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## Economic Commission for Europe

Committee on Sustainable Energy

### Group of Experts on Energy Efficiency

**Eighth session**
Geneva, 20–21 September 2020
Item 9 of the Annotated provisional agenda

# Draft Conclusions and Recommendations arising from the eighth session of the Group of Experts on Energy Efficiency

## Draft for Discussion

## I. Adoption of the agenda (agenda item 1)

*Documentation:* ECE/ENERGY/GE.6/2021/1 – Annotated provisional agenda

1. In accordance with the Terms of Reference and Rules of Procedure of the Economic Commission for Europe (E/ECE/778/Rev.5), the first item of the provisional agenda is the adoption of the agenda.

2. The provisional agenda as contained in ECE/ENERGY/GE.6/2021/1 was adopted, provided interchange, in the interest of time, of several agenda items.

## II. Election of officers (agenda item 2)

X. The Group of Experts on Energy Efficiency (the Group of Experts) re-elected Dr. Romanas Savickas (UNEP-DTU Partnership, Copenhagen Centre on Energy Efficiency) to remain on the Bureau and strengthen its activities. Following the recommendation from the Bureau of the Group of Experts (the Bureau), the Group of Experts re-appointed Dr. Piyush Verma (Harvard Kennedy School of Government) as the Chair of the Task Force on Digitalization in Energy. The term of office for the elected members of the Bureau is two years.

X. The Group of Experts has the following members to serve on the Bureau until the conclusion of its ninth session: Mr. Vahagn Atayan (Armenia), Mr. Andrei Miniankou (Belarus), Ms. Sanja Kapetina (Bosnia and Herzegovina), Mrs. Natalia Jamburia (Georgia), Mr. Petr Bobylev (Russian Federation), and Mr. Kostiantyn Gura (Ukraine); also, Mr. Benoit Lebot (Ministry for the Ecological and Inclusive Transition), Prof. Martin K. Patel (University of Geneva), Mr. Zlatko Pavicic (Croatian Innovators Network), and Dr. Alisa Freyre (PAN DATA GmbH); further, *ex officio*, Mr. Hannes Mac Nulty (Green Growth Knowledge Partnership) and Mr. Stefan M. Buettner (Institute for Energy Efficiency in Production) as Co-Chairs of the Task Force on Industrial Energy Efficiency, and Mr. Vahram Jalalyan (United Nations Development Programme in

Armenia) and Ms. Irena Perfanova (Real Estate Tribune / AIIC Ltd) as Co-Chairs of the Joint Task Force on Energy Efficiency Standards in Buildings.

X. The Group of Experts has the following members to serve on the Bureau until the conclusion of its tenth session: Dr. Romanas Savickas (UNEP-DTU Partnership, Copenhagen Centre on Energy Efficiency) and Dr. Piyush Verma (Harvard Kennedy School of Government).

X. The Chair of the Group of Experts, Mr. Aleksandar Dukovski (Macedonian Centre for Energy Efficiency), further informed the Group of Experts of his resignation from the office effective conclusion of the eighth session, and recommended, following the consultations with the Bureau and its favourable opinion, that the selected Chairs (Co-Chairs) of the Task Forces that report to the Group of Experts (namely, the Task Force on Industrial Energy Efficiency, the Joint Task Force on Energy Efficiency Standards in Buildings, and the Task Force on Digitalization in Energy) step in as Co-Chairs of the Group of Experts and guide its activities during the intersessional period until the ninth session. The following *ex officio* members of the Bureau were therefore appointed as Co-Chairs of the Group of Experts: Mr. Stefan M. Buettner, Co-Chair of the Task Force on Industrial Energy Efficiency; Mr. Vahram Jalalyan, Co-Chair of the Joint Task Force on Energy Efficiency Standards in Buildings; and Mr. Piyush Verma, Chair of the Task Force on Digitalization in Energy.

# III. Opening remarks (agenda item 3)

X. The Chair delivered the opening remarks. […]

# IV. Introductory plenary session (agenda item 4)

X. The panel discussion was facilitated by the Task Force on Industrial Energy Efficiency, the Joint Task Force on Energy Efficiency Standards in Buildings, and the Task Force on Digitalization in Energy. […]

# V. Improving energy efficiency in industry (agenda item 5)

*Documentation:* ECE/ENERGY/GE.6/2021/3 – A pathway to reducing greenhouse gas footprint in manufacturing: determinants for an economic assessment of industrial decarbonization measures

GEEE-8/2021/INF.2 – Recommendations for an economic assessment of industrial decarbonization options

X. The Task Force on Industrial Energy Efficiency, following its Industrial Energy Efficiency Action Plan (ECE/ENERGY/GE.6/2020/3), conducted research on possible economic measures to reduce the greenhouse gas footprint. The outcomes of this research are contained in the document ECE/ENERGY/GE.6/2021/3 – A pathway to reducing greenhouse gas footprint in manufacturing: determinants for an economic assessment of industrial decarbonization measures.

X. The Task Force on Industrial Energy Efficiency argues that achieving a reduction of the greenhouse gas footprint towards net-zero is feasible with the help of a wide variety of measures. It identifies six types of measures that differ in terms of their impact on investment and running costs. These measures are grouped into three categories: reduction, substitution, and compensation. The document ECE/ENERGY/GE.6/2021/3 evaluates the identified measures from an economic point of view and assesses them with regard to necessary actions and their consequences.

X. The experts argued that applying on-site footprint optimization measures (such as self-generation of sustainable energy, energy efficiency, resource efficiency, and process decarbonization) increase companies' resilience in terms of energy supply and help offset energy and emissions (compensation) price fluctuations. It was acknowledged that a

composition of decarbonization measures depends on size of a company, sector it operates in, and its energy intensity, and further recognises that no mix can be of a static nature and rather requires continuous adjustment to maintain the desired outcome, i.e., carbon neutrality.

X. Under this agenda item, the delegates were also presented with a room document GEEE-8/2021/INF.2 – Recommendations for an economic assessment of industrial decarbonization options, developed by the Task Force. The document, among other, provided the delegates with an example of economic assessment of a set of measures aimed at reducing carbon footprint of an industrial facility.

X. The experts emphasised that knowledge of a company's current emission and energy profile, as well as measures already undertaken by a company, are foundational for assessing reduction potentials and developing effective (and economically feasible) decarbonization roadmaps. The necessity to create a mutual understanding among stakeholders and the need to use a common terminology in calculations (including on influencing factors and system barriers, i.e., "Scopes") was further underscored.

X. The Group of Experts:

(x) Recognized progress in implementation by the Task Force on Industrial Energy Efficiency of activities envisioned in the Industrial Energy Efficiency Action Plan (ECE/ENERGY/GE.6/2020/3).

(x) Welcomed exchanges of know-how and best practices on improving energy efficiency in the industry sector in the ECE region, enabled by the Task Force on Industrial Energy Efficiency, along with its efforts to enhance involvement of industry in achieving more sustainable and energy-efficient production, logistics, and consumption.

(x) Having discussed the document ECE/ENERGY/GE.6/2021/3, underlined that applying the notion of "Efficiency First" is central to reducing carbon footprint.

(x) Commended consideration of a possibility for an emphasised focus on optimizing the demand-side carbon footprint, with the understanding that this leverages the effect of expanding transmission and generation capacity of sustainable energy, and respectively reduces shortages in supply and capacity.

(x) Encouraged member States to identify the intentions of local businesses to reduce their carbon footprint, as well as timeframes to do so to identify infrastructure, generation and planning needs and timelines, and for this to engage with the Task Force on Industrial Energy Efficiency in applying tools to address the related issues.

(x) Took note of the document GEEE-8/2021/INF.2 – Recommendations for an economic assessment of industrial decarbonization options. Encouraged further data collection on, and analysis of, available, intended, and practicable measures for increasing energy productivity and reducing environmental footprint by industries in the ECE member States.

(x) Recommended that costs of inaction are duly considered and taken account of in calculating economic efficiency of decarbonization options, along with the changing energy and emission prices.

(x) Welcomed the idea of a digital solution facilitating development of quasi-dynamically optimized decarbonization roadmaps, as described in GEEE-8/2021/INF.2, and encouraged work of the Task Force on Industrial Energy Efficiency exploring this direction.

(x) Recommended organizing workshops to discuss practical implementation of measures aimed to advance towards carbon neutrality through industrial energy efficiency.

# VI. Improving energy efficiency in buildings (agenda item 6)

*Documentation:* ECE/ENERGY/GE.6/2021/4 – Energy Efficiency Standards in Buildings: analysis of progress towards the performance objectives

X. The work of the Group of Experts on energy efficiency in buildings is carried out by the Joint Task Force on Energy Efficiency Standards in Buildings, established under the

Committee on Urban Development, Housing and Land Management and the Committee on Sustainable Energy, and hosted by the Group of Experts on Energy Efficiency.

X. ECE is implementing project "Enhancing National Capacities to Develop and Implement Energy Efficiency Standards for Buildings in the UNECE Region". The project is overseen by the Joint Task Force on Energy Efficiency Standards in Buildings. One of the project activities includes conducting a gap analysis between the performance objectives set forth in the Framework Guidelines for Energy Efficiency Standards in Buildings (the Framework Guidelines, ECE/ENERGY/GE.6/2020/4) and the current energy efficiency standards and their implementation in the selected countries. The gap analysis was conducted, and the study is available online. It addresses the situation in South-Eastern Europe (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia), Eastern Europe (Belarus, Republic of Moldova, Ukraine), the Caucasus (Armenia, Azerbaijan, Georgia), and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan), and the Russian Federation.

X. The Group of Experts, at its seventh session (22 and 25 September 2020), requested the results of the gap analysis to be reported at the eighth session (ECE/ENERGY/GE.6/2020/2). The document entitled "Energy Efficiency Standards in Buildings: analysis of progress towards the performance objectives" (ECE/ENERGY/GE.6/2021/4) was developed in response to this request. It contains key conclusions of the gap analysis and recommendations on attainment of the performance objectives set forth in the Framework Guidelines.

X. The Group of Experts:

(x) Expressed appreciation to the Russian Federation for funding the extrabudgetary project "Enhancing National Capacities to Develop and Implement Energy Efficiency Standards for Buildings in the UNECE Region".

(x) Took note of the progress made towards implementation of the project's activities, notably the conducted gap analysis between the performance objectives set forth in the United Nations Framework Guidelines for Energy Efficiency Standards in Buildings and the current energy efficiency standards and their implementation in the countries of South-Eastern and Eastern Europe, the Caucasus, Central Asia, and in the Russian Federation, and three in-depth national studies with a detailed gap analysis in Armenia, Kyrgyzstan, and the Republic of Moldova. Welcomed the findings of a study on gap analysis and the findings of three in-depth national studies.

(x) Expressed its support to member States in their efforts to ensure implementation of energy efficiency standards for buildings in conformity with the Framework Guidelines for Energy Efficiency Standards in Buildings. Invited member States to implement recommendations from the studies under the project to overcome barriers to effective achievement of energy efficiency policies potential, to bridge the existing gaps, and to enhance national capacity to develop and implement high-performance energy efficiency standards for buildings.

(x) Requested the secretariat to report on the results of project implementation, including on trainings on high-performance energy efficiency standards in buildings and outcomes of an impact study on how member States could better use and implement best practices and guidelines developed by ECE to improve energy efficiency in buildings, at the ninth session of the Group of Experts.

(x) Requested renewal of mandate of the Joint Task Force on Energy Efficiency Standards in Buildings, with a possibility for extension, as contained in the Annex Work Plan of the Group of Experts on Energy Efficiency for 2022–2023 (ECE/ENERGY/2021/10, Annex, Terms of Reference for the Joint Task Force on Energy Efficiency Standards in Buildings for 2022–2023.

(x) Encouraged collaboration with the Group of Experts on Renewable Energy on the issues of buildings energy supply, with a view to apply a holistic, systems approach to building design, delivery and operation, hence to help align buildings with the highest standards of health, comfort, well-being and sustainability, including improving energy productivity and reducing carbon dioxide emissions.

(x) Encouraged Member States to propose local institutions to join the network of international centres of excellence for high-performance buildings, which aims to deploy and disseminate the Framework Guidelines globally. In pursuing this target, also encouraged collaboration with the other United Nations Regional Commissions.

(x) Encouraged the ECE member States to continue support for the Joint Task Force through extrabudgetary funding.

(x) Took note of the conducted training workshops on energy efficiency standards in buildings and high-performance buildings for building sector practitioners, policy makers and trainers, held in-person and through means of telecommunication in the framework of implementation of the activities of the Joint Task Force, and recommended continuation of such trainings subject to availability of resources and provided that the circumstances permit.

# VII. Unlocking energy efficiency potential through digitalization (agenda item 7)

*Documentation:* ECE/ENERGY/GE.6/2021/5 – Improving Efficiency of Buildings through Digitalization – Policy Recommendations from the Task Force on Digitalization in Energy

X. The work of the Group of Experts on digitalization is carried out by its Task Force on Digitalization in Energy. The Task Force on Digitalization in Energy, recognizing that the building sector globally represents over one-third of total final energy consumption, focused on exploring opportunities that digital technologies provide to achieve higher energy performance of residential, commercial, and industrial buildings at any stages of their lifecycle (construction, occupancy, or retrofitting).

X. As a result of this work, the Task Force on Digitalization in Energy developed an evidence-based document entitled "Improving Efficiency of Buildings through Digitalization – Policy Recommendations from the Task Force on Digitalization in Energy" (ECE/ENERGY/GE.6/2021/5) that elaborates on the role that application of digital technologies could play and aims to raise awareness of policymakers and stakeholders of related benefits, risks, uncertainties, and trade-offs. The document also contains key recommendations for further consideration by the Group of Experts on Energy Efficiency and the Committee on Sustainable Energy.

X. The Task Force on Digitalization in Energy also informed the participants of its activities during the intersessional period, including: (i) organizing a Joint event with the Informal Working Group on Electric Vehicles and the Environment on Real-Time Upstream Emissions of Electric Vehicles During Recharge; (ii) co-organizing an upcoming joint workshop with the Group of Experts on Cleaner Electricity Systems in the framework of its 17th session; and (iii) ongoing collaboration with International Telecommunication Union (ITU), including co-hosting upcoming Sustainable Digital Transformation Dialogues.

X. The Group of Experts:

(x) Welcomed the effort of the Task Force on Digitalization in Energy towards driving the digitalization agenda and noted a wide range of international expertise available owing to its membership. Encouraged the member States to nominate national experts to join the Task Force on Digitalization in Energy to further strengthen its activities and further leverage expertise at national level.

(x) Took note of the recommendations made by the Task Force on Digitalization in Energy in the document entitled "Improving Efficiency of Buildings through Digitalization – Policy Recommendations from the Task Force on Digitalization in Energy" (ECE/ENERGY/GE.6/2021/5), and

(x) Took note of the conducted and upcoming workshops on digitalization in energy led and co-led by the Task Force on Digitalization in Energy, as well as its engagement in other sustainable energy initiatives including work on transport, in the framework of implementation of its activities. Recommended conduct of relevant trainings for stakeholders and energy system actors subject to availability of resources. Therefore,

encouraged the ECE member States to consider supporting activities of the Task Force on Digitalization in Energy through extrabudgetary funding.

(x) Welcomed collaboration of the Task Force on Digitalization in Energy with the other subsidiary bodies of the Committee on Sustainable Energy, notably the Group of Experts on Cleaner Electricity Systems that aims to explore the opportunities and challenges with digitalization in the electricity sector, as well as with relevant organizations, notably ITU, on the issues of common concern. Encouraged collaboration with the other United Nations Regional Commissions to drive the digitalization agenda in their respective regions.

# VIII. Regulatory and policy dialogue addressing barriers to improve energy efficiency (agenda item 8)

X. Regulatory and policy dialogue was held in the form of a plenary session. The plenary session featured a dialogue on the thematic areas and enabled sharing experiences and observations on the raised issues concerning barriers to improve energy efficiency.

X. The plenary session discussed possible next steps for the Group of Experts in line with its draft Work Plan for 2022–2023 (ECE/ENERGY/2021/10).

X. […]

X. The Group of Experts:

(x) Welcomed the format of a plenary session for its regular policy dialogue addressing barriers to improve energy efficiency.

(x)

# IX. Status of implementation of the Work Plan of the Group of Experts for 2020-2021 and considerations regarding Draft Work Plan for 2022-2023 (agenda item 9)

*Documentation:* ECE/ENERGY/2021/10 – Draft Work Plan of the Group of Experts on Energy Efficiency for 2022–2023

X. The Group of Experts reviewed the activities implemented over the period 2020–2021 mandated by the respective Work Plan and other sustainable energy initiatives that the Group of Experts was involved in.

X. The Group of Experts further exchanged views on practical implementation of activities envisaged by the draft Work Plan of the Group of Experts on Energy Efficiency for 2022–2023 (ECE/ENERGY/2021/10).

X. The Group of Experts:

(x) Noted that its activities mandated by the Work Plan of the Group of Experts on Energy Efficiency for 2020–2021 (ECE/ENERGY/2019/8) were timely implemented and expressed appreciation to the experts for their contribution to the results achieved by the Group of Experts so far, and to the Bureau, notably its *ex officio* members, for strategic guidance and overall leadership in thematic areas.

(x) Requested the Committee on Sustainable Energy to approve the Work Plan of the Group of Experts on Energy Efficiency for 2022–2023 (ECE/ENERGY/2021/10) and extend the mandate of the Group of Experts until 31 December 2023 with a possibility of extension.

# X. Other business (agenda item 10)

X. At the time the draft conclusions and recommendations were prepared there were no issues to be raised under this item.

## XI. Dates of the next meeting (agenda item 11)

X. The ninth session of the Group of Experts is scheduled to take place in Geneva on 3 and 4 October 2022. The Group of Experts confirmed its proposal from the previous sessions that its meetings may take place in venues outside Geneva.

## XII. Adoption of Conclusions and Recommendations (agenda item 12)

*Documentation:* GEEE-8/2021/INF.1 – Draft Conclusions and Recommendations arising from the eighth session of the Group of Experts on Energy Efficiency

X. Draft conclusions and recommendations were circulated to participants and Geneva Permanent Representations.

X. The Group of Experts adopted the Draft Conclusions and Recommendations arising from the eighth session of the Group of Experts on Energy Efficiency, as contained in GEEE-8/2021/INF.1, subject to necessary editing and formatting.

## XIII. Adoption of the report and close of the meeting (agenda item 13)

*Documentation:* ECE/ENERGY/GE.6/2021/2 – Report of the Group of Experts on Energy Efficiency on its eighth session

X. The Group of Experts adopted its report based on the Conclusions and Recommendations, subject to any necessary editing and formatting.

X. Following that, the Chair closed the meeting.