



**Annex II to the Report of the Group of Experts on Energy Efficiency
on its second session
(Geneva, 5–6 November 2015), ECE/ENERGY/GE.6/2015/2**

**Work Plan of the Group of Experts on Energy Efficiency for
2016–2017**

I. Introduction

1. Annex II of the Executive Committee decision on matters related to the Committee on Sustainable Energy (ECE/EX/2013/L.15) establishes a Group of Experts on Energy Efficiency (the Group of Experts). The mandate of the Group of Experts is to carry out concrete, results-oriented activities that, in line with the “Sustainable Energy for All” (SE4All) initiative of the United Nations Secretary-General, help significantly improve energy efficiency in the region, thus contributing to climate change mitigation efforts; and strengthen regional cooperation in energy efficiency, with a view to reducing greenhouse gas emissions. The mandate is approved until December 2015, with the possibility of extension.

2. According to its Terms of Reference, the Group of Experts will concentrate on: (a) Regulatory and policy dialogue addressing financial, technical and policy barriers to improve energy efficiency; and (b) Sharing experience and best practices in the field of energy efficiency in the United Nations Economic Commission for Europe (ECE) region, including on strengthening institutional capacity in energy efficiency to reduce greenhouse gas emissions.

3. At its first session on 17–18 November 2014, the Group of Experts on Energy Efficiency agreed on its Work Plan for 2014–15 and requested the secretariat, in coordination with the Bureau of the Group of Experts, to prepare a Draft Work Plan for 2016–2017 for the next session of the Group of Experts. This decision was endorsed by the Committee on Sustainable Energy at its twenty-third session on 19–21 November 2014 and approved by the Executive Committee of ECE at its seventy-fifth meeting on 10 February 2015. This Work Plan is prepared in accordance with these decisions. Under this Work Plan, the Group of Experts will carry out concrete, results-oriented activities that, in line with the SE4All initiative of the United Nations Secretary-General and Sustainable Development Goals (SDG) related to energy efficiency, in particular SDG7 “Ensure access to affordable, reliable, sustainable and modern energy for all”, help significantly improve energy efficiency in the region, thus contributing to climate change mitigation efforts; and strengthen regional cooperation in energy efficiency, with a view to reducing greenhouse gas emissions. The mandate of the Group of Experts is renewed until December 2017, with the possibility of extension.

4. Achieving the deliverables of this Work Plan will depend on the availability of extra-budgetary resources. Participation in the activities of the Group of Experts by member States and key stakeholders could be enhanced by considering various options and opportunities, including financial and in-kind support. The Group of Experts requested that the Bureau and the Secretariat prepare a budget and financing plan for consideration by the Committee on Sustainable Energy.

5. This Work Plan will consider the measures and needs of stakeholders and end-users to help address energy efficiency in daily life, while acknowledging national action plans.

II. Background

6. The Group of Experts was requested to develop a menu of energy efficiency policy options. Under this task, a report on *Best Policy Practices for Promoting Energy Efficiency* has been published that presents a structured framework of best practices in policies to promote energy efficiency for climate change mitigation and sustainable development. The report points out that the real challenges to accelerating energy efficiency lie in its policy foundations: the policy governance frameworks, the bankability that is enabled by sound financial policies and utilities that enable energy efficiency with cost-reflective prices and supportive measures. Some of the main challenges to increase the uptake of energy efficiency in the region that are highlighted in the report include:

(a) Cross-sectoral governance. About half of the ECE member States have demonstrated policies and programmes that have improved energy efficiency. For these countries, there is scope to further develop the social and economic gains that can be achieved from energy efficiency, for others there is a pending need to establish effective governance and policy processes. There seems to be a need to enhance the ability of countries to develop the statutory and policy foundations for energy efficiency to enable sound governance and implementation of economic policies and measures;

(b) Cross-sectoral finance. Analysis of various studies concludes that a great potential for energy efficiency projects still exists in the ECE region, particularly in the countries of Eastern Europe, Caucasus and Central Asia. Success will require careful consideration of the framework conditions, with promising projects being presented to financial institutions and potential investors with documentation of a high standard, in order to achieve financial closure. International financial institutions, like the European Bank for Reconstruction and Development (EBRD), have established networks of local banks, effective project risk management tools and an understanding of the policy and technical features. The information gap that requires priority appears to be around the policy context within countries;

(c) Utilities. It is clear from a number of perspectives that there is a general failure in price signals and operational capabilities in utilities that have contributed to energy efficiency improvement not reaching its potential. For example, improvements in district energy systems are only possible at the scale required if utility structure and commercial drivers are addressed. The scale and impact of this persisting policy gap needs to be assessed and understood. Solutions that overcome this policy inertia, while addressing structural barriers and consumer affordability, can then be proposed;

(d) Operational policies and measures. Most operational policies, like appliance standards and labelling policies, building codes, vehicle fuel economy measures, are well established in many countries. The principles, the economics and programme response dynamics have been developed. Standards and supporting marketing and technical measures are established and policies include active review and improvement processes. Early adopters have shouldered the risks and the practices are now a low-risk option for countries yet to engage in them. There is still ongoing work to expand these policies globally, assisting such countries and standardizing and packaging policies into ready-to-apply streamlined measures.

7. The Group of Experts, jointly with the Committee on Housing and Land Management, has explored the potential for activities on energy efficiency standards in buildings. The Chair and several members of the Bureau and of the

Group of Experts participated in the Expert consultations held by the ECE on 20–21 April 2015. Preliminary results of the regional survey to obtain stakeholders' opinion on the role that ECE can play to better assist member States and the outcomes of the meeting showed that energy efficiency standards in buildings will play a major role towards improving energy efficiency in buildings but that a more integrated, holistic approach is sought. The meeting proposed to establish an informal Joint Task Force on Energy Efficiency Standards in Buildings.

8. For the Fifth International Forum on Energy for Sustainable Development held in Hammamet on 4–7 November 2014, the Executive Secretaries of the United Nations Regional Commissions signed a joint statement (the Hammamet Declaration), in which they affirmed that the objectives of energy sustainability are attainable, and need not contradict more short-term considerations, if the world embarks on a determined, collective effort. The joint statement is a call for action to their respective member States, highlighting in particular three key components: a) Energy efficiency in most countries needs to improve more quickly; b) Renewable energy policies need to be redesigned; and c) Equitable access to modern energy services requires mobilising adequate resources. The next step would be making the Hammamet Declaration operational for the ECE region, including developing a score card (progress tracking report) for the countries on improving energy efficiency.

III. Concrete Activities

9. On the basis of the outcomes of the implementation of the Work Plan for 2014–2015, the Group of Experts proposes to undertake the following activities:

A. Exchange of know-how and best practices in selected economic sectors on how to significantly improve energy efficiency in the United Nations Economic Commission for Europe region

10. **Description:** The Group of Experts will encourage the exchange of know-how and best practices between relevant experts of all member States and relevant international actors on how to improve energy efficiency in the region and to establish energy efficiency as a resource of its own right on equal footing with the supply side in energy policy. This work will be undertaken collaboratively with other organizations, such as: International Energy Agency (IEA), Copenhagen Centre on Energy Efficiency (C2E2), Energy Charter Secretariat, International Partnership for Energy Efficiency Cooperation (IPEEC), United Nations Foundation, European Commission, United Nations Environment Programme (UNEP), United Nations Industrial Development Organization (UNIDO), European Bank for Reconstruction and Development (EBRD), World Bank, International Finance Corporation (IFC), United Nations Development Programme (UNDP), United Nations Framework Convention on Climate Change (UNFCCC), Investor Confidence Project (ICP) Europe, International Smart Grids Action Network (ISGAN), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), other United Nations Regional Commissions (UN RCs), and other relevant organizations.

11. Work to be undertaken:

(a) Identify the key operational policy priorities for member States and provide platforms for collective action;

(b) Provide an effective platform for expanding already developed policies and measures across countries in the region based on the “Best Policy Practices for Promoting Energy Efficiency. A Structured Framework of Best Practices in Policies to Promote Energy Efficiency for Climate Change Mitigation and Sustainable Development” developed by the Group of Experts. In particular, cooperate with the

IEA on its Policies and Measures Databases on Energy Efficiency and on Building Energy Efficiency Policies;

(c) Identify an ECE member State from Eastern Europe, the Caucasus, Central Asia or South-Eastern Europe that could play the role of an energy efficiency leader and identify possibilities of developing joint programmes with leading institutions in Western Europe and disseminating experience on best practice in neighbouring countries;

(d) Organize information sharing activities (workshops, seminars, roundtables, etc.) for exchange of experience on energy efficiency best practices and policies;

(e) Identify existing gaps in standards and regulations and cooperate with other relevant organizations in addressing them;

(f) Identify possible options to safeguard that energy efficiency is treated as an energy resource of its own right and it is given primary consideration in national policies;

(g) Monitor and promote the results of World Bank's Readiness for Investment in Sustainable Energy (RISE) Initiative that will assess the legal and regulatory environment for investment in sustainable energy, which plans to include 31 ECE member States in 2015.

12. **Deliverables:** A report submitted for consideration by the Group of Experts.

13. **Timeline:**

(a) First draft of the report for discussion – September 2016.

(b) Final report – September 2017.

B. Exchange of know-how and best practices on the role of standards and guidelines to significantly improve energy efficiency in the United Nations Economic Commission for Europe region

14. **Description:** International standards in energy efficiency can play a valuable role in promoting good energy practices, harmonization of public policies, improving consumers' and users' understanding and confidence, avoiding technical barriers to trade related to energy policies, and enabling the creation of world markets for energy technologies. Preliminary work of the Group of Experts, jointly with the Committee on Housing and Land Management, explored the potential for activities on energy efficiency standards in buildings. The preliminary results of the regional survey indicate the following areas are among the top building priorities for the ECE region:

(a) Develop best practice guidance on inspection and enforcement;

(b) Map existing energy efficiency standards in buildings;

(c) Establish partnerships with various international bodies;

(d) Establish a regional platform to develop, collect and analyze building standards including train-the-trainer seminars;

(e) Establish a database and network of experts in the area of building standards; and

(f) Establish a common database for building regulations in the ECE region.

15. There is strong interest to establish and promote an ECE-wide standard on passive or nearly zero energy buildings that relates to both new and existing

building stock. Opportunities exist for ECE to collaborate with the Passive House Institute (PHI), the Buildings Performance Institute Europe (BPIE), ICP Europe, the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), ISO, IEC and other key stakeholders in setting such standards. ECE's role is particularly valuable in promoting the multiple benefits of building efficiency measures, matchmaking policy to sub-region/country situation, encouraging data collection and evaluation, promoting relevant tools, and highlighting best practices. This work could be undertaken jointly with the Committee on Housing and Land management and the Working Party on Regulatory Cooperation and Standardization Policies through a Joint Task Force on Energy Efficiency Standards in Buildings.

16. A knowledge transfer based on a multilateral train-the-trainer approach can help to accelerate the dissemination of good practices throughout the ECE region and thereby to help to improve the quality of new buildings and renovations on high energy standards. In seminars and accompanying materials offered and adopted to the needs of member States with assistance from international experts and integrating local partners, ECE could contribute to disseminate the needed skills (building design and physics, building envelope, heating/ventilation/air conditioning, power generation, automation and controls, integrated planning and cost-effectiveness).

17. Work to be undertaken:

(a) Consider the results and final report on the regional survey on energy efficiency building standards;

(b) Explore the possibility of establishing ECE-wide standards for building energy efficiency that covers new and existing buildings, as well as best practices for neighbourhoods and cities;

(c) Explore the possibility to set up an ECE-wide offer of train-the-trainer seminars;

(d) Establish a match-making mechanism to channel technical assistance to stakeholders wanting to accelerate energy efficiency through pairing with institutions willing to assist.

18. Deliverables:

(a) A report submitted for consideration by the Group of Experts;

(b) A functional match-making platform for technical assistance in energy efficiency that could be used also for offering train-the-trainer seminars, in the form of e-learning training sessions and/or face-to-face seminars.

19. Timeline:

(a) First draft of the report for discussion – June 2016;

(b) Final report – June 2017;

(c) Pilot version of the match-making platform – December 2016. Upgrade and maintenance of the platform – ongoing from January 2017.

C. Exchange of approaches and best practices for utilities and energy services companies to improve energy efficiency in the United Nations Economic Commission for Europe region, including quality of service regulation

20. **Description:** Two major potential actors for improving energy efficiency are utilities and energy services companies. The role for utilities and other energy service companies (ESCOs) in delivering energy efficiency improvements has been largely demonstrated in North America through mechanisms of shared savings and rate basing (i.e. recovering the costs of demand side management programmes

through tariffs). In other countries, broad energy market policies such as non-cost-reflective prices disable the policies for rational demand and supply-side implementation of energy efficiency. There is a need for an increased effort to consider energy market policies that mandate, enable and motivate utilities and ESCOs to profit from improved retail and distribution policies and practices (including taxation policies). The Group of Experts will explore, in cooperation with experienced policy developers (e.g. the Regulatory Assistance Project (RAP)), the barriers to and options for developing delivery of energy efficiency in the ECE region including energy efficiency tendering mechanisms (examples include Portugal, Switzerland, and Vermont in the United States). This work could also support cross-sectoral activities within the Sustainable Energy Sub-programme on understanding of the state of development of smart grids and increasing awareness of their advantages. In particular, close cooperation is expected with the Group of Experts on Cleaner Electricity Production from Fossil Fuels.

21. Further, traditional regulatory approaches in gas and electric power often involve rate-setting based on the cost of supplying kWh or Btus. Cost of service can be based on accrued costs plus returns on investment as in the US rate base approach to setting tariffs, it can be calculated with reference to long-run marginal costs (LRMC) as in Europe or to best in class benchmarks as in Chile, or it can be determined through costs incurred in wholesale markets with adders for the costs of transmission and distribution. In any of these cases the prices paid by end users is determined by the commodity and infrastructure costs of energy commodities (the kWh and the Btus) paid by the service providers. As a consequence, traditional utilities have always had an incentive for sales growth by increasing the quantity of electricity or heat sold, rather than providing customers with the energy services that they use. Industry's interests have not been aligned with those of government or end users. The solutions pursued to date have been the imposition of various demand-side management programmes, as described above, that address the symptoms of the energy efficiency challenge but do not address the fundamental problem that what is sold (kWh) is not what is bought (energy services). There has been some experimentation around the world with quality of service regulation, often in non-energy markets such as health, and it would be useful for the Group of Experts to explore how quality of service regulation could enhance the uptake of energy efficiency investments.

22. Work to be undertaken:

- (a) Identify barriers and options for developing utility delivery of energy efficiency and related approaches in the ECE region;
- (b) Identify best practices for governments to address existing gaps;
- (c) Review the state of play in quality of service regulation both in the energy sector and in other industries that could have relevant lessons for energy;
- (d) Assess the relationship between the costs of service and the quality of service in ECE markets;
- (e) Recommend best practices for quality of service regulation in the ECE region.

23. Deliverables:

- (a) A report on barriers, options, and best practices for developing utility or ESCO delivery of energy efficiency improvements in the ECE region under existing regulatory approaches;
- (b) Survey and analysis of the relationship between cost of service and quality of service;
- (c) A report on the state of play in quality of service regulation submitted for consideration by the Group of Experts;

- (d) Best practice recommendations.

24. Timeline:

- (a) A report on barriers, options, and best practices – November 2016;
- (b) Survey and analysis of the relationship between cost of service and quality of service – July 2016;
- (c) A report on the state of play in quality of service regulation submitted for consideration by the Group of Experts – April 2017;
- (d) Best practice recommendations – November 2017.

D. Regulatory and policy dialogue addressing barriers to improve energy efficiency

25. Description: A number of legislative, policy, economic, and financial barriers remain to significantly improve energy efficiency. Naming energy efficiency as “the first fuel” has not yet been converted into adequate investment that would make possible achieving one of the goals of the SE4All initiative – doubling the global rate of improvement of energy efficiency by 2030. In most countries of the ECE region energy efficiency is still largely equity funded or linked to grants and subsidies. Local commercial banks in many countries are providing financing through credit lines offered by international financial institutions and/or national central bank funds targeted at sustainable energy. Bond financing of energy efficiency is an emerging opportunity for energy efficiency. National energy efficiency funds, particularly those set as a revolving fund, is another option. The Group of Experts will explore which financing strategies work best, how governments can improve their bankability and scope to expand private financing of energy efficiency; which policies and legislation have been proven to deliver results. This work will be conducted in cooperation with Governments of member States, financial institutions, international organizations (e.g. C2E2, World Bank etc.), and other stakeholders.

26. Work to be undertaken:

- (a) Identify policies and legislation that increase the bankability of energy efficiency;
- (b) Identify best practices in finance strategies;
- (c) Analyze energy efficiency finance options in the region;
- (d) Improve the dialogue between the private financial sector, development banks and countries on the business case of energy efficiency financing.

27. Deliverables: A report submitted for consideration by the Group of Experts for wider dissemination.

28. Timeline:

- (a) First draft of the report for discussion – October 2016;
- (b) Final report – October 2017;

E. Facilitate engagement in the Global Energy Efficiency Accelerator Platform

29. Description: The Global Energy Efficiency Accelerator Platform is a public-private partnership to scale-up energy efficiency policy, action and investment, with the aim of contributing to doubling the rate of improvement in energy efficiency worldwide by 2030. The Platform provides governments with the means for engaging with a variety of stakeholders whose knowledge of technologies, markets,

financial instruments and implementation approaches can support scaling-up of energy efficiency actions in different sectors. The Platform helps to drive action and commitments by national and sub-national leaders at the country, city, state, region, or sector level.

30. The existing accelerators cover Vehicle Fuel Efficiency, Appliances and Equipment, Lighting, Buildings Efficiency, Industry, District Energy, Power Sector, and Finance.

31. Work to be undertaken:

(a) Facilitate engagement of national and local governments, private sector and other stakeholders in the Accelerator Platform. This engagement would encourage ECE member States to sign up to the Platform;

(b) Develop a new platform of cooperation with relevant organizations and institutions that have a strong impact on global technical and technological development to develop a programme for energy efficiency technologies for low-carbon economy, with special emphasis on those industrial processes and new equipment, which will enable a significant reduction of energy consumption and reduce greenhouse gas emissions globally.

32. **Deliverables:** Promotion of activities and communications materials on updates, menu of options and 'offer documents' to ECE member States.

33. **Timeline:** Ongoing – January 2016 – December 2017.