

Repower the Regions: Curriculum report

LIFE project name: Repower the Regions: Ambitious and inclusive clean energy plans for repowering the just transition regions

Project acronym: LIFE22-CET-Repower the Regions

Project duration: 01.10.2023 - 30.06.2026

The transition to climate neutrality by 2050 necessitates the active engagement and leadership of carbon-intensive regions and municipalities in adopting clean and sustainable energy systems. The *RePower the Regions* project addresses this imperative by supporting just transition regions across Central and Eastern Europe (CEE), with the aim of accelerating decarbonisation while ensuring that the process is socially inclusive and economically viable. Implemented across 14 regions in nine countries—Bulgaria, Czechia, Estonia, Hungary, Latvia, Poland, Romania, Slovakia, and Ukraine—the project focuses on territories undergoing a structural shift away from coal, oil shale, and peat-based energy systems. These regions, identified for both their strategic importance and prior engagement with consortium partners, provide a strong foundation for piloting innovative and scalable solutions.

Building on extensive experience with EU funding mechanisms, including the LIFE programme, the project develops and supports the implementation of comprehensive, inclusive clean energy plans at the local and regional levels. Through participatory planning methods and close cooperation with the scientific community, it promotes integrated approaches encompassing energy efficiency, renewable energy deployment, community-led initiatives, and sustainable heating and cooling systems. By fostering local ownership and strengthening institutional capacities, the project contributes to the development of robust project pipelines and facilitates access to green investment opportunities.

An integral dimension of the initiative is the enhancement of knowledge, skills, and public engagement in the energy transition. Awareness-raising and communication activities undertaken within Work Package 3 (WP3) aim to broaden understanding of energy transformation pathways and EU funding frameworks, particularly among university students and wider regional communities. To complement these efforts, a set of ready-to-use university curricula has been developed, including the *Decarbonisation Planning* course at the University of Miskolc.

The *Decarbonisation Planning* course provides a structured introduction to urban and regional energy transition processes, with a focus on the technical, administrative, and financial dimensions of decarbonisation. Designed as a short, intensive module comprising lectures, consultations, and fieldwork, it is accessible to students from diverse academic backgrounds. The course is organised into thematic blocks that progressively build both theoretical understanding and practical competencies. It covers the

fundamentals of project and business planning, stakeholder engagement, and financing mechanisms, alongside analytical tools such as CO₂ emissions calculations and basic statistical methods.

The curriculum places strong emphasis on applied learning, integrating domestic and international case studies, as well as practical exercises and fieldwork. Through this approach, students develop the ability to engage with complex, real-world challenges related to energy transition and to contribute effectively to the design and implementation of sustainable decarbonisation strategies.

The project’s educational dimension is further strengthened through international collaboration. In Ukraine, the Centre for Environmental Initiatives “Ecoaction” contributed to the development of the *Decarbonisation Planning* course for law students at the Educational and Scientific Institute of Law of Taras Shevchenko National University of Kyiv. The lecture delivered by “Ecoaction” on the future of energy policy and the just transition in Ukraine provided a rigorous and practice-oriented perspective, enriching the academic content and reinforcing the interdisciplinary scope of the programme. This contribution represents a valuable addition to teaching activities and will continue to inform both the ongoing development of the curriculum and broader academic and research work in the field of energy transition.

UNIVERSITY OF MISKOLC

Information

For the course entitled ‘DECARBONISATION PLANNING’

Course title: Decarbonisation Planning	Course code in Neptun:
	Type of course:
Name and position of course coordinator:	
Names and positions of lecturers involved in teaching:	
Recommended semester: 2	Prerequisites for enrolment: none
Number of hours (lectures + tutorials): 10 + 3	Assessment method: oral + written
Credit points:	Programme:

Aims and objectives of the course:

The decarbonisation of local authorities is key to achieving the European Union’s and Hungary’s climate neutrality targets. The course provides an overview of the technical, administrative and financial aspects of decarbonisation planning and illustrates these through specific examples this (Miskolc decarbonisation planning). The course covers the basic concepts and tools of project and business planning, as well as methods for stakeholder engagement, supplemented by basic statistical hypothesis testing procedures (single-sample and multi-sample tests). In addition, students will learn about CO₂ calculations for energy projects, study domestic and international examples, and apply what they have learnt in the context of solving complex problems.

Upon completion of the course, students will be able to support urban decarbonisation processes.

Competencies to be developed: 1

knowledge: T; **skills:** K (GM); **attitude:** A

Autonomy and responsibility: AF (GM)

Course schedule:

1. Lecture and tutorial (2 hours):

Fundamentals of project planning. Basic concepts relating to projects, decarbonisation and community energy. Theoretical issues in hypothesis testing.

Single-sample tests (tests for expected values). Miskolc’s climate and energy strategies and plans

2. Lecture and consultation (2 hours):

Fundamentals of stakeholder engagement. Basic concepts. Mapping, defining different levels of engagement, messages and roles. Elements of the engagement toolkit. Decarbonisation planning in Miskolc (CoolMiskolc, LIFE).

3. Lecture and tutorial (2 hours):

Fundamentals of business planning. Basic concepts. Multi-sample tests (tests for expected values). Sources of financing. Business models for energy community solutions in Miskolc.

4. Lecture and consultation (2 hours):

Project planning tools. The concept of HEM. Calculation of CO₂ emissions in relation to energy investments. Presentation of domestic and international projects.

5. Lecture and consultation (2 hours):

Complex problem-solving, consultation

6. Fieldwork (3 hours):

Fieldwork carried out at an external location

¹ In the listing of competences, the number refers to the order in which they appear in the programme's training and learning outcomes (TLO); K: knowledge, S: skills, A: attitude, AF: autonomy and responsibility. In the case of a subject taught across several programmes simultaneously, the serial number of the required/developed competence is specified for each programme. The abbreviations for the degree programmes are given in brackets next to the number: (EEF: Human Resources, GM: Business and Management, KM: Commerce and Marketing, NG: International Business, PSZ: Finance and Accounting, TV: Tourism and Hospitality).

Assessment method:

Obtaining a signature: -

Condition for admission to the exam: obtaining a signature

Method of completing the practical assessment/colloquium, assessment criteria:

The colloquium consists of two parts. The first part comprises a minimum number of oral questions. The minimum questions and the answers can be found on the University of Miskolc's e-learning platform. To pass this part of the examination, students must provide accurate answers to at least two of the three minimum questions. If the first part of the colloquium is passed, candidates must then complete a set of exercises based on the case studies covered in the tutorials. The exercises are similar to those completed during the tutorials. To pass the course, candidates must achieve at least 50 per cent of the total marks.

The use of mobile phones and other aids is not permitted; any such use will result in the exam being suspended. During the examination, mobile phones and other aids (e.g. smartwatches) must be kept switched off in your bags.

Consultation times:

Compulsory reading:

1. [Resilient and Decarbonised Cities – Regional and Urban Policy](https://regions-and-cities.ec.europa.eu/cities-portal/resilient-and-decarbonised-cities_en) – https://regions-and-cities.ec.europa.eu/cities-portal/resilient-and-decarbonised-cities_en
2. Empowering city decision-makers: A practical guide to learning for decarbonisation at the city-level - <https://www.sciencedirect.com/science/article/pii/S1462901125000620>

Recommended reading:

1. CEE Bankwatch Network: Preparing municipalities for the future - https://bankwatch.org/wp-content/uploads/2025/03/2025_03_Preparing-municipalities-for-the-future-A-guide-to-decarbonisation-solutions.pdf
2. Community Power Coalition: Community Energy Handbook -

https://www.rescoop.eu/uploads/rescoop/downloads/MTVSZ_kozossegienergia_teljes_KESZ.pdf

3. Climate Strategies: Just Transitions Toolkit: A Policymaker’s Guide to Inclusive Planning. URL: <https://climatestrategies.org/wp-content/uploads/2024/11/Just-Transitions-Toolkit-A-Policymakers-Guide-to-Inclusive-Planning-6.pdf> (Accessed: 15 June 2026)
4. Two studies from Miskolc:
 - Öko-An Bt: [Mapping community-based energy transition solutions \(electricity, heat\) in Miskolc from a social and energy perspective](#) – decarbonisation study (2024)
 - MENERKO Kft. and F4ster Future 4 Zrt.: Integrated study – Energy community solutions in Miskolc (2026)
5. Resources from the Community Energy Knowledge Hub. <https://tudaster.kozenergia.hu/>



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