Slovakia: green light for green VET programmes

The objective of the REPowerEU component of the National Recovery and Resilience Plan is to reduce overall dependency on fossil fuel imports from Russia (originally supplying gas for 94% of inhabitants) and accelerate the transition to renewable energy sources (RES), supported also by innovations in secondary VET.

Curriculum development

From 1 September 2025, schools are required to translate the new revised national curricula for VET into autonomous school curricula. A new initiative – developing model school curricula for four new RES specialisations - is in place designed as four-year programmes offering both a 'maturita' school-leaving certificate and a certificate of apprenticeship. These programmes will be piloted by seven schools from the 2025/2026 school year.

The study programme 'Building energy equipment technician' is designed to provide theoretical knowledge about RES and the necessary practical skills related to specialisations such as:

- photovoltaics
- heat pumps
- hydrogen systems
- smart control and management systems.

It includes 4 224 hours of instruction, with 1 344 hours for general education, 2 432 hours for VET, and an additional 192 hours to support the RES specialisation. The remaining 256 hours are allocated to individual schools to reflect specific needs. As a novelty, graduates must meet the qualification requirements defined by ESCO. Model school curricula follow the description of qualification requirements as structured in ESCO: essential skills and competences, essential knowledge, and expanding (optional) skills and competences. The curricula also address relevant key competences and specify syllabi for respective subjects. Graduates will be qualified for two occupations recognised EU-wide: energy conservation officer (ISCO 3112.6) and another occupation determined by their chosen specialisation (such as e.g., solar energy technician, ISCO 7411.1.4).

Preparing for the provision of a new programme

Cooperation with the world of work has been fruitful for curriculum development. In addition, project partners Viessmann and VSE Solutions have provided valuable expert advice, high-end equipment for specialised classrooms, access to company learning materials, and a data platform for distance learning that will significantly enrich the learning environment for both teaching staff and learners. They also helped establish contacts with other players in the field, particularly energy clusters, to better understand diverse know-how and support regional needs.

Challenges

Three challenges need to be addressed: household poverty, rising EU Emissions Trading System 2 (ETS2)-related emission allowance prices, and improving energy literacy among inhabitants. The number of inhabitants in energy poverty (below 60% of median equivalised

income) unable to keep their homes adequately warm increased from 17.8% in 2015 to 29.9% in 2024 (Eurostat). This is an extremely high share compared to neighbouring countries.

According to the EU assistance report in support of the Social Climate Plan development, an expected increase in energy costs for heating households using fossil fuels is EUR 140/year (at an estimated price of EUR 60/tCO2), but in rural areas, this increase could range from EUR 260/year in mild climate areas to EUR 1 100/year in the coldest areas. The report acknowledges difficulties in identifying the most vulnerable inhabitants due to a lack of national data. Nevertheless. single-income families with more children and single retired persons are expected to be extremely challenged. Analysis of the University of Cologne indicates that a price of up to €250/t CO2 is needed to meet the targets of the Fit for 55 programme. Therefore, a functional and robust Social Climate Fund and quality counselling are decisive. While graduates of the VET programme will be able to install RES equipment, their most in-demand competence will be advising people on ways to reduce their power consumption and helping municipalities to strengthen energy management to enforce energy efficiency..

Read more

- National Recovery and Resilience Plan and REPowerEU for Slovakia
- ESCO classification
- Trinomics (2025). Support to the Preparation of the Social Climate Plans: Deliverable 2 report
- Institute of Energy Economics at the University of Cologne (2025). EU ETS2 Could Increase Energy Prices for Households