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Item 6(b) of the provisional agenda

**Future work of the Committee on Sustainable Energy:  
Review of subprogramme performance and planning****Draft programme of work of the sustainable energy  
subprogramme for 2021****Note by the Secretariat****I. Introduction**

1. The present document sets out the draft programme of work of the sustainable energy subprogramme (“the subprogramme”) for 2021. The Committee on Sustainable Energy (“the Committee”) is invited to adopt it and recommend to the Executive Committee (Excom) for approval. Any subsequent additional, discontinued or carried over outputs will be reflected in United Nations Umoja system used by the Secretariat for planning, monitoring and reporting on the implementation of the programme.
2. The draft programme of work applies a results-based management (RBM) approach, a broad management approach which establishes logical relationship between the hierarchical results (deliverables – objectives – impact) known as ‘results chain’, the resources (human and financial) known as ‘inputs’ and the external factors (strategic, governance, operational, financial) which can prevent from achieving the objective.
3. The objective, the strategy, the planned results and the deliverables in the draft programme of work correspond to those contained in the United Nations Economic Commission for Europe (ECE) proposed programme budget for 2021. The work of the subprogramme is aligned with the Sustainable Development Goals (SDGs). In attaining its objective, the subprogramme builds on cross-sectoral collaboration with other subprogrammes in relevant ECE nexus areas where multiple SDGs converge.<sup>1</sup> This type of collaboration enables the subprogramme to maximize existing synergies, increase the efficiency of its work and have a multiplying effect on the impact of its actions to support countries to implement SDGs. The deliverables of the subprogramme fall into the following main categories: (a) facilitation of the intergovernmental process and expert bodies; (b) generation and transfer of knowledge, including technical cooperation projects, training

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<sup>1</sup> The ECE nexus areas are as follows: 1) Sustainable use of natural resources; 2) Sustainable and smart cities for all ages; 3) Sustainable mobility and smart connectivity; and 4) Measuring and monitoring SDGs.



events, seminars, workshops, and publications; (c) other substantive deliverables, and (d) communication deliverables.

4. The details of the proposed publications are provided in Annex I. The overall ECE legislative mandates and those specific for the subprogramme are listed in Annex II.

## **II. Objective**

5. The objective, to which the subprogramme contributes, is to improve access to affordable and clean energy for all and to reduce greenhouse gas emissions and the carbon footprint of the energy sector in the region.

## **III. Strategy**

6. The responsibility for the subprogramme is vested in the Sustainable Energy Division.

7. The strategy of the subprogramme is based on the implementation of core interlinked functions, namely, international policy dialogue and cooperation among Governments, energy industries and other stakeholders to foster sustainable energy development; the development and deployment of ECE policy recommendations, norms, standards, guidelines and tools on energy-related issues; and capacity-building and assistance to member States, at their request, through training programmes, advisory services and technical cooperation projects. Through its work, the subprogramme will contribute to the four ECE nexus areas described in paragraph 3.

8. To contribute to the improvement in access to affordable and clean energy for all and to reduce greenhouse gas emissions and the carbon footprint of the energy sector in the region, the subprogramme will assist countries in integrating the objectives of Sustainable Development Goal 7 (improve access to affordable and clean energy for all) and Goal 13 (reduce greenhouse gas emissions, including CO<sub>2</sub> and methane, and the carbon footprint of the energy sector) by reducing the environmental footprint of energy (e.g., by developing recommendations for the deployment of carbon capture and storage, high-efficiency low emissions technology and best practice guidance for methane management in the extractive industries), accelerating deep transformation of the energy sector to meet future needs (through exploring the reinvention of energy as a service industry, of which the high-performance buildings initiative is an example), ensuring the sustainable management of resources (by deploying the United Nations Framework Classification for Resources and the Resource Management System) and assisting member States in assessing their options to ensure energy for sustainable development, including tracking progress (through the work on pathways to sustainable energy). The subprogramme will also promote policy dialogue and cooperation among member States, regional entities and other partners on sustainable energy issues, in particular energy efficiency, cleaner electricity systems, renewable energy, coal mine methane, resource management, natural gas and energy security through regional and country-specific initiatives aimed at improving cooperation among countries. The initiatives include the establishment of centres of excellence (to disseminate ECE best practice guidance on methane management, ECE Framework Guidelines on Energy Efficiency Standards in Buildings and United Nations Framework Classification for Resource) and the conduct of dialogues on pathways at meetings of the Committee on Sustainable Energy and its subsidiary bodies and at in-country and in-region workshops and forums. The subprogramme will also provide technical assistance, disseminate best practices, improve information-sharing and provide guidance on energy-related topics in ECE member States. These actions are expected to result in the more effective integration of sustainable energy across the 2030 Agenda, national policies and normative frameworks. In addition, the subprogramme will actively promote the participation of and collaboration among public and private sectors that are key to implementing national and regional policies. The promotion includes the engagement of stakeholders in the development of normative instruments and the activation of private and public actors in the deployment and dissemination of the instruments. The result will be enhanced dialogue and cooperation among all energy actors to boost transformational investment in the energy sector and, consequently, accelerate the

modernization of the energy system to meet countries' development and climate commitments.

9. Past results in these areas include the extension of the United Nations Framework Classification for Resources to embrace solar, wind and anthropogenic resources and to develop a United Nations resource management system to help decision-makers to manage resources, in line with the 2030 Agenda. As a result of this work and related training activities, the European Union has decided to use the Framework Classification to manage critical raw materials, African countries have launched a Framework Classification-based resource management system throughout the continent and Central Asian and the BRICS countries (Brazil, Russian Federation, India, China and South Africa) have decided to use the Framework Classification to enhance investment prospects in their resource sectors. A further result is the ECE project, "Pathways to Sustainable Energy", which investigated alternative pathways to achieve energy for sustainable development, enhanced the understanding of ECE member States of sustainable energy policy drivers, informed a high-level policy dialogue, raised awareness of different outcomes that could emerge over time and developed an instrument for a scenario analysis of alternative pathways to sustainable energy in the ECE region. In addition, the subprogramme organized "renewable energy hard talks" aimed at formulating concrete recommendations for policies to overcome policy, legal, regulatory and technical barriers to investment in renewable energy. As a result, Kazakhstan established its green technology centre and implemented renewable energy auctions, in line with ECE policy recommendations. Furthermore, the subprogramme developed and disseminated products in methane management in the extractive industries (best practice guidance for effective methane recovery and use from abandoned coal mines, with additional guidance on abandoned mine methane, and best practice guidance for monitoring, reporting, verifying and remediating methane emissions from the oil and gas sector). In 2018–2019, China and Poland launched two centres of excellence to disseminate the ECE guidance on methane recovery, which have undertaken extensive capacity-building in their areas of work. Lastly, in 2018–2019, the subprogramme organized two international forums on energy for sustainable development. The forums were a collaboration among the United Nations regional commissions that brought together energy experts, representatives from Governments, United Nations entities, international organizations and other stakeholders. They raised awareness of trade-offs involved in attaining energy for sustainable development, improved the capacity of countries to develop sustainable energy policies and aligned the activities of the United Nations system to support member States in achieving energy-related Sustainable Development Goals.

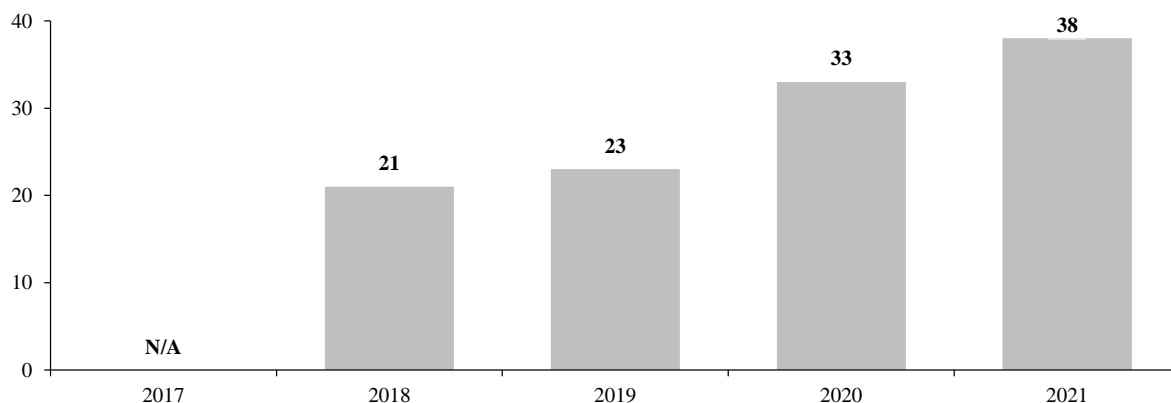
## **IV. Planned results for 2021**

### **A. Result 1: achieving a step change in the efficiency with which natural resources are used (result carried over from 2020)**

10. The subprogramme will continue the work related to the sustainable management of natural resources, in line with its mandate, and will assist countries in applying the United Nations Framework Classification for Resources and in developing a resource management system to promote the more efficient use of natural resources, in line with the 2030 Agenda, which is expected to be demonstrated by the performance measure for 2021 below. For 2020, a proxy performance measure is indicated, to reflect that the General Assembly, in its resolution 74/251, approved a programme narrative at the subprogramme level that is composed solely of the objectives.

Figure I

**Performance measure: number of member States applying the United Nations Framework Classification for Resources**



Abbreviation: N/A, not applicable.

Table 1

**Performance measure**

2017	2018	2019	2020	2021
N/A	Work on development of a resource management system initiated	Draft outline of the eventual resource management system produced	First draft of the resource management system documentation produced	Member States reviewing the pre-final draft of the resources management system documentation

Abbreviation: N/A, not applicable.

## **B. Result 2: reduced carbon footprint and improved quality of life with high-performance buildings (new result)**

11 Buildings are central to meeting the sustainability challenge. In the developed world, buildings consume more than 70 per cent of the electric power generated and 40 per cent of primary energy and are responsible for 40 per cent of CO<sub>2</sub> emissions from the energy services that they require. In Europe, 75 to 90 per cent of buildings will continue to be in use in 2050. Developing countries will need to accommodate 2.4 billion new urban residents by 2050. Renewable energy technology alone cannot meet these requirements, notwithstanding recent improvements in it. The energy performance of buildings benefits from good management. The capability to meet the challenge exists today.

12. High-performance buildings are key to achieving the objectives of the 2030 Agenda. They help to achieve many of the Sustainable Development Goals in areas that include promoting sustainable urban development by recognizing buildings as complex systems embedded in community, city and country-level energy networks; tackling poverty by reducing energy bills; accelerating the sustainable energy transition by improving the efficiency with which buildings' energy services are provided; and supporting climate action by reducing the energy requirements of buildings to a point at which residual needs can be met by no or low-carbon energy sources.

13. The subprogramme has been working to support Governments, the private sector and other key stakeholders in increasing awareness of the potential for improving the energy

performance of buildings through dissemination, capacity-building, demonstration and education activities. The subprogramme conducts research on energy efficiency standards and technologies in buildings in the ECE region and, in 2017, developed the Framework Guidelines for Energy Efficiency Standards in Buildings. ECE also issued a study on mapping energy efficiency standards and technologies in buildings in the ECE region in 2018 and another on the mapping of existing technologies to enhance energy efficiency in buildings in the ECE region in 2019. A compendium of best practices on standards and technologies for energy efficiency in buildings in the ECE region was finalized in 2019.

## **1. Internal challenge and response**

14. The challenge for the subprogramme was to accelerate support for the uptake of the Framework Guidelines for Energy Efficiency Standards in Buildings among national and international actors to meet the challenge of energy for sustainable development. In response, the subprogramme will deploy the three pillars of its initiative for high-performance buildings, which is aimed at a radical reduction in the global carbon footprint of buildings and a dramatic improvement in the health and quality of life provided by buildings through:

(a) A network of international centres of excellence that provides implementation-oriented education and assistance to building developers, contractors, architects and engineers, as well as regulatory and planning officials. The subprogramme is at the heart of the network, having established memorandums of understanding for each centre, criteria for who can become a centre and terms of reference for what the centres are expected to deliver. The subprogramme provides coordination of activities across the centres. The network will provide community-centric knowledge development and knowledge-sharing, connecting with resources and accelerating the use of high-performance buildings;

(b) A global building network of leading universities that undertakes research and advanced education in building materials, design and construction for current and future architects, engineers, policymakers and other stakeholders. As was the case with the centres of excellence, the subprogramme provides a central coordinating role for the global building network. The network will promote sustainable high-performance buildings worldwide in support of both the Framework Guidelines and the international centres of excellence;

(c) Case studies prepared by the subprogramme that illustrate the application of the Framework Guidelines in countries around the world to demonstrate their validity in different climates, stages of development and regulatory, legislative and physical infrastructure. The case studies will be available for reference and to support training and education activities.

## **2. Expected progress towards the attainment of the objective, and performance measure**

15. This work is expected to contribute to improved access to affordable and clean energy for all and to reduced carbon footprint of the energy sector, which would be demonstrated by the increased network and support mechanisms at national and regional levels. By 2021, the subprogramme expects to have expanded the number of centres of excellence to seven, with corresponding activities under their terms of reference, to have 40 local authorities in 10 ECE countries whose building codes are aligned with the Framework Guidelines for Energy Efficiency Standards in Buildings and to have put in place mechanisms and indicators to establish baselines for tracking progress on energy and carbon efficiency. The subprogramme expects to have 10 universities collaborating globally within the Global Building Network and 100 case studies on the application of the Framework Guidelines developed. The networks have begun in North America and Western Europe but will expand quickly to include South-Eastern Europe and the Caucasus. ECE will work collaboratively with other United Nations regional commissions to further extend these networks. Through the actions of these networks, beneficiaries will improve building energy performance, reduce greenhouse gas emissions and improve indoor air quality, and transform the global supply chain for the construction business in order to enhance “carbon storage” and reduce the embedded carbon of building materials.

Table 2

**Performance measure**

2017	2018	2019	2020	2021
Development of vision, framework and forward plan for the centres of excellence	Discussions with candidate hosts of the centres of excellence advanced; 1 centre established	Commitments approved by the hosts of the centres of excellence; 3 centres established	Negotiations and agreement with countries/contact with institutions; 5 centres of excellence established	7 centres of excellence created

## V. External factors

16. The subprogramme is expected to achieve its objective on the assumption that at the national, regional and local levels there is: (a) political will and capacity to integrate sustainable energy objectives into policies and to promulgate legislation, including the objectives of the Sustainable Energy for All initiative; and (b) sufficient awareness and participation of the public in implementing national and regional policies to improve energy access and reduce both greenhouse gas emissions and the carbon footprint of the energy sector.

## VI. Deliverables to be implemented in 2021

17. The below table lists all deliverables, by category and subcategory, that are expected to contribute to the attainment of the objective stated above.

<i>Deliverables</i>	<i>2021 plan</i>
<b>A. Facilitation of the intergovernmental process and expert bodies:</b>	
<b>Parliamentary documentation (number of documents)</b>	60
1. Documentation for the Committee on Sustainable Energy and related subsidiary bodies	60
<b>Substantive services for meetings (number of three-hour meetings)</b>	40
2. Meetings of the Committee on Sustainable Energy and related subsidiary bodies	40
<b>B. Generation and transfer of knowledge:</b>	
<b>Field and technical cooperation projects (number of projects)</b>	4
3. Project on pathways to sustainable energy	1
4. Project on Energy Efficiency in Buildings	1
5. Project on the United Nations Resource Management System (UNRMS)	1
6. Project on Methane Management	1
<b>Seminars, workshops and training events (number of days)</b>	10
7. Workshops for experts and government officials on the application of UNFC	2
8. Capacity-building seminars on energy efficiency measures, accelerators and standards	2
9. International capacity-building seminars on renewable energy development and policy reforms for climate change mitigation	2
10. International Forum on Energy for Sustainable Development	4
<b>Publications (number of publications)</b>	2
11. Publications on the best practice guidelines, case studies and other publications related to sustainable energy	2
<b>C. Substantive deliverables:</b>	
• <b>Consultation, advice and advocacy:</b> advisory services for Government officials and other stakeholders of countries of the ECE region on pathways to sustainable energy and national action plans related to the subprogramme's programme of work (4)	

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*Deliverables**2021  
plan*

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**D. Communication deliverables:**

- **Outreach programmes, special events and information materials:** booklets on sustainable energy and related topics (6)
  - **External and media relations:** press releases, keynote speeches, articles (10)
  - **Digital platforms and multimedia content:** update and maintenance of subprogramme's website (1)
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## Annex I

## Details of proposed publications and information materials for 2021

## A. Publications

<i>Item no.</i>	<i>Title</i>	<i>Mandate</i>	<i>Print and/or electronic</i>	<i>Trim size</i>	<i>No. of pages</i>	<i>Original language(s)</i>	<i>Translated language(s) and Source of funding (RB or XB)</i>	<i>No. of copies and language(s)</i>
1	United Nations Framework Classification for Resources	ECE/ENERGY/2019/5, p. 3 and ECE/ENERGY/123, para. 113	Print and electronic	A4	400	E	A, C, F, R, S (all RB)	1000A, 1500C, 1000E, 5000F, 2000R, 3000S
2.	Enhancing the Role of Technology and Innovation to Attain Sustainable Energy	ECE/ENERGY/2019/5, p. 3 and ECE/ENERGY/123, para. 113	Print and electronic	A4	90	E	F, R (all RB)	500E, 100F, 400R

## B. Information/promotional materials

<i>Item no.</i>	<i>Title</i>	<i>Mandate</i>	<i>Print and/or electronic</i>	<i>Trim size</i>	<i>No. of pages</i>	<i>Original language(s)</i>	<i>Translated language(s)<sup>2</sup></i>	<i>No. of copies and language(s)</i>
1	Leaflet on carbon capture and storage	ECE/ENERGY/123, para. 113	Print and Electronic	A4	10	E	F/R	100 E/F/R
2	Leaflet on hydrogen	ECE/ENERGY/123, para. 113	Print and Electronic	A4	10	E	F/R	100 E/F/R
3	Leaflet on nuclear solutions	ECE/ENERGY/123, para. 113	Print and Electronic	A4	10	E	F/R	100 E/F/R
4	Leaflet on sustainable resource management	ECE/ENERGY/123, para. 113	Print and Electronic	A4	10	E	F/R	100 E/F/R
5	Leaflet on sustainable energy	ECE/ENERGY/123, para. 113	Print and Electronic	A4	10	E	F/R	100 E/F/R
6	Leaflet on energy efficiency in buildings	ECE/ENERGY/123, para. 113	Print and Electronic	A4	10	E	F/R	100 E/F/R

<sup>2</sup> Due to resource constraints, translation of promotional materials should be covered mainly from XB resources



## Annex II

### Legislative mandates

#### A. Overall ECE legislative mandates

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##### *General Assembly resolutions*

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66/288	The future we want
67/10	Cooperation between the United Nations and the Eurasian Economic Community
67/290	Format and organizational aspects of the high-level political forum on sustainable development
69/277	Political declaration on strengthening cooperation between the United Nations and regional and subregional organizations
69/313	Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)
70/1	Transforming our world: the 2030 Agenda for Sustainable Development
70/133	Follow-up to the Fourth World Conference on Women and full implementation of the Beijing Declaration and Platform for Action and the outcome of the twenty-third special session of the General Assembly
70/221	Operational activities for development of the United Nations system
71/14	Cooperation between the United Nations and the Shanghai Cooperation Organization
71/16	Cooperation between the United Nations and the Economic Cooperation Organization
71/162	Implementation of the outcome of the World Summit for Social Development and of the twenty-fourth special session of the General Assembly
71/243	Quadrennial comprehensive policy review of operational activities for development of the United Nations system
72/230	Development cooperation with middle-income countries
72/234	Women in development
72/237	South-South Cooperation
73/10	Cooperation between the United Nations and the Central European Initiative
73/13	Cooperation between the United Nations and the Black Sea Economic Cooperation Organization
73/14	Cooperation between the United Nations and the Organization for Democracy and Economic Development - GUAM
73/16	Cooperation between the United Nations and the Commonwealth of Independent States
73/195	Global Compact for Safe, Orderly and Regular Migration
73/227	Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development and of the United Nations Conference on Sustainable Development

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<a href="#">73/231</a>	Disaster risk reduction
<a href="#">73/236</a>	Ensuring access to affordable, reliable, sustainable and modern energy for all

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*Economic and Social Council resolutions*


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<a href="#">1998/46</a>	Further measures for the restructuring and revitalization of the United Nations in the economic, social and related fields
<a href="#">2006/38</a>	Workplan on reform of the Economic Commission for Europe and revised terms of reference of the Commission
<a href="#">2013/1</a>	Outcome of the review of the 2005 Reform of the Economic Commission for Europe

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*Economic Commission for Europe decisions*


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<a href="#">A (64)</a>	The Work of the Economic Commission for Europe
<a href="#">A (65)</a>	Outcome of the review of the 2005 reform of ECE
<a href="#">A (66)</a>	Endorsement of the High-level statement on the post-2015 development agenda and expected sustainable development goals in the ECE region
<a href="#">A (68)</a>	High-level statement
<a href="#">B (68)</a>	Extension of the mandate of the Regional Forum on Sustainable Development

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**B. Legislative mandates specific to the subprogramme***General Assembly resolutions*


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<a href="#">69/225</a>	Promotion of new and renewable sources of energy
<a href="#">70/213</a>	Science, technology and innovation for development
<a href="#">72/224</a>	Ensuring access to affordable, reliable, sustainable and modern energy for all

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*Economic and Social Council decisions*


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<a href="#">1997/226</a>	United Nations International Framework Classification for Energy Reserves/Resources: Solid Fuels and Mineral Commodities
<a href="#">2004/233</a>	United Nations Framework Classification for Fossil Energy and Mineral Resources
<a href="#">2011/222</a>	Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines

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