



Economic and Social Council

Distr.: General
7 September 2021

English only

Economic Commission for Europe

Committee on Sustainable Energy

Thirtieth session

Geneva, 22-24 September 2021

Item 3 of the provisional agenda

High-level Segment – Country Commitments on Energy in the Context of the United Nations High-level Dialogue on Energy

Voluntary Commitments of United Nations Economic Commission for Europe member States on sustainable energy

Prepared by the Secretariat

Summary

The present document seeks the Committee on Sustainable Energy's assent for the secretariat to launch a study on voluntary commitments of United Nations Economic Commission for Europe member States on sustainable energy through a survey that would be conducted annually, subject to resource availability, to establish a baseline and subsequently monitor progress toward energy for sustainable development.

The Committee is also solicited to provide comments and guidance on the survey's questions, structure, and objectives.

I. Introduction

1. The present document seeks the Committee on Sustainable Energy's assent for the secretariat to launch a study on voluntary commitments of United Nations Economic Commission for Europe (ECE) member States through a survey that would be conducted annually, subject to resource availability, to establish a baseline and subsequently monitor progress toward energy for sustainable development.¹ The Committee is invited to provide guidance and inputs to the questions, structure, and objectives of the survey.

2. As presented in the policy brief prepared by the secretariat based on data provided by the custodian Agencies "Achieving Sustainable Development Goal 7 in the United Nations Economic Commission for Europe Region - Status and Progress" (ECE/ENERGY/2021/18), the ECE region continues to fall short in its progress towards attainment of Sustainable Development Goal (SDG) 7. Likewise, progress on achieving the objectives of the Paris Agreement is lagging and national commitments made to date to address climate change are insufficient to keep global warming below a 1.5-2°C increase above pre-industrial temperatures.

3. The policy brief provides an overview of progress on achieving SDG 7 in the ECE region in terms of energy access, energy efficiency and renewable energy. It also discusses the significant challenges posed by COVID-19 and by fossil fuel dependence and stresses the need to integrate 2030 Agenda's climate objectives with the remainder of the SDGs to achieve the desired decarbonization of the future energy system.

II. Scope of the proposed research project

4. The secretariat proposes to initiate a survey-based study of ECE member States' progress towards achieving Energy for Sustainable Development. The study will take place in the context of progressing the SDGs, preparations for the Twenty-sixth UN Climate Change Conference of the Parties (COP26) and the Paris Agreement, and a move towards climate and carbon neutrality as policy targets alongside development objectives.

5. Overall, the research project aims:

(a) To conduct a review of 56 ECE member States' commitments with an overview for the ECE region as a whole;

(b) To create and disseminate a tailored questionnaire to explore member States' responses and develop suitable frameworks through which the findings of the analysis can be shared. The frameworks may be structured along dimensions of policy objectives, regulatory status, technology or market, and geography/subregional grouping, and will be developed during the analysis of survey responses;

(c) To collect examples of good practice by member States that may be shared in the ECE region;

(d) To report back to the Committee with an analysis of the results of the survey to assist in discussions of sustainable energy objectives and commitments.

6. The draft survey presented in the Annex to this document would be a part of the broader research effort that would include desk research, internal consultations and roundtable discussions. If approved by the Committee, the official launch of the survey would take place in early October (after the thirtieth session of the Committee and the UN Secretary-General's High-level Dialogue on Energy, but before COP26. A final report analysing the results of the survey would be anticipated by the end of 2021 or early in 2022.

¹ "Energy for Sustainable Development" goes beyond the commitments under Sustainable Development Goal 7 and addresses energy needed for attainment of the full slate of goals under the 2030 Agenda for Sustainable Development.

III. Overview of the Survey of ECE member States' progress towards achieving Energy for Sustainable Development and voluntary commitments/expectations by 2030

7. The survey aims to understand the status of member States' actions to secure access to affordable, reliable, sustainable, and modern energy for all (SDG 7) and help reduce greenhouse gas (GHG) emissions and the carbon footprint of the energy sector in the region (SDG 13). In other words, the survey explores countries' progress and priorities concerning the three pillars of Sustainable Energy: Energy Security, Quality of life,² and Energy and Environment.

8. The survey presented in the Annex focuses on member States' energy commitments related to the energy sector, including in the following areas of interest and activity:

- (a) Improving the energy efficiency of the economy (tariffs, standards and labelling for buildings, equipment, vehicles, power production, energy intensity and energy productivity);
- (b) Implementing cleaner electricity systems;
- (c) Developing affordable, reliable, low-carbon and decarbonised energy services;
- (d) Increasing the role of low-carbon energy;
- (e) The role of coal in the future energy system, and reducing the environmental footprint of coal, including considerations of coal mine methane;
- (f) The use of natural gas/methane in the energy system and reducing the impact on the environment;
- (g) Managing critical resources for an energy transition (the United Nations Framework Classification for Resources (UNFC) and sustainable resource management);
- (h) International cooperation on energy for sustainable development;
- (i) The role of new technologies impacting the energy system in the transition to carbon neutrality;
- (j) Implications of an energy transition on energy intensive industries (chemicals, metals and cement);
- (k) Economic modelling of energy transitions to inform debate on climate change.

9. The survey has been conceived to collect information on the status of member States' actions in a consistent way and to facilitate analysis of the results. The intent is to encourage member States to provide tangible examples of opportunity or add further areas of significance not specifically mentioned.

² See UNECE. (2020). Pathways to Sustainable Energy Accelerating Energy Transition in the UNECE Region. Retrieved from https://unece.org/DAM/energy/se/pdfs/CSE/Publications/Final_Report_PathwaysToSE.pdf.

Annex

Draft Survey of ECE member States' progress towards achieving Energy for Sustainable Development and voluntary commitments/expectations by 2030

Please fill in where feasible.

I. PROGRESS ON ENERGY SECURITY AND QUALITY OF LIFE

Please complete the following table.

<i>Policy aim</i>	<i>Indicator</i>	<i>Current Situation (2020)</i>	<i>Expectation by 2030</i>	<i>Explanatory Comments**</i>
Universal access to affordable energy supplies	Proportion of population accessing affordable* energy	Xx%	Xx%	
	Proportion of population accessing affordable* heating and cooling	Xx%	Xx%	
	Proportion of population accessing affordable* fuels	Xx%	Xx%	
By 2030, ensure universal access to affordable, reliable, renewable + low-carbon + decarbonised, and clean energy services	Proportion of population accessing affordable, reliable, renewable + low-carbon + decarbonised, and clean energy	Xx%	Xx%	
	Proportion of population accessing affordable, reliable, renewable + low-carbon + decarbonised, and clean heating and cooling	Xx%	Xx%	
	Proportion of population accessing affordable, reliable, renewable + low-carbon + decarbonised, and clean fuels	Xx%	Xx%	
Quality of Service measured by interruptions	Average outage rates in power system (#)	# of events	# of events	
	Average outage rates in power system (#)	Average # of minutes of outage	Average # of minutes of outage	
Universal access to affordable energy efficient appliances	Proportion of sales classed as energy efficient or 'low energy' in national regulations	Xx%	Xx%	
Please name any significant policy initiatives and provide a summary. Please provide other relevant information (i.e., budget commitments, data on activities beyond the defined subcategories)				

* Please indicate and use your national measure(s) to assess affordability.

** For the named programmes please add separately a summary of the programme, the main policy areas and the status of the implementation (in planning, planned, in progress, national laws and frameworks in place).

II. PROGRESS ON ENERGY AND ENVIRONMENT

Please complete the following table.

<i>Target</i>	<i>Indicator</i>	<i>Current Situation (2020)</i>	<i>Expected Situation (2030)</i>	<i>Explanatory Comments</i>
By 2030, move towards Sustainable Energy Production	Proportion of primary energy by source	Xx % coal	Xx % coal	
		Xx % oil	Xx % oil	
		Xx % gas	Xx % gas	
		Xx % hydrogen	Xx % hydrogen	
		Xx % nuclear	Xx % nuclear	
		Xx % hydro	Xx % hydro	
		Xx % geothermal	Xx % geothermal	
		Xx % wind	Xx % wind	
		Xx % solar	Xx % solar	
		Xx % biofuels	Xx % biofuels	
	Xx % other (please specify)	Xx % other (please specify)		
Please name any significant policy initiatives and provide a summary. Please provide other relevant information (i.e., budget commitments, data on activities beyond the defined subcategories)				
By 2030, reduction of carbon emissions in the Energy Sector	Proportion of renewable/low-carbon/decarbonised energy in electricity	Xx%	Xx%	
	Proportion of renewable/low-carbon/decarbonised energy in transportation	Xx%	Xx%	
	Proportion of renewable/low-carbon/decarbonised cooking/heating fuels	Xx%	Xx%	
	Proportion of imports	Xx%	Xx%	
	Other (please specify)	Xx%	Xx%	

<i>Target</i>	<i>Indicator</i>	<i>Current Situation (2020)</i>	<i>Expected Situation (2030)</i>	<i>Explanatory Comments</i>
By 2030, improve energy efficiency	Rate of improvement in energy efficiency/energy intensity measured in terms of primary energy and GDP	Xx.x GJ/\$GDP (2020)	Xx.x GJ/\$GDP (2020)	
	Energy efficiency in buildings	Average energy consumption/m ² W/m ²	Average energy consumption/m ² W/m ²	
	Energy efficiency in the industry sector	GJ/\$GDP (2020)	GJ/\$GDP (2020)	
	Energy efficiency in transport	% Efficient vehicles on the road % biofuels in gasoline pool	% Efficient vehicles on the road % biofuels in gasoline pool	
	Other (please specify)			
Please name any significant policy initiatives and provide a summary, including energy infrastructure initiatives. For example, promotion of renewables sources, move from coal to gas, changes in cross border energy distribution, transition from gas to Liquefied Natural Gas (LNG), etc. Please provide other relevant information (i.e. budget commitments, data on activities beyond the defined subcategories)				
By 2030, reduce the Environmental Footprint of Fossil Fuels in the energy and energy intensive sectors	Quantity of carbon dioxide (CO ₂) sequestered by Carbon Capture, Use and Storage (CCUS)	Million tonnes (Mte)/year	Mte/year	
	Quantity of CO ₂ sequestered by Enhanced Oil Recovery (EOR) with CO ₂	Mte/year	Mte/year	
	Proportion of energy from fossil fuels made using 'advanced fossil fuel technologies' for power generation	Xx%	Xx%	
	Existence of a National Plan for Methane released to the environment from gas distribution and methane for coal emissions.	Yes/No/In progress	Yes/No/In progress	
	Other (please specify)			
Please name* any significant policy initiatives on carbon capture, use and storage and provide a summary. Please provide other relevant information (i.e., budget commitments, data on activities beyond the defined sub-categories)				

* For the named programmes please add separately a summary of the programme, the main policy areas, and the status of the implementation (in planning, planned, in progress).

III. FOSTERING IMPLEMENTATION OF SUSTAINABLE ENERGY COMMITMENTS

(a) National Policies, Frameworks and Oversight for Sustainable Energy

Please complete the following table.

<i>National Instrument</i>	<i>Measure</i>	<i>Current Situation (2020)</i>	<i>Expectation by 2030</i>	<i>Explanatory Comments</i>
National Energy Strategy	Use of instruments:			
	Laws specifically aimed at mitigating or adapting to climate change	Yes/No/In development	Yes/No/In development	
	National assessment of climate change emissions and natural sinks to base the development of carbon neutral policy frameworks	Yes/No/In development	Yes/No/In development	
	Formal national assessment of the implications of predicted changes in climate change informing national policymaking	Yes/No/In development	Yes/No/In development	
	National Reporting System for Sustainability Targets	Yes/No/In development	Yes/No/In development	
	Tax incentives	Yes/No/In development	Yes/No/In development	
	Special Green bonds	Yes/No/In development	Yes/No/In development	
	Carbon Pricing schemes	Yes/No/In development	Yes/No/In development	
	R&D incentives	Yes/No/In development	Yes/No/In development	
	Capacity-building measures	Yes/No/In development	Yes/No/In development	
	Industrial strategy for reducing emissions from energy intensive industries	Yes/No/In development	Yes/No/In development	
	Plan to identify and secure access to critical materials	Yes/No/In development	Yes/No/In development	
	Certificates of Conformity	Yes/No/In development	Yes/No/In development	
	Others (please specify)	Yes/No/In development	Yes/No/In development	
	Use of financial measures:			
	Allocated Funds for Energy Transitions	Yes/No/In development	Yes/No/In development	
	Phase-out of support for GHG-producing projects	Yes/No/In development	Yes/No/In development	
Financial help for Sustainability Projects (i.e., loan guarantees)	Yes/No/In development	Yes/No/In development		
Others (please specify in explanatory comments)	Yes/No/In development	Yes/No/In development		
Please name* significant national programmes. Please provide other relevant information (i.e., budget commitments, data on activities beyond the defined subcategories)				

* For the named programmes please add separately a summary of the programme, the main policy areas, and the status of the implementation (in planning, planned, in progress, national laws and frameworks in place).

(b) International Cooperation supporting Sustainable Energy Policies and Just transition

Please complete the following table

<i>International Instrument</i>	<i>Measure</i>	<i>Current Situation (2020)</i>	<i>Expectation by 2030</i>	<i>Explanatory Comments</i>
By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems	Xx \$ Million	Xx \$ Million	
By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries in accordance with their respective programmes of support	Investments in energy efficiency as a percentage of GDP	Xx%	Xx%	
	Amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services	\$ Million	\$ Million	
Certificates of Conformity	% of fuels covered by a certification scheme indicating low carbon energy sources	%	%	
Use of off-setting	% emissions covered by an International offsetting scheme	%	%	
Promotion of Just Transition	Participation in programmes to support smaller, island states on Climate Mitigation and Adaptation	Yes/No	Yes/No	
Co-operation in R&D	Participation in international programmes to support R&D for reducing carbon emissions in the energy sector	Yes/No	Yes/No	
Others	Please specify			
Please name* significant national programmes. Please provide other relevant information (i.e., budget commitments, data on activities beyond the defined subcategories)				

* For the named programmes please add separately a summary of the programme, the main policy areas and the status of the implementation (in planning, planned, in progress).

IV. DEFINING NATIONAL SUSTAINABLE ENERGY PRIORITIES

Please complete the following table

<i>Question</i>	<i>Explanatory Comments</i>
In the context of “energy and climate change” nexus, which challenges are currently in focus of your policy-making activities?	Please specify
Is there an argument to explore questions related to energy for sustainable development – i.e., other energy policies that support the 2030 Agenda for Sustainable Development beyond SDG7?	Please specify