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:

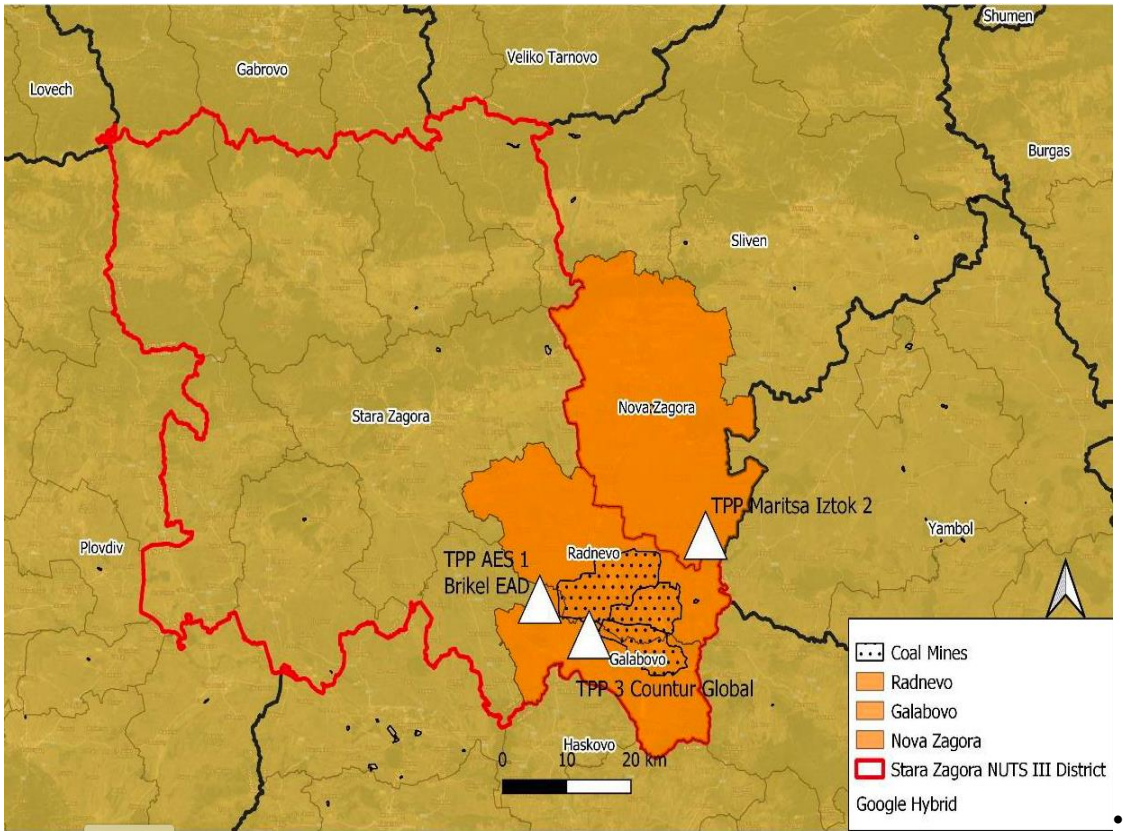
- municipalities with coal (lignite or brown) deposits and mining activities
- municipalities where coal-fired TPPs are located
- municipalities donors of commuting labour force

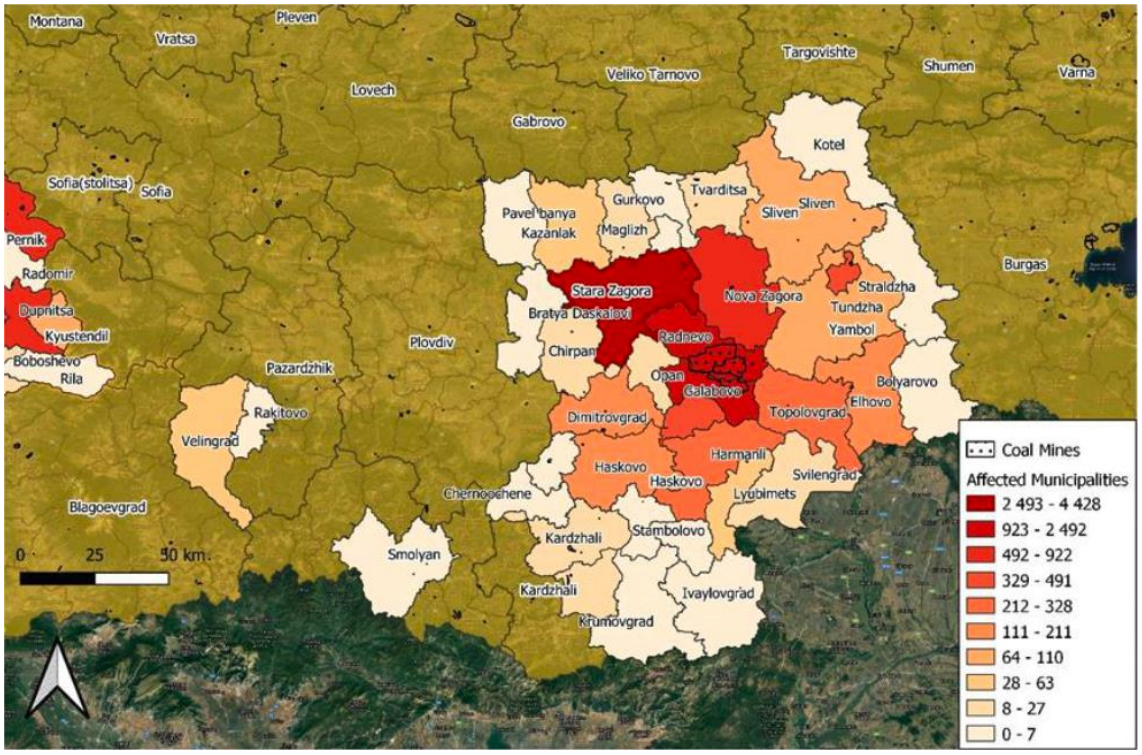
Stara Zagora District is identified as the most impacted from the transition since four coal-based TPPs and mines are located within the district. In terms of potentially affected jobs, Stara Zagora District also emerged as the most affected.

The leading GVA position of Stara Zagora District is driven by the Maritza Iztok Energy

[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.

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).

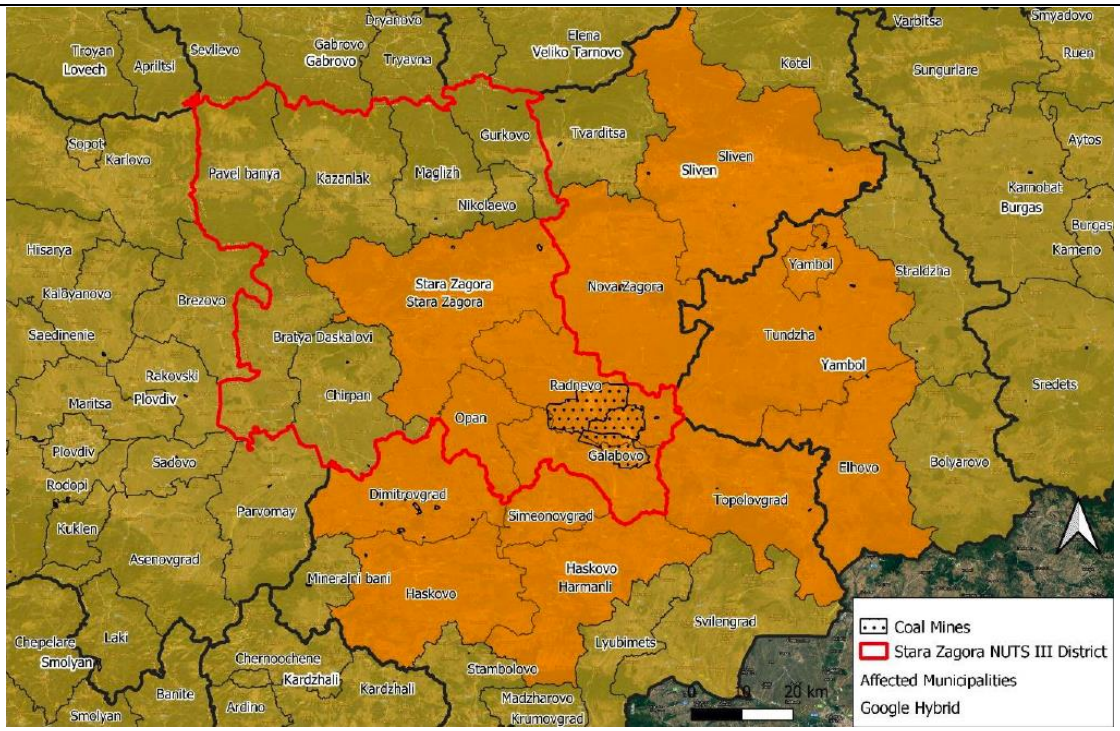
The Maritza Iztok Energy Complex is a territorial complex system, going beyond the administrative boundaries of the Stara Zagora NUTS 3 District.

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 %

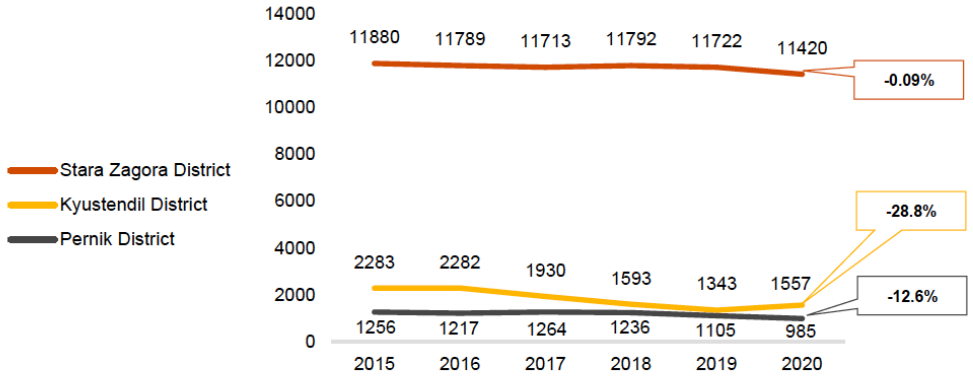
Summary of most affected municipalities donors of commuting labour force in Stara Zagora

[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.

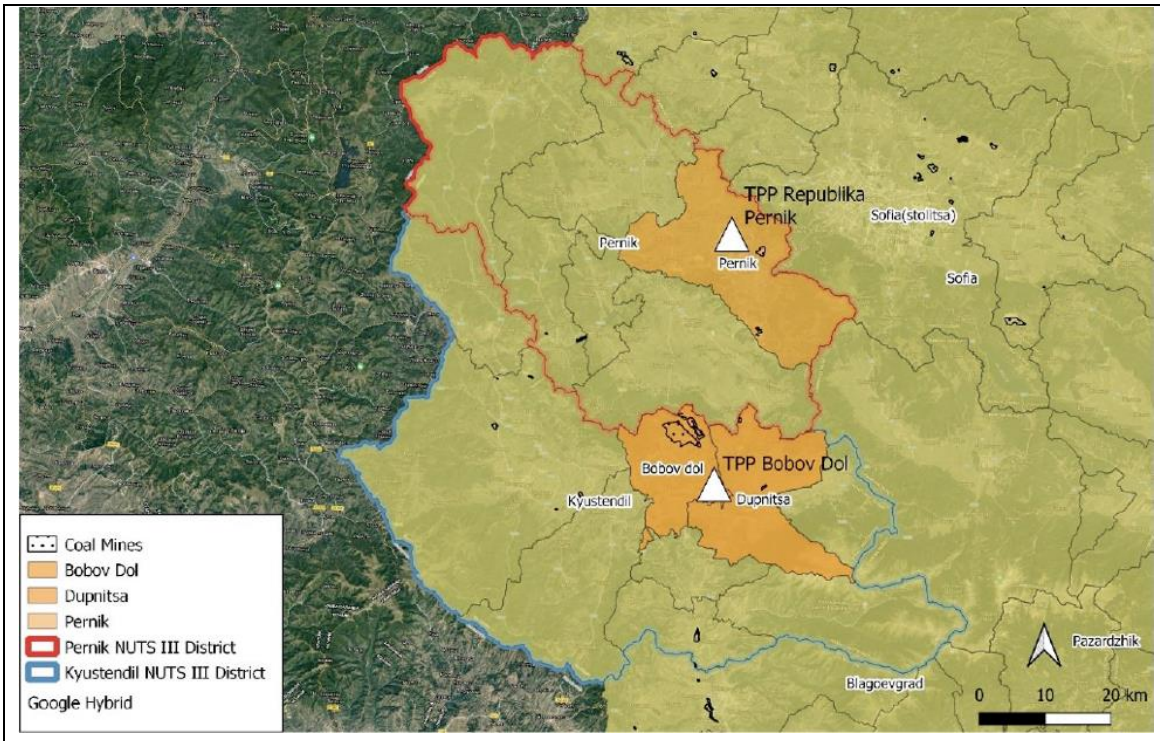
The territorial distribution of the directly[4] affected jobs is diverse on municipal level in Kyustendil district – the highest concentration of affected jobs is in Bobov dol, Dupnitsa and Kyustendil municipalities, while the other municipalities in the district are affected to a lower degree.

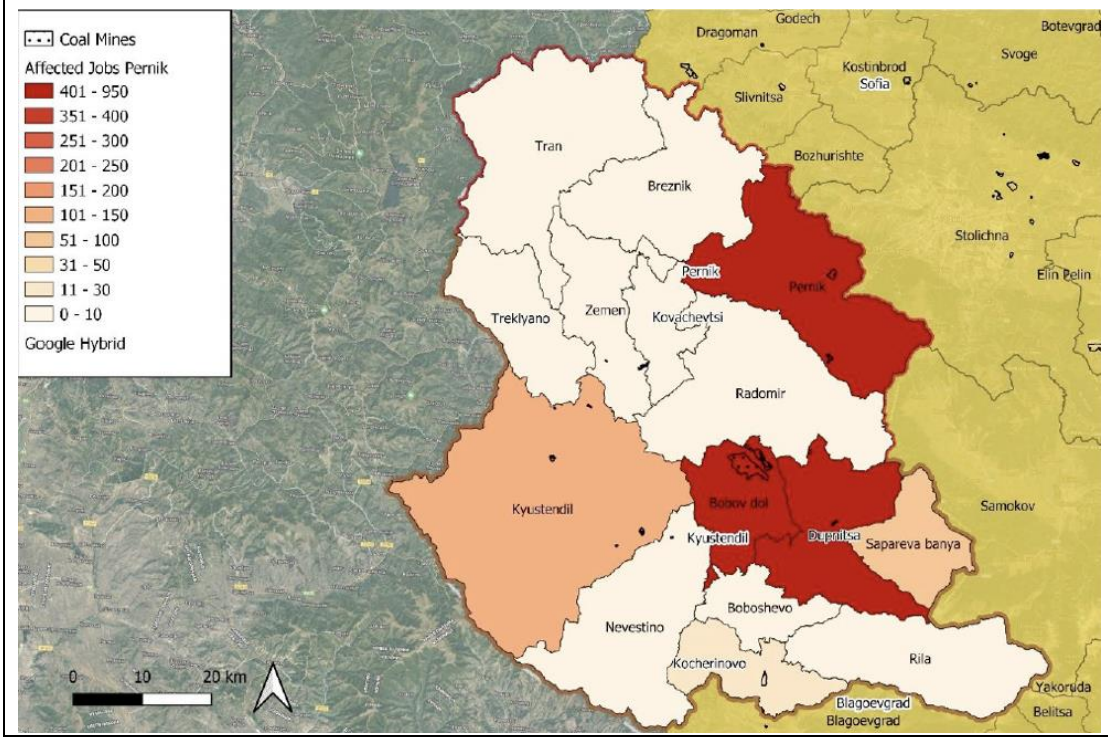
The territorial distribution of the directly[5] affected jobs on municipal level **in Pernik district** is concentrated in Pernik municipality, while the other municipality in the district affected in terms of ETS emissions is Radomir.

[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)

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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.

Stara Zagora dominates the electricity production of Bulgaria based on the TPPs located in the district. The unemployment rate (2019) is the lowest in Bulgaria at 1.4% and the average annual salary (EUR 7 114) is comparable to the national average and is the highest in the South East NUTS 2 Region.

The key economic activities in the region are the TPPs and their supporting services. In addition, the economic structure is represented by manufacturing, construction, wholesale and retail trade.

The Maritsa Iztok Energy Complex includes:

1. *Mini Maritsa Iztok* - the largest lignite coal mining company in Bulgaria. It operates three mines located within the municipality of Radnevo (Troyanovo-1 Mine and Troyanovo-North Mine) and municipality of Galabovo (part of Troyanovo 1 and Troyanovo-3 Mine). It exploits the Maritsa Iztok Lignite Basin and has a leading role in the energy balance at the national level. The mines provide coal for the following TPPs: AES Galabovo, Maritsa Iztok 2, Maritsa Iztok 3, as well as for the briquette factory and TPP "Brikel".

2.TPP Maritsa Iztok 1 – called TPP AES Galabovo - located within the municipality of Galabovo. It produces electricity from local lignite from the Maritsa Iztok Basin and holds over 350 jobs. Annually, TPP AES Galabovo uses over 5 million tons of lignite on average, which is between 23-27% of the Mini Maritsa Iztok annual production. TPP AES Galabovo has a total capacity of 700 MW.

3.TPP Maritsa Iztok 2 - located within the municipality of Radnevo. It produces electricity from local lignite coal and employs over 2 300 people. Annually, the plant uses on average 13.7 million tonnes of coal, which is 30-40% of the Maritsa Iztok Mines production. After major modernization and rehabilitation of the TPP in 2014, the total installed energy capacity is 1 620 MW.

4.TPP Maritsa Iztok 3 – called Contour Global Maritsa Iztok 3 TPP - located in the municipality of Galabovo. The TPP employs over 400 people. The TPP has a total capacity of 908 MW. Renovations/improvements of the TPP were made in the period 2004-2009 and also in 2015 – according to EU emissions regulation. Two power lines have been built from TPP Maritsa Iztok 3 – interconnections with the Republic of Turkey.

5.Briquette factory and TPP "Brikel" - located in the municipality of Galabovo. It is the only briquette factory in Bulgaria. Its activities include electricity production, briquette production and heating. The factory employs 1 280 workers and has 200 MW of installed electrical capacity.

The coal mining and coal-fired electricity production in Stara Zagora Region is still in progress in full capacity of the four TPPs. It is important to underline that such power plants are fully powered through coal deposits in the same region, operated by local mining companies. The local employment ecosystem of mining activities, coal-based energy production, and a variety of supporting activities will face a significant impact from the transition.

The district's economy is also specialised in military equipment, food processing, electronics, SPA tourism, retail, metal processing and the rubber industry.

In 2019, the share of employees in Stara Zagora District was the highest in sectors C by NACE. Manufacturing, G. Wholesale and retail trade, repair of motor vehicles and motorcycles and B. Mining and quarrying. These data show that manufacturing plays an important role in the economic profile of Stara Zagora.

Stara Zagora is among the five districts with the lowest unemployment levels in Bulgaria and

ranks first in the region. However, the population is ageing and is at risk of shrinking. In 2019, the number of the under working-age population is 61 743 people (vs. 66 694 in 2010) and continues to decrease while the over working-age population accumulates (70 830 people in 2019 vs. 64 275 people in 2010). This trend is expected to continue in the future, thus creating a challenge for economic growth and development amid a shrinking workforce.

The transition towards a climate neutral economy in Stara Zagora could affect up to 80% of the jobs in coal-based mining and energy production facilities. The social effect would be further extended by the number of indirectly affected family members (> 80 thousand persons) and indirectly affected jobs (>22 thousand or 80% of total indirectly affected jobs). Majority of employees in coal mining and coal-based energy production could be expected to shift to industry based jobs. However, in Maritsa Iztok Energy Complex, a sizable share of the affected labour force is approaching retirement age but up to 90% of the directly affected labour force will continue being in working age and will be affected by the labour market disruptions in 2026. The majority (~70-72% across the 2016-2020 period) of the employed workers in the Maritsa Iztok Energy Complex have at least secondary education and skills to work in an industrial environment. Stara Zagora has a highly educated labour force, which is a counterpoint to the structural country-wide shortage of skilled labour with upper secondary education. For instance, there is a concentration of employees in the following labour categories: machine operators and installers (~ 35%) and skilled production workers and related professions (~ 28%) across the mining and energy enterprises.

The share of the population with primary and lower education is the lowest in the South East NUTS 2 Region. The analysis of the pupils/students split by occupational categories outlines that most of them study to become technicians and application specialists (~ 37% or 3,730 pupils). The most popular occupations in this category are as follows: construction workers, veterinary technicians, computer systems technicians, internet application technicians, machine technicians, transport vehicles technicians, application programmers, and veterinary laboratory assistants. There is a need to improve the quality of output of the education and training system in the district, as well as to align it to the needs of the labour market to support attraction and retention of investments in high value-added sectors.

Declining and transforming sectors:

Coal mining activities, energy generation using coal (incl. electricity, heat and steam), supply of specialised coal mining machinery equipment, and coal mining supporting activities are considered *declining sectors, according to the definition requirements of JTF*. The employment shift-share will be re-structuring from B and D NACE sectors to other activities, mainly generating new jobs and leading to a climate neutral economy. Such activities and sectors will be the supply chain of PV panels (from assembling to recycling), electric equipment and technical items for PV panels, cables, invertors, metal frames for PV systems, electrolysers for hydrogen, supplementary equipment for hydrogen gas – pipes, valves, automation, etc., equipment for electricity storage systems, tools, spare parts, etc. At present, most of both types of equipment - for coal mining and RES - is mainly imported. This shall be changed by the transforming sectors, strengthening Europe's strategic autonomy.

On the other hand, *transforming sectors* are those that will be able to transform their activities and adapt to the climate neutral economy, e.g.:

- Clean energy generation using renewable energy sources and supporting green hydrogen development.

- Production, distribution, maintenance and recycling of energy storage systems.

- Suppliers of specialised power generation installations, machinery, equipment, software and parts.

- Clean energy generation supporting activities, e.g. reskilling, upskilling, circular economy activities, following the needs of business development and in conjunction with regional economic development measures and with the assistance of trade unions, etc.

Expected job losses and requalification needs, taking into account skills forecasts

At this stage providing specific numerical indicators on impacted personnel is indicative only. Based on the preliminary decarbonization pathways described above, the indicative impact on employment in coal mining and power production by coal provides ca. 8-10% average annual decrease in direct and indirect jobs until 2030 which necessitates the timely creation of adequate alternatives for the affected persons. Beyond 2030 a gradual further reduction of employment in the mining and lignite-fired power plants is expected, in line with the final coal phase-out in late-2030s which will necessitate further efforts to ensure quality alternative employment and that no one is left behind.

The impact on the local labour market will be significant as mining and energy sectors are the structural economic sector and employer. For Stara Zagora district two specific years are taken as reference points - 2030 (reduction in emissions from coal TPPs) and 2038 (latest planned date for completing the phaseout) in order to align them with the expected changes as outlined in chapter 1. In the first milestone year at least 12 thousand jobs will need to be shifted to other economic sectors due to decline in the demand for coal by TPPs. By 2038 another at least 15 thousand jobs are expected to be affected as the transition period continues towards completing the coal phaseout. The time concentration of the indicative economic effect will result in the potential GVA loss of BGN 877 million on an annual basis unless mitigating measures are taken.

Creating alternative quality employment opportunities in line with the decline in the employment in the power plants and mines is of key importance. The priority is to plan and implement investments which create long-lasting value and jobs and are therefore recognized by the social partners as important contribution for ensuring solidarity and continued support to national authorities' efforts in pursuing just transition strategies for new industrialization, based on best available technologies. Without such robust and credible organization in place, as a well functioning Conversion of Coal Regions (CCR), the social and investments climate will be at risk.

This favourable labour force skills structure should be preserved and further developed by phasing out emission-intensive economic sectors and shift to businesses requiring high-skilled and medium-skilled employees. Coal mining and coal-based electricity generation involve employees with a skillset tied to the industry in the districts. However, these employees will need reskilling and upskilling to meet the future economy's needs as a result of the transition process.

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, metal frames for photovoltaic systems, hydrolysers for hydrogen, supplementary equipment for hydrogen gas, geothermal equipment - pipes, valves, automation, etc., equipment for electricity storage systems, tools, spare parts, etc.

In addition, other active economic sectors should be supported to generate new jobs and apply decarbonisation measures such as clean energy generation and energy efficiency measures, installation of equipment with higher capacity and GHG emissions savings, while also supporting the overall diversification of economic activity.

Development opportunities

The outlined coal phase-out scenario will lead to the following technological, economic, system and organizational aspects:

1. Restoration and reclamation measures within the Maritsa East coal mining complex shall follow the best technological practices in every step of the activities.

According to the Just Transition for All Approach developed by the World Bank, the land repurposing is typically a long process that aims to ensure a safe and responsible closure and remediation of coal mines. WB reports that, if left unaddressed, coal mining lands and associated assets can become a costly and inter-generational environmental liability for former coal mining communities. The period by 2027 shall be used for Pre-Mine-Closure Planning but also for preparatory activities in the mining sections foreseen for early closure. The activities include coal extraction works in the way that the tilt of the slopes becomes safe for restoration as well as implementation of proper water drainage and monitoring system. These activities are of main responsibility of the Mining Company. During the period after 2027 the extraction of coal shall be carried out in parallel with activities for restoration and reclamation of lands.

Taking into account the Polluter Pays Principle, the Mining Company shall remain fully responsible for the initial restoration activities but having in mind the required early ceasing of coal extraction activities, the business model shall be reconsidered and partial financial support shall be ensured for the more heavily degraded lands, where new (incoming) private sector investments would have limited or no interest in re-purposing of selected sub-parcels of land or assets from the overall inventory. Public sector management, in lieu of full remediation, may also be required where investment need exceeds currently available funds, in which case basic remediation and aftercare would be deemed sufficient until new private sector investment can be secured.

2. The stable operation of the power system will be provided by maintaining a minimum number of generating units from the TPPs in operation especially with the rising penetration of RES. In addition, these capacities will continue to contribute to meeting the higher demand during the winter and summer periods.

Current models support the assessment for needed availability of ca. 1 GW installed capacities after 2030 which shall ensure system reliability and security of supply during periods of high demand but also in case of crisis. This assessment is reflected in the current NECP from 2019 and shall be supported in the updated version in 2023.

3. The needed period for development of new power capacities to sustain the net-zero electricity generation.

National plans for power generation development consider three pillars - new RES capacities and storage systems, interconnections and new nuclear capacities. The reduction of power generation from coal is expected to be in parallel with substitution by new capacities.

The repurposed mining lands and other assets shall be part of the process for development of new capacities and industrial activities, including related to the hydrogen economy.

The repurposed mining lands and other assets shall be part of the process for development of new power capacities. One of the main set of measures in the repurposing of mining lands is directed to development of new large RES – mainly photovoltaic capacities, including off-grid, coupled with electrolyzers, as well as development of storage systems. Taking into account the current forecasts of the ESO for the new RES capacities by 2030, it is clear that in case of full realization of this potential shall ensure the main share of the national targets for new RES by 2030. Such development shall have positive system role, taking into account the availability of the connections to the national grid, but also shall have positive social role in establishment of

sustainable jobs in the construction phase as well as during the operation of these assets.

The financing of this element of the just transition plan shall enable most efficient and technologically sound interventions within the coal mining areas. The financing through the RRP and the three pillars of the Just Transition Mechanism shall follow the principles for open and competitive selection. It is also recognized that large enterprises (LE) are expected to play a meaningful role in the process of energy transition and industrialization along with SMEs.

4. 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.

Considering the above, Stara Zagora region has a huge potential for a transition based on an integrated transformation of assets, which would enable the preservation of the region's energy profile, employment quality and added value on a regional basis through the implementation of large-scale investments and new high value-added industries in the field of clean technologies, exploiting the potential of the available infrastructure, human capital and land. Additionally, the presence of developed educational infrastructure, including the Trakia University, and regional capacity (Institute for Sustainable Transition and Development, Regional Economic Development Agency, etc.) make Stara Zagora an extremely promising region for R&D and innovation in the field of new clean technologies, as well as building a model of active participation of local stakeholders in the process of managing and implementing the transition. The coal mines (opencast mines) and adjacent land will need massive recultivation on a scale never experienced in Bulgaria before, which has enormous potential to provide a basis for transformation and just transition in the region. Typically, recultivation activities require the involvement of a large number of workers and take a long period for completion, thus creating an alternative utilisation of the available labour pool and equipment from mines via CCR. Recultivated terrains (prepared together with relevant technical infrastructure elements) would be a feasible location for alternative clean energy investments - photovoltaics or for industrial sites rather than agriculture. Further Maritsa Iztok Energy Complex will need industrial reconversion and technological shift to another energy sources to reduce the carbon emissions in order to continue its functioning as an energy complex. Significant RES capacity will need to be deployed across the entire territory of the country. Such capacity, including solar, wind, geothermal, hydrogen, and other technologies will need to be rapidly built/produced and connected to the grid.

Recultivated large terrains would present good opportunity for building up such new energy capacity. Additionally, on a national scale (including in the affected regions) priority areas for the construction of RES should be identified, with simplified procedures. 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 a predominantly medium-skilled labour pool).

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 main objective that should be supported by the JTF is the assets based transition of the region to carbon neutral sectors. What we mean by that that we want to deploy the available relevant regional assets into transition. These assets include the large consolidated area of land, the strongest power grid in the country, the high technical skills of the workforce, the transport infrastructure, highly valuable strategic location, and others. These assets should help the region to turn into a carbon neutral industrial industrial center - both in terms of net zero processes and industries that serve the future carbon neutrality.

To achieve this objective and to meet the national set targets and using the JTF for green growth, decarbonization and transition to climate neutral economy the region will have to undertake steps for reducing the dependency on GHG emitters (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%). Clean technologies and clean energy have been identified as suitable development activities that also contribute to the decarbonisation goal - low-carbon and sustainable mechatronics, chemical and materials industry, ICT, agriculture, tourism, generation and storage of electricity, recycling, energy efficiency services and sustainable mobility solutions.

To achieve these objectives, the LEs and SMEs need to differ in the kind of the support needed.

• High technical skills of the workforce in the mines and TPPs will be used in the transition process. The state company “Conversion of coal regions” (CCR) will employ part of the miners and workers in the TPPs in order to use their skills in the process of recultivation of the lignite quarries.

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.

The CCR is expected to be established in 2023 and shall start with 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.

The financing of CCR through the TJTPs shall be provided in the following cases:

- Initial stage for spatial planning, capacity development and preparation of designs for further recultivation activities;

- Management of locations with high risks for ecological damages which may not be economically acceptable in repurposing process and could not be properly managed by the Mining Company due to early closure of activities. Such area will potentially emerge only after the active phase of recultivation will be initiated.

• The SME's investments should focus on creating new jobs, circular economy-based resources and products, wide usage of RES and capacity building for digitalization, Digital Innovation Hubs development, robotization and reskilling of the labour force. The sectors C10-C12, C26 and C20 show lower employment growth but have large average employment generated by one SME, indicating mostly medium enterprises. They are identified as high-potential sectors that may be prioritised by support to boost primarily medium-term economic development and diversification, thus strengthening resilience.

The SMEs support must be targeted to companies that have the potential to disperse their growth to other local companies based on vertical and horizontal ties (integration). This will be the main driver for jobs creation which is considered as potential. Nevertheless, the potential employment gap is significant and support for SMEs alone will not be enough to replace the job losses resulting from the transition, hence support for large enterprises will also be necessary for the Stara Zagora District.

• The LE's investments should focus on activities that ensure the rapid generation of new jobs in industries supporting the overall transition to a low-carbon economy and focusing on new energy technologies. In line with the analysis above, and given existing skillsets, the focus will be on the industrial sector, notably manufacturing of energy storage facilities and cleantech industrial goods. Thus, a cornerstone of the Just Transition Plan for Stara Zagora will be the provision of incentives for attracting and establishing replacement large enterprises for the coal-based economic activities in the region.

Renewable energy sources (PV, wind, green hydrogen, geothermal and biomethane) and storage production facilities have been identified as a suitable type of replacement production that can be located at or in close proximity to the current coal-based production (e.g., on the site of recultivated land from lignite quarries), which has the capability of preserving local labour characteristics and commuter patterns and fill in the employment gap that SME-generated jobs cannot provide for. This new production will also have the benefit of significantly contributing towards Bulgaria's large-scale energy transition by providing storage infrastructure and clean energy capacities.

The district of Stara Zagora is one of the most suitable districts for ground-mounted solar PV installations (with a cumulative technical potential capacity of ~ 15-20 GW) since about 1/4 of the area of the mining complex is reclaimed and these areas do not conflict with agricultural lands and protected areas. Fostering renewable energy development could boost the investor attractiveness of Bulgaria (including the respective impacted districts) and lead to higher foreign direct investment. Measures to promote RES and energy storage are complementary and seek to ensure the diversification of the economy, enhance employment and quality of life

and support climate neutrality objectives. Also, the district has the potential to be one of the EU Hydrogen hubs producing green hydrogen for thermal processes (heating, electricity production, industrial processes, etc.) as well as hydrogen cells generating onboard electricity on vehicles or other devices. Stara Zagora has already registered the 2nd EU Hydrogen hub flagship initiative and as a hydrogen valley. **The hydrogen based economy is considered as a strategic priority for the transformation the region of Stara Zagora.**

The financing of this element of the just transition plan shall enable most efficient and technologically sound interventions within the coal mining areas. The financing through the RRP and the three pillars of the Just Transition Mechanism shall follow the principles for open and competitive selection. It is also recognized that large enterprises (LE) are expected to play a meaningful role in the process of energy transition and industrialization along with SMEs.

The RES-related measures will be an additional stimulus to the economic diversification through several interventions across the value chain. For instance, enterprises could be engaged in the manufacturing of electrical equipment for the RES sector such as production of components for RES solutions, in particular energy storage (e.g., different type of battery technologies, PV panels, wind/water turbines, thermal/heat pumps, biogas, biomass) and appliances and devices equipped with PV panels and other RES. Supporting industrial application of RES could also advance economic sectors and benefit climate neutrality objectives. For instance, agro-photovoltaic projects with PV systems could be used to aid agricultural processes (e.g., via increases in agricultural yields as a result of the shade that solar panels extend over agricultural fields, powering pumping systems for water for agricultural purposes, etc). That kind of Agri-PV projects should be complementary funded by the EAFRD/CAP, but also will decrease the GHG emissions.

In terms of results, the implementation of the JTP measures above are expected to contribute to the following three main goals:

- Shift of jobs to new industrial activities in transition sectors and those with high potential for creation of GVA in relation to RES solutions, such as energy storage
- Massive recultivation of the mine sites, involving a large number of workers, thus creating an immediate alternative utilisation of available labour pool from mines and feasible locations for alternative investments – PVs or brownfield sites;
- Shift to other energy sources to reduce carbon emissions with photovoltaic, solar heating, heat pumps, green hydrogen, geothermal, wind or biomethane energy.

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 employment 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 East 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)

1. *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 Stara Zagora 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 establishing regional transport connections for the future economy development.
- **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 lignite 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 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. In addition, the recultivation needs are significant, and recultivation is a prerequisite to unlocking some of the critical potentials of the Maritza Iztok complex. 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 scheme for the establishment of hydrogen value-chain capacities

The aim is to attract one or more large manufacturing investors to the area, provide alternative employment and secure Bulgaria's energy transition. The investors are expected to set up local manufacturing facilities at scale for production of electrolyzer systems, fuel cells, HRS charging stations, fuel cell based propulsion systems, software systems and/or components, etc. Such facilities can act as anchor investors for the rest of the region and generate direct and indirect employment benefits. They are expected to require skills closely related to the skills of the most directly affected workers by the transition. The support shall be provided on an open and competitive basis. This can include both operational and capital expenditure support. Operational expenditure support will be prioritized to ensure the largest possible sustainable employment impact. It is envisaged to include remuneration costs to cover the remuneration gap for workers coming from the declining sectors as well as targeted training for reskilling and upskilling of workers previously engaged in the coal and mining activities. Such measures are complementary to the large-scale off-grid RES (PV especially) and elecrolyzer systems for green hydrogen production as well as energy storage investments in the Region, which provides significant incentives for setting up local manufacturing capacity to deliver first to the country and then to export to meet the projected high growth in energy demand across the wider Region and EU as a whole. Further, these investments would attract further investors in green hydrogen value-chain i.e. industries that would consume green hydrogen as resource – chemicals, fertilizers, transport. Based on commercial contracts green hydrogen produced in the area can be "exported" for the benefit of consumers in BG, the EU and the wider region.

3. Support for the creation of a cleantech (zero-emission) industrial parks

Support for the expansion or creation of industrial parks centred on cleantech solutions as the face of the reconversion of the region. 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 as described under 2 above. Support will be targeted at large enterprises, 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. Specific realisations of this measure can include the establishment of a new industrial park in the Maritza Iztok Complex, support for the development of existing industrial parks near Stara Zagora and/or conversion of the plotted area of Stara Zagora airport into a zero-emission logistic and industrial park and connecting with Radnevo and Galabovo areas where most of the energy infrastructure is located.

4. Support scheme for photovoltaic parks with electrolyzer and /or storage systems

This measure will support the decarbonisation of the energy sector in the country, while at the same time aiming to transform with priority the Maritza Iztok complex into a greener producer of energy while maintaining its key role in energy production for the country. The goal is to leverage unique assets in terms of consolidated ownership of large-scale disturbed terrains from the recultivated quarry lands, suitable for example for solar energy installations, solar district heating systems, solar thermal technologies. Eligible costs will potentially cover auxiliary infrastructure, such as transmission connections and energy storage, as well as real estate. Pilot projects for virtual power plants and hi-tech structures will be funded as well especially pilot and demo projects with high social impact and behavior transformation. The employment impact is expected to cover both the construction and the maintenance phase, as well as train workers for RES, energy storage and hydrogen projects development elsewhere in the region and the country. This measure is complementary to the measure above on recultivation of the lignite quarries, as well as 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 heating, transport, metallurgy and fertiliser production. The PV systems will be preferably installed on recultivated terrains. The scheme will be open also to large enterprises.

5. Support scheme for the utilisation of green hydrogen

Support will be geared towards generation of green hydrogen as a solution for energy storage, heat and/or chemical agent, that is expected to attract investment by advanced and high tech industries from "hard to abate sectors" (chemical, transport, fertilisers, etc).

With respect to green hydrogen, support is expected to be geared towards technologies and mechanisms for production, storage and supply of hydrogen in compliance with the EU Hydrogen strategy for a climate neutral Europe, including supply of equipment and software development, capacity building, public information campaigns and raising awareness measures. The scheme will be open also to large enterprises. Flagship project in this scheme is the B-Lion project proposal for Green Hydrogen Valley presented and discussed with Hydrogen Europe.

6. Support for the production and distribution of biomethane and wind power generation

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 scheme will support decreasing GHG emissions. The scope of the operation will exclude agricultural residues and/or agricultural waste.

The energy production from wind turbines shall be used as a low-emission alternative energy

and jobs creator. The scheme will support the decrease of GHG emission and will contribute to the decarbonisation of the local economy. The scheme will be open also to large enterprises.

Pillar 2 – Social and employment support

7. 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 for the implementation of the Road map.

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 Stara Zagora region.

8. 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.

As hydrogen based economy will be strategic investment in the region of Stara Zagora, a dedicated health and safety trainings focused on the hydrogen economy is envisaged.

9. 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

10. 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 companies can adapt and integrate the value chain of the new economic activities above. 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 strategic priority for the region, such as mechatronics, chemical industry, agriculture, industry ICT solutions, electrical components manufacturing and clean energy. Last but not least, the measure will also allow smart and sustainable local mobility. The scheme will be open also to large enterprises.

11. Research and innovation support for enterprises

The measure will support R&D activities in SMEs and large enterprises related to their product specialisation in terms of a circular and climate-neutral economy.

This measure shall also include support for the cooperation between the academia and businesses, including through innovative technological centres, which will provide 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 the development of high-quality scientific outputs and their transformation into innovative products, systems and services. These centres shall also provide targeted support for advancing R&D in start-ups and supporting the marketability of their research, including through intellectual property registration and developing an ecosystem (promoting entrepreneurship, consulting services, and business incubators).

<u>Horizontal pillar:</u> Technical assistance

Technical assistance will be available to:

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

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

3) The social partners in their capacity of key stakeholders and collaborators

Indicative non-exhaustive list of eligible activities/measures, including for management, monitoring, evaluation, visibility and communication.

- 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

As demonstrated above, Stara Zagora will be the region most deeply impacted by the transition to a low-carbon economy. The current economic model is dependent on the contribution of large enterprises, notably the mines and several TPPs to value added contribution, to wages, and to employment in the region. According to the Economic yearbook of the Stara Zagora region - 2023 , in Stara Zagora region there are 59 Large enterprises which employ 35 012 people.

The number and the value added of the large enterprises in this region predetermines their significant role in the transition process. The gap analysis performed shows the limit of SMEs to absorb the employees that may potentially lose their jobs due to the transition and on the other hand to create enough potential for the future economic development of the region. Therefore large enterprises are considered to be the backbone for an asset based transition while the SMEs will take the spill over effect.

Given the deep job impact that can be plausibly expected still by 2026 (see section 2.1), it is strictly necessary, and on an exceptional basis, to allow for JTF support to large enterprises.

Gap analysis

In line with SWD (2021) 275 final, this section provides a gap analysis on the estimated difference between expected job losses and potential job creation with no support to large enterprises. The chosen methodology, in line with the provided guidance, is based on the historical evidence of job creation by SMEs in the territory. The table below presents the analysis of SMEs in the Stara Zagora District in terms of employment total growth and average annual employment potential by new SMEs for two periods – in the long-term (2010-2019) and in the medium term (2015-2019) before COVID-19. The table outlines employment trends which demonstrate SMEs job creation potential. This is then compared against the potential range of potential job losses due to the transition calculated above in section 2.1, where the specific justification was provided.

Analysis of employment generation by SMEs in the Stara Zagora District

Period	Average employment per year	Average annual employment growth rate	Average employment per year per one SME	Total number of SMEs created	Average number of SMEs created per year	Employment total growth	Employment growth rate
2010-2019	58,104	3.41%	4.62	9,337	934	17,338	35.07%
2015-2019	63,798	3.09%	4.16	5,547	1,109	7,598	12.84%
2019-2020	61,713	-7.59%	n.i.	n.i.	n.i.	-5,067	-7.59%

Source: 2021 Economic Yearbook of Stara Zagora Region, PwC Analysis

As evidenced above, there is important potential for employment growth through SMEs. However, over a comparable four-year period (2015-2019) the empirical data suggests around 7,500 jobs were generated by SMEs. This compares against more than 12,000 expected jobs to be affected. Therefore, in the absence of any measures apart from support to SMEs it is likely that a gap of between one third and one half of the jobs affected will remain. This therefore provides strong justification for support for large enterprises that is necessary to support job creation in the Stara Zagora district.

Envisaged operations

Envisaged operations should be complementary to the skill profile of the region, ensure significant and immediate job creation contribution, and contribute towards the transition to a climate-neutral economy by 2050.

Based on this criteria, two operations are expected to also target large enterprises.

- This will ensure rapid creating of large number of jobs in the region while laying the groundwork for future development of RES capacity in the region and in the country. In particular, the skillsets required are highly complementary to the skill profile of the regional workforce, in particular that of mining employees.

Furthermore, attracting large-scale manufacturing capacity in hydrogen value-chain could function as an anchor investor, allowing the development of a local industrial park structured around cleantech. In addition, this is highly complementary to the measures envisaged under the Bulgarian Recovery and Resilience Plan with regards to the procurement of grid-level storage facilities.

Therefore, upfront support to large enterprises in these two operations is justified on the basis of need as demonstrated by the gap analysis as well as on the basis of providing the foundation for the medium-term measures envisaged above.

List of enterprises expected to be supported (only for activities/projects outside ETS, based on expressed interest and/or with ownership transforming assets):

List of LEs will be provided as part of the submission of the just transition plan following completion of an open and transparent procedure. Ministry of Energy is organizing the procedure to finally confirm the LE list, including areas of investment and impact on employment.

The typical LE that would contribute with high impact to the new economic diversification and RES investments is expected to meet a number of indicative requirements as evidence of its capabilities, such as:

- experience in implementation of large energy and industrial projects with financing

above 500 M€;

- experience with operation of large energy or industrial capacities that includes RES generation with more than 1 GWel or application of new technologies such as for green hydrogen;
- potential to participate in land repurposing works;
- willingness to implement ESG principles for the dedicated projects within the coal area, including establishment of limited socially oriented package of shares or similar incentives for the current employees, etc.

Open and transparent procedure for LE selection will be conducted before approval of the JTPs.

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.

- **Program "Research, Innovation and Digitization for Smart Transformation"**

The creation of Bulgaria's first small hydrogen valley in Stara Zagora will be supported. The initiative is being implemented with funds under PRIDST 2021-2027, with the financial

support of the joint European partnership "Clean Hydrogen" and with private investments. Building a hydrogen valley is key and will demonstrate a wide range of applications where hydrogen can improve citizens' quality of life, be a factor in reducing CO2 emissions that pollute the air, protect a business model where green hydrogen has competitive price. The implementation of the project will have the role of a springboard - it will position us on the European and world map of hydrogen valleys and will support the implementation of large-scale investment projects in the region.

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**

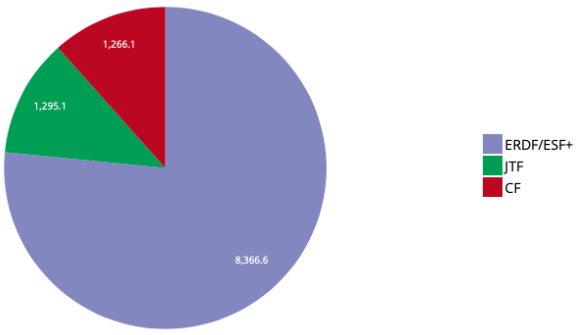
LIFE co-finances projects in the environmental sector, particularly in the area of the circular economy, including recovery of resources from waste, water, air, noise, soil and chemical management as well as environmental governance. Programme LIFE could complement the circular economy activities envisaged 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

A detailed synergy and complementarity table is attached to this document.

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.

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

Text field [5000]

3.1. Partnership

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

— *Outcome of public consultation*

A comprehensive master plan for the asset based transition of the Maritsa East complex will define the priority investments for transformation the key coal assets in the region of Stara Zagora to be supported under JTM. It is expected that the main share of JTF will be allocated to these investments.

In order to respect the partnership principle, ensure local ownership, guarantee that plans correspond to local needs, and provide smooth implementation of the plans Bulgaria envisages the establishment of a regional partnership mechanism via a 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, 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) provides coordination and 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. During the preparation of the TPSP analyzes by the external consultant engaged by the EC and starting from the beginning of 2021, various meetings were organized with key stakeholders. 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-owned 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 TJTPs 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 local economy through various start-up, R&D, education and employment initiatives.

3.2. 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.

3.3. 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**

4. 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*