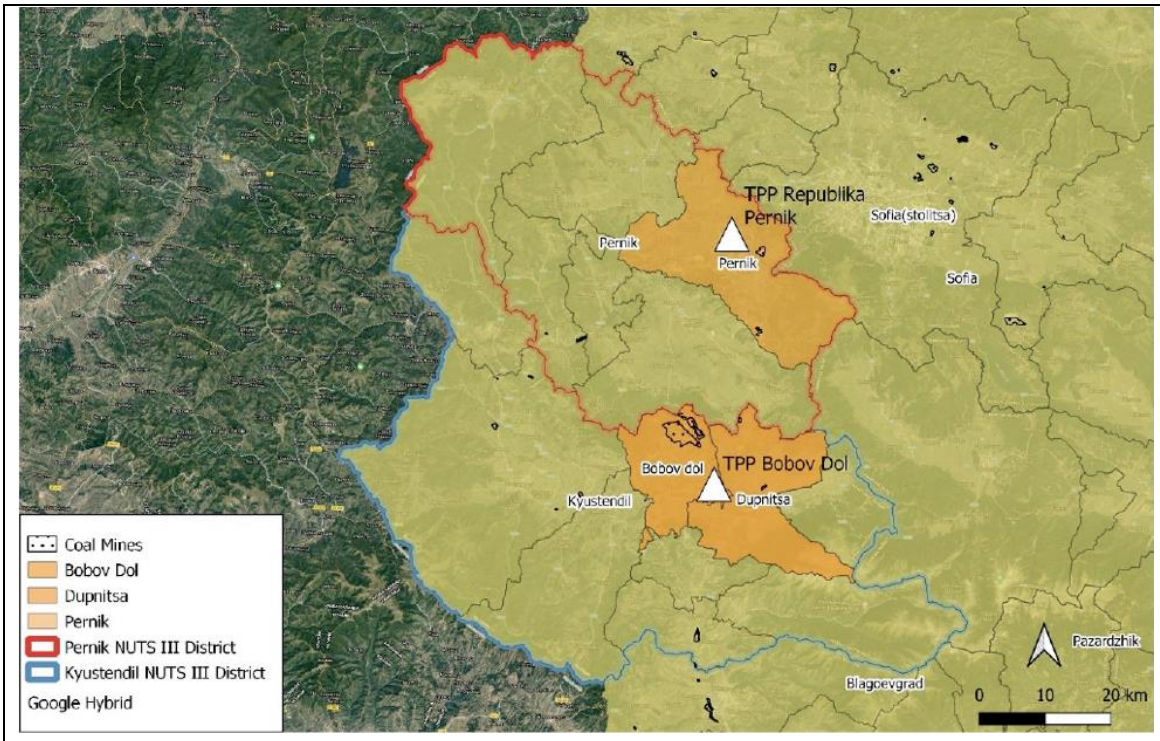
The territorial distribution of the directly[4] affected jobs is diverse on municipal level in Kyustendil district – the highest concentration of affected jobs is in Bobov dol, Dupnitsa and Kyustendil municipalities, while the other municipalities in the district are affected to a lower degree.

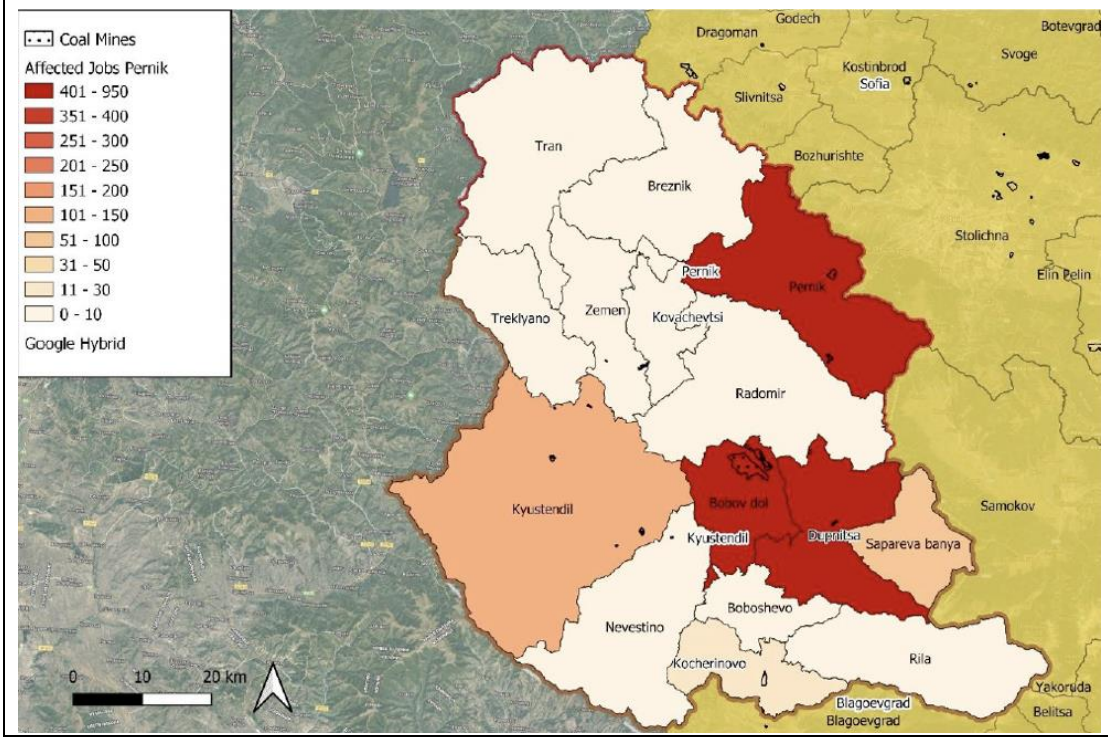
The territorial distribution of the directly[5] affected jobs on municipal level **in Pernik district** is concentrated in Pernik municipality, while the other municipality in the district affected in terms of ETS emissions is Radomir.

[3] TPP in Kazanlak has not been active for more than five years

[4] Territorial distribution of indirectly related labour pool and affected households is not available

[5] Territorial distribution of indirectly related labour pool and affected households is not available





The above categorisation of the most affected territories, shows that the coal mines and TPP's phaseout affects a larger area, going beyond the boundaries of the particular municipalities, where these enterprises are located. The municipalities that are donors of labour force (commuters) should also be considered amongst those to bear the socio-economic effects of the transition.

In 2020, the workforce of the mining/energy companies are concentrated in Kyustendil District – 1.5 thousand employees and only 0.1 thousand employees are commuting from other districts. The most affected municipalities in terms of job losses are:

- Dupnitsa – 0.7 thousand;

- Bobov Dol – 0.5 thousand;
- Kyustendil – 0.1 thousand;
- Sapareva Banya – 0.06 thousand.

As a conclusion, the most affected territories in the South West Region are:

Territories with lignite deposits currently exploited or already exploited and need recultivation (NACE rev. 2 Sector B) for transition to climate neutrality economy:

- Pernik Municipality - deposits and active coal mines;

- Bobov Dol Municipality - deposits and active coal mines.

Territories with TPP's, needing recultivation, industrial reconversion and technological shift to another energy source (NACE rev. 2 Sector D) for transition to climate neutrality economy:

- Pernik Municipality - location of TPP Republika (electricity capacity - 105 MW, heat installed capacity - 502 MW);
- Bobov Dol Municipality - location of TPP Bobov Dol (630 MW).

Key donor territories of commuting labour force:

- Dupnitsa, Kyustendil and Sapareva Banya Municipalities – for Kyustendil district.
- Pernik Municipality – for Pernik district.

The coal mining in Kyustendil Region is still in progress in full capacity of Bobov Dol TPP, using the local coal.

In Pernik District, there is a concentration of employees (one thousand), which are primarily based in the city of Pernik and nearby villages on the territory of Pernik municipality.

The forthcoming impact on jobs, decarbonization and transition to climate neutrality, in the absence of mitigating measures, will be significant.

Reference: Article 6

1.3. *Identifying the outermost regions and islands with specific challenges within territories listed under Section 1.1 and the specific amounts allocated for those territories with corresponding justification*

N.A.

2. Assessment of transition challenges, for each of the identified territories

2.1. Assessment of the economic, social and territorial impact of the transition to a climate-neutral economy of the Union by 2050

Reference: point (c) of Article 11(2)

Text field [12000]

Identification of economic activities and industrial sectors impacted, distinguishing:

- declining sectors, expected to cease or significantly scale down their activities related to the transition, including a corresponding timeline;

- transforming sectors, expected to undergo a transformation of their activities, processes and outputs.

For each of the two types of sectors:

- expected job losses and requalification needs, taking into account skills forecasts;

- economic diversification potential and development opportunities.

Pernik NUTS 3 has a population count of 120 426 people (2019). The unemployment rate is

one of the lowest in Bulgaria (4.3%), and the average annual salary (11 895 BGN) is below Bulgaria's average. The economic mix of Pernik involves various industries including agriculture, manufacturing, incl. basic iron, steel and ferro-alloys production, production of electric transformers, wearing apparel.

Pernik District has experienced structural, demographic and transition challenges over the past 40 years. However, the proximity of Pernik to Sofia city has a mitigating role in terms of commuting and jobs. The district has the fourth lowest GVA among all districts in Bulgaria and ranks second to last in the South West region with 969 million BGN. In addition, Pernik accounts for a small share of the NUTS 2 region's economy due to the disproportionate contribution of Sofia (capital city).

In the case of Pernik, the "agglomeration shadow" of Sofia could be turned into an advantage, especially if measures to stimulate daily labour migrations from the capital are implemented. The immediate proximity of Pernik District to Sofia could be used to expand the investment locations beyond the boundaries of the capital and both cities to be able to establish an active agglomeration and development corridor.

Pernik has the second-lowest labour force in the region after Kyustendil. The labour activity rate in Pernik is 77.5%. Pernik is one of the districts with the highest employment rate in Bulgaria – 70.9% which is due also to the mining and energy sectors.

Pernik is the district with the second lowest level of unemployment in the NUTS2 region – 4.3% and the total number of unemployed is the lowest in the region. However, as a result of the transition, the unemployment levels will increase. On the other hand, 40% of all unemployed have no qualifications, 24% qualify as specialists, and 36% are professional workers.

The implementation of targeted measures is required in order to overcome the impact of the transition to a climate-neutral economy. Currently, the proximity to the capital city is not a factor for growth but rather a reason for negative trends like "brain-drain", withdrawal of the labour pool and of investments and other regional challenges.

The presented indicators prove the unfavourable current economic position of the district in Bulgaria, which could be further complicated by the loss of a sizable proportion of its GVA that comes from the mining and energy sectors (based on directly affected jobs in these sectors) due to the transition. In addition, there is an indirect impact on the businesses that interact with the companies in the mining and energy sectors.

The district's vulnerability to the transition is substantial as alternative economic activities that would replace coal-mining and coal-based energy production may not compensate for the GVA currently generated by the mining and energy sectors. The transition impacts mainly Pernik Municipality.

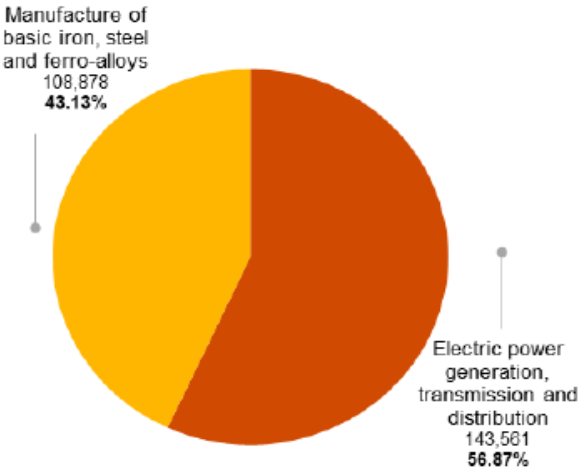
There are several sectors in the district generating high GHG emissions. In 2019, 31% of GVA in the District of Pernik was contributed by the industry sector, including sub-sectors with high greenhouse gas emissions, such as mining and energy. Indicatively, 9.36% of the district's GVA comes from enterprises in these sectors, and 11.0% of the population is employed in these enterprises and related ones. TPP Toplofikatsiya Pernik, the district heating company, is responsible for most of the greenhouse gas emissions in the area due to the use of coal to generate heating. Most of the district's GVA comes from the service sector, mainly transport which is carbon intensive.

Declining and transforming sectors:

Declining sectors in Pernik district are: coal mining activities, energy generation using coal (incl. electricity, heat and steam), except for the TPP for heating in case it demonstrates that it

complies with RED II Directive sustainability criteria (GHG savings after 2021 >70% and after 2026 >80%); supply of specialised mining machinery equipment, tools, spare parts, etc.; mining supporting activities (e.g., waste remediation and treatment, administrative, etc.); basic iron, steel and ferro-alloys production, unless it implements extensive decarbonisation measures.

The coal based industry along the border between Sofia District and Pernik District includes the following two mines – Mine Beli Breg and Mine Stanyantsi. Both mines supply lignite coal to TPP "Bobov Dol" and TPP "Toplofikacia Pernik". In 2020, the total employed staff amounted to 148 (from 256 in 2016) employees in Mine Stanyantsi and 62 (from 310 in 2016) employees in Mine Beli Breg, respectively. When compared with the potentially directly affected jobs in Kyustendil District (2,283 employees in 2016 and 1,560 employees in 2020) and Pernik District: (256 employees in 2016 and 992 in 2020), the potential effect on Sofia District coal-based industry seems much lower.



Source: Analysis based on the data in the EU ETS registry

Transforming sectors in Pernik district, which will be able to transform their activities and adapt to the climate neutral economy, are:

- Supply of specialised power generation installations, machinery and parts.
- Energy generation supporting activities

In addition, the main feature of Pernik District is the traditional specialization in manufacture of basic iron, steel and ferro-alloys which accounts for a significant share of carbon emissions from ETS sectors in the district – 43.13%. This is the only manufacturing sector with registered ETS emissions in the district, consisting of two large steel-producing enterprises – Stomana Industry and Radomir Metal Industries.

The forecasted impact in terms of affected jobs in the 2020s and 2030s for the district is based on analysis carried out by an independent consultant, hired by DG REFORM of the European Commission, based on coal phaseout scenarios:

Indicative timeline of affected jobs in Pernik district

District in thousands	2022-2024	2025	2026	2027	2028-2029	2030	2031-2037	2038
Declining coal energy sector								
Direct	-	-	0.0 - 0.5	-	-	-	-	-
Indirect	-	-	0.0 - 1.2	-	-	-	-	-
Declining coal mining sector								
Direct	-	0.0 - 0.2	0.2 - 0.6	0.0 - 0.2	-	-	-	-
Indirect	-	0.0 - 0.3	0.3 - 1.0	0.0 - 0.3	-	-	-	-
Total	**-**	**0.0 - 0.5**	**0.5 – 3.3**	**0.0 – 0.5**	**-**	**-**	**-**	**-**

Source: PwC analysis based on assumptions for energy transition in discussions with ME, public information and headcount of energy and mining companies

Pernik is the least affected district due to the transition, but significant impact is still present. In this respect, 500 total jobs would be affected in 2025, up to 1.6 thousand in 2026 and another 500 in 2027. In addition, the concentration of the indicative economic effect will result in the GVA loss of BGN 91 million on an annual basis.

The unfavourable labour force skills structure may be further exacerbated by phasing out emission-intensive economic sectors, which is relevant to both, medium and low skilled employees. Coal mining and coal-based electricity and heat generation in the district has a long tradition implying that many employees possess a skillset tied to the industry in the districts and will need reskilling, upskilling and basic qualification to meet the future economy's needs.

The new skills that have to be created must be relevant to clean energy and energy efficiency, incl. PV panels, electric equipment and technical items for PV panels, cables, invertors, aluminium frames for photovoltaic systems, hydrolysers for green hydrogen, supplementary equipment for green hydrogen gas, geothermal equipment - pipes, valves, automation, etc. In addition, the basic iron, steel and ferro-alloys industry should implement upskilling and reskilling measures for decarbonisation.

In addition, all other active economic sectors should be supported to generate new jobs and apply decarbonisation measures such as clean energy and heat generation and energy efficiency measures, installation of equipment with higher capacity and GHG emissions savings, etc.

The transition to climate neutral economy would affect the territories in various perspectives:

- The mine sites will need massive recultivation on a scale never experienced in Bulgaria before. Typically, recultivation activities require involvement of large number of workers and takes a long period for completion thus creating an alternative utilisation of available labour pool from mines. The coal mines (open field or underground) and the adjacent terrains are public state property. The companies that exploit them have concession contracts but does not have an ownership of the land.
- Recultivated terrains would be a feasible location for alternative investments - photovoltaics or brownfield sites, for instance, rather than for agricultural sites/land;
- The TPP Republika will need industrial reconversion and technological shift to another energy source to reduce the carbon emissions in order to continue its functioning or phasing out in 2027.
- RES that should replace the TPP Republika capacity is calculated to electricity capacity 105 MW, heat installed capacity 502 MW – photovoltaic, green hydrogen,

geothermal, wind turbines or biomethane.

• The commuting labour pool will need to shift to new jobs - the current structure of the labour pool hired in the NACE sectors B and D provides the opportunity for a possible shift to new industrial activities (requiring predominantly low and medium-skilled labour pool).

Establishment of adequate organization to carry out of ecologically sound territorial management, gradual transfer of personnel to new industries and activities and eventually sustaining the demographic balance in the coal regions requires sustainable planning and implementation in whole period by 2030.

The planned establishment of a dedicated company "Conversion of Coal Regions" (CCR) is part for the general Assets Based Concept for conversation of the Coal region using land, infrastructure and skills. CCR shall undertake the reclamation and repurposing activities within the of coal mines after 2026 and shall play key role in ensuring the availability of infrastructure for new industrial activities. One important task of CCR is long term brownfield remediation and addressing all relevant risks and development barriers to municipalities and communities - whether through acid drainage, other toxic leakages, self-ignition of remaining coal seams and others.

The planned substitution of coal-based power generation with RES and other industrial activities will significantly affect the mining management system which includes limitation and closure of operational units in shorter than planned periods of operation. Such early limitation of mining plans requires proper management of retrofitting and post-closure activities that shall be provided by qualified staff and ensured with financing support, in order to avoid any adverse effects on the environment.

2.2. Development needs and objectives by 2030 in view of reaching a climate-neutral economy of the Union by 2050 Reference: point (d) of Article 11(2)

Text field [6000]

- Development needs to address the transition challenges;

- Objectives and results expected through implementing the JTF priority, including the expected contribution in terms of job creation and preservation.

The transition to climate neutrality (energy being the top GHG emitter - in 2020, this sector itself accounted for 71.29% of total emissions with main source combustion of solid fuels - 49%, followed by liquid fuels with 35.3% and gaseous fuels with 13.7%) will lead to several impacts, most of them stemming from the closure and transformation of mining and energy production companies. Since these companies are some of the biggest employers in the district, there is a high risk of loss of jobs and GVA. In addition, there is a risk of increasing unemployment rate, emigration of the workforce, acceleration of depopulation, economic decline and air quality issues.

Economic development and diversification is of utmost importance and mitigating measures are needed to address the challenges related to the transition to a climate neutral economy. These measures should include support for the creation of new enterprises and the growth of existing ones in high-potential sectors.

Over 60% of the workforce in Pernik District has higher, secondary and secondary vocational education, which provides opportunities for shifting the employment from low and medium to the medium and medium-high technology sectors, as well as in the tertiary sector.

Pernik District has signed partnership memoranda with the National Company Industrial Zones and there are industrial parks that are in planning and construction phases. Pernik envisions the development of an industrial / logistics park over 346.3 hectares. Currently, the territory of the

Industrial and Logistics Zone Pernik needs construction of buildings, halls and warehouses.

In addition, the existence of a well-developed and easily recognisable research and innovation ecosystem would significantly facilitate the diversification process in the economy in coal districts.

Joint R&D activities between academia and business (e.g., through incubators and industrial clusters) lead to the development of new knowledge, which is the basis for introducing new technologies and innovation of products and processes. The R&D infrastructure in Pernik District is represented by one university and could be further developed.

One of the key identified challenges is the need to strengthen the technical capacity of stakeholders (municipalities, SMEs, etc.) for preparing and executing EU-funded projects. This could be achieved through the establishment of a Regional Development Agency which will facilitate the process and take up the ownership of the transition process in the region.

Several employment groups have been identified as the most vulnerable and affected by the transition towards climate neutrality and that need to be directly targeted by the JTF. These groups include the workers in the local coal mining and coal-based energy and heating enterprises, the workers in the suppliers of TPPs and mines, employed in the basic iron, steel and ferro-alloys industry, family members of the above groups and young people about to graduate by 2030.

The implementation of the JTP measures will lead to the following results:

- Massive recultivation of the mine sites, involving large number of workers, thus creating an alternative utilisation of available labour pool from mines;
- Ensuring feasible locations through recultivation of the mine sites for alternative investments - photovoltaics or brownfield sites;
- Shift to other energy sources to reduce the carbon emissions and fully replacing the capacity of TPP Republika - electricity 105 MW and heat installed 502 MW with photovoltaic, solar district heating systems as combined cooling heat and power trigeneration system, green hydrogen, geothermal, wind and biomethane energy;
- Shift of jobs to new industrial activities in transition sectors and those with high potential for creation of GVA.

2.3. Consistency with other relevant national, regional or territorial strategies and plans
Reference: point (e) of Article 11(2)

Text field [6000]

- Smart specialisation strategies;

- Territorial strategies referred to in Article 29 of Regulation (EU) 2021/...;

- Other regional or national development plans.

The funding provided in the JTF is fixed and can partially address the identified challenges. In addition to the JTF, there is a substantial contribution from the EU's budget through various instruments, including the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund Plus (ESF+) and the Recovery and Resilience Facility (RRF). There are also several national-level funding options that target some of the relevant pillars and measures within the territorial just transition plans.

The table below summarises such consistency with regards to the:

1) National recovery and resilience plan, Pillar Green Bulgaria, Component Circular and Low-

carbon Economy, Reforms/Investments (further explanations provided in chapter 1) as approved in May 2022:

- Creation of a National Fund for decarbonisation;

- Facilitating and increasing the efficiency of investments in energy efficiency of multi-family residential buildings;

- Development of definition and criteria for "energy poverty" for households in the Energy Law;

- Energy efficiency in building stock;

- Program for financing single measures for energy from renewable sources in single-family buildings and multi-family buildings;

- Energy-efficient municipal systems for outdoor artificial lighting;

- Financing mechanism for energy efficiency and RES projects alongside energy bills;

- Stimulating the production of electricity from RES;

- Digital transformation and development of the information systems and real-time systems of the Electricity System Operator in the conditions of a low-carbon economy;

- Preparation and adoption of a National Road Map for improving the conditions for the deployment of the potential for the development of hydrogen technologies and the mechanisms for the production and supply of hydrogen;

- Scheme to support pilot projects for the production of green hydrogen and biogas; Liberalization of the electricity market;

- Development of a low-carbon economy and creation of a Commission for Energy Transition and creation of a Roadmap to climate neutrality;

- Decarbonization of the energy sector;

- Creation of a state enterprise "Conversion of coal regions" for a successful transition;

- Improving the corporate governance of state-owned companies in the energy sector;

- Scheme to support the construction of a minimum of 1.4GW of RES and batteries;

- Development of the use of geothermal energy in Bulgaria for the production of electricity and heat;

- National infrastructure for storage of electrical energy from RES (RESTORE).

2) Programs funded by ERDF, ESF, Cohesion and other relevant policy areas:

- Development of regions;
- Competitiveness and innovations in enterprises;
- Research, innovation and digitalization for intelligent transformation;
- Research and innovation;
- Human resources development;
- Education;
- Environment;
- Transport connectivity;
- Technical assistance.

3) Territorial strategy for development of the South West region 2021-2027;

4) Innovation strategy for smart specialization 2021-2027.

2.4. Types of operations envisaged

Text field [12000]

Reference: point (g) of Article 11(2)

- *type of operations envisaged and their expected contribution to alleviating the impact of the transition*

The initiatives of the transition action plan fall within three pillars that reflect the challenges and needs of Pernik district. They are also in line with the pillars and principles of the JTF leading to climate-neutral economy, environmental protection and long-term sustainability.

- **Pillar 1 – Industry for sustainable energy solutions -** supports the measures, encouraging development and implementation of new sustainable energy solutions in line with the objectives of the transition to climate neutrality and supporting economic diversification/job creation.
- **Pillar 2 – Social and employment support** - supports the social transition. This includes establishment of VET centres to provide for the process of upskilling and reskilling of the existing labour pool and the shift to alternative better jobs.
- **Pillar 3 - Diversification of the local economy** - supports economic diversification/job creation, the development of new economic sectors, creation of new jobs and start-ups and development of enterprises, including R&D, in order to shift to new jobs after the mining and coal-based energy sectors phaseout and connecting the local economy in a favourable way with the Sofia city.
- **The horizontal priority aims** at increasing the technical capacity of beneficiaries in order to improve the quality and approval rate of application projects.

Pillar 1 - Industry for sustainable energy solutions

1. **Recultivation of the coal quarries**

The recultivation of the lignite quarries requires similar skills to the ones of the most directly affected workers by the transition, as well as managing ongoing coal mining activities in parallel with the reclamation and planning and preparation of the vacated land for further industrial activities. The phase out of mining activity, as well as the earlier than planned closure of mining units, reflects to lower than planned build-up of coal mine reclamation funding. Furthermore, existing coal mine reclamation plans reflect neither the earlier than planned closure of the coal mines nor the needs of newly planned industrial applications on the quarries land. Therefore, the current mining companies are not suitable for managing the industrial transition process. To address this a specially established state company "Conversion of Coal Regions" is foreseen. It is planned to be a large state enterprise which will undertake the reclamation of coal mines and prepare infrastructure for new industrial activities. It will use the funds accumulated so far for land reclamation. It will be the beneficiary of support funding that will cover the gap between the business as usual scenario and the accelerated scenario.

The enterprise is planned to be established in 2023 in order for the process of planning to start.

It will prepare planning of the practical preparation for mining transition that includes accumulation of historical and operational data as well as territory survey. The CCR shall be ready to take over the main responsibility for reclamation of coal mines in the period after 2025, that requires upfront preparation, feasibility studies and design. These shall take into account the environmental aspects in the closure process but also shall be aligned with plans for use of land for establishment of new RES sources and new industrial activities.

This approach will ensure that current workers are employed in the process of recultivation to ensure stable employment while receiving additional training. Support is expected to cover the development of a general master plan for recultivation taking into account the accelerated closure timeline, as well as independent financial audit to measure the gap and to fairly distribute the financial burden in compliance with the "polluter pays" principle. The measure will include activities to further ameliorate the recultivated land for specific economic activities, such as industrial zones, RES capacities or sustainable agricultural use as an upgrade to the concessioners' legal obligations for recultivation. The support is necessary given the need for accelerated recultivation as a result of the coal phase-out timeline.

2. **Support for SME focused on R&D, design and installation of PV panels**

The aim is to support the production of PV systems that will aid the jobs and GVA creation, as well as the energy transition in the region, by utilising the already existing engineering expertise and developing solar district heating systems as combined cooling heat and power trigeneration systems to minimize the negative impact of burning coal and start transforming Pernik's local TPP, which has the highest density of customers for the central district heating systems in Bulgaria and at the same time is the oldest facility;

3. **Support for SME focused on biogas (biomethane) installations**

The aim is to support the production of biogas (biomethane) that will aid the job and GVA creation, as well as energy transition in the region by utilising the already existing engineering expertise. Biomethane shall be used as a low-emission alternative fuel and jobs creator, based on organic wastes – for industrial uses. The biomethane will correspond to the sustainability criteria set out in Directive (EC) 2018/2001 on the promotion of the use of energy from renewable sources. The fulfilment of the sustainability criteria will be subject of proof by the candidates in the support scheme.

The project will support the decrease of GHG emission and will integrate the waste management and the energy systems of the region. The scope of the operation will exclude agricultural residues and/or agricultural waste.

4. **Support scheme for RES and production and utilization of green hydrogen**

In terms of technologies, support is expected to be geared towards pilot projects for green hydrogen production and/or storage and for RES deployment. Support will also be geared towards the use of green hydrogen as energy storage, a thermal and/or chemical agent. This includes the production and installation of hydrogen electric cells, hydrolysers for HHO gas for public heating, transportation, and other hydrogen equipment, needed for the transition to

hydrogen as an energy source.

Integrated projects for both production and utilization of green hydrogen will be prioritized.

Support will also be provided for production or utilization of green hydrogen separately since this is a new technology and the projects are demonstrational.

The employment impact is expected to cover both the construction and the maintenance phase, as well as train workers for RES and hydrogen projects elsewhere. This measure is complementary to measures on boosting RES and establishing a hydrogen roadmap as envisaged in other EU funds, which will aid the decarbonisation of certain fossil fuel-intensive industries, such as metallurgy. Optionally the production facilities could be established on recultivated quarry land and thus the project can benefit from the consolidated ownership of the land.

Projects that have received "seal of excellence" under Horizon Europe will also be priorities under this support scheme.

Pillar 2 - Social and employment support

5. Skills mapping of the affected workforce

Detailed assessment of the skills and competencies of the existing staff of the TPPs and coal mines has not been performed but is considered essential for the successful modelling of the measures for reskilling and up-skilling of the affected workforce in the three regions. The operation will be implemented in two phases:

1. Programming phase

The Ministry of Energy in close collaboration with responsible ministries, trade unions, business and key local stakeholders developed a Road map for mapping of the skills and the potential for development, up-skilling and reskilling of the affected labor force from the transition process.

2. Implementation phase

This phase includes the field work for the skills mapping and development potential of the workers. JTF financing will be used for this phase.

The activity could be performed with the assistance of the Institute for Sustainable Transition and Development - created by a Council of Ministers' decision in 2021 that includes a large number of representatives, such as public and local authorities, social partners, industry, academia, NGOs.

The creation of Interregional centres for vocational training and education for re-skilling and up-skilling will be based on the results of the skills mapping. The results will reflect the regional specificities and the proposed measures will be tailor made to distinguish the concrete needs and potential for Pernik region.

Reskilling and upskilling Reskilling and upskilling of workers for the new jobs is foreseen, including on-the-job training and compensation for the time off-the-job. The Interregional centres for vocational training and education are expected to play a role, where possible, integrated with the support for industrial zones and parks. In terms of actively supporting job seekers, measures can include career counselling, and job assistance services, as well as entrepreneurship skills. Dedicated measures to be considered for disadvantaged and youth groups.

Retrain and upskill the existing workforce, and stimulate job transitions of the newly skilled

- Digital/ICT competencies: expand provision of training in digital skills and ICT
- Demand driven trainings (including on-the-job) for activities in growth-potential sectors and occupations linked to the green transition

6. Energy efficiency and RES measures focused on energy poverty

The measure will support energy efficiency measures in residential buildings with focus on energy poor and vulnerable consumers in view of addressing energy poverty. This includes renovation of buildings, implementation of renewable energy sources in existing buildings, heating and air conditioning installations. Such measures will mitigate the impact of the transition process by alleviating the pressure on soaring energy costs and will close the resulting gap in energy production through a combination of energy efficiency interventions and the use of RES. Energy efficiency interventions will contribute to the reduction of energy consumption, thus contributing to the reduction of the carbon footprint in the region.

The current measure is in line with the RRP, according to which the definition of energy poverty will be included in the national legislation for the purposes of priority treatment of those covered by the definition in the implementation of measures and projects to increase energy efficiency and RES.

Pillar 3 - Diversification of the local economy

7. Development of Industrial and Logistics Zone Pernik

Support for the expansion or creation of industrial parks centred on cleantech solutions. Such solutions leverage the skills of the labour force most directly affected by the transition. Specialisation support will be provided and encouraged in sub-sectors with most local potential such as, indicatively, metal processing, rubber and sustainable use of plastics, manufacture of food products and beverages, manufacture of electrical equipment and clean energy technologies. Support will be targeted at SMEs, and startups. The envisaged eligible costs include the creation of internal technical infrastructure, as well as social and administrative facilities. In particular, support could target facilities for local generation and storage of electricity (zero-emission parks), networking centres, business incubators, digitalisation. Specifically, the support will have a focus on further developing the existing Pernik Industrial and Logistics Zone. Diversification and adaptation of enterprises to economic transition. Targeted support for local businesses to adapt to their needs and level of development. The focus is on ensuring businesses can adapt to and integrate the value chain in particular in relation to the new economic activities above including enhancing employment in the energy efficiency sector. Therefore, the aim is to support employment in the region, which is affected indirectly by the transition. Support can include support for purchasing new equipment and providing specialised staff training and for immaterial assets; energy efficiency measures; as well as support for digitalisation of enterprises. The focus will indicatively be on sectors identified as priority for the region, such as mechatronics, chemical industry, agriculture, industry ICT solutions, electrical components manufacturing and clean energy.

The measure will also allow low-carbon local transport connectivity. Currently, the transport infrastructure is oriented towards the central northern Sofia and southern Greece transport corridors. Hence, the need for better internal region connections is identified according to the regional development needs and planning. This would be further specified following a region-wide integrated master plan. In the specific spatial context of Pernik district, the most important transport connections that must be supported are within Pernik municipal borders where most of the new facilities and activities will be developed. Other significant connections are also those between Pernik and municipalities with large populations like Radomir and Breznik. Connections with the neighboring district of Kyustendil and Sofia could also be supported

under JTM Pillar 2 and 3.

8. R&D centre for industry supporting services such as a research centre for industrial design, and a scientific centre for materials science
This measure shall include support for the cooperation between the academia and businesses through innovative technological centre, which will provide a favourable environment for the attraction of researchers and career development as well as top-class infrastructure for strengthening and upgrading the expertise and capabilities for development of high-quality scientific outputs and their transformation into innovative products, systems and services. The focus of the centre shall lie on industrial design, and a scientific centre for materials science. This centre shall also provide targeted support for advancing R&D in start-ups and providing support for the marketability of their research, including through intellectual property registration and developing an ecosystem (promoting entrepreneurship, consulting services, business incubators);

Horizontal pillar: Technical assistance

- Technical assistance of the MRDPW as a Managing Authority (MA) of PDR 2021-2027 for the effective administration and use of the JTF

- ME will act as Intermediate body for implementation of the just transition plans after completing the relevant procedures

Indicative non-exhaustive list of eligible activities/measures:

- Organisation of periodic training of stakeholders' staff such as workshops, study tours and seminars aimed at exchanging experience and good practices; Technical assistance / consulting services / specialised expertise from external organisations / experts in response to the specific needs of the beneficiaries

- Research, feasibility studies, studies on the potential of SMEs on district level, other analyses, etc.) and a set of projects related to the transition process

- Support to well-functioning government mechanism and key stakeholders for facilitating the transition towards a climate neutral economy (e.g. regional development agencies)

- Trainings for local/regional administration in order to design and implement just transition projects

- Information Days organized with the support of the social partners in the affected regions to ensure that the topics of energy transition are thoroughly communicated with the local communities and to ensure their engagement in the process.

Reference: point (h) of Article 11(2)

To fill in only if support is provided to productive investments in enterprises other than SMEs:

— an indicative list of operations and enterprises to be supported and for each of them a justification of the necessity of such support through a gap analysis demonstrating that the expected job losses would exceed the expected number of jobs created in the absence of the investment

N.A.

Update or fill in this section through the revision of the territorial just transition plans, depending on the decision to provide such support.

Reference: point (i) of Article 11(2);

To fill in only if support is provided to investments to achieve the reduction of greenhouse gas emissions from activities listed in Annex I to Directive 2003/87/EC: *— a list of operations to be supported and a justification that they contribute to the transition to a climate- neutral economy and lead to substantial reductions in greenhouse gas emissions going substantially below the relevant benchmarks established for free allocation under Directive 2003/87/EC and provided that they are necessary for the protection of a significant number of jobs* No support is planned to be provided to ETS activities

Update or fill in this section through the revision of the territorial just transition plans, depending on the decision to provide such support.

Reference: point (j) of Article 11(2)

— synergies and complementarities of the envisaged operations with other relevant Union programmes under the Investments for jobs and growth goal (supporting the transition process), other financing instruments (the Union Emissions Trading Modernisation Fund) to address identified development needs

Pillar 1 – Industry for sustainable energy solutions:

- **National Recovery and Resilience Plan - NRRP approved in May 2022**

While NRRP will support investments in leading infrastructure outside the industrial parks and zones (roads, electricity, water and sewerage) and partly inside (same types of investments) to ensure connectivity, JTF will intervene on the territory of the parks and zones supporting any type of infrastructural investments needed in order to complement the investments under NRRP. JTF investments will not be limited only to the basic infrastructure (parks and lanes) and production buildings, but could support also all other types of measures eligible for financing. Projects receiving support under NRRP can receive additional support under JTF (for additional measures that are not supported under NRRP).

NRRP complements JTF in its support for the construction of RES (photovoltaic panels) and energy storage installations to address the energy transition needs and the corresponding shift to RES. NRRP also addresses measures to reduce administrative burdens and provide incentives for RES application (i.e. the National Decarbonisation Fund). The investments in the NRRP are large-scale while the TJTPs focus on pilot application of RES and support for clean energy sector and its value chain development in the affected territories. Furthermore the target set out in the NRRP for RES will not be accomplished by the available funding in RRF for RES, hydrogen and biogas i.e. NRRP sets overall more ambitious target than the supported investment milestones to be achieved (3.5 GW new RES by 2026 while 1,4 RES with collocated batteries supported under RRP investment scheme). Therefore, available funding under JTF will complement the RRP efforts in order to minimise the gap in the achievement of the RES target. Also, there is a clear demarcation of cost eligibility. As regards RES and storage, RRF will finance only the cost of the batteries in combined projects RES and collocated batteries. The JTF funding is provided for photovoltaic parks, auxiliary infrastructure and storage.

NRRP Investment 9 addresses one of the identified barriers in the development of the RES sector in Bulgaria – the geothermal energy potential. The investment envisages research activities and a pilot project for the production of heat and electricity energy from geothermal

energy, which would initiate the development of the geothermal sector in the country. Under the TJTP of Kyustendil, Operation 7 is complementary to the RRP as far as the survey results will be used and it aims to finance the use of geothermal power for manufacturing, agriculture and energy production/district heating.

Reform 7 of the component is focused on the regulatory framework needed to facilitate the development of hydrogen technologies, and it is a key prerequisite for achieving the goals of the Green Deal and the decarbonisation of the economy. NRRP complements the JTF in its support for pilot development projects allowing the introduction of green hydrogen and biogas with application in industrial production, as well as for their future use in transport and the production of electricity and heat. Under RRP only small demonstration projects will be finances whereas under JTF, larger-scale projects will be eligible and priority will be given to integrated projects (production and utilisation).

- **Program Development of Regions - PDR 2021-2027**

Both Priorities 1 and 2 of the PDR include road infrastructure, which provides direct complementarity to the TJTPs as the JTF does not support transport infrastructure. Transport connectivity is a key factor in developing industrial parks and increasing their investor attractiveness, hence PDR may support the construction of roads (outside the TEN-T network) that connect potential industrial parks to the main road network of Bulgaria.

PDR 2021-2027 includes activities such as the renovation of the transport infrastructure, including infrastructure for alternative fuels for the needs of urban public transport (charging stations), as well as the purchase of new, environmentally friendly urban transport rolling stock. These sustainable mobility measures will complement the sustainable mobility measures envisaged in the TJTPs and improve the workforce's accessibility to future industrial parks in a climate-neutral way.

PDR 2021-2027 provides complementarity to the JTF by funding road infrastructure for roads outside of the TEN-T network, hence improving regional transport connectivity and labour mobility.

Pillar 2 – Social and employment support

- **Program Education - PEdu 2021-2027**

PEdu provisions measures for the introduction of flexible modular curricula and programmes by professions with the goal of taking into account the real needs of the labour market and introducing flexible pathways for reintegration into vocational education or training jointly with employers, including through part-time, evening and distance learning.

TJTPs support the quality of education and its relevance to the labour market on the affected territories. Such support is tied to the development needs of the transition (incl. active stakeholder involvement – e.g., partnerships with trade unions, NGOs, research organisations). This includes: performing activities in the area of skills anticipation, competency mapping on the training needs of the affected vulnerable groups in relation to the introduction of new technologies and developments of enterprises that enables economic diversification and the transition to low-carbon economy while PEdu supports measures on the impact of education on the labour market at national level. PEdu can complement the JTF with funding from grants and financial instruments.

- **Human Resources Development Program - HRDP 2021-2027**

HRDP targets improving access to employment and activation measures of all jobseekers, in

particular, youth through the implementation of the youth guarantee, long-term unemployed and disadvantaged groups on the labour market, and inactive people, promoting self-employment and the social economy.
Given the similarity in the type of measures between the HRDP and the JTF, the demarcation between the instruments will be carried out at the level of individual participant or individual project/beneficiary. The HRDP should complement the JTF investments through horizontal measures, which would also be available to other enterprises and individuals, beyond those affected by the green transition.

Pillar 3 - Diversification of the local economy

- **Innovation Fund**

The goal of the Innovation Fund is to enable the commercial demonstration of innovative low-carbon technologies, aiming to bring to the industrial market solutions to decarbonise Europe and support its transition to climate neutrality. Direct complementarity would be achieved as the fund supports investments in innovative low-carbon technologies and processes in energy-intensive industries, including products substituting carbon-intensive ones; innovative renewable energy generation, energy storage. The Innovation Fund supports highly innovative technologies and big flagship projects that can bring on significant emission reductions. The fund supports mature cross-cutting projects on innovative low-carbon solutions in multiple sectors (incl. industrial symbiosis).
Direct complementarity would be achieved as the fund supports investments in carbon capture and utilisation (CCU) and the construction and operation of carbon capture and storage (CCS). These are considered key potential enabling technologies for the transition from coal as a substantial share of the coal-based energy capacity is expected to be supported by CCS/CCU technology from 2026 onwards.

- **Programme Horizon Europe 2021-2027**

With its focus on R&D, Programme Horizon Europe 2021-2027 has high synergy potential with measures involving climate science and solutions, energy supply, systems, grids and energy storage, buildings and industrial facilities in energy transition, communities and cities, clean, safe and accessible transport and smart mobility.
In case of duplication, sectoral demarcation would be applied where the TJTPs focus on the identified high-potential sectors of the three coal districts, and Horizon Europe provides support for other sectors in the districts. In case there are investment opportunities identified in the coal regions that will exceed the funding from JTF, Horizon Europe can provide additional complementarity funding to the JTF.

- **Programme LIFE 2021-2027**

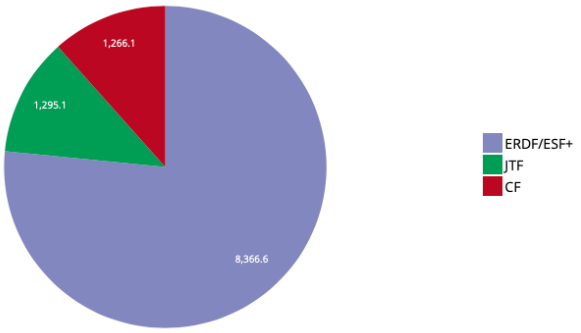
LIFE co-finances projects in the environmental sector, particularly in the area of the circular economy, including recovery of resources from waste, water, air, noise, soil and chemical management as well as environmental governance. Programme LIFE could complement the circular economy activities envisaged in the TJTPs by providing additional grant funding to that provided by the JTF.

Support for Bulgaria from the Union Emissions Trading Modernisation Fund

Member States	Share as per Annex IIb of ETS Directive	Allowances as per Article 10(1) of ETS Directive	Transfers from Article 10(2)(b) ETS Directive (solidarity)	Transfers from Article 10c ETS Directive	Total transfers Article 10(2)(b) (solidarity) & Article 10c	Total
Bulgaria	5.84%	16 095 825	0	0	0	**16 095 825**

Source: https://ec.europa.eu/clima/eu-action/funding-climate-action/modernisation-fund_en

2021-2027 - Goal: Investment in Jobs and Growth - Initial EU allocation available for programming (current prices) for Bulgaria



Source: https://cohesiondata.ec.europa.eu/2021-2027-Finances/2021-2027-Investment-in-Growth-and-Jobs-goal-EU-al/wdpj-83ce

Reference: point (k) of Article 11(2) and Article 11(5)

— synergies and complementarities with planned support from the other pillars of the Just Transition Mechanism

— sectors and thematic areas envisaged to be supported under the other pillars

It is foreseen that **under Pillar 2**, the following activities will be funded:

- Installations for carbon capture and storage (CCS) and installations for carbon capture and utilisation (CCU);
- Waste-to-energy plants;
- Decarbonisation investments in TPPs;
- Transport connections: investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure. These activities complement the sustainable mobility measures envisaged in the TJTPs by providing additional funding through financial instruments.
- Investments in research and innovation activities, including universities and public research organisations, and fostering the transfer of advanced technologies. These investments will be applied through financial instruments, which provides additional funding to the JTF.
- Investments in digitalisation, digital innovation and digital connectivity, which would complement the development of industrial zones, specifically in their digital connectivity, through supporting broadband connections for high-speed Internet. The pillar envisages investments through financial instruments, which could provide additional funding to the grants provided by the JTF.
- Investments in renewable energy in accordance with the Renewable Energy Directive (EU) 2018/2001194, including the sustainability criteria set out therein, and in energy efficiency, including for the purposes of reducing energy poverty. Both pillars envisage investments through financial instruments and partial grants in Pillar 3, which could

provide additional funding to the grants by the JTF.

- investments related to mining or to the extraction, processing, distribution, storage or combustion of solid fossil fuels and oil, as well as investments related to the extraction of gas for:
  - projects where there is no viable alternative technology
  - projects related to pollution prevention and control
  - projects equipped with carbon capture and storage or carbon capture and utilisation installations, industrial or research projects that lead to substantial reductions of greenhouse gas emissions as compared with the applicable EU ETS benchmarks.
- other sectors provided that they address the development needs of the territory as set out in this TJTP

It is foreseen that **under Pillar 3**, the following activities will be funded:

- Transport connections: investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure. These activities complement the sustainable mobility measures envisaged in the TJTPs by providing additional funding through financial instruments.
- Investments in renewable energy in accordance with the Renewable Energy Directive (EU) 2018/2001194, including the sustainability criteria set out therein, and in energy efficiency, including for the purposes of reducing energy poverty. Both pillars envisage investments through financial instruments and partial grants in Pillar 3, which could provide additional funding to the grants by the JTF.
- Investments implemented by local authorities and public sector entities and by companies operating under private law entrusted with public service in sectors that are not explicitly mentioned as eligible under Pillar I: healthcare, tourism, sports, culture, heritage, roads, social housing, municipal buildings, urban regeneration, water and wastewater management, certain waste management projects
- Investments implemented by local authorities and public sector entities and by companies operating under private law entrusted with public service in sectors that are explicitly mentioned as eligible under Pillar I: R&D, clean energy, RE, EE, DH, sustainable mobility, digitalisation, rehabilitation of brownfield sites, circular economy, upskilling, reskilling, assistance and inclusion of workers and jobseekers, child and elderly care facilities
- Cross-regional projects
- Other sectors provided that they address the development needs of the territory as set out in this TJTP.

Governance mechanisms Reference: point (f) of Article 11(2)

Text field [5000]

2.5. Partnership

— *Arrangements for involvement of partners in the preparation, implementation, monitoring and evaluation of the territorial just transition plan;*

— *Outcome of public consultation*

To respect the partnership principle, ensure local ownership, guarantee that plans correspond to local needs, and provide a smooth implementation of the plans, Bulgaria envisages the establishment of a regional partnership mechanism via Local Committee for just transition

(sub-committee to the Monitoring Committee of PDR 2021-2027) for Stara Zagora region. The local committee will be formed, taking into account the specifics of the respective region (tailored formed). It will be territorially based and will have the key role of intermediary and link between the institutions at the national level, responsible for making decisions, and the representatives of the private sector, NGOs, citizens, etc..

It will facilitate the bottom-up approach by proposing specific measures, initiatives, action plans and investments according to district and municipality needs and the engagement of the local stakeholders and potential partnerships.

The Local Committee will be involved at an early stage in the development of the procedure(s) so as to support the prioritization of project briefs and JTF objectives, reporting and analysis of the achievement of JTF objectives.

The Local Committee will be involved in reporting and the analysis of the achievement of JTF objectives. This procedure will be carried out as part of the specialized annual meetings of the Monitoring Committee within the framework of the initially defined priorities and measures of the PDR MA for the period 2021-2027, in particular for Pillar 1 of the Just Transition Mechanism.

A key priority for Bulgaria is achieving the objectives of the European Green Deal. In 2020, the European Green Deal Advisory Council (EGDAC) under the Council of Ministers of Bulgaria was established under the Council of Ministers, which is responsible for national priorities in the areas of energy and climate security, accelerated sustainable economic development, social equity, environmental protection, restoration and adaptation.

- The MRDPW is responsible for the implementation of measures of the TJTP's funded through the JTF within the PDR 2021-2027. It will be supported by the Ministry of Energy in its capacity of Intermediate body in case of conducting the relevant accreditation procedures.

The already established EGDAC (and its secretariat in the Council of Ministers Administration) will provide consultations on a high political level on topics related to alignment of the plans with national policies, strategies and priorities on the European Green Deal Agenda.

The TJTP was developed as a joint effort of national and district institutional bodies and stakeholders. Several meetings with key stakeholders were organized during the preparation of the analyses for the TJTPs. Most of the meetings were held with a few participants or online due to COVID 19 pandemic but on the other hand it allowed participation of a large number of various stakeholders.

The TJTP is subject to public consultations (in addition to the consultations held in the process of preparation of the analyses) and then will be passed for final national approval to the Council of Ministers by the Ministry of Energy.

Stakeholder participation in the planning process is more than just a legal requirement for the approval of the strategic documents. It is also key for the success of the TJTPs, as it ensures knowledge-sharing, governance continuity, and the legitimacy of the process. Giving

stakeholders access to the decision making process helps those governing it to collect better information, ideas and perspectives, to increase compliance and acceptability, and to reduce uninformed opposition. These elements are crucial for dealing with the complexity of the transition challenges, as well as for identifying and reaping all the potential benefits. However, the methods, depth, and quality of engagement vary greatly from simple provision of information and mainstream approaches such as public consultations, surveys, and focus groups to a truly collaborative decision making process, such as foresight and voting. Stakeholder engagement has four main dimensions: objectives, identification, engagement in the planning phase, and engagement in the implementation phase.

Outcome of public consultation

In the process of TJTPs preparation a stakeholder engagement strategy was prepared. The approach was based on the assessment of the identified stakeholders in two dimensions - their interest in the process of fair transition and their ability to influence the process. On this basis, four major categories of stakeholders were identified, which were included in "Stakeholder Map" and flexible forms of interaction with them were applied in order to communicate effectively and mobilize stakeholders in the preparation and subsequent implementation of the TJTPs. The engagement strategy was based on three main principles:

• inclusion

• transparency

• empowerment

The strategy takes into account the specifics of each of the four categories of stakeholders defined and includes different techniques and means of communication for their involvement, such as interviews, target groups, seminars, communication through an online platform to ensure an iterative and individual approach. The engagement strategy also took into account the need for special attention to stakeholders at the district and municipal level in order to maintain their interest in the results of the Project. Therefore, their constant engagement with appropriate forms and models of interaction is crucial. Early stakeholder involvement was ensured through initial meetings in December 2020 and on-site visits to the districts in January 2021. After finalization of the report on the challenges, needs and action plans by the consultant, detailed consultation meetings were held with all groups of stakeholders at the end of 2021.

The TJTP was published for public consultations in the period 02.08.2022 – 23.08.2022.

During the 3 weeks of public consultations on the draft TJTPs, feedback was received from 37 stakeholders including representatives of the local authorities, electricity producers, social partners, industry, NGOs, academia etc. The main stakeholders feedback concerns the following areas:-

- The target of 40% CO2 emissions reductions by 2026 in comparison to 2019 is very high especially in view of the current geopolitical context (energy security, high energy prices etc.).

- Clearer Governance mechanism and inclusion of the Institute for Sustainable Transition and Development in the programming and implementation of the operations under the JTF.

- Inclusion of the large enterprises in the scope of the TJTP of Stara Zagora due to their importance for the local economy and positive feedback about the creation of state company 'Conversion of coal regions'.

- Inclusion of the development of CCS and CCUS technologies in the scope of the TJTPs

- TJTPs shall include measures for support of the released workers, including options for accept compensation packages in form of reimbursements or shares in future new industries in the region;
- Stressed on the need for development and public discussion on new Energy Strategy of Bulgaria, that shall present the vision of the sector development.

The TJTP was further published for public consultation in the period 04.11.2022 - 05.12.2022 as part of the environmental impact assessment. The EIA Decision 3-2/2023 was issued. Additional amendments in the TJTP will be consulted with the national authority.

Engaging the youth

In order to engage the younger generation in the TJTP implementation, workshops, roundtables and on-site visits for high school students, university students and young graduates will be organised periodically. The workshops will aim at motivating the youths to stay in the region and to actively participate in the diversification of the local economy through various start-up, R&D, education and employment initiatives.

2.6. Monitoring and evaluation

— *Monitoring and evaluation measures planned, including indicators to measure the ability of the plan to achieve its objectives*

Within the defined investments, the implementation will be regularly monitored with a view to achieving the set goals in the defined regions, as well as the overall achievement of the goals for the transformation of the coal mining regions. Another objective of the creation of a monitoring and evaluation system will also be the monitoring of milestones related to the financing under the JTF.

The implementation of the TJTP and the operations will be carried out through monitoring and evaluation of the output and result indicators of the individual procedures for financing and supported projects, determined within the PDR 2021-2027.

2.7. Coordination and monitoring body/bodies

Body or bodies responsible for coordinating and monitoring the implementation of the plan and their role

The Ministry of Energy is committed to the preparation of the TJTPs. At the implementation stage, in case of conducting the relevant accreditation procedures, ME could be designated as an Intermediate Body (IB) under PDR 2021-2027 with functions and activities related to the administration of individual projects, work with individual beneficiaries, monitoring and supervision of the implementation of the TJTPs. Managing Authority of Programme "Development of Regions" 2021-2027 is DG "Strategic planning and programmes for regional development" in Ministry of Regional Development and Public Works and, according to a government decision, it is committed to the implementation of the TJTPs with funding from the JTF under PDR 2021 - 2027. In this regard, the MA of PDR will participate in the assessment and monitoring of the operations. **The roles of the MRDPW and ME will be described in details in a separate agreement.** At regional level, 3 local committees for just transition (sub-committees to the Monitoring Committee of PDR 2021-2027) will be created for the districts of Stara Zagora, Kyustendil and Pernik. The 3 local committees will be formed, taking into account the specifics of the respective regions (tailored formed). They will be territorially based and will have the key role of intermediary and link between the institutions at the national level, responsible for making decisions, and the representatives of the private sector, NGOs, citizens, etc. They will have a commitment to carry out a systematic and

ecosystem analysis of the transition processes in the three directions of TJTPs - decarbonization, social transition and economic diversification in the respective territories, aiming to identify and provide feedback on progress, constraints, risks, problems, the potential new opportunities to successfully achieve climate neutrality. The subcommittees will monitor the implementation and progress at the district level of the TJTPs, collect and analyze data, identify problems, risks; prepare proposals for amendments to be submitted to the MC of PDR 2021-2027 for discussion and approval. The local sub-committees for just transition will include representatives of local stakeholders, directly involved in the just transition process in their role as actors close to citizens, familiar with local needs and issues, stimulating local development, cooperation and dialogue. At the same time, they will also have the key role of intermediary and link between the national level institutions responsible for making decisions and the representatives of the private sector, NGOs, citizens, etc. The leading role will be the participation of the municipalities in the relevant area, for which the National Association of Municipalities in the Republic of Bulgaria, local representatives of the social and economic partners, a wide presence of business, NGOs in the field of ecology, environmental protection, the development of clean technologies, RES, etc., youth organizations, organizations in the field of education and science. The participation of other ministries and departments in the implementation is expected at the level of preparation of detailed conditions for support, calls for proposals or project evaluation. A key aspect of the process of updating the TJTPs is the need for the participation of a wide range of participants, which will contribute to the activation of the population of the region. In support of this process, we are preparing measures that can be supported through technical assistance within the framework of the PDR 2021-2027 and which will support the development of participation in the transformation process of the regions.

Process	Term	Responsible authority
Monitoring	Annually	**The PDR 2021-2027 Monitoring Committee and 3 local committees for just transition (sub-committees to the MC of PDR 2021-2027)** IB in the Ministry of Energy, in case of its formation
Reporting	Annually	**The PDR 2021-2027 Monitoring Committee and 3 local committees for just transition (sub-committees to the MC of PDR 2021-2027)** IB in the Ministry of Energy, in case of its formation
Revision and amendment	If necessary	**The PDR 2021-2027 Monitoring Committee and 3 local committees for just transition (sub-committees to the MC of PDR 2021-2027)** IB in the Ministry of Energy, in case of its formation
Resubmission *(as part of PDR 2021-2027 amendment)*	If necessary	**PDR 2021-2027 Monitoring Committee**

3. Programme-specific output or result indicators Reference: Article 12(1)

To fill in only if programme-specific indicators are envisaged: *— justification for the necessity of programme-specific output or result indicators based on the types of operations envisaged*