

In the hot summer days, the lignite power plants from Complexul Energetic Oltenia counts, sometimes, for more than 25 per cent of Romania's energy needs, the highly pollutant units being the country's saviours when the wind stops blowing or when there are unexpected problems at the Cernavoda nuclear power plant. Even so, Romania engaged herself to phase out coal by 2032, [sooner than Poland or Germany](#), with an investment track record, in the last three decades, that gives little reason for optimism.

Wednesday, 28th of July, Romania's energy consumption sky-rocketed due to the economical recovery, but mostly to the extremely hot temperatures. Wind was not having a great day, so coal and hydro did the job. Again. Just for comparison, at peak hours, when consumption reached 8.783 megawatts (MW), coal delivered 18 per cent and wind just 1 per cent, according to Transelectrica, the national transmission operator, data.

Even so, by 2032 Romania wants to phase out coal, putting instead a mix of gas and solar. The companies that still use coal for energy production are Complexul Energetic Oltenia (lignite), with a share in Romania's energy generation of 15 per cent and Complexul Energetic Hunedoara (hard coal) with a share of 1,2 per cent in 2020, according to the data delivered by the Romanian National Energy Regulator.

The transformation of the Complexul Energetic plants

"By the third trimester, 2026, the latest, 5 out of the 9 lignite coal mines from Complexul Energetic Oltenia will be closed. By then, at least 1,300 MW of lignite capacity will be replaced with flexible combined-cycle gas-fired plants or other kinds of cogeneration", reads Romania still unapproved National Recovery and Resilience Plan.

By now, [18 countries have received their endorsement from the European Commission](#), but not Romania. Besides the 1,300 MW gas units, other 700 MW of solar projects should rise on the Complexul Energetic Oltenia premises by 2025 so to become fully operational by 2026.

The entire value for Complexul Energetic Oltenia restructuring plan is about 3,5 billion euros, out of which 1,5 billion euros must come from the company itself. For all this to happen, the restructuring plan should be approved by Brussels this autumn in order to be able to access the money from the Modernisation Fund.

The Modernisation Fund is a dedicated funding programme to support 10 lower-income EU Member States in their transition to climate neutrality by helping to modernise their energy systems and improve energy efficiency. The beneficiary Member States are Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. Through this fund, Romania can access almost 7 billion euros to make the transition from

coal to green energy. In this mechanism is also included the money for the Complexul Energetic Hunedoara, Valea Jiului region, accountable for only 1,2 per cent of the energy production, according to last year's data.

"The steps required for the transformation of the Jiu Valley are eligible for public funding from a number of sources, including Just Transition Operational Program (POTJ), West Regional Operational Programme (POR Vest), Education and Employment Operational Program (POEO), Social Inclusion and Dignity Operational Programme (POIDS) and other operational programmes, Modernisation Fund and National Recovery and Resilience Plan (PNRR), Innovation Fund, Horizon Europe and so on", says PwC for CEENERGYNEWS. The consulting firm, through a contract financed by the European Commission, DG-REFORM, delivered the Strategy for the transition from coal of the Jiu Valley. The project included a number of deliverables, the documents being submitted to the Romanian Ministry of Investments and European Projects.

"The exact amount of funding will depend on a number of factors, such as the final versions of the operational programmes, Modernisation Fund and PNRR documentation (currently under elaboration), the updated versions of the EU state-aid mechanisms on climate, environmental protection and energy (CEEAG), general block exemption Regulation (GBER) and regional state-aid (to come into force in Jan 2022) and the number of calls for projects which will actually be launched during the programming period," continues PwC. "The level of the State-aid intensity for regional state-aid mechanisms corresponding to the West development region (which includes Jiu Valley ATUs) will also impact the amount of EU funds".

PwC underlines that financing can only be secured by having the responsible institutions/potential beneficiaries (public and private) prepare and submit project proposals for the above-mentioned funding sources.

"According to the data we obtained from Hunedoara Energy Complex (CEH) early this year, two of the four still operational mines in Jiu Valley - namely Lonea and Lupeni mines - are included in the official mine closure program based on European Commission Decision 2010/787/UE, with prospects to be closed by end-2027," adds PwC. "Estimates from CEH indicate that out of the 1,920 employees at Lonea and Lupeni this year, only 40 will be left until 2027. The other two mines have 850 employees (Livezeni mine) and respectively 721 employees (Vulcan)".

At Complexul Energetic Oltenia there are 12,000 direct jobs, a 2 billion Romanian Leu turnover (408 million euros) and a 939 million Leu (192 million euros) loss last year. For Complexul Energetic Hunedoara, the losses were of 1 billion Leu (200 million euros) last

year, at a turnover of only 198 million Leu (40 million euros) and roughly 4,000 employees, according to the Ministry of Finance data.

"In the Action Plan deliverable, we included a number of actions that would allow the development of new renewable power capacities (not necessarily State-owned) and the deployment of energy efficiency projects", continues PwC with regard to the Complexul Energetic Hunedoara situation.

The firm mentions as a possible action plans the need to identify the types of renewable energies available and exploitable in the Jiu Valley, as well as optimal locations for these types of investments, or the use of viable energy assets in the Jiu Valley for the production of energy based on a fuel other than coal in the Paroseni thermal power plant.

"The Strategy is currently subject to a strategic environmental assessment procedure and the final list of actions included in the Action Plan may change pending the recommendations of the environmental experts", PwC concludes.

The biggest challenge: restructuring Complexul Energetic Oltenia

But with a contribution spanning from 16 per cent to 25 per cent in the energy mix, the toughest transition will be the one related to Complexul Energetic Oltenia.

"We cannot speak about phasing out coal without having in place the gas projects we want", said Lăcrămioara-Diaconu Piñtea, Member of the Complexul Energetic Oltenia executive board, quoted by Ziarul Financiar". But the context right now is phenomenal because there was never so much money available.

With record-high CO2 emissions' price and the perspective of the price going even higher, Complexul Energetic Oltenia has zero chance of ever becoming profitable.

"Our only chance is the new projects", Mr Piñtea added. "We are in talks with tens of companies to convince them to become our partners, we are trying to get the banks on our side, we have the feasibility studies for the solar projects and we are looking for the engineering firm for the gas projects. We want to start by the end of this year".

The European funding is essential, but both the restructuring plan of Complexul Energetic Oltenia as well as Romania's National Resilience and Recovery Plan is still under analysis by the European Commission.

"This is not the plan of a company", Mr Piñtea further said. "It is the plan of a country. The impact of the way things go with the restructuring of Complexul Energetic Oltenia is colossal".

Given this impact, the challenge for Complexul Energetic Oltenia and Romania to deliver the desired gas and solar projects in only 5 years will be major since the country and its State-



Romania's most complicated energy equation: how to manage the coal phase-out in only a decade?

owned companies were unable in the last three decades to build even a single new power generation unit.

Source: CEENERGYNEWS