

Regional Advisory Services in support of cleaner electricity systems in the UNECE region

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SUSTAINABLE ENERGY

WEEK 2023

BUILDING RESILIENT ENERGY SYSTEMS



UNECE

Selected Areas of Work



ECE/ENERGY/2023/4 – [Report on regional advisory services in sustainable energy](#)

- Energy Efficiency
- Renewable Energy
- Sustainable Resource Management
- Carbon Neutrality
- Energy Resilience
- Just Transition



Projects (XB - 2, UNDA - 1, RPTC - 3): 6

- Completed: 3
- In progress: 3

Total funding for UNECE (RPTC – SED only): ~USD 440,000

New project proposals submitted: 3

Studies (RPTC): 4 (completed)

Workshops: 7 (2 more planned in 2023)

Energy Efficiency



Project: Strengthening Georgia's food and energy resilience (joint project with UNDP, FAO, and ILO) – **completed**

UNECE activities:

Assessment of energy consumption by small businesses in rural areas of Georgia

Outcome:

Enhanced capacity of small businesses to introduce energy efficiency measures in rural areas and improved knowledge of national stakeholders on energy efficient solutions for small businesses in rural areas

Development of recommendations to reduce energy costs and improve energy efficiency by small businesses in rural areas

Development of case study with targeted assistance for small businesses in a selected rural area to introduce energy efficiency measures

Energy Efficiency and Renewable Energy



Project: *Strengthening energy policies of Countries with Special Needs to build back better from COVID-19 - on-going* (joint UNDA project led by ESCAP)

- Beneficiary countries in the UNECE region: Armenia, Kazakhstan, and Uzbekistan
 - National stakeholder consultation workshops held in Yerevan, Astana, and Tashkent in November 2022 – February 2023
 - Collection of data for developing SDG7 Roadmaps is close to completion
 - SDG7 Roadmaps under development
 - Inter-regional seminar "***Sharing lessons learned and best practices from the development of SDG 7 Roadmaps***" is planned on 8 November 2023 at the Almaty Energy Forum



Project: *Addressing the compounded food and energy crisis in Ukraine through innovative technologies and adaptive agricultural practices* (joint project with FAO and UNEP) – **completed**

UNECE Activities:

- Analysis of normative and legislative frameworks
- Challenges/barriers
- Status of bioenergy projects operational within available market conditions and legislation in place
- Opportunities for bioenergy investments through analysis of their efficiency and economic prospects
- Assessment of the role of bioenergy for ensuring energy resilience and increasing the renewable energy uptake in Ukraine



Study: *Support for energy crops along roads and highways in Ukraine* – completed (requested by the Government of Ukraine)

- **Objective:** To analyze potential for the development of energy crops along highways, taking into account the use of crop plantations as highway protection as well as for economic and environmental benefits
- **Output:** A study with the analysis based on economic evaluation, assessment of the legislative framework with a view of proposing a pilot project and possible modifications to the legislation and therefore creating a suitable environment for investments in energy crops along roads and highways at a larger scale in Ukraine.

Renewable Energy Project Proposals



1. Project proposal: **SunPower: Advancing low-income Communities with Solar Energy and Municipality EV Integration** (joint proposal with UNDP) (beneficiary Montenegro)
2. Project proposal: **Energy for Food (E4F): Wholesale Transformation of the Agri-Food System to Reduce GHG Emissions** (joint proposal with FAO and UNEP) (beneficiary Ukraine)
3. Project proposal: **Scaling up rural renewable energy use in the UNECE and ESCWA regions to address the ongoing energy crisis and strengthen energy resilience** (joint proposal with ESCWA) (seven beneficiary countries; UNECE member States Albania, Georgia, North Macedonia, and Republic of Moldova)

Sustainable Resource Management and Renewable Energy



- Report on [Assessment of the Geothermal Resources of Albania](#) – **completed**: (requested by the Government of Albania)
 - The report indicates that utilizing geothermal resources in Albania is cost-effective and can aid in diversifying energy sources, enhancing living standards, and addressing environmental concerns. It also advises to adhere to the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) guidelines to establish suitable geological models of geothermal aquifers and to perform comprehensive assessments to evaluate their potential for further development. The study highlights that conducting Environmental and Social Impact Assessment (ESIA) studies and consulting with stakeholders is crucial for the project's socio-economic feasibility.

Carbon Neutrality, Sustainable Resource Management, Energy Resilience, and Just Transition



Project: *UNECE early development response: reconstruction of Ukraine – restoring connectivity and rebuilding infrastructure* (joint with Transport, Statistics, and ECID) – completed

- **[Rebuilding Ukraine with a Resilient, Carbon-Neutral Energy System](#)**

- **Main findings:** In view of their high untapped potential, bioenergy, hydro, solar and wind generation could constitute the building blocks of Ukraine's future energy system, contributing up to nearly 80% of total energy generation by 2050. Provided key strategies and investments are put in place, and complemented by nuclear energy, renewables could propel Ukraine towards a carbon-neutral future. The pathway scenarios developed by UNECE are based on the [UNECE Carbon Neutrality Toolkit](#). The report aims at serving as a roadmap for policymakers and stakeholders, providing insights and recommendations for Ukraine's energy transition.



Study: *In-depth analysis of the dynamics of coal demand in Tajikistan until 2050* – completed (requested by Government of Tajikistan)

The report responds to the question of the extent to which the present strategy of the local coal sector development is consistent with today's realities. The discussion is based on the estimates of coal demand from the energy sector, industry, and the population of Tajikistan until 2050. The report contains also an assessment of the efficiency of coal industry management in the country, an analysis of the price factor (including environmental costs) of coal consumption, as well as of the viability of replacing coal with alternative domestic energy sources, taking into account the local conditions and the principle of energy security of the country.

The report concludes that the goals for increasing coal production indicated in the current strategic documents of Tajikistan seem to be outdated and appear unlikely to be achieved. It also recommends that the focus of a new coal strategy, if such document is to be developed, is not on achieving record production levels, but rather on ensuring the equitable distribution of natural rents from coal exports, safe working conditions in coal mines, minimizing environmental damage from the coal sector, closing coal mines and reclaiming post-mining areas, as well as proper management of methane emissions from coal mines after their closure.



- **Study: *Technical, principle-based guidelines for designing and implementing a programme for efficient, safe and environmentally conscious mine closure in Albania and Serbia***
– **completed** (requested by Governments of Albania and Serbia)

The report identifies problems related to mine closure in Albania and Serbia and evaluates their scale. It also provides a theoretical background for actions allowing the countries to reclaim the mined land and mitigate hazards so that it becomes suitable for repurposing and sustainable development. It is designed to improve beneficiary countries' national capacities to close coal mines in a manner that ensures that at the end of the process the site is safe for the environment and the population and that the reclaimed grounds are ready for further use unrelated to coal mining.



**Project: *Mapping Albania's readiness for green and just transition in post-coal mining areas* – in progress
(requested by the Government of Albania)**

Green Transformation and Energy Resilience



Project: *Enhancing the implementation of the UNECE tools for promoting green transformation and resilient energy systems in the Republic of Moldova* (joint with Environment and Sustainable Transport) – in progress (requested by the Government of the Republic of Moldova)

Thank you!

[UNECE Regional Advisory Services](#)

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