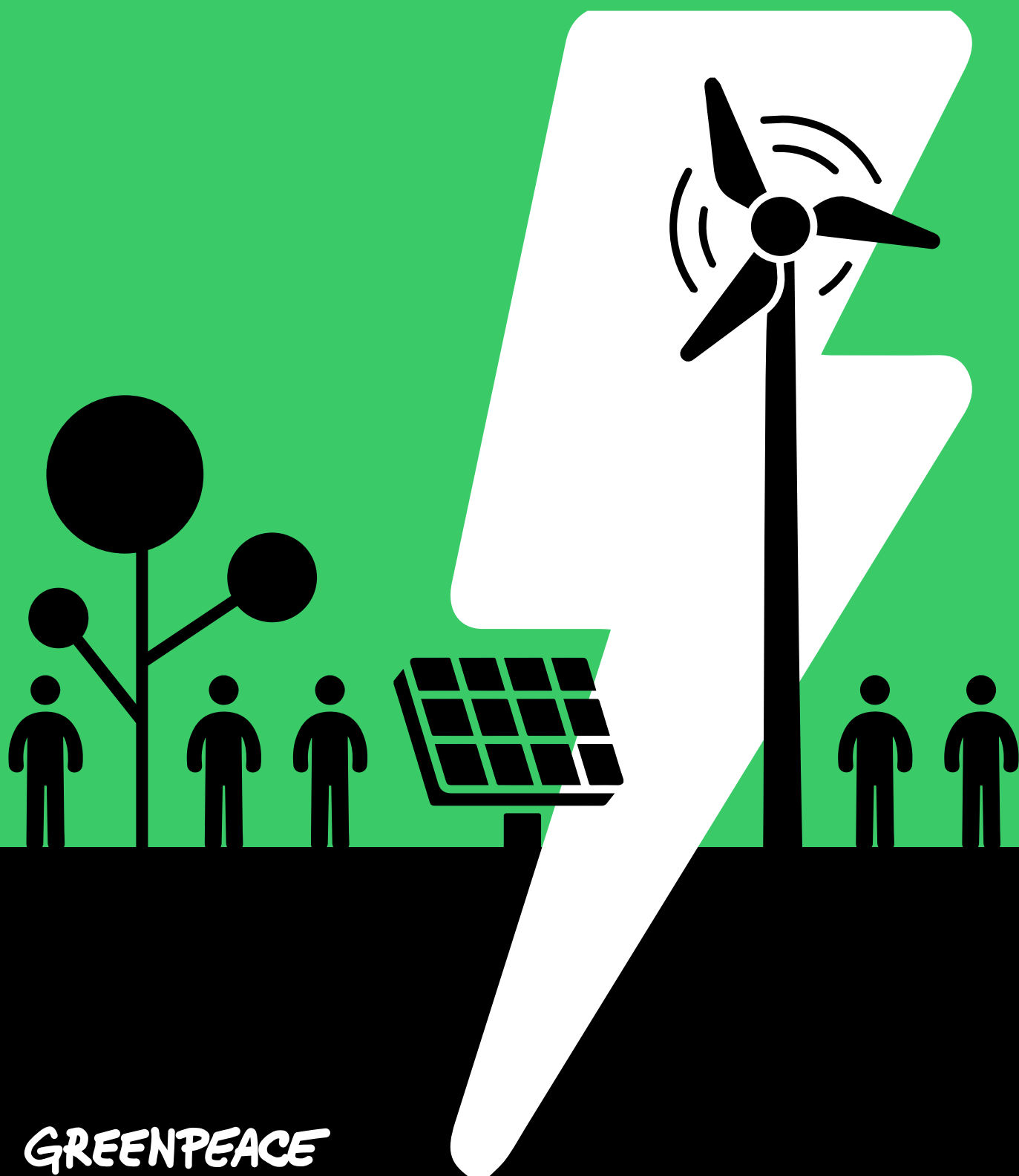


Prosumers and Energy Communities in Mining Regions



GREENPEACE

Decentralised energy production and energy communities included in the package of measures for those impacted by the energy transition in Romania's mining areas.

Concept paper

Background

Romania is in the process of decarbonising its energy sector in order to reach the European Union's energy and climate targets for 2030 and in order to have a climate-neutral economy by 2050. By June 2022, the Romania autho

By June 2022, the Romanian authorities will prepare a legislative act ("**Decarbonisation Law**") which will commit to a schedule for 2022-2032 regarding the closure of black coal and lignite production capacities. It will also include a comprehensive **package of social measures** for the workers and communities impacted by the closure of mines and thermal power plants.

Romania is also drafting the **Territorial Just Transition Plans**, aimed at both decarbonising the economy and the economic diversification of the regions impacted by the transition (particularly in Gorj and Valea Jiului). The aim of these plans and of the related funding is to mitigate the impact of the transition by **creating new jobs, retraining workers, developing entrepreneurship and supporting investments in clean energy technologies and infrastructure**.

The restructuring of the energy sector¹ in **Gorj and Hunedoara** will impact around 7,300 employees of the Oltenia Energy Complex (OEC) and Hunedoara Energy Complex (HEC), of which 1,407 in Dolj County, 3,600 in Gorj County and 2,250 in Hunedoara County, employed both in mining and in energy production facilities.

Obviously, a mix of measures is needed in order to achieve the objectives stated above. The measure proposed by Greenpeace, with a direct, long-term impact for those affected by restructuring the coal-powered energy sector, and meant to revitalise local communities, consists in a government programme dedicated to encourage the emergence of prosumers and energy communities.

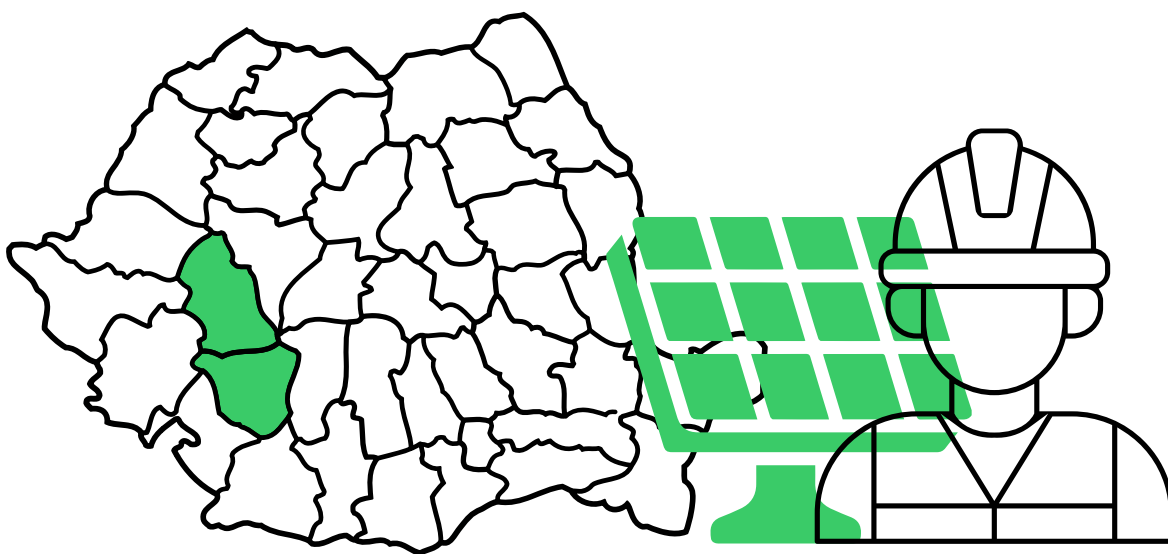
1. According to the draft calendar set forth in the most recent Territorial Just Transition Plan of the Gorj County, submitted to the working group on February 12, 2022.

The “Prosumers and Energy Communities in Mining Regions” Programme

A solution for mitigating the impact of the energy transition and for supporting the sustainable development of the communities in Gorj and Valea Jiului.

Renewable energy is the main decarbonisation vector of the European economy. In terms of the solar potential, **the South-West Oltenia region ranks at the top of coal regions in transition in the EU**. The geographical and climate conditions in the region enable both the construction of large PV parks (potential capacity of 30.48 GW) and the large-scale distribution of PV panels for **domestic and non-domestic consumers (potential capacity of 3.40 GW)**.²

A package of ambitious social measures should include, apart from measures with immediate impact (severance pay, early retirement age, medical insurance and retraining programmes, etc.), **measures with long-term impact as well, aimed both at individuals and at communities**.



2. According to an EPG study titled „The sustainable transition of Gorj County”.

Such a measure would be for the government to include **a financing package in the Decarbonisation Law (potentially from European funds, such as the Modernisation Fund, NRRP, JTF, etc.) to support the purchase of photovoltaic systems with minimum installed power of 3-5 kW³ for each mining industry employee to be made redundant and converting them into prosumers⁴ (in the first stage of the programme), and then organising them in energy communities⁵ (the second stage of the programme).** Organizing prosumers in energy communities or other associative forms accelerates the development of citizens’ energy production.

The implementation of such a programme would be suitable on the fertile ground created over the past 5 years. During this period, the concept of „prosumer” was clarified in terms of legislation and specific regulations. In spite of the limited effectiveness of the financing programs⁶ for citizens who want to become prosumers, the interest in energy self-production from renewable sources has been growing exponentially. While the number of prosumers in Romania is of only 15,000, over 45,000 citizens have applied for the latest financing session. Citizens appreciate the autonomy resulted from installing PV system for self-consumption, as a way of counteracting the rising energy prices. **The status of prosumer is a desirable one,** which is why it is quite likely to be embraced and even appreciated by employees laid off from the mining sector.

3. Producing electricity in order to cover one’s own consumption needs and to deliver the surplus into the national grid.

4. Producer and consumer (simultaneously) of energy from renewable resources. The programme beneficiaries could receive PV systems, subject to the obligation of not transferring them for a period of at least 10 years. The PV systems would be installed on the roofs of their homes or, alternatively, they could receive shares in systems installed on public roofs, OEC lands, etc. The energy produced would cover the consumption needs of the beneficiaries, and the surplus can be used for the local community, etc.

5. Energy communities have been defined in the Romanian legislation by a [GEO](#) issued in December 2021, which defines the notion of citizens’ energy community as a legal person that meets, cumulatively, the following conditions:

a) it is based on voluntary and open participation and is effectively controlled by members or shareholders that are individuals, local authorities, including municipalities, or small businesses;

b) its main objective is providing environmental, economic or social benefits to its members, shareholders, or to the local areas where it operates, rather than generating financial profits;

c) may be involved in energy production, including production from renewable sources, distribution, supply, consumption, aggregation, storage, efficiency services, or in charging services for electric vehicles, or may provide other energy services to its members or shareholders;

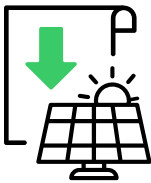
6. The [Environment Fund Administration](#) programme, launched in 2019, has only generated around 10,000 prosumers so far, although the funds would have been sufficient for at least 27,000 applications.

The direct impact of the programme

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The first stage

OEC Employees: Prosumers



Generates results quickly and reduces the electricity bill in the long term, protecting vulnerable consumers and contributing to tackling energy poverty; under certain circumstances, this can even be a long-term income generator, both for individuals and across the community. The beneficiaries of a photovoltaic system would save on their electricity bill approx. 243 RON per month⁷, which would contribute to a 16% reduction in the salary gap between the average salary in Gorj and the average salary in Oltenia EC⁸.

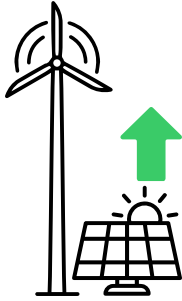


The implementation of the first stage of the programme would lead to the creation of 150 jobs⁹ for the installation of PV systems, through the professional reskilling of employees in the mining sector. They may subsequently expand their activities at regional level.

7. An approximate calculation made for a 3 kWh system installed in Gorj, for a prosumer with an average monthly consumption of 150 kWh, if implementing quantitative compensation.

8. Calculation based on information from the TJTP.

9. Working hypothesis reached by consulting some installers of PV systems, for the installation of 5,000 PV systems for self-consumption in one year.



This generates new jobs¹⁰ locally (for implementation and maintenance) and enables people in the area to be reskilled in a field with a guaranteed future at local, national and European level¹¹; according to NRRP, a new energy law will come into force by June 30, 2023. The new law will facilitate the installation of new renewable energy capacities – 3,000 MW (wind and PV) that will be commissioned and connected to the grid by June 30, 2026¹². In addition, the representatives of the RES industry in Romania estimate that renewable capacities of 9,000 MW will be built by 2030 in the worst case scenario (in the best case scenario, the estimate being 38,000 MW).¹³



It produces clean, low environmental impact energy and it can help mitigate the effects of climate change. Community-owned renewable energy projects significantly reduce carbon emissions and replace fossil fuels.



It respects the desire to preserve the local identity built around the energy sector and it involves the citizens in this vision for the future of mining regions; citizens are recognized as relevant stakeholders in the energy system.



It allows prosumers to associate in energy communities, based on the existing union structure.

10. According to a statement from the EFA chairman, approximately 5 billion RON will be allocated over the next 5 years for the installation of PV panels.

11. IRENA – the International Renewable Agency estimates that the 1.5°C limitation goal will generate 122 million jobs in the energy sector globally by 2050, most of which will be in the solar energy sector (approximately 20 million) https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_823807.pdf.

12. Component 6 – Energy – NRRP <https://mfe.gov.ro/wp-content/uploads/2021/09/f2211c7d8ea2e3d3ba5831dc0c68fc72.pdf>.

13. <https://e-nergia.ro/9-000-mw-vor-fi-construiti-in-regenerabil-pana-in-2030-in-cel-mai-rau-scenariu-primii-300-vor-fi-functionali-in-acest-an-enache-monsson-industria-are-nevoie-de-zeci-de/>

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The second stage

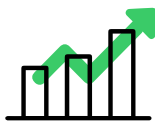
Organising prosumers and other relevant/interested actors in energy communities



It lays the groundwork for a local, circular economy. The local revenues from projects built around energy communities are 2-8 times¹⁴ larger than those generated by a project implemented by an external actor. These projects create jobs, and can help create local energy markets where consumers can buy energy at a stable and fair price.



When communities own the means to produce their own energy, they have more control over the costs, do not have an incentive to overcharge people, and do not demand higher prices like big energy companies. They also put renewable energy into the hands of people, enabling an energy system that is 100% renewable, decentralised, flexible, democratically owned and does not compromise the well-being of future generations. In addition, it reduces exposure to energy imports.



Energy communities can be turned into business start-ups/ business incubators for SMEs (in fields such as research and innovation, technology transfer and digitisation of services, etc.).



As they are local, energy communities can support the emergence of the photovoltaic industry and can help attract the related value chains in the region.

14. <https://friendsoftheearth.eu/publication/community-energy-guide/>



It can generate measures aimed at increasing the energy efficiency and improving the living conditions of locals and former employees of mines and thermal power plants.



The energy community can become a producer and supplier of energy and of other services, and the resulting profits can be directed to the community or to other investments. It can also focus on related services – building insulation, energy efficiency, urban mobility, etc.



The programme can be a catalyst that can help develop civil society in the region in general, but with a significant focus on energy transition.¹⁵ It helps increase public participation and community involvement in decisions regarding the energy transition in the county, the sustainable development of the regions and economic diversification. Energy communities can involve all relevant stakeholders in the community – local authorities, NGOs, businesses, associations, etc.¹⁶ Involves the local authorities and increases the cooperation between them and locals in order to develop inclusive, mutually beneficial solutions.



Energy communities provide their members and the general public with space and opportunities for education and training. These training courses usually cover aspects such as electricity bills, energy saving, energy efficiency, autonomous renewable energy production, climate actions, sustainable living, democratic forms of organisation, soft skills, etc.



It provides the opportunity to create partnerships between citizens, local authorities, SMEs and OEC, which can further provide various resources (land, roofs, funding, etc.).

15. There are very few NGOs working on energy transition-related topics in Romania.

16. The most successful energy communities in Europe are those where citizens work with local authorities: <https://friendsoftheearth.eu/publication/community-energy-guide/>.

Such a programme can foster and speed up the implementation of the legislation that regulates and facilitates the establishment of energy communities. Citizen involvement can also help increase the uptake of the energy transition. Last, but not least, the initiative can be replicated in other transition areas and can be used as a best practice for the conversion of mining areas, both at national and European level.

Estimated financial impact: 15 mil. Euro¹⁷

The programme can help increase the access to the energy portfolio and the energy transition in energy-intensive fields.

¹⁷. Calculation for 5,000 beneficiaries, 3 kW PV system, average price 1,000 Euro/kW installed.

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