

# **RECOMMENDATIONS TO ENHANCE THE JUST TRANSITION DIMENSION OF THE GREEK NECP**

**Employment, Research, Engagement**

Nine European research institutes and energy agencies share evidence on how to make the transition just for all citizens.



# SUMMARY OF RECOMMENDATIONS



## **1. Design training and reskilling programmes and reorient their curricula towards the energy transition,**

by exploiting existing skills of the workforce, supporting local training centres, and establishing monitoring mechanisms that ensure reskilling initiatives have a positive impact.



## **2. Support R&I initiatives to boost local employment alongside the green transition,**

especially on priority areas of the lignite regions such as renewable energy, ICT, or smart and sustainable agriculture, while establishing research valleys to align with the TJTP.



## **3. Engage regional stakeholder groups in the design and implementation of the transition,**

by establishing appropriate co-creation processes that promote energy democracy and co-ownership, for example through regional energy communities.



## INTRODUCTION

### POLICY CONTEXT

As an EU Member State, Greece follows the bloc's ambition and climate mitigation targets, notably aiming at carbon neutrality by 2050. In this context, the Greek government must revisit the ambition reflected in its 2019 National Energy and Climate Plan (NECP) and subsequently the 2022 Climate Law, by providing a final version of its new NECP by June 30. In this new plan, the government is expected to further enhance its measures for reducing its greenhouse gas (GHG) emissions to reach the -55% milestone in 2030 and towards achieving a net zero economy by 2050. Due to lignite's historical presence in the Greek energy system [1], it is also expected to ramp up efforts towards a complete lignite phaseout in the context of its broader decarbonisation efforts.

### WHY THE URGENCY?

Delignitisation is progressing steadily in Greece, with power generation from lignite falling from 34% in 2017 to 10% in 2023 [1-2]. This transformation is associated with significant challenges for regions that have hitherto depended predominantly on lignite to sustain their economic development, such as Western Macedonia and Megalopolis. The NECP update comes at a crucial time and provides an opportunity to view decarbonisation efforts from a justice perspective, and to outline a clear vision for an inclusive and equitable post-lignite era, the costs and benefits of transitioning to which are shared evenly in the country.

Unless the transition is carefully planned, European regions depending heavily on coal will be vulnerable to severe socioeconomic challenges; Western Macedonia in particular appears to be among the most vulnerable in the EU [3-4]. A major concern identified in this region is related to the livelihoods of people who have been working in lignite mines and power plants [5] and now face the risk of financial insecurity, especially since their skills are not de facto relevant in other professions and workplaces. Over 5,000 jobs in Western Macedonia will expectedly be lost in the lignite phaseout [5]—and, unless the impacts of the transition are carefully considered—as many as 90% of all jobs can be at risk in the region [3]. This is not adequately addressed in the first draft of the NECP, which was submitted in 2023 and mainly focused on general concepts such as reskilling but failed to identify knowledge gaps in the workforce that can act as opportunities for former lignite workers (and for employees indirectly affected by the transition) to transfer their expertise after targeted training.



Research and Innovation (R&I) can be pivotal in the just transition of coal regions like Western Macedonia, as fostering the creation of new, high-income jobs can persuade the local youth in staying in their regions post-graduation, hence alleviating the large shares of internal migration, while also contributing to the clean energy and digital transition. However, the Greek NECP fails to thoroughly discuss research targets and specific interventions; instead, it is limited to proposing R&I as a solution for some sectors without elaborating on details with specific plans.

**OBJECTIVE** The document summarises important takeaways of our research and recommendations towards addressing issues related to the just transition of Greek lignite regions with a focus on Western Macedonia, aiming to steer the 2024 update of Greece’s new NECP, the follow-up documentation related to the research and innovation Greek strategy, as well as the implementation of the Territorial Just Transition Plan (TJTP). The intended target group of this policy document includes Greek policymakers, industry decision-makers, and societal stakeholders.

**EVIDENCE BASE** From problem framing onto actionable recommendations, this policy brief draws on both desk and field research that was performed as part of the LIFE project JJust Transitions and EMpowerment against energy poverty ([JUSTEM](#)), including a status analysis of the Greek regions as well as two focused workshops organised in Western Macedonia by the Energy Policy Unit of the National Technical University of Athens ([EPU-NTUA](#)), along with follow-up interviews and surveys with local stakeholders.



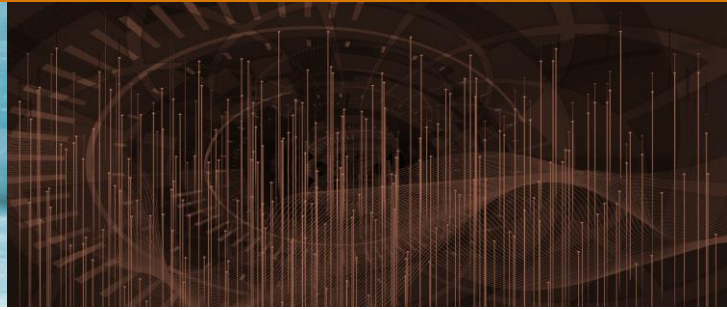
## POLICY RECOMMENDATIONS

### **1. Training and reskilling programmes must be (re-)designed, and their curricula revisited, to orient focus towards exploiting existing skills of workers in the lignite industry and the needs of their regions**

Training and reskilling workers in coal regions is crucial to tackle the negative societal impacts of the energy transition; formulating focused training programmes can be critical for the local community and especially for people who worked in lignite facilities. Currently, reskilling programmes in Greece target large groups of workers and unemployed persons and focus on general subjects such as digital and green skills, neither engaging in specific areas of expertise, nor considering the current skills of the targeted beneficiaries. Notably, only a small share of initiatives target the lignite regions and are usually coordinated by (online) training centres all over Greece. In interviews throughout Greece [6], JUSTEM highlighted that citizens in lignite regions are reluctant to join such programmes and challenge their potential to adequately reskill the workforce.

It is recommended that training programmes prioritise the reskilling of people working in the lignite industry and/or industries indirectly affected by the delignitisation process in these

regions, and that they focus on knowledge related to the energy transition—for instance by extending the current skillset of the regional workforce toward manufacturing equipment for renewable energy technologies (e.g., photovoltaic panels). Furthermore, it is suggested that the national institutions responsible for subsidising such initiatives prioritise training programmes that take place physically in the lignite regions, so that local workers can easily access them, while boosting the local economy. Monitoring and guiding mechanisms must be established to measure and enhance the effectiveness of these programmes, to guide and offer advice to candidates about active calls, as well as to keep track of skills gained by each candidate in the process, ensuring continuity (e.g., to avoid people moving from course to course without clear strategy or end goal).



## **2. Research and Innovation initiatives must be supported to boost local employment alongside the green transition**

Development of more R&I facilities and initiatives can boost the just transition in a two-fold manner. First, they can support the transition to a greener energy system with facilities doing research on and/or producing PVs, batteries, or green hydrogen. Second, increasing R&I initiatives and institutions in the region can contribute to the creation of new high-level jobs. This was particularly emphasised in a workshop organised by JUSTEM in Kozani [6], where most young participants stressed the importance of R&I facilities and especially the emblematic research valley investment outlined in the TJTP, since Western Macedonia features a lack of adequately funded workplaces for scientists—this, in turn, leads many young people away from the region onto cities with suitable workplace. Building towards a long-term strategy, curricula of subjects taught in technical high-schools must be updated and modernised to prepare students for the opportunities presented by such research facilities. As a first step in this path, the upcoming final version of the Greek NECP must align better with the TJTP and support R&I initiatives (i.e., research facilities and valleys) in lignite regions, which focus on research towards key priorities of the respective areas, such as renewable energy (e.g., green hydrogen, electric batteries, etc.), Information and Communication Technologies (ICT; e.g., novel artificial intelligence applications), or smart and sustainable agriculture.

## **3. Regional stakeholder groups mostly affected by the transition must be actively engaged in the design and implementation of the transition**

In both literature and EU practice, as well as throughout all our interactions, stakeholder engagement has always been stressed as an important part of policymaking. And yet Greece's draft NECP in 2023 seemingly fails to delve into this discussion. As such, citizens—especially in the lignite regions—tend to display negative attitudes towards top-down policies imposed by central government, unless their interests and needs are adequately represented. The NECP should eventually include a descriptive process of public deliberation and an inclusive approach to decision-making, such as tools and ways to establish deliberation and co-creation processes that will help guide the plan's implementation at the regional level. Transparency can ensure that no ambiguities are perpetuated in the public debate (e.g., in the plan's timeline for lignite phaseout), and that the process is legitimised in the eyes of the civil society, especially if citizens are invited to participate in the discussions and their concerns are genuinely considered. The final NECP towards 2030 should therefore support energy communities, especially in these vulnerable regions, to promote energy democracy, while ensuring that citizens are encouraged to directly engage in the transition and that they can benefit from a shift to low-carbon technologies.



## CONCLUSIONS

Just transition is a crucial part of achieving a carbon-neutral economy by 2050 that leaves no one behind. It is thus important that local, regional, and national authorities reinforce their efforts for justice vis-à-vis decarbonisation efforts and that these efforts are reflected within the national energy and climate policy. In this context, JUSTEM is proposing a series of recommendations that Greek policymakers should consider upon preparing the final version of the updated Greek NECP, revolving around three key items:

1. Enhancing reskilling programmes by prioritising workers affected by delignitisation, focusing on knowledge related to the energy transition such as the RES manufacturing industry to exploit existing skills, supporting local training centres, and establishing monitoring mechanisms to ensure that reskilling initiatives are impactful.
2. Boosting R&I initiatives through research centres and valleys that focus on renewable energy, ICT, and smart and sustainable agriculture, by better aligning with the actions outlined in the TJTP, to increase local employment, support the energy transition and also address internal migration by providing incentives and opportunities for the younger generation to stay in their regions.
3. Engaging with regional stakeholders through deliberation and co-creation processes to co-design the just transition and fine-tune implementation of decarbonisation efforts, exploiting local energy communities as a means towards energy democracy and co-ownership of the transition.

# ABOUT

## Authors

Konstantinos Koasidis, Energy Policy Unit – NTUA (kkoasidis@epu.ntua.gr)

Anastasios Karamaneas, Energy Policy Unit – NTUA (akaramaneas@epu.ntua.gr)

Alexandros Nikas, Energy Policy Unit – NTUA (anikas@epu.ntua.gr)

## References

1. Nikas, A., Neofytou, H., Karamaneas, A., Koasidis, K., & Psarras, J. (2020). Sustainable and socially just transition to a post-lignite era in Greece: A multi-level perspective. *Energy Sources, Part B: Economics, Planning, and Policy*, 15(10-12), 513-544. <https://doi.org/10.1080/15567249.2020.1769773>
2. IPTO. (2024). Monthly Energy Report – December 2023. [https://www.admie.gr/sites/default/files/attached-files/type-file/2024/02/Energy\\_Report\\_202312\\_v2\\_gr\\_0.pdf](https://www.admie.gr/sites/default/files/attached-files/type-file/2024/02/Energy_Report_202312_v2_gr_0.pdf) (in Greek)
3. Perdana, S., & Vielle, M. (2023). Industrial European Regions at Risk within the Fit for 55: How Far Implementing Cbam Can Mitigate?. *Renewable and Sustainable Energy Transition*, 100088. <https://doi.org/10.1016/j.rset.2024.100088>
4. Vrontisi, Z., Charalampidis, I., Fragkiadakis, K., & Florou, A. (2024). Towards a just transition: Identifying EU regions at a socioeconomic risk of the low-carbon transition. *Energy and Climate Change*, 100129. <https://doi.org/10.1016/j.egycc.2024.100129>
5. Koasidis, K., et al. (2023). Report on the current status of coal-dependent regions in the EU - JUSTEM "D2.1: Current Status of the Regions" and Supplementary Material. Zenodo. <https://doi.org/10.5281/zenodo.10057284>
6. Mazur, A., et al. (2023). Knowledge sharing report. [https://ieecp.org/wp-content/uploads/2024/02/JUSTEM\\_D3.2-Knowledge-Sharing-Report.pdf](https://ieecp.org/wp-content/uploads/2024/02/JUSTEM_D3.2-Knowledge-Sharing-Report.pdf)

## Date of release

July, 2024



Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.