

# Activities and Priorities of the Committee on Sustainable Energy and Matters for Consideration by the Expert Group on Resource Management

## Agenda Item 4

Dario LIGUTI

Director

Sustainable Energy Division

United Nations Economic Commission for  
Europe



SUSTAINABLE RESOURCE MANAGEMENT  
ASSURING SUSTAINABILITY IN RESOURCE MANAGEMENT

# Key achievements 2021-2022

- **Launched key publications for member States:** Sustainable Resource Management (UNRMS/UNFC), Methane Management, Carbon Neutrality and Renewable Energy
- **Developed cross-thematic knowledge to produce joint papers and events on key, complex topics** - resiliency including energy security, digitalization leveraging strengths of different groups of experts



# Key achievements 2021-2022 (continued)

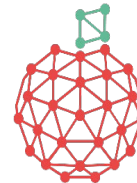
- Organized special events and high-level dialogues on the topics of building resilient energy systems, critical raw materials, methane management, just transition and climate finance



- Launched a strategic partnership of UN Agencies (UNECE, UNESCAP and UNDP) at the 2nd Almaty Energy Forum and formed a Task Force for Energy Transition in Central Asia to design and build resilient energy systems in Central Asia.



- Set up, in cooperation with EMBER, an online bi-monthly series *Methane Mondays* providing a platform for a multistakeholder dialogue on matters related to MRV and mitigation of methane emissions along the coal value chain



2<sup>nd</sup> Almaty Energy Forum



# 2021-2022: what happened to Energy Systems?

## What are the vulnerabilities of the existing energy system?

### CHALLENGES



#### COVID-19

Economic recovery at the expense of energy transition is a concerning risk



#### GEOPOLITICAL INSTABILITY

- Disruption of supply
- Impeding energy flows
- Threatening economic growth
- Energy prices increase short and medium-term



#### SUPPLY CHAIN DISRUPTION FACTORS

- Exponential increase in demand for critical raw materials
- Higher cost for shipping and logistics
- Limited technology standardisation
- Trade restrictions



#### CLIMATE CHANGE CRISIS

A threat multiplier to all of the above increase in intensity of extreme events will pose a threat to international peace and security

### IMPACTS



#### DISRUPTED ENERGY AVAILABILITY

Limited access to resources and disruptions in demand create uncertainties for long term energy investments and security



#### INADEQUATE ENERGY ACCESSIBILITY

Region-wide energy price increase inhibit economic growth and exacerbate energy poverty across the region



#### QUESTIONABLE ENERGY SUSTAINABILITY

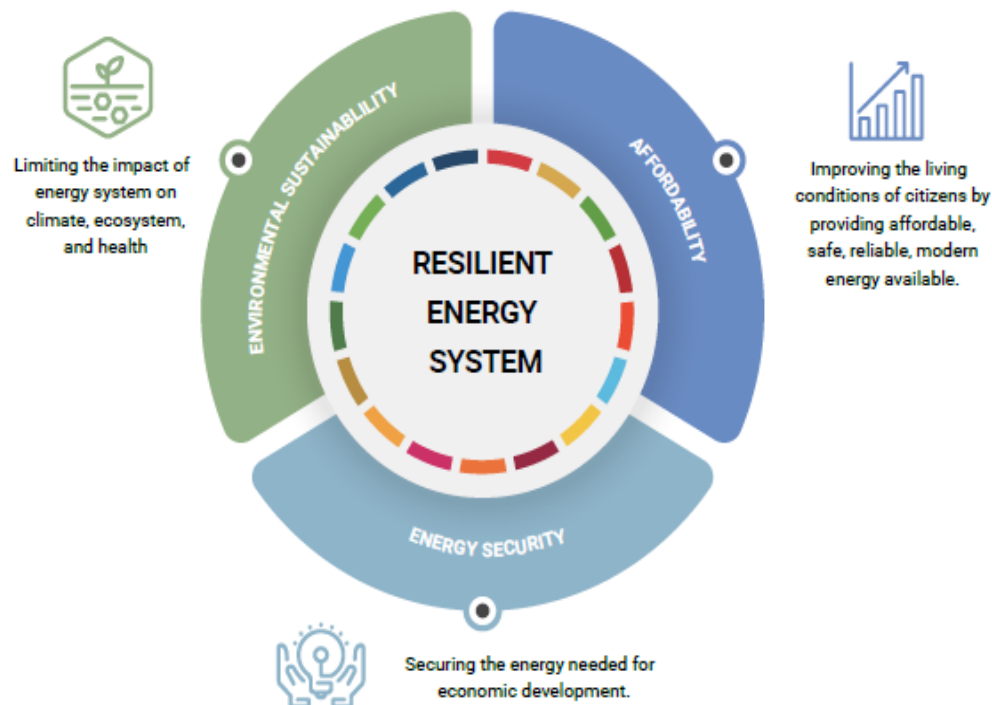
Maintaining national energy security may resort to the use of power generation by traditional unabated coal-fired plants, increasing CO<sub>2</sub> emissions and delaying net-zero target

# 2023: Building resilient Energy Systems

## Technical Considerations and Actions for Achieving Energy Security, Affordability, and Sustainability Net-Zero for Europe, North American and Central Asia

### What is a resilient energy system?

- A **resilient energy system** ensures that energy makes an optimal contribution to a country's **social, economic, and environmental** development.
- **Energy security** strengthens energy independence through interconnectivity and trade.
- **Affordability** reduces costs of electricity, heating, cooling, and transport.
- **Environmental sustainability** lowers the carbon footprint and enhances efficiency across the energy supply chain.



# Energy System Resilience: UNECE contribution

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

## Building Resilient Energy Systems: Actions for Achieving Greater Energy Security, Affordability and Net-zero in the UNECE Region



### Recommendations for Policymakers

The Expert Groups have aligned on five important recommendations to build a resilient energy system and achieve balance among affordability, energy security, and environmental sustainability:

1. **Prioritize and maximize the implementation of energy efficiency solutions** to drive down primary energy consumed while meeting economic and societal needs.
2. **Digitalize the energy system** and take advantage of increasing consumer digital literacy capturing the enormous optimization opportunity in the value chain.
3. **Accelerate fuel switching** to optimize the carbon footprint of end use energy and replace carbon intensive fuels where practical with low- and zero-carbon options.
4. **Manage resources effectively, sustainably, and with circular economy considerations**, using the UN framework Classification (UNFC) and UN Resource Management System (UMRMS).
5. **Accelerate the deployment of low- and zero-carbon technologies** by scaling renewable energy, nuclear power and advanced fossil fuels with carbon capture, use and storage.



### Key Considerations for Policymakers

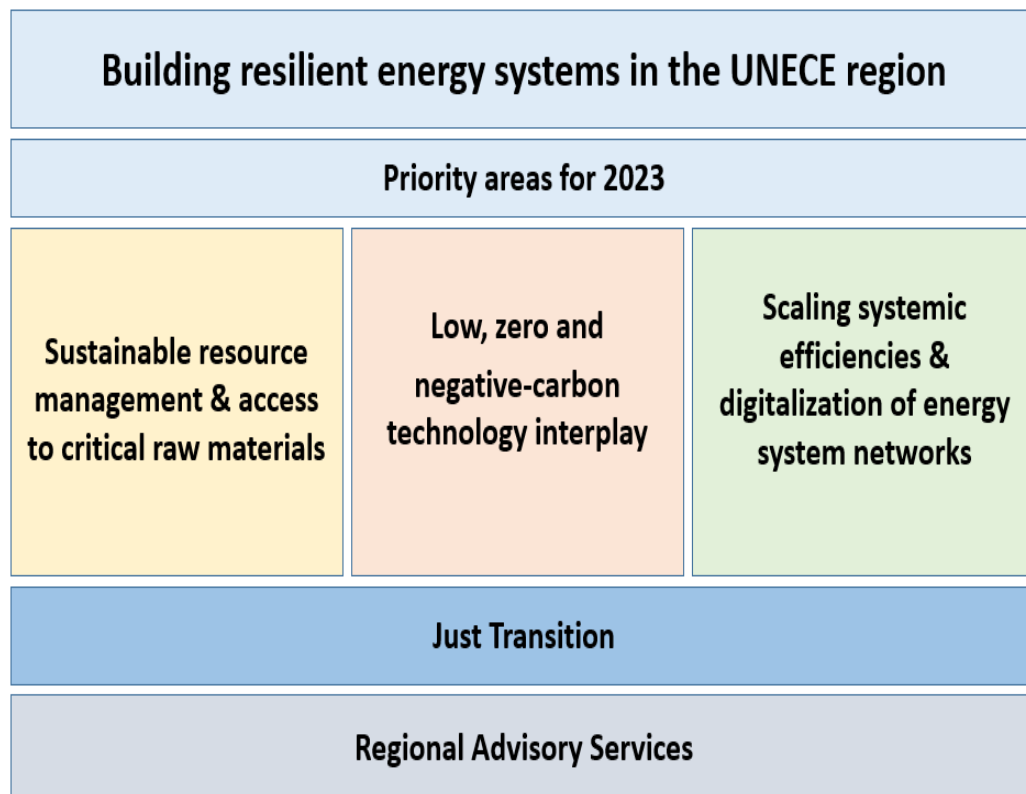
As policymakers look across the options included and assess what will be best for their circumstances, it is important to bear in mind the following key considerations:

1. **Recognize that there is not a one-size-fits-all approach.**
2. **Consider long term goals as they design policies today.**
3. **Address behavioural barriers to unlock innovation and digitalization potential.**
4. **Build a workforce to deliver on a just energy transition and address the skills shortage.**
5. **Integrate resiliency concerns into existing and related planning efforts.**
6. **Consider climate change impacts on supply and demand.**

# Looking ahead: 2022-2023 Top Priority Activities

## 1. Contribute to building Resilient Energy Systems

- Design and deploy the ***ECE Platform on Resilient Energy Systems***, as a decision support tool for member States while achieving 2030 Agenda and Paris Agreement goals
- Integrate resiliency considerations into expert group work and develop relevant resources for member States
- Address Just Transition as a key component of the work on resiliency
- Develop pilot activities at regional level



# Looking ahead: 2022-2023

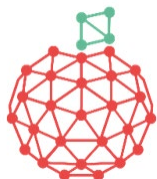
## Top Priority Activities (continued)

## 2. Build resilient energy systems in Central Asia

UNECE launched strategic partnership  
with UNDP and ESCAP

Key areas of work to include:

- **Low- and zero-carbon technology interplay** in Central Asia
- **Access to critical raw materials** in Central Asia
- **Water and energy nexus** in Central Asia
- **Energy connectivity** in Central Asia
- **Fostering next generation of energy experts** to deliver on energy transition in Central Asia



**3<sup>rd</sup> Almaty  
Energy Forum**





# Looking ahead: 2022-2023

## Top Priority Activities (continued)



### 3. Support the development of a Hydrogen Ecosystem

- Operationalize Task Force on Hydrogen to coordinate efforts and develop:
  - a comprehensive classification for hydrogen
  - Specifications for UNFC/UNRMS application to hydrogen projects and production technologies, if/where appropriate

### 4. Accelerate activities on Sustainable Resource Management

- Support UNECE member States in priority **deployment of UNFC**
- Continue **development of UNRMS** with a focus on the extraction, sustainability and procurement of **Critical Raw Materials and Resource Efficiency**, i.a. with focus on Central Asia



# 3<sup>rd</sup> Almaty Energy Forum

6–8 November 2023



UNECE



Thank you!

Dario LIGUTI  
Director, Sustainable Energy Division  
UNECE  
Date 28 | 04 | 2023, Geneva



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