



Economic Commission for Europe**Committee on Sustainable Energy****Twenty-ninth session**

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**Report of the Committee on Sustainable Energy
on its twenty-ninth session****Addendum****Sustainable energy in the United Nations Economic
Commission for Europe region****I. Introduction**

1. It is unclear how long the health, social, and economic repercussions of the COVID-19 pandemic will last nor how deep they will go in the United Nations Economic Commission for Europe (ECE) region. Beyond the tragic loss of life, the enduring repercussions include the implosion of many economic sectors with associated job losses and the fraying of social psychology. Ongoing restrictions and clampdowns intended to slow the progress of the infection will affect normal life for an undetermined period and will strain all sectors of the economy, including provision of food, energy and water. Global pandemics such as the current health crisis will be more frequent as the climate changes. Anticipating them requires systematic, coordinated preparation and investment in resilience, including in the energy system.

2. The consequences for the ECE energy system in terms of pricing, operations, inventories and links among connected supply chains have been significant as demand has plunged across the spectrum of energy services. As the slowdown endures it will deter longer-term investment because of the demand it destroys and the uncertainty it instils.

3. Prior to the onset of the pandemic, ECE noted that the world's doomsday clock for climate change stood at 10 past midnight – until recently trends pointed to an increase in global average temperatures of between 4 and 6°C, a far cry from the target of 2°C or the even tighter 1.5°C ambition. The global economic slowdown appears to have tempered that trend at least over the near term. Winston Churchill famously said “Never let a good crisis go to waste” – will we simply revert to business as usual once this crisis has passed or can we take advantage of the reprieve granted by this crisis to pivot to a sustainable economic and energy model? The ECE region has important opportunities to undertake such a pivot, but it is imperative that there be serious commitment to do so. The region and its member States can re-orient investment framework conditions to sustainable outcomes and re-launch economies with job programmes aligned with the objectives of the 2030 Agenda for Sustainable Development (2030 Agenda).

II. ECE's Energy Context

4. The ECE region is falling short of its member States' commitments and objectives on sustainable energy. For energy to make an optimal, enduring contribution to the region's economies and its peoples' quality of life, including climate change, the starting point is recognition that:

(a) energy services are critical inputs to all economic sectors as they enable food production and distribution, access to clean water, development of needed materials, mobility, communications, sanitation, health care, heating and cooling, refrigeration, lighting, education, and so forth;

(b) the current energy system is not delivering, in aggregate, on access, affordability, efficiency and productivity, quality of service, security and resilience, or environmental performance, including greenhouse gas (GHG) emissions;

(c) transformation of the energy system to one that delivers the services needed for the 2030 Agenda faces important barriers:

(i) the existing system is based on fossil energy and represents both significant investment in and commitment to physical infrastructure and interconnected supply chains;

(ii) industrial/urban complexes often are associated with primary energy production – e.g., power generation and steel production – and shifts away from the primary energy source will have consequences for jobs and the social fabric of associated communities;

(iii) investment and operational decisions on resource development, transformation, and consumption are driven by economics determined by supply and demand for products and services with monetary value, to the detriment of resources without explicit monetary value; and

(iv) the political and regulatory infrastructure underpinning energy will be unable to respond to the imperatives of the 2030 Agenda unless and until there is alignment among constituent stakeholder interests, including a willingness to consider all policy and technology options in an agnostic and pragmatic manner.

5. The desired outcome is an energy system that supports environmental, economic, and social objectives in an integrated way – deep transformation is an imperative despite the notable barriers.

6. The ECE region is diverse and encompasses countries that are high and low income, energy rich and energy poor, and countries that are in economic transition. The region produces and consumes 40% of primary energy and produces 40% of global economic output. 80% of primary energy in the ECE region is fossil, and the region accounts for half of global GHG emissions. Even if the region succeeds in contributing to efforts to limit global warming to 2°C by 2050, fossil fuels still will represent over 50% of the region's energy mix in 2050. The region remains dominant in the global financial system and is home to important energy industries.

7. A stepping-stone on the path to a sustainable future that meets development and climate objectives is attainment of climate neutrality – balancing sources and sinks for GHGs. Achieving carbon neutrality will require an “all technology” strategy involving accelerated deployment of energy efficiency, renewable energy, carbon capture, use and storage, high efficiency/low emissions technology, low carbon gases (natural gas, decarbonized gases, renewable gases, and hydrogen), nuclear power, and CO₂ removal or other approaches such as increasing forests' absorptive capacity.

8. The costs and availabilities of the range of options will vary by country as each has its own unique endowment of natural resources and its own cultural, regulatory, and legislative heritage. It is the collective outcome of countries' actions that will deliver on carbon neutrality on the path to meeting the 2°C objective while delivering citizens' quality

of life aspirations. These aspirations now include addressing the current and future issues associated with the COVID-19 pandemic.

III. Building back better

9. ECE's strategic energy priority responses to the COVID-19 pandemic remain focused on the objectives of the 2030 Agenda and include the following:

(a) ***Sustainable Resource Management***. Resource production, transformation and use, if properly managed, can ensure beneficial social and environmental outcomes. Extending the United Nations Framework Classification for Resources (UNFC) to a full-fledged management system for resources will align investment frameworks with the needs of a sustainable world, notably in the development of critical raw materials to support efforts in health, decarbonisation, and the like;

(b) ***Methane Management***. Reducing methane emissions offers significant health benefits by improving local air quality and climate change benefits, especially in the near term, as there is a large economic reduction potential and cost-effective mitigation technologies are readily available. ECE's work on methane involves developing best practice guidelines to address monitoring and mitigating methane emissions in the oil, gas, and coal sectors and to reduce atmospheric methane concentrations by eliminating or avoiding anthropogenic sources, for example by increase the share of hydrogen in natural gas networks;

(c) ECE's ***High Performance Buildings Initiative*** aims to transform buildings: how they are conceived, built, operated, and maintained; how integrated building systems deliver quality of life; and how information and communications technology enables superior outcomes. Transforming the built environment can drive sustainability and deliver quality of life in the broadest terms. It also can impact the priorities of the world's responses to multiple crises across environmental, social, health, and economic facets, and can be a leading force defining the society that emerges from today's chaos. The principles that underpin the initiative express a systems- and outcomes-based vision of building performance. They apply in any climatic and regulatory environment and address not only climate change, but also quality of life with jobs, economic revitalization, affordability, human health, resilience, comfort, and the like.

10. In each of these areas, substantial governmental action in terms of programmes to re-launch economies aligned with agreed standards and objectives will accelerate both the post-COVID-19 recovery and attainment of the 2030 Agenda and will enhance the state of preparation of member States to manage the next global pandemic.

IV. Further information

11. For further information on ECE's work on sustainable energy, visit the ECE Sustainable Energy website¹ or contact the ECE Sustainable Energy Division: sustainable.energy.committee@un.org.

¹ <https://www.unece.org/energy.html>