



December 2023

Competitive advantage of post coal mining areas: Solar Photovoltaic Plant

The shift from coal mining to renewable energy in regions presents economic growth and job creation opportunities. Repurposing decommissioned coal mining sites for solar photovoltaic (PV) installations is crucial, but challenges include ensuring safe and environmentally responsible reuse and community engagement. This transition contributes to clean energy and job creation. The European Green Deal targets a climate-neutral economy by 2050, emphasizing the role of the PV solar industry. While PV technology in mining sites offers a path to sustainability, challenges like infrastructure retrofitting and solar energy intermittency need addressing. Closed coal mining sites offer a chance for recovery, particularly waste heaps. GreenJOBS suggests using these areas for PV systems, including floating PV farms. Developing solar PV plants in mining regions can boost economic growth, attract investments, and provide job opportunities, aiding the transition from coal-dependent economies.



Deliverable 2.2 of GreenJOBS project provides a more specific deployment on this topic. More information through the following link: <http://greenjobsproject.uniovi.es/wp-content/uploads/2023/07/D2.2-Solar-Photovoltaic-deployment.pdf>

Partners



GreenJOBS progress

After the first 12 months, the GreenJOBS project is progressing according to the program, and the corresponding deliverables for WP2 about emerging renewable energy sources (geothermal, wind, photovoltaic, etc.) have been completed. At the same time, activities for WP3 are also advancing in a good way. The project has continued with its communication campaign. The main communication actions of the last six months are shown below.

3rd Progress Meeting on October 4th, 2023



The 3rd meeting of GreenJOBS was held in Premogovnik Velenje d.o.o., Slovenia, with the participation of the project Consortium.

The subject of the discussion was the possibility of circular economy technologies, such as geothermal, photovoltaics, wind power, pumped hydro and green hydrogen that could be implemented in the scope of the new green business model in coal mines.

Cooperation with SRK Company



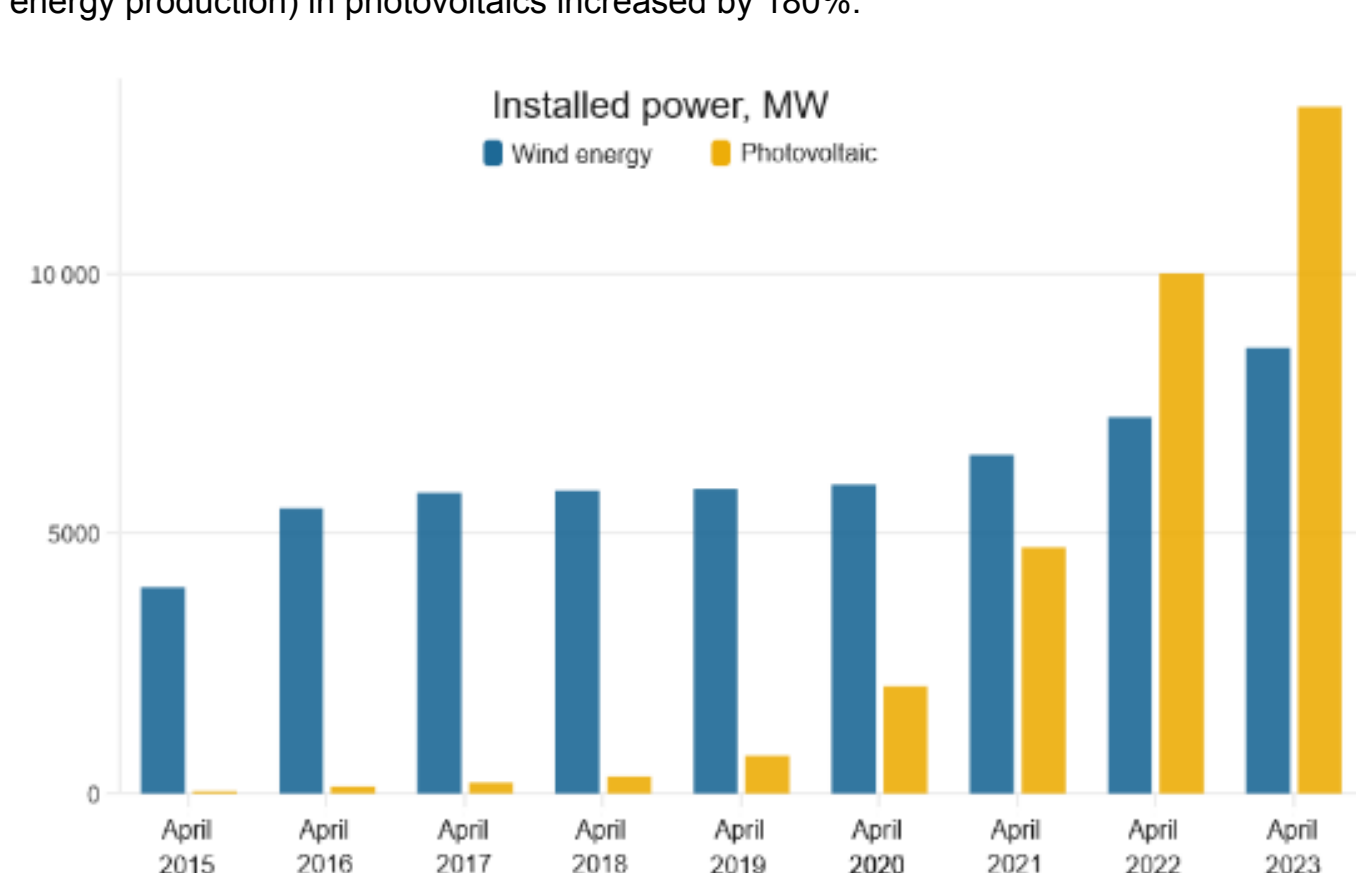
The meeting with SRK (Mine Restructuring Company in Poland) was held on November 2nd, 2023 in order to discuss the future areas of common interest related to the work developed in GreenJOBS project.

It was attended by representatives of Węglkokos Kraj SA and GIG-PIB.

A Memorandum of Understanding was being processed to exchange information on the business environment in which the business model for Mine Bobrek will be developed.

Renewable energy in Poland

In 2023, Poland made many efforts to increase its own renewable energy capacity. In recent years new wind farms have been built, but much fewer than would be possible. On the other hand, the last few years have been a real boom in solar energy. In two years (from April 2021 to April 2023), the amount of installed capacity (i.e. the maximum possible energy production) in photovoltaics increased by 180%.

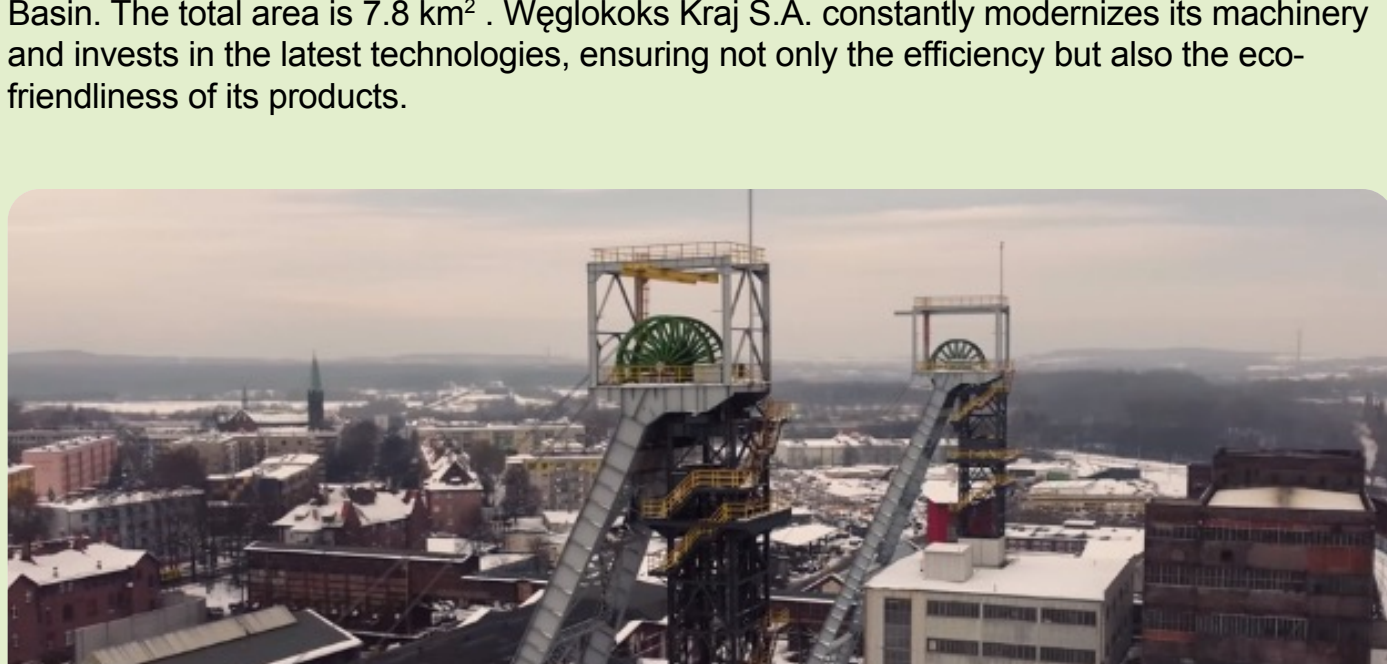


The photovoltaic market remains the main area of investment in the entire energy sector in Poland.

More installed devices translate into more electricity from clean sources. Coal still dominates in electricity production, but the growth of photovoltaics is clearly visible.

Węglkokos Kraj S.A. polish coal producer on the way of energy transition

Węglkokos Kraj S.A. is a producer of high-quality hard coal. In May 2015, the company acquired two hard coal mines - KWK Bobrek in Bytom and KWK Piekary in Piekary Śląskie; later the mines were merged into KWK Bobrek-Piekary. The coal mine has been active since 1907 within the former mining areas "Bobrek" and "Miechowice" located in the cities of Bytom, Zabrze and Ruda Śląska. The mine is located in the central part of the Bytom Basin. The total area is 7.8 km². Węglkokos Kraj S.A. constantly modernizes its machinery and invests in the latest technologies, ensuring not only the efficiency but also the eco-friendliness of its products.



From 2022 Węglkokos Kraj S.A. is involved in the project GreenJOBS - the first European/worldwide project on the reuse of underground coal mine assets and their infrastructure through the use of "green" energy production and storage technologies.

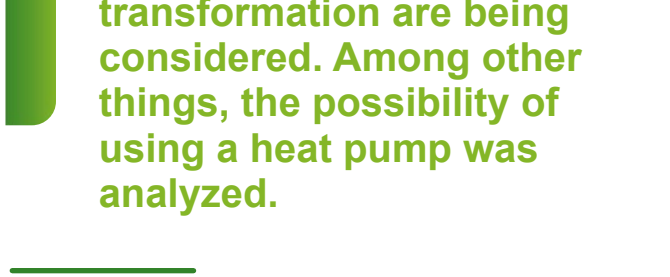
Exploring opportunities in repurposing mining infrastructure



KWK Bobrek-Piekary is a hard coal mine with its main infrastructure located in the very short distance of housing estates and public buildings, therefore offers chance of finding potential electricity consumers nearby.

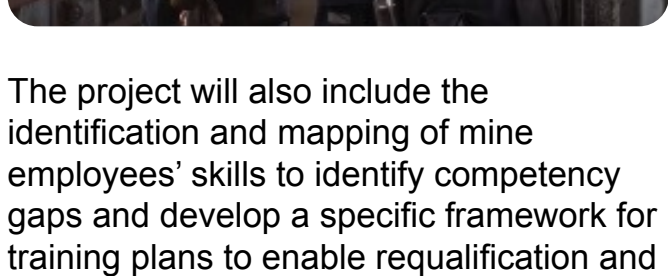
The possibility of using the infrastructure for installing photovoltaic panels will be assessed after the detailed analysis including available area, possible location, security of the location, sun exposure and geotechnical conditions.

Many directions of green transformation are being considered. Among other things, the possibility of using a heat pump was analyzed.



The project will also include the identification and mapping of mine employees' skills to identify competency gaps and develop a specific framework for training plans to enable requalification and adaptation to operate in the new business environment. In particular, it is planned to create a retraining pathway corresponding to the transformation objectives: the transition to new energy-related sectors.

Job preservation



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