







CONCEPT NOTE

Digital Transformation of Energy Systems: Accelerating action through coordination and innovation

Organizers: Government of North Macedonia, ECE, ESCWA, ESCAP, UNDP

Date: 29 October 2025

Time: 09:00 – 17:00 (Skopje/Geneva) / 15:00-23:00 (Bangkok) / 10:00-18:00 (Beirut)

Venue: Holiday Inn, Skopje, North Macedonia, and online

Overview

The modernization and digitalization of power grids are essential for achieving a resilient, inclusive, and sustainable energy future, especially in countries with special needs, where infrastructure limitations, energy access gaps, and integration of variable renewable energy remain significant challenges. This full-day session will explore governance and policy frameworks for enabling smart, integrated, and digitalized power systems that leave no one behind.

Drawing on the joint Development Account project proposal being developed by ECE, ESCWA, and ESCAP, the discussions will focus on harmonized policy approaches, integration of decentralized generation and storage, interoperability with legacy systems, cybersecurity, and gender-responsive governance.

This workshop also builds on the ongoing efforts under the UN-Energy priority area on Digitalization and will aim to serve as a practical catalyst for broader coordination and stakeholder engagement. While distinct from the long-term











ifesd.mk











UN-Energy digitalization track, it will facilitate dialogue and identify opportunities for collaboration.

Objectives

- Assess the current state of digitalization in the energy sector across regions.
- Identify key barriers and opportunities for implementing digital technologies.
- Highlight the role of digital governance policies in integrating decentralized renewable energy into power grids.
- Share lessons learned and best practices and other regional experiences.
- Facilitate peer learning and collaboration across regions on smart grid digitalization.
- Address inclusivity, gender equality, and socio-economic considerations in energy digitalization.

Expected Outcomes

- Enhanced understanding of digital transformation pathways in different national and regional contexts.
- Identification of opportunities for pilot initiatives, partnerships, and technical cooperation.
- Increased visibility and stakeholder engagement for the broader UN-Energy digitalization agenda.

Target Group

- National energy and ICT policymakers
- Utilities and grid operators
- Digital technology providers
- Development agencies and financial institutions
- Academia and think tanks
- Civil society and youth representatives























Agenda

Timing	Agenda Item	Speakers
09:00 - 09:30	Welcome remarks and scene setting	 Digitalization as an Enabler of Sustainable Energy Systems Mr. Stefan Andonovski – Minister of Digital Transformation, North Macedonia Ms. Radia Sedaoui, Chief, Energy, ESCWA Ms. Denise Mulholland, Chief, Energy Systems Section, UNECE Sustainable Energy Division Mr. Michael Williamson, Chief, Energy Division, ESCAP Mr. Armen Grigoryan, UNDP Resident Representative, North Macedonia
09:30-10:15	Panel Discussion	Powering the future: why digital transformation matters Guiding questions 1. How is digital transformation reshaping the global energy landscape—and what does it mean for countries with special needs or fragile systems? 2. Which emerging digital technologies hold the greatest potential to accelerate renewable energy integration and grid flexibility? 3. What steps are needed to ensure that digital transformation in energy systems benefits all—especially women, youth, and communities in remote or crisis-affected areas? 4. How can digital skills and capacity-building initiatives bridge the human-























		capital gap in the digital energy workforce? Moderator: Mr. Hosni Ghedira, Senior Advisor, Al71 1. Mr. Stjepan Sučić, CEO at Koncar – Digital Ltd 2. Mr. Samer Zawaydeh, Former President, Association of Energy Engineers, Jordan; Lecturer, Al Hussein Technical University 3. Mr. Riad Meddeb, Director, UNDP Sustainable Energy Hub 4. Mr. Andrei Covatariu, Senior Research Associate, Energy Policy Group; Co-Chair, UNECE Task Force on Digitalization in Energy (online)
10:15 - 10:45	Coffee Break	
10:45-11:45	Panel Discussion	Data-driven energy planning and operations Case studies and discussion: 1. Smart grids, remote monitoring, and predictive maintenance 2. Digital mini-grid optimization in remote or crisis-affected regions 3. Data platforms to inform policy (e.g. Dashboards) 4. Blockchain use cases Moderator: Mr. Riad Meddeb, UNDP Sustainable energy hub Panelists: 1. Mr. Leonardo Rocha Souza Chief, Energy Statistics Section United Nations Statistics Division Department of Economic and Social Affairs











ifesd.mk











	1	Ţ
		 Mr. Goran Stojanovski, PhD in Al, founder of Elevate-Global, North Macedonia Ms. Ana Trbovic, Co-Founder, Grid Singularity and Energy Web Foundation (online) Mr. Thierry Mathieu, Co-founder, Attributes, ENGIE (online) Mr. Nikola Bitrak, Colenco Ltd, CEO
11:45 – 12:00	Q&A and Wrap-up	Q&A session and Moderator's summary of key takeaways
		UNDP
12:00-14:00	Lunch break	
14:00-15:00	Panel Discussion	Strengthening governance and capacity for digital transformation
		Scene-setting presentation Ms. Kimberly Roseberry, Economic Affairs Officer ESCAP Energy Division
		Interactive moderated roundtable with Q&A
		Moderator: Mr. Stefan M. Buettner, Chair, UNECE Group of Experts on Energy Efficiency
	-__\	 Guiding questions: What policy and regulatory frameworks are most critical to ensure that digital transformation delivers inclusive, reliable, and sustainable power systems? How can governments and regulators balance innovation with the need to ensure cybersecurity, data privacy, and interoperability across both new and legacy systems? What institutional and capacity-building measures are needed to strengthen coordination between





















Ms. Qi Shuguang, Council of Engineers for the Energy Transition member, Chief Vice Engineer of CTTL and Professor in Engineering, China Academy of Information and Communication Technology (CAICT) (online)
15:00-15:15 Q&A and Wrap-up • Q&A session and Moderator's
summary of key takeaways
15:15-15:45 Coffee Break
 Panel Discussion Pathways forward: regional coordination and partnerships Scaling regional cooperation Overview of UNDA-18 Overview of UN-Energy Action Plan (2026–2030) Opportunities for collaboration and participation in relevant activities
Scene-setting presentation











ifesd.mk











		Mr. Igor Litvinyuk, Economic Affairs Officer, ECE Sustainable Energy Division Scheduled interventions Moderator: Mr. Sean Ratka, Economic Affairs Officer, ESCWA Q&A
16:45-17:00	Wrap-up	 Moderator: ECE, ESCAP, ESCWA Summary of key takeaways Next steps for regional and interregional cooperation

Connection details for online participation

Join Microsoft Teams meeting now

Meeting ID: 366 294 528 802 0

Passcode: eP3h9gs6

Join on a video conferencing device

Tenant key: unitevc@m.webex.com

Video ID: 127 785 581 9

Focal Points for the Session

ECE: Igor Litvinyuk, Economic Affairs Officer, Sustainable Energy Division, litvinyuk@un.org

ESCWA: Sean Ratka, Economic Affairs Officer, ratka@un.org

ESCAP: Kimberly Roseberry, Economic Affairs Officer, Energy Division,

roseberry@un.org









